Staying Engaged: Knowledge and Research Needs in Student Engagement

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ABSTRACT—*In this article, we review knowledge about student engagement and look ahead to the future of study in this area. We begin by describing how researchers in the field define and study student engagement. In particular, we describe the levels, contexts, and dimensions that constitute the measurement of engagement, summarize the contexts that shape engagement and the outcomes that result from it, and articulate person-centered approaches for analyzing engagement. We conclude by addressing limitations to the research and providing recommendations for study. Specifically, we point to the importance of incorporating more work on how learning-related emotions, personality characteristics, prior learning experiences, shared values across contexts, and engagement in nonacademic activities influence individual differences in student engagement. We also stress the need to improve our understanding of the nuances involved in developing engagement over time by incorporating more extensive longitudinal analyses, intervention trials, research on affective neuroscience, and interactions among levels and dimensions of engagement.*

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Over the past 25 years, student engagement has become prominent in psychology and education because of its potential for addressing problems of student boredom, low achievement, and high dropout rates. When students are engaged with learning, they can focus attention and energy on mastering the task, persist when difficulties arise, build supportive relationships with adults and peers, and connect to their school (Wang & Eccles, 2012a, 2012b). Therefore, student engagement is critical for successful learning (Appleton, Christenson, & Furlong, 2008). In this article, we review research on student engagement in school and articulate the key features of student engagement. In addition, we provide recommendations for research on student engagement to address limits to our understanding, apply what we have learned to practice, and focus on aspects that warrant further investigation.

KEY FEATURES OF STUDENT ENGAGEMENT

Engagement Is Distinct From Motivation

Engagement is a broadly defined construct encompassing a variety of goal-directed behaviors, thoughts, or affective states (Fredricks, Blumenfeld, & Paris, 2004). Although definitions of engagement vary across studies (Reschly & Christenson, 2012), engagement is distinguished from motivation. A common conceptualization, though not universally established, is that engagement is the effort directed toward completing a task, or the *action* or *energy* component of motivation (Appleton et al., 2008). For example, motivation has been defined as the psychological processes that underlie the energy, purpose, and durability of activities, while engagement is defined as the outward manifestation of motivation (Skinner, Kindermann, Connell, & Wellborn, 2009). Engagement can take the form of observable behavior (e.g., participation in the learning activity, on-task behavior), or manifest as internal affective (e.g., interest, positive

feelings about the task) and cognitive (e.g., metacognition, self-regulated learning) states (Christenson et al., 2008). Therefore, when motivation to pursue a goal or succeed at an academic task is put into action deliberately, the energized result is engagement.

Engagement Is Multilevel

Engagement is a multilevel construct, embedded within several different levels of increasing hierarchy (Eccles & Wang, 2012). Researchers have focused on at least three levels in relation to student engagement (Skinner & Pitzer, 2012). The first level represents student involvement within the school community (e.g., involvement in school activities). The second level narrows the focus to the classroom or subject domain (e.g., how students interact with math teachers and curriculum). The third level examines student engagement in specific learning activities within the classroom, emphasizing the moment-to-moment or situation-to-situation variations in activity and experience.

Engagement Is Multidimensional

Although most researchers agree that student engagement is multidimensional, consensus is lacking over the dimensions that should be distinguished (Fredricks et al., 2004). Most models contain both a *behavioral* (e.g., active participation within the school) and an *emotional* (e.g., affective responses to school experiences) component (Finn, 1989). Other researchers have identified *cognitive* engagement as a third factor that incorporates mental efforts that strengthen learning and performance, such as self-regulated planning and preference for challenge (Connell & Wellborn, 1991; Wang, Willett, & Eccles, 2011). Although not as widely recognized, a fourth dimension, *agentic engagement*, reflects a student's direct and intentional attempts to enrich the learning process by actively influencing teacher instruction, whereas behavioral, emotional, and cognitive engagement typically represent student reactions to classroom experiences (Reeve & Tseng, 2011). Given the variety of definitions of engagement throughout the field, researchers must specify their dimensions and ensure that their measures align properly with these descriptions of engagement.

