



Unlocking the Positive Synergy Between Engagement and Motivation

Ellen A. Skinner and Kristen E. Raine

Abstract

Scholarship on engagement and motivation presents complementary profiles. This enables the strengths of each to help compensate for the shortcomings of the other. The strengths of work on academic motivation are its deep roots in multiple generative traditions and its rich body of well-researched theories; its corresponding limitations are its overarching fragmentation and lack of coherence. In contrast, the strengths of student engagement as a field are its wholistic appreciation for factors from many levels that contribute to school success, combined with its focus on a malleable observable process that is a primary engine of academic functioning; its corresponding limitations are its overarching confusion about the core construct itself and uncertainty about its place in a full explanatory model. We identify three ways that conceptualizations of engagement can support efforts to create a more integrated and coherent account of academic motivation: (1) engagement as “energy in action” provides a point of convergence for all theories of motivation; (2) it highlights the central role of action in processes of motivation;

and (3) engagement as a “meta-construct” encourages a more wholistic and comprehensive conceptualization of academic motivation. We also explore three insights from the field of motivation that may help work on engagement make progress in clarifying conceptualizations and building out more complete explanatory models: (1) theories of motivation confirm the power of engagement as “energy in action”; (2) they help differentiate components within the meta-construct of engagement and allow each to be more fully realized; and (3) they suggest a common horizontal structure for theories of engagement that highlight the sequential functioning of their components as a dynamic and recursive explanatory process. We end by identifying three insights taken from the intersection of motivation and engagement to illustrate their utility in guiding efforts to promote competence and positive youth development. Our goal is to help unlock the synergy between these two areas, so researchers in both fields have the opportunity to learn from each other, and together to create richer, more comprehensive, nuanced, and coherent accounts of both motivation and engagement.

E. A. Skinner (✉) · K. E. Raine
Psychology Department, Portland State University,
Portland, OR, USA
e-mail: ellen.skinner@pdx.edu; raine@pdx.edu

Engagement represents one of the most active and fastest growing areas of research in education and educational psychology today. From its inception, however, questions have been raised about its connections to academic motivation, both specific motivational constructs and the field as a whole. Starting with the seminal review of engagement almost two decades ago (Fredricks et al., 2004) and continuing with landmark handbooks (Christenson et al., 2012; Fredricks et al., 2019), integrative conceptualizations (Lawson & Lawson, 2013; Wang, Degol, & Henry, 2019; Wong & Liem, 2021), special sections, and definitive reviews of achievement motivation (Wentzel & Wigfield, 2009; Wentzel & Miele, 2016; Wigfield et al., 2015), a range of opinions have been offered: engagement subsumes motivation; motivation subsumes engagement; motivation is a component of the meta-construct of engagement; engagement is a behavioral manifestation of motivation; motivation is the precursor, engagement the outcome; motivation is the intent, engagement the resultant action; motivation is the private inner psychological process, engagement the publicly observable outward behavior; motivation influences engagement; engagement influences motivation; they reciprocally influence each other. Although it is accurate to summarize these alternatives by noting that “most scholars assume that engagement and motivation are related, but distinct constructs” (Fredricks et al., 2016, p. 1), we believe that underneath this general consensus is a more interesting and complex set of possibilities.

The central question can be found in the title of a recent article: “Motivation and Engagement: The Same or Different? Does it Matter?” (Martin et al., 2017). We try to deconstruct this question and provide one set of answers, which could be summarized as, “Motivation and Engagement: Not Identical, Not Distinct, and It Does Matter.” We argue that important overlap exists between the two areas of study (meaning they are not distinct), but that they also offer complementary perspectives (meaning they are not identical). Our view is that the seemingly contradictory positions listed above are mostly correct but also mostly incomplete. Moreover, when they are all

considered together in a serial string, they sound confusing, at least in part because we do not always have an integrated understanding of the nature of motivation or a differentiated vocabulary for talking about the multiple meanings of engagement.

We argue that engagement and motivation are inextricably intertwined. They offer complementary perspectives and this tension creates the potential for great synergy between the two areas of study. Each has something of value to offer the other, so that each can shore up the other’s weaknesses and fill gaps in the other’s blind spots. Working together, researchers can create richer, more comprehensive, nuanced, and coherent accounts of both motivation and engagement, and so provide better foundations for future work in both areas. In this chapter, we start by providing an overview of each field, including their strengths and limitations, analyze the structures underlying each, and then suggest key places where each can make complementary contributions to the other (summarized in Table 1). In keeping with the focus of this *Handbook*, we end by identifying three insights taken from the intersection of these two fields to illustrate their utility in guiding efforts to promote competence and positive youth development. Following in the footsteps of previous scholars (see Christenson et al., 2012, for multiple examples), our goal is to help unlock the positive synergy between engagement and motivation.

The Fields of Academic Motivation and Student Engagement

The Field of Academic Motivation

The study of academic motivation is part of the older larger field of human motivation (Ryan, 2012). From the Latin root *movere*, meaning “to move,” *motivation* takes as its central subject matter the processes underlying the energy, direction, and durability of action. Hence, the study of motivation in school examines how much effort students invest in their academic work, the emotional quality and authenticity of their participa-

Table 1 Positive synergy between work on engagement and motivation

<i>How insights about engagement can strengthen work on motivation</i>	
1. Identifies “energy in action” as a core point of convergence among all theories of motivation	Targeting motivated behavior, emotion, and cognitive orientation
	Organized by multidimensional constructs of engagement and disaffection
	Place to begin integrating current motivational theories and studies
2. Highlights “energy in action” as a manifestation of motivation	As a site of learning and development; as a mediator of self and context
	As an entry point for teachers’ observation and understanding of student motivation
	As messages to the developing self and academic identity
3. Encourages a more wholistic examination of academic motivation	Highlights involvement of multiple psychological processes (i.e., self-appraisals)
	Points to utility of umbrella constructs like academic identity
	Suggests broadening of action component to consider motivational resilience
<i>How insights about motivation can strengthen work on engagement</i>	
1. Highlights core components of engagement with learning activities as “energy in action”	Provides evidence that interactions with educational activities are engines of learning and development
	Offers coherent definitions of behavioral, emotional, and cognitive dimensions of “energy in action”
	Needs disaffection, which also incorporates multiple dimensions
2. Helps differentiate components within the meta-construct of engagement and allows each to be more fully realized	Distinguishes action from self, context, perceived context, and outcomes
	Highlights the central role of self-appraisals and how they can be used to derive contextual provisions that support action
	Encourages consideration of engagement as part of arc of motivational resilience
3. Offers a common framework for models of engagement as a “meta-construct”	Highlights the sequential functioning of their components as a recursive causal process
	Views alternative theories of engagement as nested
	Suggests ways in which multiple models can be integrated

tion in learning activities, their choices about the interests they pursue and the courses in which they enroll, and their tenacity in the face of obstacles, setbacks, and demanding scholastic tasks. At its core, academic motivation focuses on the “fire” that fuels students’ choices, participation, and persistence in the educational process. The field’s primary strengths lie in its richness and depth. It is home to a wide range of generative and empirically tested theories (Brophy, 2013; Schunk et al., 2012; Wentzel & Miele, 2016; Wigfield et al., 2015), each of which represents decades of careful study and refinement. Typically grounded in larger frameworks that are applied in multiple domains, these bodies of work provide dense and detailed accounts of academic motivation.

However, such long traditions of separate investigation have also produced relatively isolated islands of deep understanding (Eccles, 2016). In principle, all these theories are focused on the same target—student motivation—but not in a way that has produced a cohesive or coherent account. It is as if each owes its primary allegiance to the larger and more general motivational framework from which it was derived. To date, as pictured in Fig. 1, these isolated islands make the field seem more like an archipelago than a common continuous territory. As a result, the field of academic motivation as a whole is often described as complex, fragmented, and resistant to integration (Anderman, 2020; Ford & Smith, 2009; Hattie et al., 2020; Koenka, 2020; Pintrich, 2003; Martin, 2009; Wigfield & Koenka, 2020). This creates problems for the field and all those who attempt to apply it. Researchers new to the area find it difficult to identify a set of core predictors or indicators to anchor their studies. Alternative constructs and measures are not examined for overlap or distinctiveness. Investigations from different traditions often produce findings that are not comparable and so cannot be integrated, slowing the accumulation of empirical evidence. Interventionists find it difficult to create comprehensive programs that incorporate all the essential ingredients needed to improve motivation. Parents and teachers find it difficult to construct comprehensive mental mod-

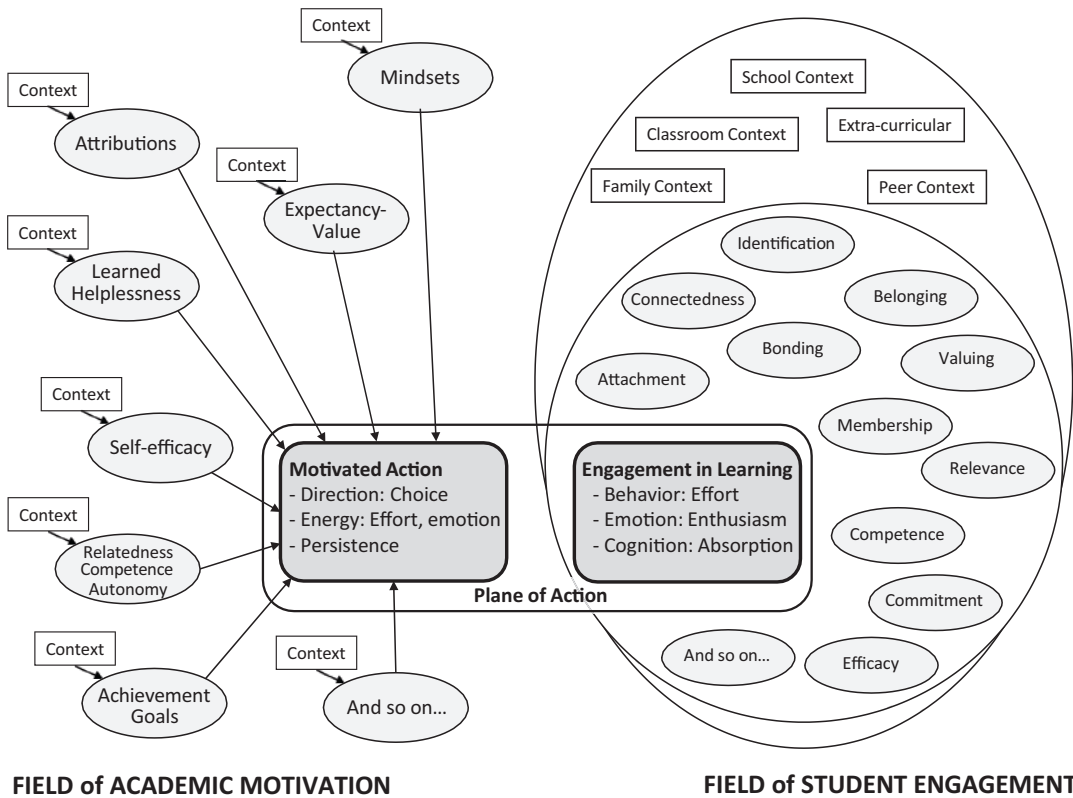


Fig. 1 A schematic representation of the current state of the fields of motivation and engagement, in which theories of motivation represent multiple islands of deep understanding and theories of engagement represent a single rich land mass

els of student motivation based on the field as a whole, even though that is what they would need in order to do their parts in supporting its development. Hence, the strengths of work on academic motivation are its deep roots in multiple generative traditions and its rich body of well-researched theories. Its corresponding limitations are its overarching fragmentation and lack of integration and coherence.

The Field of Student Engagement

The field of student engagement (Eccles, 2016; Fredricks et al., 2004; Jimerson et al., 2003; aka school engagement, Fredricks et al., 2004) stems from multiple traditions, most centrally the study of school participation and dropout (i.e., Finn, 1989; Finn & Zimmer, 2012; Mosher &

McGowan, 1985; Newmann, 1991). It is younger, inherently domain specific, and focuses largely on the educational arena, although arguments have been advanced for expanding it into other domains (e.g., Lawson & Lawson, 2013; Wang & Hofkens, 2020). At its most general, student engagement refers to the quality of students’ participation, involvement, and connections to schooling (Christenson et al., 2012; Fredricks et al., 2004; Fredricks et al., 2019). Research in this area has exploded over the last two decades, based on its three interlocking strengths. First, engagement is a strong predictor of key academic outcomes, including student learning, performance, and achievement, as well as retention and graduation (e.g., Lei et al., 2018; Upadyaya & Salmela-Aro, 2013). Second, engagement also exerts a protective effect, buffering students from many of the typical risks of adolescence, includ-

ing dropout and delinquency (e.g., Li & Lerner, 2011; Virtanen et al., 2021; Wang & Fredricks, 2014). Second, unlike most of the status predictors of academic outcomes (like gender, socioeconomic status, and ethnicity), engagement has proven to be a malleable state that can be influenced by many factors under the control of schools and parents. This makes it an ideal target for intervention efforts (Appleton et al., 2008; Fredricks, 2014; Fredricks et al., 2019; Lawson & Lawson, 2013). Third, some features of engagement are visible in the classroom. In fact, its antithesis, student disengagement or disaffection, is a major stressor for teachers (e.g., Fredricks, 2014). As a result, educators and school leaders immediately understand its importance (Finn & Zimmer, 2012).

As work on the construct has progressed, however, its limitations have also become increasingly clear. Disagreements persist about the core meaning of “engagement,” as well as its dimensions, its opposite (described with terms like withdrawal, disengagement, disaffection, or burnout), and perhaps, most importantly, its boundaries, that is, specification of the features that should be considered indicators of engagement proper versus its facilitators or consequences (Azevedo, 2015; Boekaerts, 2016; Fredricks et al., 2016; Lawson & Lawson, 2013; Sinatra et al., 2014; Sinclair et al., 2003; Wang, Degol, & Henry, 2019; Wang, Fredricks, et al., 2019; Wang, Tian, & Huber, 2019; Wong & Liem, 2021). Leaders in the field rightly worry that haziness about central constructs is slowing conceptual and empirical progress (Fredricks et al., 2016; Reschly & Christenson, 2012). A thicket of different constructs and definitions has grown up around the term itself. Lack of clarity creates downstream problems for measurement; results from studies using different operationalizations cannot be integrated. Ambiguity also impedes the construction of the kinds of multi-step process-oriented theories that are needed to guide explanatory research and intervention efforts.

If the field of motivation can be likened to an archipelago of isolated islands of understanding, the corresponding metaphor for the field of engagement, also pictured in Fig. 1, is that of a

single high-value island surrounded by a fence with a sign that says “Only engagement constructs beyond this point.” Many researchers want to claim real estate on that island, so to gain entry they are renaming all the constructs in the neighborhood—including those studied as antecedents, psychological mediators, and other action components—as “engagement.” At this point, the island is so crowded that the field “runs the risk of explaining almost everything related to students’ experiences in school, and as a result not really explaining anything at all” (Fredricks et al., 2016, p. 2). Educators who are attracted to the potential inherent in the construct find it difficult to construct comprehensible mental models of the area as a whole. In sum, the strengths of student engagement as a field are its wholistic appreciation for factors from many levels that contribute to school success, combined with its focus on a malleable observable process that is a primary engine of academic functioning. Its corresponding shortcomings are its overarching confusion about the core construct itself and uncertainty about its place in a coherent explanatory model.

Basics of Motivational Theories and Conceptualizations of Student Engagement

In order to understand how work from each area can help strengthen the other, it is useful to first consider the underlying structure of theories in these fields.

Theories of Academic Motivation

The field is populated by precise and well-researched theories, nine of which are summarized in Table 2 (for overviews, see Brophy, 2013; Schunk et al., 2012; Wentzel & Miele, 2016; Wigfield et al., 2015). This table illustrates the richness and density of the field. Most explanatory theories of academic motivation, because they provide process-oriented accounts of motivated action, are horizontal and work with at least

Table 2 Synopses of nine major theories of motivation in school (in alphabetical order)

1. *Achievement goal theory* (Urdan & Kaplan, 2020): Students' views of the purpose or reasons for engaging in school-related tasks: whether they are focused on learning and self-improvement, or instead on demonstrating their abilities (if they are considered high) or protecting their abilities (if they are considered low), producing different patterns of effort, engagement, preference for challenge, and responses to failure or criticism
2. *Attribution theory* (Graham, 2020): Explanations for the causes of academic performances (like effort, ability, task difficulty, or chance) that differ on their internality, controllability, and stability, and that act as filters through which the meaning of success and failure are interpreted, and so shape their effects on emotional reactions and subsequent actions. Interpersonal version, too, involving causal explanations for other people's behavior that act as filters when interpreting their meaning, and so shape responses
3. *Effectance and intrinsic motivation* (Gottfried, 1985; White, 1959): Innate inborn desire to produce effects; underlies human curiosity, interest in novelty, desire to seek out opportunities to explore, experiment, and figure out how to make things happen, without any expectation of reward or reinforcement; includes a joyful response to feelings of efficacy and dejection in the face of impotence
4. *Expectancy-value theory* (Eccles & Wigfield, 2020): Multiplicative combination of how confident an individual is in his/her ability to succeed on a task mixed with how important, useful, or enjoyable the individual perceives the task to be (derived from a variety of societal, familial, and interpersonal sources, individual perceptions, and previous experiences) that together influence subsequent achievement choices, engagement, effort, persistence, and performance on these tasks
5. *Learned helplessness and mastery* (Seligman, 1975): Prolonged exposure to non-contingency or failure produces motivational, emotional, and cognitive deficits, especially when explanations for the failure rely on causes that are internal, stable, and global
6. *Mindsets* (Dweck, 2017): Assumptions about whether the nature of one's attributes (like ability and personality) are stable and cannot be changed or instead can develop and improve through the application of effort, practice, and the acquisition of effective strategies; shapes preference for challenge, willingness to exert effort, reactions to obstacles and setbacks, and interpretations of struggles, criticism, and others' successes
7. *Self-determination theory* (Ryan & Deci, 2017, 2020): Strong organismic position on intrinsic human needs as the source of energy and development, especially the need to experience oneself as the author of one's own actions. Integrated theories of intrinsic and extrinsic motivation, showing how extrinsic motivations can be internalized and regulated autonomously. Also incorporated a theory of the differential functions of rewards: as controlling or as informational
8. *Self-efficacy* (Schunk & DiBenedetto, 2020): Judgments of personal capacity to enact effective actions (based on successful performances, vicarious experiences, social persuasion, and physiological reactions) that, combined with judgments about action-outcome connections, influence motivational outcomes (task choice, effort, persistence), learning, achievement, and self-regulation.
9. *Self-system model of motivational development* (Connell & Wellborn, 1991): Students come with the desire to feel connected to others, effective in their interactions, and the source of their own actions; when needs are met at school, students are energized to participate constructively, which promotes learning and development; when needs are not met, students become disaffected

Adapted from Skinner (2019) with permission

four basic functional steps: (1) context, (2) self, (3) action, and (4) outcomes (Connell & Wellborn, 1991). Theories typically posit that: (1) social contexts, including pedagogical, interpersonal, and curricular contexts, shape (2) students' motivationally relevant psychological processes, typically referred to as self-system processes, self-appraisals, self-perceptions, or social cognitions. These psychological processes underlie and fuel (3) students' motivationally relevant patterns of action, including their choice, effort, participation, emotional reactions, and self-regulation; which in turn provide one path-

way through which social contexts and self-appraisals influence (4) important educational outcomes, such as learning, academic functioning, achievement, and development. Both action and academic outcomes, in turn, feed back to influence subsequent contextual responses and shape developing self-systems and other psychological processes. Taken together, these feedforward and feedback effects comprise a "motivational dynamic" hypothesized to contribute to short- and long-term academic development (Lawson & Lawson, 2013; Reeve, 2012; Skinner & Pitzer, 2012).

This common underlying structure can be used to graph any explanatory motivational theory. Figure 2 illustrates this notion with three theories: expectancy-value theory (Wigfield & Eccles, 2020), attribution theory (Graham, 2020), and self-efficacy theory (Schunk & DiBenedetto, 2020). Each conceptualization takes a different set of appraisals (for which theories are typically named) as its target. To show that these self-appraisals have motivational power, each theory also specifies their consequences for motivated actions, and through these for academic outcomes. These well-documented causally efficacious functions qualify each as a major theory of motivation and as directly relevant to the achievement domain. All major theories have also undertaken a careful analysis of the antecedents of

their target self-appraisals, focusing on social, contextual, and personal factors that shape the construction and revision of self-systems. These portions of theories have also been tested empirically and figure prominently in efforts to design programmatic interventions and educational reforms (e.g., Wigfield & Wentzel, 2007).

Prioritizing self-appraisals As seen in Fig. 1, motivational theories are most centrally concerned with the self-systems or self-appraisals for which core theories are named (e.g., expectancies and values, attributions, self-efficacy, achievement goals, mindsets). These comprise the theories' unwavering conceptual and empirical commitments, their flags. Because many researchers have their eyes primarily on these tar-

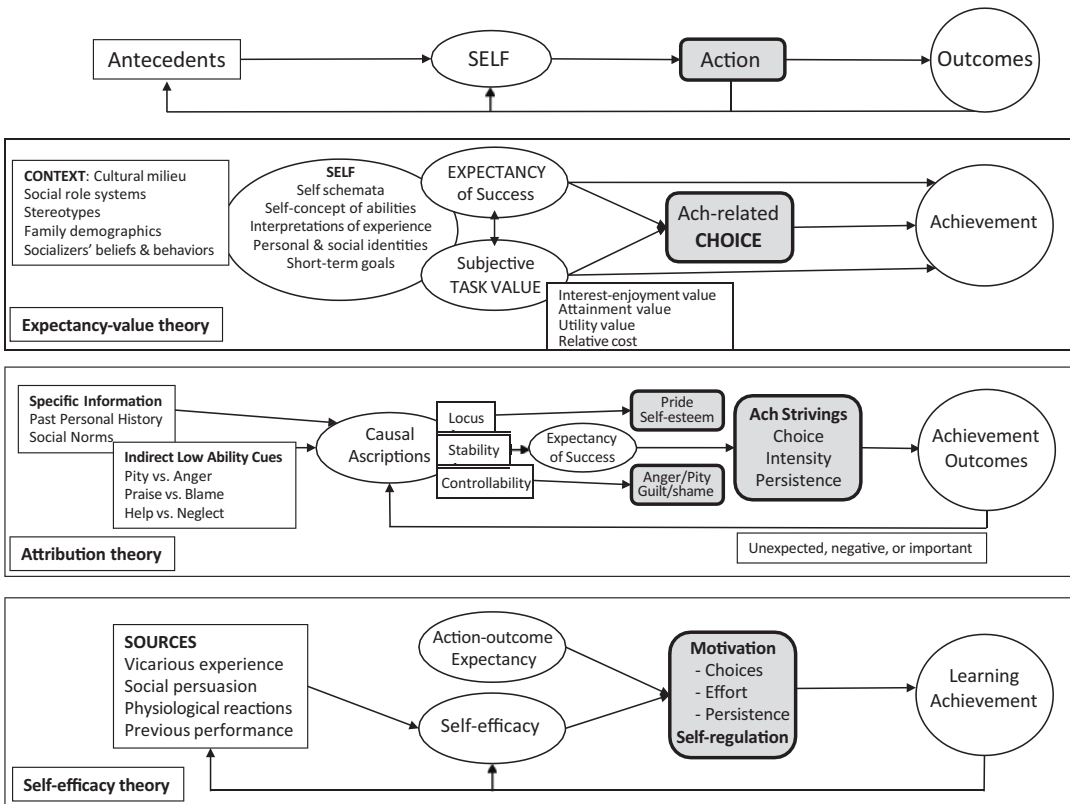


Fig. 2 The structure of explanatory theories of academic motivation, characterized wholistically as the study of (1) how social contexts, including pedagogical, interpersonal, and curricular contexts, shape (2) students' motivationally relevant appraisal processes, which underlie and fuel (3) their patterns of motivated action; which in turn provide one pathway through which social contexts and self-appraisals influence (4) important educational outcomes. The utility of this schematic is illustrated by diagramming three major theories of motivation

get self-appraisals, it is easy to see why each theory keeps to its own island, where those cognitive constructions rule. To some extent, these divisions are also strengthened by underlying meta-theoretical differences. Some theories (e.g., self-efficacy) view self-appraisals as temporary assessments arising from local interactions and experiences. Other theories (most notably self-determination theory) posit that self-systems (i.e., sense of relatedness, perceived competence, or autonomy orientations) are much more: They arise from, reflect, and are organized around fundamental organismic psychological needs (Ryan & Deci, 2017, 2020). In sum, explanatory theories of motivation comprise process-oriented accounts that privilege their target self-appraisals

while also including social contexts, action, and outcomes.

Conceptualizations of Student Engagement

The field is populated by a variety of overlapping conceptualizations and theories of engagement, about a dozen of which are summarized in Table 3 (for overviews, see Appleton et al., 2008; Christenson et al., 2012; Lawson & Lawson, 2013; Wang, Degol, & Henry, 2019; Wang, Fredricks, et al., 2019; Wang, Tian, & Huebner, 2019; Wong & Liem, 2021). Theories of engagement also have their own underlying structure,

Table 3 Synopses of 11 theories and conceptualizations of student engagement (in alphabetical order)

1. *Check & Connect* (Reschly & Christenson, 2012): Model of context, engagement, and outcomes underlying a structured mentoring intervention designed to promote student success and engagement at school and with learning. School, family, and peer contexts shape four aspects of engagement: (a) affective (belonging/identification, connectedness), (b) cognitive (self-regulation, relevance, value), (c) behavioral (attendance, participation, disciplinary incidents), and (d) academic (time-on-task, credits earned, homework, class grades), which in turn influence proximal learning and distal outcomes (e.g., graduation, college enrollment, employment)
2. *Dual Component Framework of Student Engagement* (Wong & Liem, 2021): Differentiates (a) learning engagement (psychological state of activity during learning tasks when students exert effort, are emotionally activated and absorbed) versus learning disengagement (state of inactivity during learning tasks when students feel deactivated, withdraw effort, and are distracted); from (b) school engagement (students' state of connection with the school community, characterized by relational attachment to people at school, cooperative participation in school activities, and psychological identification as a member of the school) versus school disengagement (state of alienation entailing a sense of disconnection from the school community, characterized by relational detachment, resistant participation, and psychological disidentification)
3. *Engagement in Academic Work* (Newmann, 1991): "the student's psychological investment in and effort directed toward learning, understanding, or mastering the knowledge, skills, or crafts that academic work is intended to promote," fostered by a need for competence, a sense of school membership, and the opportunity to participate in authentic academic work
4. *Integrative Development-in-Sociocultural-Context Model* (Wang, Degol, & Henry, 2019): A dynamic model of engagement as energized, sustained, and directed actions toward learning (versus disengagement, that is, withdrawal from and avoidance of learning), which is shaped by students' developmental competencies (e.g., cognitive and socioemotional skills) and self-appraisals (e.g., self-efficacy, task value, and mindsets). These in turn are influenced by external factors, including social position and family characteristics, cultural milieu, family, school, and peer context, and the nature of academic work. Engagement influences resilience mechanisms (coping, appraisal, and social support) as well as educational and developmental outcomes (e.g., achievement, educational aspirations, behavioral problems, psychological adjustment, retention, and college enrollment)
5. *Motivation and Engagement Wheel* (Martin, 2007): A use-inspired integrative framework comprising four higher-order dimensions: (a) adaptive cognitions/motivation (self-efficacy, valuing, mastery orientation), (b) adaptive behaviors/engagement (planning, task management, persistence), (c) impeding/maladaptive cognitions/motivation (anxiety, failure avoidance, uncertain control), and (d) maladaptive behaviors/engagement (self-handicapping, disengagement)

Table 3 (continued)

-
6. *Participation-Attachment-Commitment-Membership Model* (Furlong et al., 2003): Engagement as a developmental continuum that follows the progression from (a) participation (i.e., behavioral engagement in the classroom, extracurricular, and school environment), which facilitates the formation of (b) interpersonal attachments with people in the school (i.e., affective engagement—bonding, attachment, belonging—toward school, teachers, and peers), which leads students to develop (c) a sense of personal commitment to the school community (i.e., cognitive engagement or identification with school), and ultimately incorporating (d) school membership as part of their self-identity
-
7. *Participation-Identification* (Finn, 1989): Early engagement and academic success lead students to bond with school (develop feelings of valuing and belonging), and engage with school more deeply as they progress through their academic careers (from simple attendance and compliance to active initiation and ownership to participation in extracurricular and then self-governance activities)
-
8. *School/Student Engagement* (Fredricks et al., 2004): Multidimensional construct tapping students' commitment to, or investment in, school and school activities, including three different but related forms: (a) behavioral (i.e., participation, involvement in academic and social or extracurricular activities, positive conduct, effort, persistence, concentration, and attention), (b) emotional (affective responses to teachers, classmates, academics, and school), and (c) cognitive (investment in learning, thoughtfulness and willingness to exert the effort necessary to comprehend complex ideas and master difficult skills)
-
9. *Schoolwork Engagement Versus Burnout Model* (Salmela-Aro & Upadaya, 2012): Derived from the concept of work engagement in occupational psychology, an enduring state of work-related fulfillment characterized by energy (feelings of vigor during school-related tasks), dedication (positive cognitive attitude and sense of significance toward schoolwork), and absorption (full attention and concentration while working); versus burnout (i.e., exhaustion due to study demands, a cynical attitude toward school, and feelings of inadequacy as a student)
-
10. *Self-Determination Model of Engagement* (Reeve, 2012): Extent of a student's active involvement in a learning activity, comprised of four interrelated aspects: (a) behavioral (concentration, attention, and effort), (b) emotional (task-facilitating emotions such as interest and the absence of task-withdrawing emotions such as distress), (c) cognitive (use of strategic and sophisticated learning strategies, seeking conceptual understanding rather than surface knowledge, and active self-regulation), and (d) agentic engagement (students' constructive contribution into the flow of the instruction they receive by intentionally and somewhat proactively trying to personalize and otherwise enrich what is to be learned)
-
11. *Transactional View of Student Engagement* (Lawson & Lawson, 2013): Engagement as a dynamic, social, and synergistic process defined by a host of recursive elements including (a) acts of engagement (various states of experience of individuals as they participate in discrete activities at particular moments in time, including emotional, behavioral, cognitive, agentic as well as attentional, positional, and social-cultural features of engagement), (b) benefits/competencies (and/or consequences) of engagement (social-cultural, cognitive, affective, behavioral, academic, extracurricular), (c) conditions and contexts of engagement (surrounding organizational conditions and ecologies, including population demography, organizational ecology, and social geography), and (d) dispositions and drivers of engagement (students' perceptions of the "will" and "skill" they bring to activity, including social agency, interests, prior experiences, identities, motivations, attachments, future aspirations, initiative, investment)
-

largely vertical to date, which can be represented in two ways (see also Martin, 2012). The first focuses on the *objects* of engagement or exactly what students are engaged *with* (see also Wong & Liem, 2021). As depicted in Fig. 3, broad definitions of engagement suggest a nested hierarchy. At the top would be engagement with school as an example of participation in larger prosocial institutions, such as extended family, church, and community organizations (e.g., Lawson & Lawson, 2013). This kind of multi-arena engagement both marks and promotes healthy develop-

ment and wellbeing for youth, and also protects them from risky behaviors that otherwise can emerge during adolescence. Nested within this broad umbrella is student engagement itself, which encompasses participation in school as an organization, including involvement in extracurricular activities, clubs, sports teams, student government, and so on. Student engagement both reflects and fosters students' retention, graduation, and educational aspirations, and protects adolescents from alienation and dropout.