Engagement Is Malleable

Student engagement is shaped by context, so it holds potential as a locus for interventions (Wang & Holcombe, 2010). When students have positive learning experiences, supportive relationships with adults and peers, and reaffirmations of their developmental needs in learning contexts, they are more likely to remain actively engaged in school (Wang & Eccles, 2013). Structural features of schools (e.g., class size, school location) have also been attributed to creating an educational atmosphere that influences student engagement and achievement. However, structural characteristics may not directly alter student engagement, but may in fact alter classroom processes, which in turn affect engagement (Benner, Graham, & Mistry, 2008).

Several aspects of classroom processes are central to student engagement. For example, engagement is greater in classrooms where tasks are hands-on, challenging, and authentic (Marks, 2000). Teachers who provide clear expectations and instructions, strong guidance during lessons, and constructive feedback have students who are more behaviorally and cognitively engaged (Jang, Reeve, & Deci, 2010). Researchers have also linked high parental expectations to persistence and interest in school (Spera, 2005), and linked high parental involvement to academic success and mental health both directly and indirectly through behavioral and emotional engagement (Wang & Sheikh-Khalil, 2014). Conceptualizing student engagement as a malleable construct enables researchers to identify features of the environment that can be altered to increase student engagement and learning.

Engagement Predicts Student Outcomes

Student engagement is a strong predictor of educational outcomes. Students with higher behavioral and cognitive engagement have higher grades and aspire to higher education (Wang & Eccles, 2012a). Emotional engagement is also correlated positively with academic performance (Stewart, 2008). Student engagement also operates as a mediator between supportive school contexts and academic achievement and school completion (Wang & Holcombe, 2010). Therefore, increasing student engagement is a critical aspect of many intervention efforts aimed at reducing school dropout rates (Archambault, Janosz, Morizot, & Pagani, 2009; Christenson & Reschly, 2010; Wang & Fredricks, 2014). Moreover, engagement is linked to other facets of child development. Youth with more positive trajectories of behavioral and emotional engagement are less depressed and less likely to be involved in delinquency and substance abuse (Li & Lerner, 2011). School disengagement has been linked to negative indicators of youth development, including higher rates of substance use, problem behaviors, and delinquency (Henry, Knight, & Thornberry, 2012). Some of these associations may actually be reciprocal, so that high engagement may lead to greater academic success, and greater academic success may then lead to even greater academic engagement (Hughes, Luo, Kwok, & Loyd, 2008).

Engagement Comes in Qualitatively Different Patterns

Using person-centered approaches to study engagement advances our understanding of student variation in multivariate engagement profiles and the differential impact of these profiles on child development. One study (Wang & Peck, 2013) used latent profile analysis to classify students into five groups of varying patterns of behavioral, emotional, and cognitive engagement, which were associated differentially with educational and psychological functioning. For example, a group of *emotionally disengaged* youth was identified (high behavioral and cognitive engagement, but low emotional engagement) with grade point averages and dropout rates comparable to those of the *highly*

engaged group of youth (high on all three dimensions). However, despite their academic success, the *emotionally disengaged* students had a greater risk of poor mental health, reporting higher rates of symptoms of depression than any other group. Furthermore, growth mixture modeling analysis with a combined measure of behavioral, cognitive, and emotional engagement showed that unlike most individuals who experienced high to moderately stable trajectories of engagement throughout adolescence, many students experienced linear or nonlinear growth or declines (Janosz, Archambault, Morizot, & Pagani, 2008). Students with unstable patterns of engagement were more likely to drop out. These developmental patterns and profiles cannot be detected by variable-centered approaches that focus on population means and overlook heterogeneity across groups. As person-centered research becomes more common, targeted intervention programs should be more effective at serving unique subgroups of students with specific developmental needs.