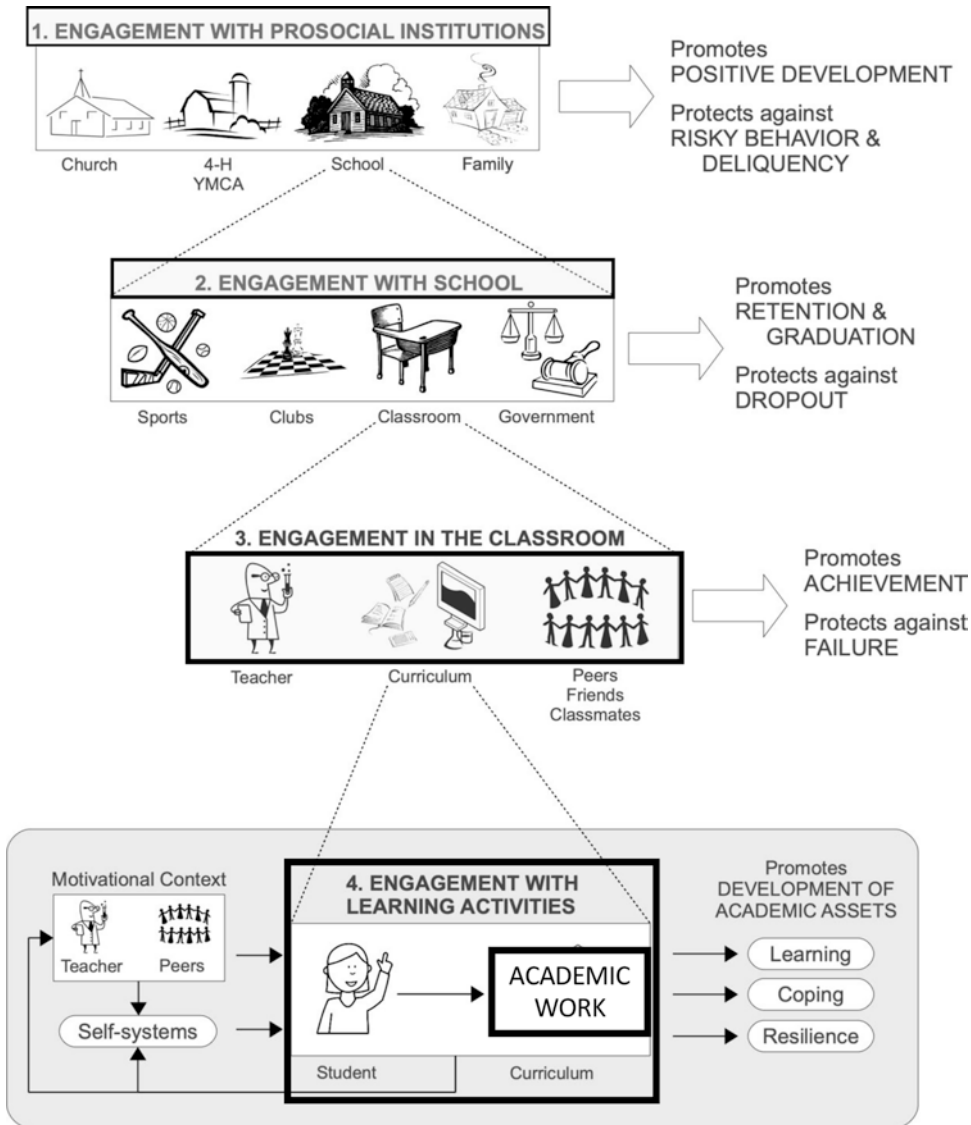


Fig. 3 A hierarchical perspective on engagement with school that depicts four nested levels of conceptualizations, starting at the highest level with engagement with school as one among many prosocial contexts, and ending with moment-to-moment engagement with learning activities. (Adapted from Skinner & Pitzer, 2012, with permission)

At the third level, nested within the larger school, is classroom engagement, which includes involvement with a community of learners in a specific class or classes. Here social partners include teachers, friends, and other classmates, as well as the curriculum. Finally, at the lowest level is academic engagement with learning activities themselves; here social partners are educational

tasks or schoolwork. High-quality engagement of this kind promotes deep understanding and mastery. (For additional levels, see Azevedo, 2015; Lawson, 2017; or Martin, 2012.) Some confusion in the field is the result of misspecification about where in the hierarchy particular constructs and measures are located (Fredricks et al., 2011, 2016; Sinatra et al., 2014; Wong & Liem, 2021).

Prioritizing Action The second way that the field of engagement is structured can be seen by looking down into the construct itself and identifying its subcomponents (Wong & Liem, 2021). Scholars seem to agree that engagement is multidimensional and incorporates components that are affective/emotional, behavioral, and cognitive (Fredricks et al., 2004). However, that seems to be where agreement ends. One way of making sense of the heterogeneity among conceptualizations is to divide them into two main branches, which we label: (1) engagement as “energy in action,” which views engagement as a multidimensional action construct, and (2) engagement as a “meta-construct,” which views engagement as an umbrella for a variety of different constructs (see also Wong & Liem, 2021). These branches understand the internal structure of engagement in two very different ways, and both can trace their lineages back more than 30 years (e.g., Connell & Wellborn, 1991; Finn, 1989; Newmann, 1991).

Engagement as energy in action For many educational and motivational theorists (e.g., Lam et al., 2012; Reeve, 2012; Skinner & Pitzer, 2012; Wang, Degol, & Henry, 2019; Wang, Fredricks, et al., 2019; Wang, Tian, & Huebner, 2019), the most important way of defining academic engagement is as “energy in action” (Russell et al., 2005)—as pictured in Fig. 3 at the lowest level in the hierarchy. From this perspective, the core of the construct is high-quality participation in educational activities, which is why it is also called “engagement in learning” (Wang, Degol, & Henry, 2019; Wang, Fredricks, et al., 2019; Wang, Tian, & Huebner, 2019) or “learning engagement” (Wong & Liem, 2021). Hence, *behavioral engagement* includes on-task behavior, effort, exertion, attention, and hard work (examples from survey items: “When I’m in class, I listen very carefully,” “In my class, this student works as hard as he/she can”). *Emotional engagement* focuses on affective states, like enthusiasm, enjoyment, excitement, interest, curiosity, and fun, experienced during participa-

tion in learning activities (e.g., “I am interested in the work at school,” “When we start something new in class, this student is enthusiastic”). *Cognitive engagement* comprises “heads-on” investment, commitment, and absorption during interactions with learning activities where students think deeply about ideas and make meaning of the material presented to them (Blumenfeld et al., 2006; Greene, 2015; e.g., “If I don’t understand what I read, I go back and read it over again,” “I try to connect what we are learning now to things I know already”).

These three dimensions—all facets of energy in action—are inherent aspects of the learning process (Boekaerts, 2016), which is why this kind of engagement is considered a necessary condition for learning and a robust predictor of academic performance. These three dimensions have their own internal dynamics, which helps explain why profiles of engagement are greater than the sum of their parts (Eccles & Wang, 2012; Lawson & Lawson, 2013; Reeve, 2012). Behavioral and cognitive engagement power progress in learning. Emotional states provide energy that activates and sustains ongoing behavioral and cognitive involvement (Pekrun & Linnenbrink-Garcia, chapter “Academic Emotions and Student Engagement”, this volume; Skinner et al., 2008). The puzzlement, discovery, and aha! experiences inherent in cognitive engagement funnel effortful enthusiastic involvement toward deep understanding and mastery. As Wang and colleagues (2019) explain in their recent integrative review,

[E]ngagement provides a holistic lens for understanding how children interact with learning activities, with distinct behavioral, emotional-affective, and cognitive components forming a multidimensional engagement profile for each child (Fredricks et al., 2004; Wang & Degol, 2014). At its core, engagement involves making a concerted effort toward a goal and employing the necessary tactics to achieve that goal. Engagement is also the linchpin connecting energy, purpose, and enjoyment. Hence, children who are engaged not only are able to recover after setbacks and accomplish their goals but also are more likely to find these tasks to be satisfying. (p. 1087)

Engagement as a meta-construct The second branch of the field entails conceptualizations of engagement from higher up in the hierarchy, typically at the second level in Fig. 3. These formulations trace their roots to concerns with dropout as a protracted process of withdrawal from school, interventions for at-risk students, and school reform efforts (e.g., Finn, 1989; Finn & Voelkl, 1993; Finn & Zimmer, 2012; Fredricks et al., 2004; Reschly & Christenson, 2012). Scholars aimed to critique simplistic and static notions of dropout as a one-time event that happens to at-risk students. They wanted to broaden then current views—in terms of both time horizons and intervention levers—explaining that “engagement is more than just time-on-task” and “school success is more than just staying in school” (Reschly & Christenson, 2012). If “energy in action” is described as a single multi-dimensional construct, this branch can be described as a “meta-construct” that includes multiple different constructs under its umbrella.

One way to examine the alternatives formulated as part of this branch is to ignore terminology and consider the different constructs (i.e., theoretical concepts) that theories incorporate. Most of them retain the behavioral subcomponent of energy in action described previously, which incorporates effortful constructive participation in educational activities. In many ways, this dimension anchors the entire field because it gives engagement its claim to fame as a robust predictor of crucial academic outcomes like learning and performance. In some formulations, “participation” also extends to activities outside of schoolwork (such as extracurricular sports, clubs, or band); the quality of students’ participation is considered to unfold sequentially and signify progressively greater connection to school (Finn, 1989; Finn & Zimmer, 2012). In other formulations, participation incorporates other academic markers, like grades, and credit hours earned; and in yet others, it is distinguished from mere attendance, compliance with classroom norms, and lack of behavior problems (see Table 3).

To this core, alternative conceptualizations of engagement add different components. For example, participation-identification models add the construct of “identification” (Finn & Zimmer, 2012; Voelkl, 2012), defined as a positive bond with school that includes (1) belonging or “feelings of being a significant member of the school community, having a sense of inclusion in school...” and (2) valuing or the “recognition of school as both a social institution and a tool for facilitating personal development” (Voelkl, 1997, p. 296). Some formulations include a component focused on investment (called cognitive engagement in conceptualizations of engagement as energy in action described previously); others also add future aspirations. However, it is also relatively common for researchers to incorporate self-regulated learning (e.g., Wang & Eccles, 2012) and some conceptualizations have added students’ perceptions of close relationships with people at school, including teachers, classmates, and peers (e.g., Furlong et al., 2003).

Much confusion has been created because conceptualizations and measures use a variety of different labels to refer to all of these constructs (Azevedo, 2015; Boekaerts, 2016; Fredricks et al., 2016; Lawson & Lawson, 2013; Reschly & Christenson, 2012; Sinatra et al., 2014; Sinclair et al., 2003; Wong & Liem, 2021). For example, effort is typically part of “behavioral engagement” (Wang, Degol, & Henry, 2019; Wang, Fredricks, et al., 2019; Wang, Tian, & Huebner, 2019), but some consider it “cognitive engagement” (Eccles, 2016), because effort is often mental in nature. Identification, which includes belonging and valuing, has been called “affective engagement” (Voelkl, 2012); but “belonging” has also been referred to as “school membership,” “bonding,” “school connectedness,” or “attachment.” In some formulations, belonging and value are considered “psychological engagement” (since they reflect psychological processes; Appleton et al., 2006, now renamed as “affective engagement”) and in others, “cognitive engagement” (because they are cognitive constructions or representations; Reschly & Christenson, 2012). In some conceptualizations, close relationships are called “bonding” or

“attachment” (e.g., Furlong et al., 2003), and in others “emotional engagement” or “social engagement” (e.g., Linnenbrink-Garcia et al., 2011). In some formulations, “cognitive engagement” comprises investment (e.g., Fredricks et al., 2004); in others self-regulated learning (e.g., Cleary & Zimmerman, 2012); and in yet others, future aspirations (e.g., Appleton et al., 2006; see Table 3).

In sum, to the core idea of high-quality participation in academic work, these higher-level more elaborated conceptualizations of engagement as a meta-construct use a variety of labels (i.e., student, school, behavioral, affective, emotional, cognitive, academic, psychological, and social engagement) to add a range of different components, including participation in extracurricular activities; psychological processes like belonging, membership, bonding, connectedness, attachment, value, relevance, and educational aspirations; strategies of self-regulated learning; positive and negative reactions to and relationships with teachers, classmates, peers, and family; and attendance, credit hours, and grades. Building on these ideas, the remainder of this chapter explores ways that insights and knowledge from each field can help clarify, enrich, and fill in gaps for the other.

What the Field of Student Engagement Offers Work on Academic Motivation

As enumerated in Table 1, we first explore three ways that conceptualizations of engagement can support efforts to create a more integrated and coherent account of academic motivation as a whole. For this task, we focus first on the branch that conceptualizes engagement as “energy in action,” arguing that it: (1) identifies a core point of convergence for all theories of motivation; and (2) highlights the central role of action in processes of motivation. We then turn to conceptualizations of “engagement as a meta-construct” and show how they (3) encourage a more wholistic and comprehensive conceptualization of academic motivation.

1. *Engagement as “energy in action” provides a core point of convergence for theories of motivation.*

The limitations of the field of motivation are visualized in Fig. 4, which lists the primary constructs of all the explanatory theories listed in Table 2 according to the four process steps identified previously (i.e., context, self, action, outcome). This figure illustrates the field’s overall lack of coherence. This wall of constructs is what new researchers, interventionists, and educators face when they approach the field for the first time, seeking guidance for their studies, programs, or classrooms. A second glance at Fig. 4, however, also suggests much potential for integration among theories. Within each block of constructs, both overlap and distinctiveness are apparent. Because most motivational theories are centered on their designated self-appraisals, it may seem logical for integrative efforts to begin with them. However, because these represent the die-hard commitments of each mainland theory, this column of constructs is where theorists are most likely to insist upon exceedingly fine distinctions.

A potentially less controversial starting place might be inside the common ground staked out by engagement as “energy in action.” Listed in Fig. 4 under “action,” these constructs could also be called “motivated actions” because they can be considered the observable manifestations of motivation (Martin, 2009; Reeve, 2012; Skinner, Kindermann, Connell, & Wellborn, 2009; Wang, Degol, & Henry, 2019; Wang, Fredricks, et al., 2019; Wang, Tian, & Huebner, 2019; Wigfield et al., 2015; Wong & Liem, 2021). “Action” is defined here as a complex construct that, following the long European tradition of action theory (e.g., Brandtstädter, 2006; Heckhausen & Heckhausen, 2018), entails not only goal-directed behavior, but also intentions, emotions, and cognitions. All motivational theories target such actions; these manifestations tie core self-appraisals to the larger field of motivation. From this perspective, engagement can serve as a crucial point of convergence for motivational theories because they all have as one of their target

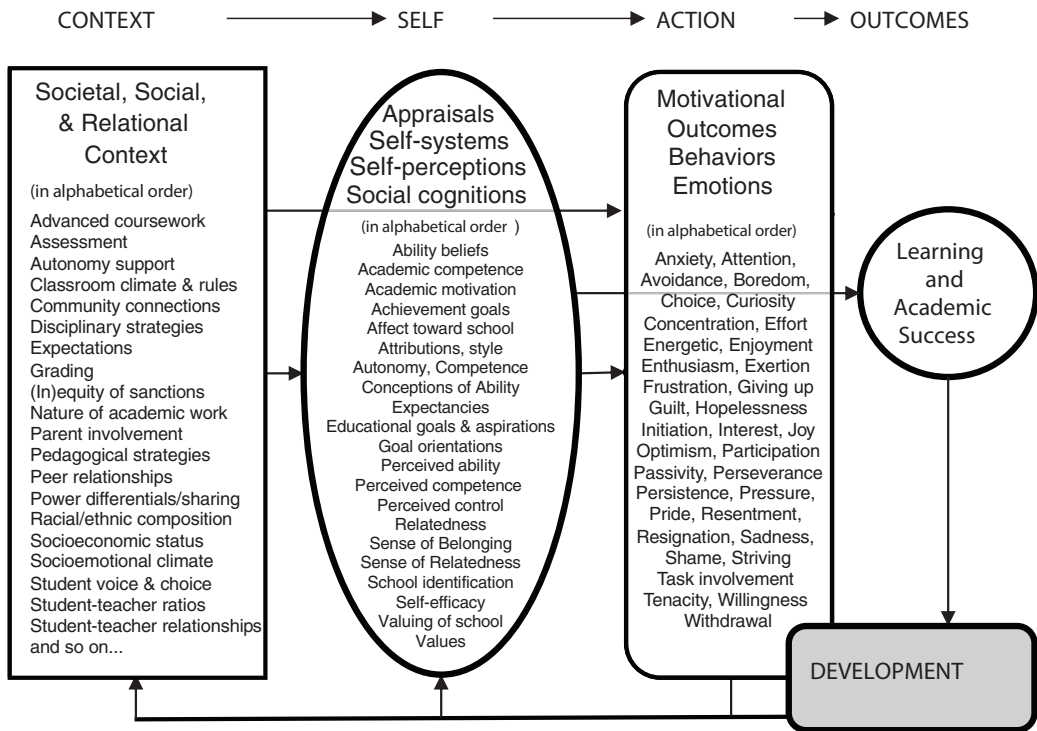


Fig. 4 A compendium of constructs utilized by major theories of academic motivation, organized according to (1) the contextual factors that shape motivation, (2) the self-system appraisals that underlie motivation, (3) expressions of motivated action, and (4) outcomes of motivational processes. (Adapted from Skinner, Kindermann, Connell, & Wellborn, 2009 with permission)

outcomes the kinds of actions studied under this conceptualization of engagement.

To illustrate this idea, Table 4 lists multiple major motivational theories and identifies the motivated actions targeted by each (see Skinner, Kindermann, Connell, & Wellborn, 2009; Skinner, Kindermann, & Furrer, 2009 for details; or Lawson & Lawson, 2013; Christenson et al., 2012, especially Part II, for multiple examples). These motivated actions include precisely the same behaviors (action, initiation, effort exertion, persistence), emotions (enthusiasm, interest, discouragement, boredom), and cognitive orientations (preference for challenge, flexibility of action, absorption) that are considered hallmarks of engagement as energy in action. Motivation is not identical with these actions; it is underneath them, providing the energy, desire, and passion

that galvanize them, guide their direction, and endow them with durability and persistence (Reeve, 2012). Sometimes motivation is enacted (i.e., realized on the plane of action) and sometimes not, but engagement, as defined by this branch, is a motivational process. It is not *only* a motivational process, in that engagement can also mark regulatory processes (Filsecker & Kerres, 2014; Wong & Liem, 2021), especially in the absence of spontaneous motivation (Ryan & Deci, 2020). However, high-quality engagement signals motivation—its manifestation on the plane of action (Reeve, 2012). Thus, engagement as energy in action provides common ground for all explanatory theories of motivation and can serve as a starting point for their integration.

2. *Engagement highlights the plane of action as crucial for theories of motivation.*

Table 4 Motivational theories and examples of the constructs that correspond to engagement and disaffection

Motivational theory (in alphabetical order)	Examples of behavioral engagement	Examples of emotional engagement	Examples of engaged orientation
Achievement goal orientations (Urduan & Kaplan, 2020)	Effort, exertion, persistence, task involvement, procrastination	Enthusiasm, enjoyment, anxiety	Selection of challenging tasks
Causal attributions (Graham, 2020)	Effort, persistence vs. giving up, withdrawal	Joy, anger, pride, shame, guilt	
Effectance motivation (Harter, 1978; White, 1959)	Energized participation	Enthusiasm, joy	Preference for challenge
Expectancy-value (Wigfield & Eccles, 2020)	Achievement strivings, effort exertion, persistence		
Intrinsic motivation (Gottfried, 1985; Gottfried et al., 2001)	Task involvement, persistence	Enjoyment, interest, curiosity	Preference for challenging, difficult, novel tasks
Learned helplessness (Abramson et al. 1978; Peterson et al., 1993; Seligman, 1975)	Passivity, apathy, avoidance, giving up, failure to respond	Sadness, dejection	Hopelessness
Mastery (Dweck & Molden, 2005)	Effort, persistence, concentration	Determination, enthusiasm, enjoyment	Preference for challenge, hypothesis testing, optimism
Self-determination (Reeve, 2012)	Participation, persistence vs. withdrawal	Enthusiastic, joyful, energetic vs. anxious, angry, rote	Willing, flexible, spontaneous vs. rigid, pressured
Self-efficacy (Schunk & Mullen, 2012)	Initiation of action, expenditure of effort, performance attempts	Anxiety, resignation	
Self-system model of motivational development (Connell & Wellborn, 1991)	Effort, hard work, persistence vs. withdrawal, passivity	Enthusiasm, interest, liking vs. boredom, sadness, frustration	Attention, concentration, preference for challenge, beyond the call

Adapted from Skinner, Kindermann, Connell, & Wellborn, 2009 with permission

Engagement as motivated action serves many functions in theories of motivation. As pictured in Fig. 5, engagement and disaffection are primary mediators between the self-appraisals privileged in motivational theories and the achievement outcomes that demonstrate their importance to the academic domain. In fact, because engagement is not only a central outcome of motivational appraisals, but also a necessary condition for learning (i.e., students can learn from an educational task only if they engage with it), it can be considered a *primary* pathway for motivationally relevant processes. Moreover, as shown in Fig. 5, engagement is important to motivation because it can serve as a gateway to other actions—like choice and perseverance—that are also central to motivational theories. That is, enthusiastic heads-

on participation in particular educational activities may lead students, when they have a choice, to select those subjects they have found to be engaging in the past. Or, engagement may serve as an energetic resource when students encounter academic challenges, providing momentum for constructive self-regulation and adaptive coping, so students can persist or re-engage.

Engagement and disaffection also serve social functions. They may provide portals through which teachers and others get a glimpse into students' inner motivational workings. In other words, engagement may be an entry point for teachers' observation and understanding of student motivation. If teachers and parents use engagement to make decisions about whether students are "motivated" or "unmotivated," and

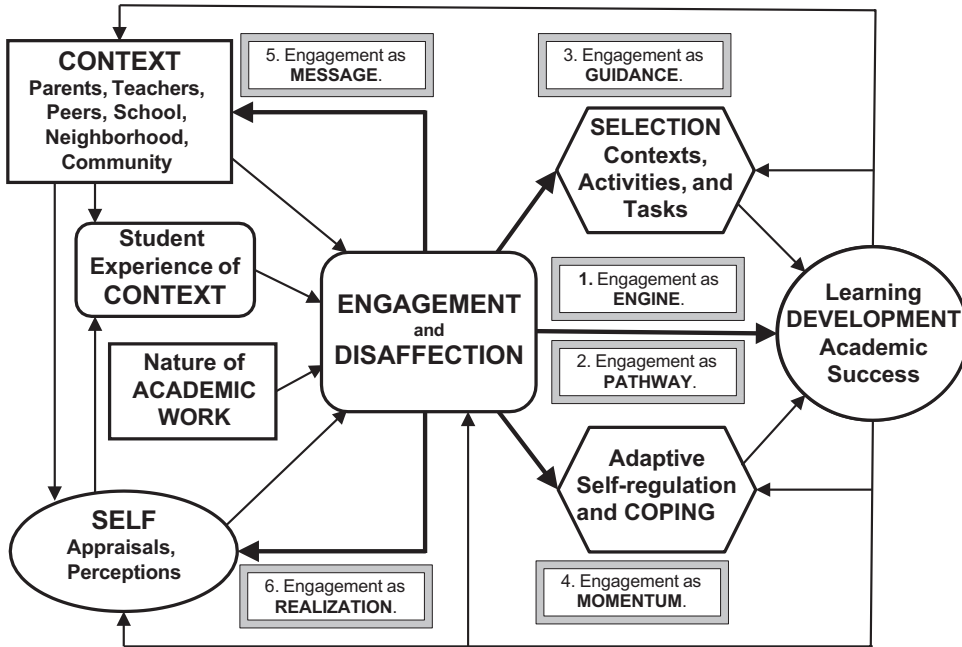


Fig. 5 Six functions of engagement and disaffection in motivational processes: (1) as a necessary condition for learning; (2) as a mediator of the effects of actual contexts, students' experiences, and views of the self on academic success; (3) as contributors to students' choices about contexts and activities; (4) as energetic resources for constructive coping and self-regulation; (5) as motivational communications that evoke reactions from social partners; and (6) as ongoing information that shapes the developing self. (Adapted from Skinner, 2016, with permission)

to diagnose and treat motivational problems, then a deeper analysis of the actual connections between engaged states and underlying motivational processes would be very useful. Accurate mappings could help practitioners formulate responses in ways that are more effective in counteracting student disaffection and fostering engagement (Furrer et al., 2014). Engagement may also play an important role in shaping students' own self-appraisals. Motivational theories exploring this possibility can build on participation-identification models that examine how the interactions between students and learning activities embodied in engagement (as well as resultant learning and academic success) carry messages to students about their belonging and the value of the larger school enterprise. Belonging/relatedness and value are two of the self-appraisals central to motivational theories, suggesting that high-quality engagement may also convey messages to students about other aspects of their academic identities, such as their

self-efficacy, autonomy, mastery goals, or mindsets. In fact, situative meta-theories (e.g., Nolen et al., 2015), which assume that beliefs and behaviors emerge from people's participation in social, cultural, and historical contexts or systems, insist that these patterns of culturally mediated activity are the primary grist from which identities are co-constructed. Identifying engagement highlights the many common pathways along which motivational influences flow.

3. *Engagement as a meta-construct encourages a more wholistic examination of academic motivation.*

The meta-construct of engagement (see Fig. 1) serves as an umbrella for a range of actions, psychological processes, and contextual affordances that contribute to students' short-term investment and commitment to school, and their long-term retention, graduation, and readiness for secondary education and employment. This wholistic quest reminds theorists that all motivational theo-

ries (e.g., Table 2) and all motivational constructs (e.g., Fig. 4) are parts of the same puzzle. This insight can encourage researchers to formulate more integrative models that extend beyond motivated actions (i.e., engagement) to include the self and contextual constructs. We note that efforts at integration are not likely to be undertaken by leaders in the field, nor should they be expected to. Many of them are leaders by virtue of their pursuit of the application of their chosen theories in the educational domain. It is for others (e.g., those who wish to design comprehensive interventions or help teachers construct comprehensible working models) to grapple with the task of integrating the field as a whole (e.g., Anderman, 2020; Dweck, 2017; Ford, 1992; Martin, 2009, 2012; Pintrich, 2003; Skinner, *in press*; Wigfield & Koenka, 2020).

Once it is ready, the field can turn its attention to the block of constructs in Fig. 4 under the heading of “Self,” and begin to identify themes or families of constructs and then sort motivationally relevant psychological processes into these categories. Even if distinctions among these family members are initially sharpened (e.g., theorists may highlight subtle differences between “expectancies of success,” “self-efficacy,” and “perceived competence”), the broader families or themes, while at a coarser grain size, may provide sufficient resolution for educators, parents, or interventionists to make sense of their general tenor and function in students’ motivation (Anderman, 2020; Martin, 2009; Skinner, *in press*).

Theoreticians can then work backward from these themes to locate the range of contextual attributes and practices that communicate messages to students about each of them (e.g., Lin-Siegler et al., 2016; Wentzel & Skinner, *in press*). A good example of how to do this can be found in work on mindsets, where researchers have located the communiques about fixed versus growth mindsets embodied by a variety of pedagogical, management, and interpersonal practices (Dweck & Yeager, 2019). An important lesson learned from this research is that students are influenced less by what teachers and parents

think (i.e., their own mindsets) and more by what they *do* (i.e., practices and behaviors; Haimovitz & Dweck, 2017), a lesson relevant to achievement goal theorists who tend to prioritize the achievement goals held by social partners rather than their behaviors.

Finally, the centrality of engagement in motivational theories also encourages researchers to begin to distinguish and organize other facets of “action.” It is possible to highlight categories of motivationally relevant action that are *not* parts of academic engagement—like choice, initiation, self-regulation, coping, tenacity, and persistence. As these constructs are teased out from multiple motivational theories (and the blocks of constructs in Fig. 4), and with the help of action theory, it is possible to view these actions as representing a series of steps through which students seek out, encounter, engage, manage, and deal with learning activities over time. One possible sequence has been described as *motivational resilience and vulnerability* (e.g., Skinner et al., 2020): Students’ (1) choices and preference for challenging activities and coursework place them in settings with affordances for advanced learning, which supports (2) high-quality ongoing engagement that, when they (3) encounter problems and setbacks in their schoolwork, can minimize (4) emotional reactivity and other negative reactions. As a result, students have greater access to (5) constructive ways of coping and regulating their behaviors, emotions, and cognitions that allow them to (6) rebound and (7) re-engage with and persist in demanding academic work. All of these action steps, and not just the ones focused on engagement, can be used as points of convergence for motivational theories. Their analysis not only reveals common constructs, but also differentiates motivational theories according to the step(s) that each prioritizes. From a bird’s eye view, conceptualizations of engagement help motivational theorists see that the field, which we have argued looks like an archipelago made up of isolated islands of understanding, is actually connected to the same solid ground.

What the Field of Academic Motivation Offers Work on Student Engagement

As summarized in Table 1, there are three ways insights from motivational theories may be helpful to engagement as researchers make progress in clarifying conceptualizations and building out more complete explanatory models: (1) theories of motivation confirm the power of engagement as “energy in action”; (2) they help differentiate components within the meta-construct of engagement and allow each to be more fully realized; and (3) they suggest a common horizontal structure for theories of engagement that highlight the sequential functioning of their components as a dynamic and recursive explanatory process. Many of these ideas have been articulated already by other engagement researchers (e.g., Wong & Liem, 2021), especially those who, like us, are working at the intersection of motivation and engagement (e.g., Connell & Wellborn, 1991; Eccles, 2016; Reeve, 2012; Wang, Degol, & Henry, 2019; Wang, Fredricks, et al., 2019; Wang, Tian, & Huebner, 2019).