Disengagement Is More Than the Lack of Engagement

One of the inconsistencies found in the research is whether we should distinguish engagement from disengagement and measure these constructs on the same continuum or as separate continua. Most studies consider engagement as the opposite of disengagement with lower levels of engagement indicating more disengagement. However, some researchers have begun to view disengagement as a separate and distinct psychological process that makes unique contributions to academic outcomes, not simply as the absence of engagement (Jimerson, Campos, & Greif, 2003). For example, behavioral and emotional indicators of engagement (e.g., effort, interest, persistence) and disaffection (e.g., withdrawal, boredom, frustration) can be treated as separate constructs, indicating that although similar, engagement and disaffection do not overlap completely (Skinner, Furrer, Marchand, & Kindermann, 2008). Researchers should incorporate separate measures of engagement and disengagement into their work to determine the unique contributions of each construct to academic, behavioral, and psychological outcomes.

LOOKING AHEAD

Although we know much from research on student engagement, a number of areas require clarification and expansion.

Affective Arousal and Engagement

Emotions in educational contexts can enhance or impede learning by shaping the motivational and cognitive strategies that individuals use when faced with a new challenge. Negative emotions such as anxiety may interfere with performing a task by reducing the working memory, energy, and attention directed at completing the task, whereas positive emotions such as enjoyment, hope, and pride may increase performance by focusing attention on the task and promoting adaptive coping strategies (Pekrun, Goetz, Titz, & Perry, 2002; Reschly, Huebner,

Appleton, & Antaramian, 2008). However, much of the work on emotions and engagement focuses on general dispositions toward the learning environment, such as measuring interest in or valuing of school (Stewart, 2008). Far less is known about how students' actual emotions or affective states during specific learning activities influence their academic engagement and achievement (Linnenbrink-Garcia & Pekrun, 2011). Researchers rarely measure how emotions relate to subsequent engagement, relying predominantly on retrospective student self-reports to measure affective states. Useful supplements to students' reports would be psychophysiological indicators of emotional distress (e.g., facial expression, heart rate) and experience sampling methods to assess situational emotional states during classroom activities.

With the advancement of brain imaging technology, neuroimaging studies show that affective states during learning are important in determining how efficiently the brain processes new information (Schwabe & Wolf, 2012). Although neuroimaging cannot be used to measure classroom engagement in real time, neuroscience techniques are valuable tools that may advance our understanding of how emotional experiences shape neural processing of information and affect engagement during a task. For example, do prolonged states of boredom in the classroom actually alter the shape and functionality of the brain over time, and can we intervene in these processes to reverse the negative effects of boredom or apathy? We also need a more thorough understanding of how genetic predispositions and environmental conditions interact to alter brain chemistry. Studies should identify precursors to or triggers for negative affective experiences, and identify environmental supports that can eliminate these negative emotions, foster adaptive coping strategies, and increase learning engagement and performance.

Interactions Among Levels

Engagement is represented at many hierarchical levels in the educational environment (e.g., school, classroom, momentary level). However, researchers rarely frame their conceptualizations and assessments of engagement in terms of a hierarchical system or process, so we lack understanding about how student engagement at these various levels interacts to influence performance. Learning is a continuous developmental process, not an instantaneous event, and engagement is the energy that directs mental, behavioral, and psychological faculties to the learning process. By focusing on only one level of engagement, we understand little about the process through which engagement is formed and leads ultimately to academic achievement.

Are there reciprocal interrelations between more immediate states of engagement and broader representations, such that moment-to-moment engagement within the classroom informs feelings and behaviors toward the school as a whole, which then trickle down to influence momentary classroom engagement through a continuous feedback loop? Are these levels additive or multiplicative, such that higher engagement across the board is

associated with better academic outcomes than high engagement at only one or two levels? Or does engagement at one level compensate for lower engagement at another level, demonstrating that high engagement across all levels is not necessary for optimal functioning? Broadening the focus of research to incorporate engagement at many micro and macro levels of the educational context would advance our understanding of how different levels develop and interact to shape student engagement, and the differential pathways that lead to academic success.

Development of Many Dimensions

Despite the consensus over the multidimensionality of student engagement, the role that each dimension plays in shaping academic outcomes remains unclear (Skinner et al., 2008). Three avenues warrant exploration: (a) independent relations, (b) emotional engagement (which drives behavioral and cognitive engagement), and (c) reciprocal relations.