1. *Theories of motivation encourage conceptualizations of engagement to distinguish and prioritize “energy in action.”*

Motivational theories have a strong opinion about where the “bang” in the student engagement “buck” is located. It is centered on definitions of engagement as “energy in action” (Connell & Wellborn, 1991; Reeve, 2012; Skinner, Kindermann, Connell, & Wellborn, 2009; Skinner, Kindermann, & Furrer, 2009; Wang, Degol, & Henry, 2019; Wang, Fredricks, et al., 2019; Wang, Tian, & Huebner, 2019), also referred to as “academic engagement” to specify that the objects are curricular or academic tasks. From a motivational perspective, these emotionally charged heads-on participatory actions represent a force powerful enough to fuel learning and counteract dropout and other risky adolescent behaviors (e.g., Reeve, 2012; Skinner & Pitzer, 2012). This suggests that engagement researchers can begin to clarify core definitions by wading into the pile of constructs surrounding their meta-construct and extract those that target

the plane of action, that is, the quality of students’ participation in educational activities (Finn & Zimmer, 2012; Newmann, 1991; Reeve, 2012). Two recent integrative reviews target exactly this component, which researchers label “engagement in learning” (Wang, Degol, & Henry, 2019; Wang, Fredricks, et al., 2019; Wang, Tian, & Huebner, 2019) and “learning engagement” (Wong & Liem, 2021). As made clear by definitions that use phrases such as “participation,” “interact with learning activities,” and “state of activity/inactivity,” these are *action* constructs: They represent students’ actual *interactions* with educational tasks and activities on the plane of action.

Motivational theories help draw lines around this component because it represents “patterns of motivated action.” Moreover, the empirical base accumulated by motivational researchers provides robust evidence that this component of engagement serves the important functions enumerated in Fig. 5. They are: (1) necessary conditions for learning; (2) mediators of the effects of actual and perceived contexts and students’ views of the self on their academic success; (3) contributors to students’ choices about contexts and activities; (4) resources for adaptive coping and self-regulation; (5) motivational communications that evoke reactions from social partners; and (6) ongoing information that shapes the developing self.

Antithesis of engagement Motivational theories also encourage conceptualizations to incorporate the opposite of engagement, variously labeled as withdrawal, disengagement, burnout, alienation, switching off, or disaffection (Connell & Wellborn, 1991; Fredricks, 2014; Hascher & Hadjar, 2018; Martin, 2012; Wong & Liem, 2021). Perhaps because the field arose as a reaction to researchers’ narrow focus on risk and dropout, conceptualizations of engagement seem uncertain about whether to include a “dark side” (Salmela-Aro et al., 2016). The field of motivation, which has always considered lack or loss of motivation as prime material for its theories, highlights the benefits of conceptualizations that extend into this territory. Theoretically, they are

richer. Disaffection is more than lack of engagement. Measures that incorporate both have shown that the two are distinguishable but closely related and that each adds predictive power over and above the other (e.g., Martin et al., 2011; Salmela-Aro et al., 2016; Skinner, Kindermann, Connell, & Wellborn, 2009; Skinner, Kindermann, & Furrer, 2009; Wang, Fredricks, et al., 2019). Such conceptualizations give researchers and interventionists the flexibility to consider them separately or in combination, and to be explicit about whether contextual and psychological factors are hypothesized to foster engagement, counteract disaffection, or both. Concepts and measures that capture both encourage explicit consideration of how to reach both goals, as well as providing information about the location of problems should interventions fall short in bolstering engagement or in reducing disaffection. These broader views also suggest that there are multiple profiles that combine different features of engagement and disaffection (e.g., Wang & Peck, 2013), and these alternatives can be used to diagnose targeted remedies that may not be the same for all students (Furrer et al., 2014). For example, students whose academic engagement is faltering due to boredom need different kinds of supports than students who are cognitively overwhelmed by task demands or those experiencing anxiety or academic burnout. Hence, assessments of disaffection may be useful in designing multi-pronged programs that create differentiated pathways back to engagement.

If the field heeds this advice, conceptualizations of *disaffection* would mirror the internal structure of engagement as energy in action (Skinner, Kindermann, Connell, & Wellborn, 2009; Skinner, Kindermann, & Furrer, 2009; Wang, Degol, & Henry, 2019; Wang, Fredricks, et al., 2019; Wang, Tian, & Huebner, 2019; Wong & Liem, 2021). *Behavioral disaffection* entails passivity and lack of effort or exertion as well as more active off-task or disruptive behavior; *emotional disaffection* ranges from the most common deactivating academic emotion, boredom, to worry, sadness, discouragement, irritation, and frustration while working on academic tasks; and

cognitive disaffection includes inattention, mind-wandering, lack of concentration, and thoughts of escape. All three dimensions of disaffection are active parts of internal causal dynamics. Deactivating emotions can exert a downward pressure on behavioral participation, sapping energy and will, and, if they occupy working memory, can interfere with cognitive engagement. Cognitive disaffection potentially undermines behavioral participation and aggravates negative emotions. Together these create a multi-dimensional profile of disaffection that can add depth, scope, and power to engagement, and enable more well-rounded and nuanced accounts of patterns of action.

2. *Motivational theories help differentiate components within the meta-construct of engagement, and suggest ways individual components can be enriched with insights from work on motivation and regulation*

Motivational theories can help conceptualizations of engagement find a useful place for all the components that have been nominated to date as part of the meta-construct. Using the horizontal structure underlying theories of motivation (see Fig. 2), constructs can be sorted according to whether they correspond to “context,” “self,” “action,” or “outcomes.” First, constructs relevant to the behavioral, emotional, and cognitive dimensions of “energy in action” can be grouped as parts of a component labeled “action.” Then a second set, including constructs like valuing, belonging, identification, and self-efficacy, can be grouped as parts of a component relevant to “self.” Motivational theories insist that these self-appraisals (aka self-perceptions, self-system processes, self-relevant representations, or internal working models) should be distinguished from actions. They represent internal psychological processes or social cognitions that *influence* action readiness or actions themselves. As documented by motivational research over many decades, individuals use these appraisals to interpret past exchanges and guide future action (Brophy, 2013; Schunk et al., 2012; Wentzel & Miele, 2016; Wigfield et al., 2015).

Constructs within this component could also collectively be called “identification” or “aca-

democratic identity.” As described by participation-identification models, also over many decades, these are the psychological processes whose development is *influenced* by academic success and patterns of action. In conceptualizations of engagement as “energy in action,” action components are indicators of engagement, whereas constructs in the self-component are facilitators (e.g., Skinner, 2016; Wang, Degol, & Henry, 2019; Wang, Fredricks, et al., 2019; Wang, Tian, & Huebner, 2019). In conceptualizations of engagement as a meta-construct, both action *and* self-constructs fall under the umbrella of engagement. They are both indicators; contexts are the facilitators (e.g., Reschly & Christenson, 2012). Whether or not self-appraisals are considered *parts* of engagement, however, conceptualizations must distinguish between self and action if studies are to examine whether and how these two processes are (reciprocally) causally related.

Those aspects of the meta-construct of engagement that reflect actual external conditions can be grouped together as parts of a third component labeled “Context.” Sometimes called “engagement contexts” (e.g., Furlong et al., 2003), interpersonal contexts are marked by the quality of students’ actual relationships with teachers, classmates, friends, and other social partners at school. Contexts also include pedagogical, disciplinary, climate, and even discriminatory practices. Aspects of “Context” are observable, since they reflect what is actually going on in the classroom or other relevant settings, and can be assessed via observations in the classroom (e.g., Pianta & Hamre, 2009) or other settings where engagement takes place. A component labeled “Perceived Context” can hold constructs that reflect students’ subjective take on these objective contextual affordances, messages, and interactions. This component would include, for example, students’ perceptions of whether their teachers and peers like and care about them. These can be contrasted with actual contextual conditions (i.e., whether teachers or peers really do like a specific student) and self-appraisals (i.e., whether a student feels she belongs and is worthy of love). Compared to actual contextual conditions that can be mapped with observations,

these experiential constructs can be captured only via self-reports because they reflect the cumulative meaning students make out of their actual experiences in particular social and physical environments.

Finally, the proximal and distal consequences of engagement can be included as parts of the component labeled “Outcomes,” ranging from actual learning, grades, and achievement to development of competencies and attitudes, retention, graduation, enrollment in college, employment, and productive citizenry; as well as all the risks averted, such as dropout, delinquency, and gang involvement. Differentiating the components of engagement allows researchers to consider each one more carefully or to call on motivational and volitional research that has already done so.

Central role of self Motivational theories prioritize self-appraisals, since these psychological processes are at the heart of their theories. Hence, the field encourages work on engagement to take seriously the task of determining the social cognitions that are most important in influencing the action components of engagement, rather than just declaring them *a priori* as *parts* of the meta-construct of engagement. As shown in Table 3, current conceptualizations already include some important psychological processes—like belonging and valuing. Explanatory theories of engagement can test and build out on these, or scrutinize research on motivation, which has accumulated relatively detailed bodies of evidence about such appraisal processes.

These are some of the most powerful predictors of student engagement as energy in action, but for theories of engagement, they represent something more—they can help researchers systematically derive the causally efficacious contextual factors that will serve as levers in successful interventions designed to promote engagement. As explained by Lin-Siegler and colleagues, this step is part of “a promising but underexplored approach to improving students’ motivation and learning in schools: the design and implementation of psychologically informed

instructional activities to change students' attitudes and beliefs" (Lin-Siegler et al., 2016, p. 295). Just as engagement serves as a portal through which teachers can view student motivation, so too can the motivational messages contained in self-appraisals act as diagnostic tools for interventionists (and teachers and parents) in formulating strategies to bolster engagement.

Without a full understanding of these mediational processes, engagement researchers are left to search for direct contextual effects or to rely on generically "good" contexts characterized by high-quality relationships and best pedagogical and management practices. It is always a good idea to promote generically positive contextual conditions, of course, but a focus on specific self-appraisals allows educators and interventionists to think more broadly and deeply. For example, the focus on a sense of belonging has galvanized educators from pre-Kindergarten to college to think about the messages their institutional practices send, especially to students from underrepresented and minoritized backgrounds, where the default implicit communication is "You are not welcome here" (see Galindo, Brown, & Lee, chapter "Expanding an Equity Understanding of Student Engagement: The Macro (Social) and Micro (School) Contexts", this volume). Coming to grips with the thousands of ways these messages are transmitted, ranging from enrollment processes, to the languages of signs in the hall, to the contents of curricula and discipline practices, has enabled schools to begin a culture shift guided by the goal of reversing those default messages for all students. At this point, motivational theories can provide a menu of options for self-appraisals that could be relevant to explanatory theories of engagement; a list of examples is included in the "Self" block in Fig. 4. As motivational theorists identify core families of self-appraisals (e.g., Dweck, 2017; Ford, 1992; Martin, 2009; Skinner, *in press*), this menu of options should become clearer and more focused.

Richer views of the action components of engagement The field of motivation has found it productive to incorporate insights from work on regulation, deepening its understanding, for

example, of what happens when the "fire" of intrinsic motivation dims (e.g., Reeve, 2012; Ryan & Deci, 2020) or academic tasks become too demanding (e.g., Skinner & Saxton, 2019, 2020). Motivational theories have returned the favor, showing, for example, how normative losses in motivation can help explain why the use of certain self-regulatory strategies declines across adolescence even though cognitive and meta-cognitive capacities are advancing (e.g., Karabenick & Newman, 2013; Van der Veen & Peetsma, 2009). The two areas share a common interest in targets on the plane of action (i.e., participation in activities for which there is no intrinsic motivation, self-regulated learning, adaptive help-seeking, academic coping) and both understand that these processes all have underpinnings that are both motivational and regulatory.

Such cross-area fertilization suggests that research on regulation may also hold keys to understanding the roots of engagement (Cleary & Liu, chapter "Using Self-Regulated Learning (SRL) Assessment Data to Promote Regulatory Engagement in Learning and Performance Contexts", this volume; Cleary & Zimmerman, 2012; Filsecker & Kerres, 2014; Fredricks et al., 2004; Schunk & Mullen, 2012). These examples also indicate *where* in episodes of engagement such regulatory processes are likely to matter most: when motivational processes falter or when the actions of engagement need to be managed intentionally (Boekaerts, 2016). Following this train of thought, processes of self-regulation are likely to be activated when students are confronted by uncertainty (e.g., key choice points), lack of motivation (e.g., boredom), or demands that overwhelm their automatic responses (e.g., challenges, setbacks, problems). If self-regulatory capacities and autonomous motivation are available, students should show tenacity (i.e., durability in engagement) as well as strategies of adaptive coping that allow them to re-engage constructively. To explore these possibilities, however, conceptualizations of engagement will first have to extract self-regulated learning from *inside* the meta-construct itself (Boekaerts,

2016), where it has often been considered part of cognitive engagement.

From this perspective, as mentioned previously, engagement would be considered *both* a motivational and a regulatory process (Boekaerts, 2016; Cleary & Zimmerman, 2012; Filsecker & Kerres, 2014; Schunk & Mullen, 2012), with the idea that these two subprocesses are continuously in play, and it is the balance between the two that gives engagement its vigor, quality, and tenacity. Just as with research on motivation, conceptualizations of engagement may wish to consider its role in the arc of motivational resilience (e.g., Skinner et al., 2020), where motivated actions like choice may create differential opportunities for high-quality engagement; and regulatory strategies (e.g., self-regulated learning, help-

seeking, coping) may help explain how engagement can be sustained during demanding academic activities. Moreover, when engagement falters, this umbrella construct also focuses on how it can be regained through processes both regulatory and motivational, called buoyancy, bounce back, or re-engagement.

3. *Motivational theories offer a view of meta-constructs of engagement that highlight the sequential functioning of their components as a dynamic recursive causal process*

The structure that underlines explanatory theories of motivation can also be used to map meta-constructs of engagement. This notion is illustrated in Fig. 6 with three prominent models: the Participation-Identification model (Finn, 1989; Finn & Zimmer, 2012; Finn & Voelkl,

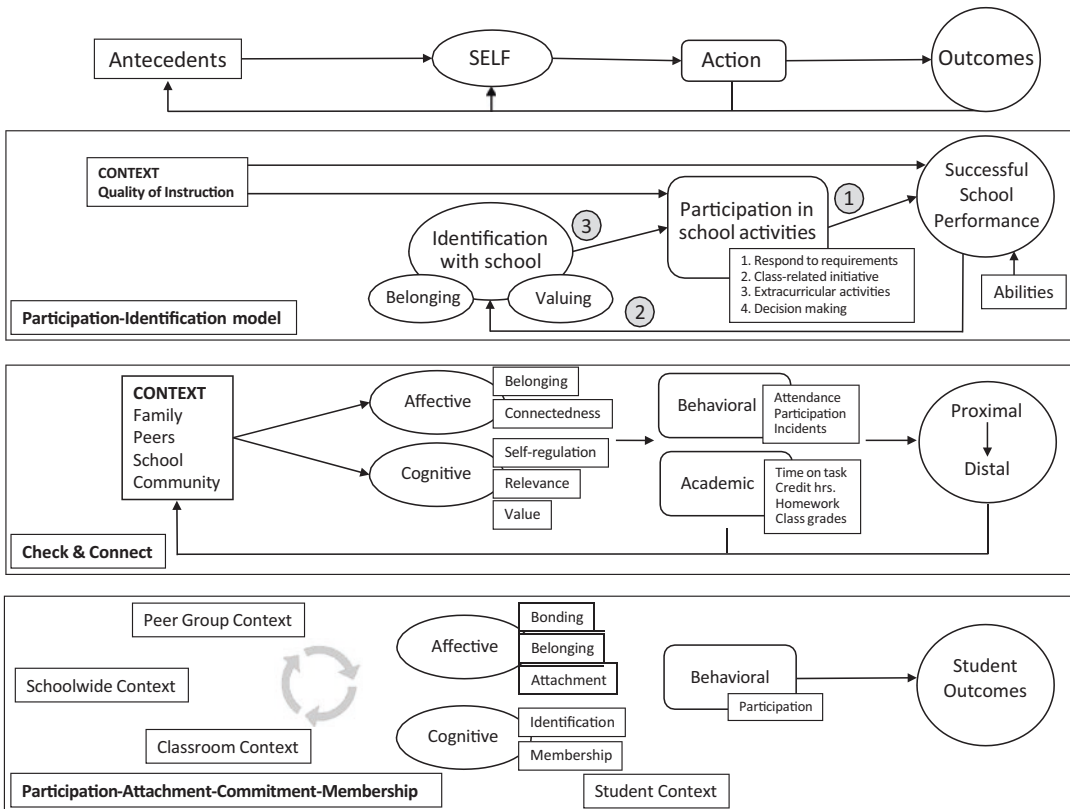


Fig. 6 The structure of explanatory theories of engagement, characterized wholistically as the study of (1) how the social contexts of engagement, including pedagogical, interpersonal, and curricular contexts, shape (2) students’ engagement-relevant appraisal processes, which underlie and fuel (3) their patterns of learning engagement, which influence (4) important educational outcomes. Learning engagement and school success in turn feedback to shape subsequent self-appraisals. The utility of this schematic is illustrated by diagramming three major theories of engagement

1993; Voelkl, 2012), the Check & Connect model (Reschly & Christenson, 2012), and the Participation-Attachment-Commitment-Membership model (Furlong et al., 2003). However, these components could be used to map any of the models of engagement summarized in Table 3. Of special note are the many direct and indirect feedforward and feedback arrows that connect components in these models. These arrows indicate that such connections are not “part-whole” relationships (as implied by the term “meta-construct”), but instead reflect “cause-effect” relationships that indicate explanatory processes. Such differentiation allows engagement researchers to think through whether their models can best be described as “conceptualizations” of engagement—which refer to definitions and dimensions of a single construct (like academic or learning engagement)—or as full-blown “theories” of engagement, which not only

specify target phenomena, but also antecedents, consequences, and mediators. Many “meta-constructs,” when unpacked, likely represent explanatory theories in their own right.

Mapping meta-constructs of engagement This underlying framework might also provide a basis for beginning to integrate different perspectives on engagement. A general model of multi-component theories of engagement—what Wong and Liem (2021) referred to as “mixed models” because they include both learning and school engagement—is depicted in Fig. 7 (see also Wang, Degol, & Henry, 2019; Wang, Fredricks, et al., 2019; Wang, Tian, & Huebner, 2019). It has as its core “engagement in action,” also called academic engagement (Connell & Wellborn, 1991), engagement in learning (Wang, Degol, & Henry, 2019; Wang, Fredricks, et al., 2019; Wang, Tian, & Huebner, 2019), or learning

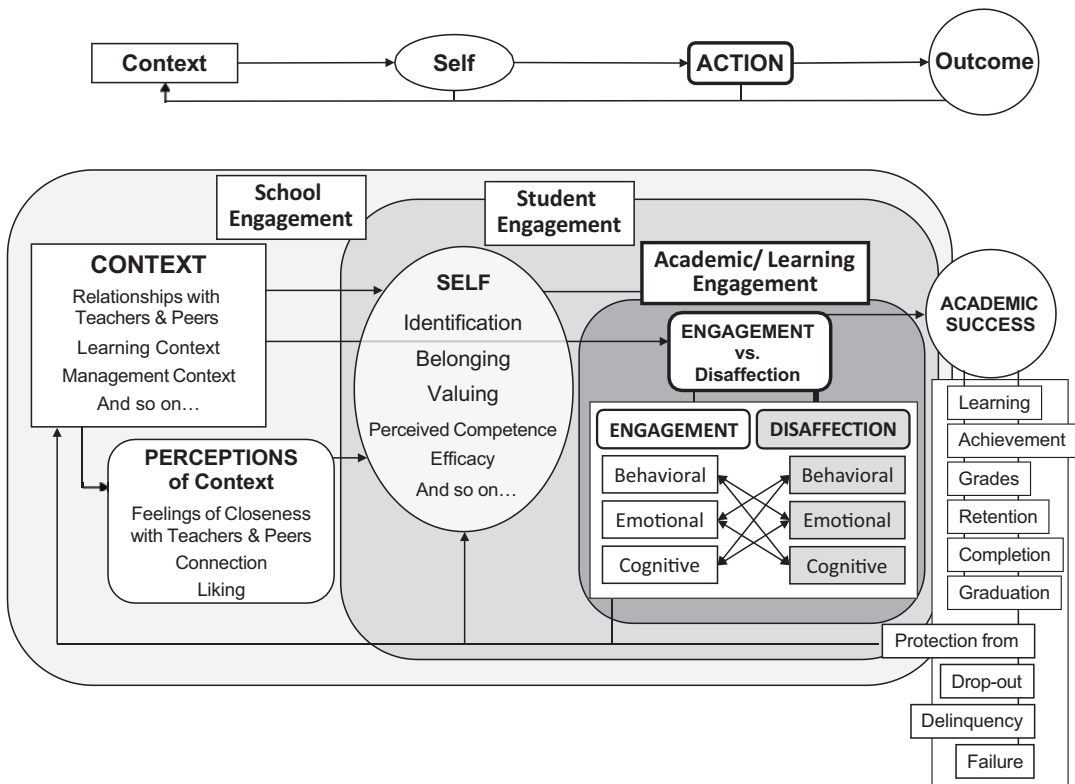


Fig. 7 A visual representation of how the structure underlying motivational theories can help differentiate components of engagement into multi-step process-oriented explanatory theories

engagement (Wong & Liem, 2021). Although we hesitate to state anything definitive about how engagement terms have been parsed (based on widespread inconsistencies), it might be possible to speculate that some theories that incorporate self-appraisals refer to their meta-constructs as “student engagement” (e.g., Reschly & Christenson, 2012), whereas theories that also incorporate contextual conditions, like the quality of interpersonal relationships with people at school, refer to their meta-constructs as “school engagement” (e.g., Wong & Liem, 2021).

Nested models From a bird’s eye view, motivational theories can help the field of engagement see more clearly that, living on their island are two camps with competing proposals for how to build out that high-value real estate (Wong & Liem, 2021). On the one hand, engagement can be viewed as “energy in action,” that is, defined as a pattern of action during learning activities, complemented by disaffection, where both have behavioral, emotional, and cognitive facets. This multidimensional construct has its own internal dynamics among these subcomponents (e.g., the effects of emotional disaffection on behavioral engagement), and also calls on underlying motivational and regulatory processes to explain its emergence, quality, direction, and durability on the plane of action. This kind of engagement is one component of a larger explanatory theory, which could be called the external dynamics of engagement, because it contains elements outside of engagement proper, specifically, self-appraisals, experienced and actual contextual conditions, and learning outcomes (see Fig. 6 for similar mappings of other theories, such as Reschly & Christenson, 2012). These internal and external dynamics explain the recursive processes that influence its functioning and development (e.g., Finn & Zimmer, 2012; Green et al., 2012; Martin et al., 2017; Wang, Tian, & Huebner, 2019). Consistent with other scholars (e.g., Connell & Wellborn, 1991; Lam et al., 2012; Reeve, 2012; Wang, Degol, & Henry, 2019; Wang, Fredricks, et al., 2019; Wang, Tian, & Huebner, 2019), that is the perspective we use in our own research.

On the other hand, there is a larger and more holistic understanding of engagement as a meta-construct (Christenson et al., 2012; Fredricks et al., 2004), of which students’ enthusiastic participation in learning activities is only a narrow and visible slice. From this perspective, psychological processes, like sense of belonging, valuing school, and identifying with its goals, are not predictors; they are additional slices, as are close and caring relationships with members of the school community. These are all considered parts of the *internal* dynamics of engagement. Engagement at all these levels is a cumulative process, and without this “glue” (Lawson & Lawson, 2013) at multiple levels of school, a student’s future can be considered at risk. Here, external dynamics are the contexts, both institutional (e.g., teacher working conditions, principal leadership, school district supports) and societal (e.g., teaching training, parental involvement), that promote or impede the task of creating a school culture where this kind of engagement is the right of every student.

Motivational theories suggest that some of the confusion in the area of engagement, while currently causing real problems, may reflect relatively superficial disagreements. On the one hand, scholars are using the term engagement for the more complex multifaceted whole (i.e., the entire engagement system) as well as for some or all of its parts. On the other, scholars are attempting to find labels that involve the term “engagement” (i.e., behavioral, affective, emotional, cognitive, academic, psychological, or social engagement) for constructs that refer to “context,” “perceived context,” “self,” and “action.” It would be possible to conceptualize engagement in a way that allows for both, as long as researchers use terminology that clarifies the differences between them. This would allow conceptualizations of engagement as energy in action to be fully nested within larger explanatory theories of engagement as a meta-construct, in ways that would also allow a seamless integration with motivational theories.

Promoting Youth Competence and Positive Development: Three Lessons Located at the Intersection of Engagement and Motivation

To contribute to the focus of this *Handbook* and to highlight the potential synergy between engagement and motivation, we close by selecting three insights taken from the intersection between these fields, and show how they can contribute to efforts to promote youth competence and positive development. These synergistic ideas entail: (1) a focus on *motivational resilience* as a protective factor and powerful developmental force for youth; (2) the notion of *academic identity* as a lever for strengthening competence and resilience; and (3) a broader consideration of contexts as *complex social ecologies* that include multiple microsystems and social partners (e.g., parents, teachers, and peers) as well as the pedagogical practices, management strategies, and community connections at school.

Motivational resilience as a target of intervention Efforts The organizational construct of motivational resilience, defined broadly as “patterns of action that allow students to constructively deal with, overcome, recover, and learn from encounters with academic challenges, obstacles, and failures” (Skinner et al., 2020, p. 290), brings together work from the areas of engagement, motivation, and regulation (e.g., self-regulated learning, academic coping) within a frame of everyday academic resilience and buoyancy (Martin & Marsh, 2009; Skinner & Pitzer, 2012; Yeager & Dweck, 2012). As described previously, motivational resilience represents students’ desire to choose and undertake challenging tasks, to fully engage, and, when they encounter difficulties, to cope thoughtfully and strategically (e.g., via problem-solving or seeking help), allowing them to rebound, recover, and re-engage. Such competencies can be contrasted with the state of motivational vulnerability, when students avoid challenge, become disaffected, and so are more likely to encounter difficulties and react to them with negative emotions, contributing to reliance on maladaptive

ways of coping or dysregulation (e.g., concealment or blaming others), and so making it more likely they will give up or disengage.

A focus on motivational resilience allows interventions to target these patterns of action as important protective factors, while drawing on explanatory research from the many areas that share an interest in motivational resilience (e.g., mindsets, engagement, self-regulation, help-seeking, academic coping, and buoyancy). These areas of work have all identified social contextual factors and practices that support students’ dealings with problems and setbacks, and the umbrella construct encourages interventionists and practitioners to bring them all together in one place in order to design learning contexts that promote resilience (e.g., Fredricks et al., 2019; Wigfield & Wentzel, 2007). Such supports may be especially important during the years of late childhood and the run up to the transition to middle school, which some students experience as challenging and stressful. Motivational resilience can set students up with the tools they will need to deal effectively with these new demands, while strengthening their competencies in multiple areas, both academic and non-academic. Moreover, motivational resilience (like its sub-component engagement) unfolds on the plane of action, which means that it is visible to parents and practitioners—if they know what they are looking for. Such access allows them to monitor their efforts to support students, and to fine tune or pull back their own actions or task characteristics (e.g., difficulty level) based on whether they are enabling resilience (e.g., engagement or help-seeking) or pushing students toward responses that indicate more vulnerability (e.g., self-deprecation or desistance).

Academic identity as a Lever for Promoting Competence and Resilience While constructs of motivational resilience underscore the important role of actions on the ground, theories of both engagement and motivation highlight the internal working models students are constructing based on these interactions and encounters, which engagement researchers sometimes con-

sider as parts of engagement and which motivational researchers prioritize as their target self-appraisals. As shown in Figs. 1 and 4, motivational theories offer a menu of such appraisals, and as seen in Figs. 6 and 7, theories of engagement encourage interventionists to consider these processes wholistically instead of in isolation. Both areas suggest that these self-appraisals reflect students' "academic identities," which are central to youth because they are part of the larger identity project early adolescents undertake during this developmental period (Erikson, 1950). Both motivation and engagement can nominate themes around which to organize the many self-appraisals at play in their theories. For example, engagement theories highlight the theme of "belonging" (e.g., attachment, bonding, relatedness, connectedness) while motivation theories suggest "mastery" (e.g., self-efficacy, perceived competence, mastery learning orientations, mindsets). Self-determination theory incorporates both of these self-appraisals while highlighting the theme of "autonomy" (authenticity, authorship, purpose, relevance). Taken together, these themes suggest that interventions will promote positive youth development to the extent they support all students in constructing views of themselves as competent, authentic, well-respected, and valued members of a purpose-driven learning community.

Such appraisals and identities are key to intervention efforts because they represent the meaning students make of their experiences at home and at school (Spencer, 2006). As a result, they are crucial phenomenological mediators between external environmental events and the actions students take. They also provide essential information to practitioners and interventionists as they try to transform environments to become more supportive. No matter how well intentioned, it is students' interpretations of their experiences that will have the last word about the effects of interventions. But they can be hard to access: Such indicators of the student experience are largely internal and so invisible unless social contexts ask students directly or bring out their views in honest conversation. The questions that

underlie these themes (e.g., "Am I welcome here?" "Do I have what it takes to do well?" "What is our purpose here?") can be used to evaluate (current or future) programs, practices, and contextual features for the messages they communicate to students about these core aspects of their identities. Especially important is the design of social contexts that send positive messages about *all* these questions at the same time, and do not create trade-offs between, for example, mastery and belonging to a specific (ethnic, gender, or peer) group. Such appraisals are key levers in promoting competence, resilience, and positive development. Some theories also posit that these self-appraisals are more than cognitive constructions—they derive their energetic power because they represent the extent to which students' fundamental psychological needs are being met in the school or classroom context (Connell & Wellborn, 1991; Reeve, 2012; Ryan & Deci, 2017).

Complex social ecologies of positive youth development Theories of engagement and motivation concur that the social contexts that support students' development are multi-level, nested, and embedded in higher-order societal systems of social hierarchy, resources, and constraints (e.g., Bronfenbrenner & Morris, 2006). These can be called the complex social ecologies of engagement and motivation (e.g., Lawson & Lawson, 2013; Skinner et al., *in press*). From such conceptualizations of the context, theories from both fields prioritize interpersonal relationships—the social contexts provided by families and parents, teachers and school personnel, peers, classmates, and friends. All have been implicated in the development of engagement (e.g., Upadaya & Salmela-Aro, 2013) and motivation (Wentzel & Ramani, 2016; Wigfield et al., 2015), and these relationships seem to provide both the glue and the "proximal processes" (or repeated daily social interactions; Bronfenbrenner & Morris, 2006) that shape all aspects of functioning and development.