Independent relations suggest that each dimension of engagement makes unique contributions to student functioning. In other words, high behavioral engagement cannot compensate for the effects of low emotional engagement, given that both shape student outcomes independently.

The second avenue posits that emotional engagement could be a prerequisite for behavioral and cognitive engagement. According to this viewpoint, students who enjoy learning should participate in classroom activities more often and take more ownership over their learning. Emotional engagement sets the stage for developing cognitive and behavioral processes of student engagement.

The third possibility suggests bidirectional relations among the organizational constructs of engagement, with each dimension influencing the others cyclically. For example, enjoyment of learning or high emotional engagement may lead to greater use of self-regulated learning strategies or cognitive engagement and greater behavioral engagement within the classroom. This increased behavioral participation and use of cognitive strategies to improve performance may elicit positive feedback from classmates and teachers, further increasing enjoyment of learning, and so on. With reciprocal relations, each process reinforces and feeds into the others. For researchers to understand the developmental progression of engagement over time, they should tease apart the unique versus compounded effects of each dimension of engagement.

Longitudinal Research Across Developmental Periods

Some research on how student engagement unfolds and changes over time has shown average declines in various indicators of engagement throughout adolescence and in the transition to secondary school (Wang & Eccles, 2012a, 2012b), but other studies have shown heterogeneity in engagement patterns across subgroups of individuals (Archambault et al., 2009; Janosz et al., 2008; Li & Lerner, 2011). However, we know little about developmental trajectories of engagement spanning early childhood to late adolescence. Many studies track engagement only in early adolescence across a span of 3 or 4 years. Because the ability to become a self-regulated learner, set goals, and monitor progress advances as children mature and become active agents in their own learning, student engagement may take different forms in elementary school than it does in subsequent years (Fredricks et al., 2004). Researchers should investigate how younger versus older students think of engagement, how engagement changes across developmental periods, and whether sociocultural and psychological factors differentially shape engagement at the elementary and secondary levels.

Students' Prior Learning Experiences

Researchers should also explore the role of students' previous learning experiences in shaping engagement. When students are confronted with new academic challenges, the emotions and cognitions attached to previous experiences should influence how they adjust or cope with these challenges. In particular, engagement and academic achievement decline during school transitions (e.g., elementary to middle school, middle school to high school), which can be stressful experiences for many students (Eccles et al., 1993; Pekrun, 2006). Students with prior experiences of failure in school may be especially vulnerable to the alienating effects of school transitions. How do we discontinue students' negative feelings about schoolwork and re-engage them in their education? How do we maintain positive and engaging experiences for students through every grade level and every transition? Using students' prior learning experiences to break the cycle of disengagement and strengthen the cycle of continuous interest and engagement could inform interventions, particularly during crucial transitory periods when students are most vulnerable to feelings of isolation, boredom, or alienation.

Intervention

Despite the malleability of student engagement and the connection between developmental contexts and engagement, very few theory- and evidence-based preventative programs have been developed, implemented, and tested on a large scale. A few interventions have increased student engagement. For example, Check & Connect, an evidence-based intervention program, has reduced rates of dropout and truancy, particularly for students at high risk of school failure (Reschly & Christenson, 2012). Randomized control trials of schoolwide positive behavioral support programs have also improved student engagement and achievement, reducing discipline referrals and suspensions (Horner et al., 2009; Ward & Gersten, 2013). However, many programs are small, intensive interventions that have not been implemented on a larger scale, raising concerns about implementation fidelity and reduced effectiveness. Many interventions also rely on one dose of services and track developmental changes over a short period, making it difficult to infer long-term benefits.

We need to develop comprehensive programs that adapt to the unique needs of individuals receiving services. Preventative

programs often rely on one-size-fits-all models, so subgroups of students may not be served properly. Although universal interventions are beneficial for students in general, targeted programs might be more effective for students at greater risk of academic or psychological problems. Therefore, interventions should be implemented at many levels, incorporating a universal program for students in general and more selected services for at-risk students.