Pattern-centered approaches suggest that the relationships and interactions with these many

kinds of social partners can be considered together to create wholistic ecologies, niches, “lifespaces” (Roeser & Peck, 2003), or “worlds” (Phelan et al., 1998) that differ among students in the supports, resources, and affordances they provide. There are many different ways in which these microsystems (e.g., family, schools, neighborhoods) and the social partners and relationships they contain (e.g., parents, teachers, peers) can be organized and work together (Skinner et al., *in press*). The concept of “niche” may be especially important in describing the social ecologies to which many students from minoritized and racialized groups are relegated (Spencer, 2006). Macrosystem factors that create poverty and marginalization divert resources and force risk into all the microsystems youth inhabit, and so must be transformed together to create social ecologies that support the positive development of competence and resilience of all youth (see Galindo, Brown, & Lee, chapter “[Expanding an Equity Understanding of Student Engagement: The Macro \(Social\) and Micro \(School\) Contexts](#)”, this volume).

Conclusion

The goal of this chapter is to help unlock the positive synergy between engagement and motivation. Our read of both fields is that what is currently holding them back from this goal is the same thing: their successes. The field of motivation has been wildly successful in creating precise and exquisite theories and research on academic motivation; so generative, in fact, that each of these theories has created its own isolated local climate and ecology. Hence, the current archipelago, and the field’s next task: integration. The field of engagement, in contrast, has gotten its arms around a wildly powerful idea, so powerful, in fact, that it is now overrun with an abundance of constructs, definitions, and measures; in this exuberance; however, the roots of these ideas are no longer clear or even visible. Hence, the current overcrowded island, and the field’s next task: differentiation.

We believe that the solutions to both fields’ biggest problems are also the same: a sober reconsideration of their own gaps, blind spots, and areas for improvement. These reflections call for a bird’s eye view, some aerial reconnaissance that will reveal that the isolated islands of motivational theories are all connected to the territory encompassed by engagement as well as other core action constructs. In addition, some of these islands are closer to each other than motivational theories seem to realize; they may even share common territory. Moreover, the crowd on the high-value real estate claimed by engagement can be thinned by moving some occupants, specifically those that refer to sets of self-relevant beliefs, qualities of interpersonal relationships and contexts, and strategies of self-regulated learning. However, they should not be moved far—just to neighboring territory, so they can be connected by hypothesized causal bridges tested for their efficacy in leading to and from engagement as energy in action. Some of these occupants will find themselves on islands already inhabited by theories of motivation and self-regulation. Taken together, we envision a thriving interdisciplinary domain, encouraging rich cross-border cooperation, migration, and deep mutual learning. As part of these reflections and reconnaissance, we think that each field will naturally come to see the other as a friendly and helpful neighbor—an ally, advocate, and trusted source of insights and advice. We believe that together, work at the intersection of these fields has much to offer future conceptual, empirical, and applied efforts, as illustrated by the joint insights they provide about the study and promotion of competence and positive youth development. We hope that the respect and admiration we hold for both fields are evident in our attempts to aid in this forward movement.

References

- Abramson, L. Y., Seligman, M. E., & Teasdale, J. D. (1978). Learned helplessness in humans: Critique and reformulation. *Journal of Abnormal Psychology, 87*(1), 49–74. <https://doi.org/10.1037/0021-843X.87.1.49>

- Anderman, E. M. (2020). Achievement motivation theory: Balancing precision and utility. *Contemporary Educational Psychology*, 101864. <https://doi.org/10.1016/j.cedpsych.2020.101864>
- Appleton, J. J., Christenson, S. L., Kim, D., & Reschly, A. L. (2006). Measuring cognitive and psychological engagement: Validation of the student engagement instrument. *Journal of School Psychology*, 44(5), 427–445. <https://doi.org/10.1016/j.jsp.2006.04.002>
- Appleton, J. J., Christenson, S. L., & Furlong, M. J. (2008). Student engagement with school: Critical conceptual and methodological issues of the construct. *Psychology in the Schools*, 45(5), 369–386. <https://doi.org/10.1002/pits.20303>
- Azevedo, R. (2015). Defining and measuring engagement and learning in science: Conceptual, theoretical, methodological, and analytical issues. *Educational Psychologist*, 50, 84–94. <https://doi.org/10.1080/00461520.2015.1004069>
- Blumenfeld, P. C., Kempler, T. M., & Krajcik, J. S. (2006). Motivation and cognitive engagement in learning environments. In R. K. Sawyer (Ed.), *The Cambridge handbook of the learning sciences* (pp. 475–484). Cambridge University Press. <https://doi.org/10.1017/CBO9780511816833.029>
- Boekaerts, M. (2016). Engagement as an inherent aspect of the learning process. *Learning and Instruction*, 43, 76–83. <https://doi.org/10.1016/j.learninstruc.2016.02.001>
- Brandtstädter, J. (2006). Action perspectives on human development. In W. Damon (Series Ed.) & R. M. Lerner (Vol. Ed.), *Handbook of child psychology: Vol. 1. Theoretical models of human development* (pp. 51–568). Wiley. <https://doi.org/10.1002/9780470147658.chpsy0110>
- Bronfenbrenner, U., & Morris, P. A. (2006). The bioecological model of human development. In W. Damon (Series Ed.) & R. M. Lerner (Vol. Ed.), *Handbook of child psychology: Vol. 1. Theoretical models of human development* (6th ed., pp. 793–828). Wiley. <https://doi.org/10.1002/9780470147658.chpsy0114>
- Brophy, J. E. (2013). *Motivating students to learn*. Routledge. <https://doi.org/10.4324/9781410610218>
- Christenson, S. L., Reschly, A. L., & Wylie, C. (Eds.). (2012). *Handbook of research on student engagement*. Springer. <https://doi.org/10.1007/978-1-4614-2018-7>
- Cleary, T. J., & Zimmerman, B. J. (2012). A cyclical self-regulatory account of student engagement: Theoretical foundations and applications. In S. L. Christenson, A. L. Reschly, & C. Wylie (Eds.), *Handbook of research on student engagement* (pp. 237–257). Springer. https://doi.org/10.1007/978-1-4614-2018-7_11
- Connell, J. P., & Wellborn, J. G. (1991). Competence, autonomy, and relatedness: A motivational analysis of self-system processes. In M. R. Gunnar & L. A. Sroufe (Eds.), *Self processes and development* (pp. 43–77). Lawrence Erlbaum Associates, Inc.
- Dweck, C. S. (2017). From needs to goals and representations: Foundations for a unified theory of motivation, personality, and development. *Psychological Review*, 124(6), 689–719. <https://doi.org/10.1037/rev0000082>
- Dweck, C. S., & Molden, D. C. (2005). Self-theories: Their impact on competence motivation and acquisition. In A. J. Elliot & C.S. Dweck (Eds.), *Handbook of competence and motivation* (pp. 122–140). Guilford Publications.
- Dweck, C. S., & Yeager, D. S. (2019). Mindsets: A view from two eras. *Perspectives on Psychological Science*, 14(3), 481–496. <https://doi.org/10.1177/1745691618804166>
- Eccles, J. S. (2016). Engagement: Where to next? *Learning and Instruction*, 43, 71–75. <https://doi.org/10.1016/j.learninstruc.2016.02.003>
- Eccles, J. S., & Wang, M. (2012). Part I commentary: So what is student engagement anyway? In S. L. Christenson, A. L. Reschly, & C. Wylie (Eds.), *Handbook of research on student engagement* (pp. 133–145). Springer. https://doi.org/10.1007/978-1-4614-2018-7_6
- Eccles, J. S., & Wigfield, A. (2020). From expectancy-value theory to situated expectancy value theory: A developmental, social cognitive, and sociocultural perspective on motivation. *Contemporary Educational Psychology*, 61, 101859. <https://doi.org/10.1016/j.cedpsych.2020.101859>
- Erikson, E. H. (1950). *Childhood and society*. Norton.
- Filsecker, M., & Kerres, M. (2014). Engagement as a volitional construct: A framework for evidence-based research on educational games. *Simulation & Gaming*, 45, 450–470. <https://doi.org/10.1177/1046878114553569>
- Finn, J. D. (1989). Withdrawing from school. *Review of Educational Research*, 59, 117–142. <https://doi.org/10.3102/00346543059002117>
- Finn, J. D., & Voelkl, K. E. (1993). School characteristics related to school engagement. *Journal of Negro Education*, 62, 249–268. <https://doi.org/10.2307/2295464>
- Finn, J. D., & Zimmer, K. S. (2012). Student engagement: What is it? Why does it matter? In S. L. Christenson, A. L. Reschly, & C. Wylie (Eds.), *Handbook of research on student engagement* (pp. 97–131). Springer. https://doi.org/10.1007/978-1-4614-2018-7_5
- Ford, M. E. (1992). *Motivating humans: Goals, emotions, and personal agency beliefs*. Sage. <https://doi.org/10.4135/9781483325361.n1>
- Ford, M. E., & Smith, P. R. (2009). Commentary: Building on a strong foundation: Five pathways to the next level of motivational theorizing. In K. R. Wenzel & A. Wigfield (Eds.), *Handbook of motivation at school* (pp. 267–275). Routledge. <https://doi.org/10.4324/9780203879498>
- Fredricks, J. A. (2014). *The eight myths of student disengagement: Creating classrooms of deep learning*. Corwin Press. <https://doi.org/10.4135/9781483394534>
- Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of Educational Research*, 74(1), 59–109. <https://doi.org/10.3102/00346543074001059>
- Fredricks, J., McColskey, W., Meli, J., Mordica, J., Montrosse, B., & Mooney, K. (2011). Measuring student engagement in upper elementary through high

- school: A description of 21 instruments (Issues & Answers Report, REL 2011–No. 098). Washington, DC: U.S.
- Fredricks, J. A., Filsecker, M., & Lawson, M. A. (2016). Student engagement, context, and adjustment: Addressing definitional, measurement, and methodological issues. *Learning and Instruction, 43*, 1–4. <https://doi.org/10.1016/j.learninstruc.2016.02.002>
- Fredricks, J. A., Reschly, A. L., & Christenson, S. L. (2019). *Handbook of student engagement interventions*. Academic Press. <https://doi.org/10.1016/c2016-0-04519-9>
- Furlong, M. J., Whipple, A. D., Jean, G. S., Simental, J., Soliz, A., & Punthuna, S. (2003). Multiple contexts of school engagement: Moving toward a unifying framework for educational research and practice. *The California School Psychologist, 8*(1), 99–113. <https://doi.org/10.1007/BF03340899>
- Furrer, C. J., Skinner, E. A., & Pitzer, J. R. (2014). The influence of teacher and peer relationships on students' classroom engagement and everyday resilience. In D. J. Shernoff & J. Bempechat (Eds.), *National Society for the Study of Education Yearbook. Engaging youth in schools: Empirically-based models to guide future innovations* (Vol. 113, pp. 101–123). Columbia University: Teachers' College.
- Graham, S. (2020). An attributional theory of motivation. *Contemporary Educational Psychology, 61*, 101861. <https://doi.org/10.1016/j.cedpsych.2020.101861>
- Green, J., Liem, G. A. D., Martin, A. J., Colmar, S., Marsh, H. W., & McInerney, D. (2012). Academic motivation, self-concept, engagement, and performance in high school: Key processes from a longitudinal perspective. *Journal of Adolescence, 35*(5), 1111–1122.
- Greene, B. A. (2015). Measuring cognitive engagement with self-report scales: Reflections from over 20 years of research. *Educational Psychologist, 50*(1), 14–30. <https://doi.org/10.1016/j.adolescence.2012.02.016>
- Gottfried, A. E. (1985). Academic intrinsic motivation in elementary and junior high school students. *Journal of Educational Psychology, 77*(6), 631–645. <https://doi.org/10.1037/0022-0663.77.6.631>
- Gottfried, A. E., Fleming, J. S., & Gottfried, A. W. (2001). Continuity of academic intrinsic motivation from childhood through late adolescence: A longitudinal study. *Journal of Educational Psychology, 93*(1), 3–13. <https://doi.org/10.1037/0022-0663.93.1.3>
- Haimovitz, K., & Dweck, C. S. (2017). The origins of children's growth and fixed mindsets: New research and a new proposal. *Child Development, 88*(6), 1849–1859. <https://doi.org/10.1111/cdev.12955>
- Harter, S. (1978). Effectance motivation reconsidered. Toward a developmental Model. *Human Development, 21*(1), 34–64. <https://doi.org/10.1159/000271574>
- Hascher, T., & Hadjar, A. (2018). School alienation—Theoretical approaches and educational research. *Educational Research, 60*(2), 171–188. <https://doi.org/10.1080/00131881.2018.1443021>
- Hattie, J., Hodis, F. A., & Kang, S. H. (2020). Theories of motivation: Integration and ways forward. *Contemporary Educational Psychology, 101865*. <https://doi.org/10.1016/j.cedpsych.2020.101865>
- Heckhausen, J., & Heckhausen, H. (2018). *Motivation and action*. Springer. <https://doi.org/10.1017/CBO9780511499821>
- Jimerson, S. R., Campos, E., & Greif, J. L. (2003). Toward an understanding of definitions and measures of school engagement and related terms. *The California School Psychologist, 8*, 7–27. <https://doi.org/10.1007/BF03340893>
- Karabenick, S. A., & Newman, R. S. (Eds.). (2013). *Help seeking in academic settings: Goals, groups, and contexts*. Routledge. <https://doi.org/10.4324/9780203726563>
- Koenka, A. C. (2020). Academic motivation theories revisited: An interactive dialog between motivation scholars on recent contributions, underexplored issues, and future directions. *Contemporary Educational Psychology, 101831*. <https://doi.org/10.1016/j.cedpsych.2019.101831>
- Lam, S. F., Wong, B. P., Yang, H., & Liu, Y. (2012). Understanding student engagement with a contextual model. In S. L. Christenson, A. L. Reschly, & C. Wylie (Eds.), *Handbook of research on student engagement* (pp. 403–419). Springer. https://doi.org/10.1007/978-1-4614-2018-7_19
- Lawson, M. A. (2017). Commentary: Bridging student engagement research and practice. *School Psychology International, 38*(3), 221–239. <https://doi.org/10.1177/0143034317708010>
- Lawson, M. A., & Lawson, H. A. (2013). New conceptual frameworks for student engagement research, policy, and practice. *Review of Educational Research, 83*(3), 432–479. <https://doi.org/10.3102/0034654313480891>
- Lei, H., Cui, Y., & Zhou, W. (2018). Relationships between student engagement and academic achievement: A meta-analysis. *Social Behavior and Personality: An International Journal, 46*(3), 517–528. <https://doi.org/10.2224/sbp.7054>
- Li, Y., & Lerner, R. M. (2011). Trajectories of school engagement during adolescence: Implications for grades, depression, delinquency, and substance use. *Developmental Psychology, 47*(1), 233–247. <https://doi.org/10.1037/a0021307>
- Linnenbrink-Garcia, L., Rogat, T. K., & Koskey, K. L. (2011). Affect and engagement during small group instruction. *Contemporary Educational Psychology, 36*(1), 13–24. <https://doi.org/10.1016/j.cedpsych.2010.09.001>
- Lin-Siegler, X., Dweck, C. S., & Cohen, G. L. (2016). Instructional interventions that motivate classroom learning. *Journal of Educational Psychology, 108*(3), 295–299. <https://doi.org/10.1037/edu0000124>
- Martin, A. J. (2007). Examining a multidimensional model of student motivation and engagement using a construct validation approach. *British Journal of Educational Psychology, 77*(2), 413–440. <https://doi.org/10.1348/000709906X118036>
- Martin, A. J. (2009). Motivation and engagement across the academic lifespan: A developmental construct

- validity study of elementary school, high school, and university/college students. *Educational and Psychological Measurement*, 69, 794–824. <https://doi.org/10.1177/0013164409332214>
- Martin, A. J. (2012). Part II commentary: Motivation and engagement: Conceptual, operational, and empirical clarity. In S. L. Christenson, A. L. Reschly, & C. Wylie (Eds.), *Handbook of research on student engagement* (pp. 303–311). Springer. https://doi.org/10.1007/978-1-4614-2018-7_14
- Martin, A. J., Anderson, J., Bobis, J., Way, J., & Vellar, R. (2011). Switching on and switching off in mathematics: An ecological study of future intent and disengagement amongst middle school students. *Journal of Educational Psychology*, 104, 1–18. <https://doi.org/10.1037/a0025988>
- Martin, A. J., Ginns, P., & Papworth, B. (2017). Motivation and engagement: Same or different? Does it matter? *Learning and Individual Differences*, 55, 150–162. <https://doi.org/10.1016/j.lindif.2017.03.013>
- Martin, A. J., & Marsh, H. W. (2009). Academic resilience and academic buoyancy: Multidimensional and hierarchical conceptual framing of causes, correlates and cognate constructs. *Oxford Review of Education*, 35(3), 353–370. <https://doi.org/10.1080/03054980902934639>
- Mosher, R., & McGowan, B. (1985). *Assessing student engagement in secondary schools: Alternative conceptions, strategies of assessing, and instruments*. University of Wisconsin, Research and Development Center (ERIC Document No. ED 272812).
- Newmann, F. M. (1991). Student engagement in academic work: Expanding the perspective of secondary school effectiveness. In J. R. Bliss & W. A. Firestone (Eds.), *Rethinking effective schools: Research and practice* (pp. 58–76). Teachers College Press.
- Nolen, S. B., Horn, I. S., & Ward, C. J. (2015). Situating motivation. *Educational Psychologist*, 50(3), 234–247. <https://doi.org/10.1080/00461520.2015.1075399>
- Peterson, C., Maier, S. F., & Seligman, M. E. (1993). *Learned helplessness: A theory for the age of personal control*. Oxford University Press.
- Phelan, P., Davidson, A. L., & Yu, H. C. (1998). *Adolescents' worlds: Negotiating family, peers, and school*. Teachers College Press.
- Pianta, R. C., & Hamre, B. K. (2009). Conceptualization, measurement and improvement of classroom processes. *Educational Researcher*, 38, 109–119. <https://doi.org/10.3102/0013189X09332374>
- Pintrich, P. R. (2003). A motivational science perspective on the role of student motivation in learning and teaching contexts. *Journal of Educational Psychology*, 95, 667–686. <https://doi.org/10.1037/0022-0663.95.4.667>
- Reeve, J. (2012). A self-determination theory perspective on student engagement. In S. Christenson, A. Reschly, & C. Wylie (Eds.), *Handbook of research on student engagement* (pp. 149–172). Springer. https://doi.org/10.1007/978-1-4614-2018-7_7
- Reschly, A. L., & Christenson, S. L. (2012). Jingle, jangle, and conceptual haziness: Evolution and future directions of the engagement construct. In S. Christenson, A. Reschly, & C. Wylie (Eds.), *Handbook of research on student engagement* (pp. 3–19). Springer. https://doi.org/10.1007/978-1-4614-2018-7_1
- Roeser, R. W., & Peck, S. C. (2003). Patterns and pathways of educational achievement across adolescence: A holistic-developmental perspective. *New Dir Child Adolesc Dev*, 39–62. <https://doi.org/10.1002/cd.81>
- Russell, J., Ainley, M., & Frydenberg, E. (2005). *Schooling issues digest: Student motivation and engagement*. Australian Government, Department of Education Science and Training.
- Ryan, R. M. (Ed.). (2012). *The Oxford handbook of human motivation*. Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780195399820.001.0001>
- Ryan, R. M., & Deci, E. L. (2017). *Self-determination theory: Basic psychological needs in motivation, development, and wellness*. The Guilford Press. <https://doi.org/10.1521/978.14625/28806>
- Ryan, R. M., & Deci, E. L. (2020). Intrinsic and extrinsic motivation from a self-determination theory perspective: Definitions, theory, practices, and future directions. *Contemporary Educational Psychology*, 61, 101860. <https://doi.org/10.1016/j.cedpsych.2020.101860>
- Salmela-Aro, K., Moeller, J., Schneider, B., Spicer, J., & Lavonen, J. (2016). Integrating the light and dark sides of student engagement using person-oriented and situation-specific approaches. *Learning and Instruction*, 43, 61–70. <https://doi.org/10.1016/j.learninstruc.2016.01.001>
- Salmela-Aro, K., & Upadaya, K. (2012). The Schoolwork Engagement Inventory: Energy, dedication, and absorption (EDA). *European Journal of Psychological Assessment*, 28(1), 60–67. <https://doi.org/10.1027/1015-5759/a000091>
- Schunk, D. H., & DiBenedetto, M. K. (2020). Motivation and social cognitive theory. *Contemporary Educational Psychology*, 61, 101832. <https://doi.org/10.1016/j.cedpsych.2019.101832>
- Schunk, D. H., & Mullen, C. A. (2012). Self-efficacy as an engaged learner. In S. Christenson, A. Reschly, & C. Wylie (Eds.), *Handbook of research on student engagement* (pp. 219–235). Springer. https://doi.org/10.1007/978-1-4614-2018-7_10
- Schunk, D. H., Meece, J. R., & Pintrich, P. R. (2012). *Motivation in education: Theory, research, and applications*. Pearson Higher Ed.
- Seligman, M.E.P. (1975) *Helplessness: On depression, development, and death*. W.H. Freeman.
- Sinatra, G. M., Heddy, B. C., & Lombardi, D. (2014). The challenge of defining and measuring student engagement in science. *Educational Psychologist*, 50, 1–13. <https://doi.org/10.1080/00461520.2014.1002924>
- Sinclair, M. F., Christenson, S. L., Lehr, C. A., & Anderson, A. R. (2003). Facilitating student engagement: Lessons learned from check & connect longitudinal studies. *The California School Psychologist*, 8, 29–41. <https://doi.org/10.1007/BF03340894>

- Skinner, E. A. (2016). Engagement and disaffection as central to processes of motivational resilience and development. In K. Wentzel & D. Miele (Eds.), *Handbook of motivation at school* (2nd ed., pp. 145–168). Erlbaum. <https://doi.org/10.4324/9781315773384-14>
- Skinner, E. A. (2019). Engagement and motivation during childhood. In S. Hupp & J. Jewell (Eds.), *Encyclopedia of Child and Adolescent Development* (pp. 1-14). New York: Wiley. <https://doi.org/10.1002/9781119171492.wecad170>
- Skinner, E. A. (in press). Four guideposts on the journey toward a comprehensive and coherent model of academic motivation: Motivational resilience, academic identity, social contexts, and development. *Educational Psychology Review*.
- Skinner, E. A., & Pitzer, J. R. (2012). Developmental dynamics of student engagement, coping, and everyday resilience. In S. L. Christenson, A. L. Reschly, & C. Wylie (Eds.), *Handbook of Research on Student Engagement* (pp. 21–44). Springer US. https://doi.org/10.1007/978-1-4614-2018-7_2
- Skinner, E. A., & Saxton, E. A. (2019). The development of academic coping in children and youth: A comprehensive review and critique. *Developmental Review*, 53, 100870. <https://doi.org/10.1016/j.dr.2019.100870>
- Skinner, E., & Saxton, E. (2020). The development of academic coping across late elementary and early middle school: Do patterns differ for students with differing motivational resources? *International Journal of Behavioral Development*, 44(4), 339–353. <https://doi.org/10.1177/0165025419896423>
- Skinner, E. A., Kindermann, T. A., Connell, J. P., & Wellborn, J. G. (2009). Engagement as an organizational construct in the dynamics of motivational development. In K. Wentzel & A. Wigfield (Eds.), *Handbook of motivation at school* (pp. 223–245). Routledge. <https://doi.org/10.4324/9780203879498>
- Skinner, E. A., Kindermann, T. A., & Furrer, C. (2009). A motivational perspective on engagement and disaffection: Conceptualization and assessment of children's behavioral and emotional participation in academic activities in the classroom. *Educational and Psychological Measurement*, 69, 493–525. <https://doi.org/10.1177/0013164408323233>
- Skinner, E., Furrer, C., Marchand, G., & Kindermann, T. (2008). Engagement and disaffection in the classroom: Part of a larger motivational dynamic? *Journal of Educational Psychology*, 100(4), 765–781. <https://doi.org/10.1037/a0012840>
- Skinner, E. A., Graham, J. P., Brule, H., Rickert, N., & Kindermann, T. A. (2020). "I get knocked down but I get up again": Integrative frameworks for studying the development of motivational resilience in school. *International Journal of Behavioral Development*, 44(4), 290–300. <https://doi.org/10.1177/0165025420924122>
- Skinner, E. A., Kindermann, T. A., Vollet, J. W., & Rickert, N. P. (in press). Motivation in the wild: Capturing the complex social ecologies of academic motivation. In M. Bong, S.-I. Kim, & J. Reeve (Eds.), *Motivation science: Controversies and insights*. Oxford University Press.
- Spencer, M. B. (2006). Phenomenology and ecological systems theory: Development of diverse groups. In R. M. Lerner & W. Damon (Eds.), *Handbook of child psychology: Theoretical models of human development* (Vols. 1, 6th ed., pp. 829–893). John Wiley & Sons Inc.
- Upadyaya, K., & Salmela-Aro, K. (2013). Development of school engagement in association with academic success and well-being in varying social contexts: A review of empirical research. *European Psychologist*, 18(2), 136–147. <https://doi.org/10.1027/1016-9040/a000143>
- Urdu, T., & Kaplan, A. (2020). The origins, evolution and future directions of achievement goal theory. *Contemporary Educational Psychology*, 61, 101862. <https://doi.org/10.1016/j.cedpsych.2020.101862>
- Van der Veen, I., & Peetsma, T. T. D. (2009). The development in self-regulated learning behaviour of first-year students in the lowest level of secondary school in the Netherlands. *Learning and Individual Differences*, 19, 34–46. <https://doi.org/10.1016/j.lindif.2008.03.001>
- Virtanen, T. E., Rääkkönen, E., Engels, M. C., Vasalampi, K., & Lerkkanen, M. K. (2021). Student engagement, truancy, and cynicism: A longitudinal study from primary school to upper secondary education. *Learning and Individual Differences*, 86, 101972. <https://doi.org/10.1016/j.lindif.2021.101972>
- Voelkl, K. E. (1997). Identification with school. *American Journal of Education*, 105(3), 294–318. <https://doi.org/10.1086/444158>
- Voelkl, K. E. (2012). School identification. In S. L. Christenson, A. L. Reschly, & C. Wylie (Eds.), *Handbook of research on student engagement; handbook of research on student engagement* (pp. 193–218). Springer. https://doi.org/10.1007/978-1-4614-2018-7_9
- Wang, M. T., & Fredricks, J. A. (2014). The reciprocal links between school engagement and youth problem behavior during adolescence. *Child Development*, 85, 722–737. <https://doi.org/10.1111/cdev.12138>
- Wang, M. T., & Hofkens, T. L. (2020). Beyond classroom academics: A school-wide and multi-contextual perspective on student engagement in school. *Adolescent Research Review*, 5(4), 419–433. <https://doi.org/10.1007/s40894-019-00115-z>
- Wang, M. T., & Peck, S. C. (2013). Adolescent educational success and mental health vary across school engagement profiles. *Developmental Psychology*, 49(7), 1266–1276. <https://doi.org/10.1037/a0030028>
- Wang, M. T., Degol, J. L., & Henry, D. A. (2019). An integrative development-in-sociocultural-context model for children's engagement in learning. *American Psychologist*, 74(9), 1086–1102. <https://doi.org/10.1037/amp0000522>
- Wang, M.-T., & Eccles, J. S. (2012). Social support matters: Longitudinal effects of social support on three dimensions of school engagement from middle to high school. *Child Development*, 83(3), 877–895.

- Wang, M.-T., Fredricks, J., Ye, F., Hofkens, T., & Linn, J. S. (2019). Conceptualization and assessment of adolescents' engagement and disengagement in school: A multidimensional school engagement scale. *European Journal of Psychological Assessment, 35*(4), 592–606. <https://doi.org/10.1027/1015-5759/a000431>
- Wang, Y., Tian, L., & Huebner, E. S. (2019). Basic psychological needs satisfaction at school, behavioral school engagement, and academic achievement: Longitudinal reciprocal relations among elementary school students. *Contemporary Educational Psychology, 56*, 130–139. <https://doi.org/10.1016/j.cedpsych.2019.01.003>
- Wentzel, K., & Miele, D. (2016). *Handbook of motivation at school* (2nd ed.). Erlbaum. <https://doi.org/10.4324/9781315773384>
- Wentzel, K. R., & Ramani, G. B. (Eds.). (2016). *Handbook of social influences in school contexts: Social-emotional, motivation, and cognitive outcomes*. Routledge. <https://doi.org/10.4324/9781315769929>
- Wentzel, K., & Skinner, E. (co-editors, in press). The other half of the story: The role of social relationships and social contexts in the development of academic motivation. Special issue in *Educational Psychology Review*.
- Wentzel, K., & Wigfield, A. (2009). *Handbook of motivation at school*. Routledge. <https://doi.org/10.4324/9780203879498>
- White, R. W. (1959). Motivation reconsidered: The concept of competence. *Psychological Review, 66*(5), 297–333. <https://doi.org/10.1037/h0040934>
- Wigfield, A., & Eccles, J. S. (2020). 35 years of research on students' subjective task values and motivation: A look back and a look forward. In A. J. Elliot (Ed.), *Advances in motivation science* (pp. 161–198). Elsevier Academic Press. <https://doi.org/10.1016/bs.adms.2019.05.002>
- Wigfield, A., & Koenka, A. C. (2020). Where do we go from here in academic motivation theory and research? Some reflections and recommendations for future work. *Contemporary Educational Psychology, 101872*. <https://doi.org/10.1016/j.cedpsych.2020.101872>
- Wigfield, A., & Wentzel, K. R. (2007). Introduction to motivation at school: Interventions that work. *Educational Psychologist, 42*(4), 191–196. <https://doi.org/10.1080/00461520701621038>
- Wigfield, A., Eccles, J. S., Fredricks, J. A., Simpkins, S., Roeser, R., & Schiefele, U. (2015). Development of achievement motivation and engagement. In R. M. Lerner (Series Ed.) & M. Lamb (Volume Ed.), *Handbook of child psychology and developmental science, 7th ed., Vol. 3., Socioemotional processes* (pp. 657–700). Wiley. <https://doi.org/10.1002/9781118963418.childpsy316>
- Wong, Z. Y., & Liem, G. A. D. (2021). Student engagement: Current state of the construct, conceptual refinement, and future research directions. *Educational Psychology Review, 1–32*. <https://doi.org/10.1007/s10648-021-09628-3>
- Yeager, D. S., & Dweck, C. S. (2012). Mindsets that promote resilience: When students believe that personal characteristics can be developed. *Educational Psychologist, 47*(4), 302–314. <https://doi.org/10.1080/00461520.2012.722805>