Engagement Across Contexts

We should also explore the relative alignment of educational messages, values, and goals across contexts and how this compatibility influences student engagement. Teachers, parents, and peers are not always in tune with each other over educational values, and these conflicting messages may impair how students engage fully with school. For example, parents might endorse educational excellence as a priority, whereas peers may endorse academic apathy. In these situations, students may have to set aside their personal values and pursue or coordinate the values of others, or try to integrate their personal values with the values of the other group. Students' ability to coordinate the messages, goals, and values from different agents in their social circles will also determine how they see themselves as learners.

We lack studies on how students reconcile inconsistencies in these messages across groups and how it affects their engagement. If peer groups promote antiachievement goals that are directly in conflict with the educational ideals transmitted by parents, will students conform to peer norms or seek out friends with achievement values that are more aligned with the values endorsed by their families? Is misalignment of educational goals across social contexts a risk factor for school dropout, particularly among students from disadvantaged backgrounds? Researchers need to address this area to help students cope with the inconsistent messages about education in their social circles and to consolidate a stronger academic identity.

Student Character and Engagement

Although researchers have examined how contextual, sociocultural, and motivational factors influence student engagement, the influence of student character or personality factors is less well understood. Research on the Big Five personality traits has found conscientiousness, an indicator of perseverance, to be the most consistent predictor of academic achievement (Poropat, 2009).

Persistence has been examined through *grit*, a characteristic that entails working passionately and laboriously to achieve a long-term goal, and persisting despite challenges, setbacks, or failures (Duckworth, Peterson, Matthews, & Kelly, 2007). Individuals with grit are more likely to exert effort to prepare and practice to achieve their goals, leading them to be more successful than individuals who use less effortful strategies (Duckworth, Kirby, Tsukayama, Berstein, & Ericsson, 2011).

Nevertheless, we know little about how personality traits might interact with environmental contexts to shape student engagement. Additionally, researchers have yet to examine how profiles of personality traits might interact with each other to influence student engagement. More nuanced research in these areas will aid in the development of learning strategies and educational contexts that may yield the most successful outcomes for various personality types.

Beyond Academic Engagement

Research on student engagement has focused on academic engagement or academic-related activities. Although academic experiences are critical determinants of educational success, school is also a place where students socialize with their friends and engage in nonacademic activities. Focusing exclusively on academic engagement neglects the school's role as a developmental context in which students engage in a wide range of academic, social, and extracurricular activities that shape their identities as academically capable, socially integrated individuals who are committed to learning. For example, students who struggle with academic learning but are athletic may experience more engagement on the football field than in the classroom. Through participating in these types of nonacademic social activities, students build skills and learn life lessons such as collaborating as a team and becoming a leader. Thus, students' schooling experiences should involve many forms of engagement, including academic, social, and extracurricular engagement. More research is needed to integrate these forms of engagement in school and examine how they interact to influence students' academic and socioemotional well-being collectively.

CONCLUSION

Since its conception more than two decades ago, research on student engagement has permeated the fields of psychology and education. Over this period, we have learned much about engagement. We know that engagement can be measured as a multidimensional construct, including both observable and unobservable phenomena. We have come to appreciate the importance of engagement in preventing dropout and promoting academic success. We also understand that engagement is responsive to variations in classroom and family characteristics.

But in spite of the accrued knowledge on engagement, we have barely scratched the surface in understanding how engagement and disengagement can affect academic development, and how engagement unfolds over time by tracking interactions across contexts, dimensions, and levels. We also cannot dismiss the personal traits and affective states that students bring to the classroom, which may influence engagement regardless of the supportive nature of the environment. We lack knowledge about the extent to which large-scale interventions can produce long-term improvements in engagement across diverse groups. As we

move forward with engagement research, we must apply what we have learned and focus on aspects that warrant further exploration. The insight this research provides will allow educators to create supportive learning environments in which diverse groups of students not only stay engaged but also experience the academic learning and success that is a byproduct of continuous engagement.

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