Engagement Across Developmental Periods

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Abstract

The goal of this chapter is to provide a cohesive developmental framework and foundation for which to understand student engagement across early childhood, middle childhood, and adolescence. Guided by the bioecological theory of human development and the person-environment fit perspective, this chapter extends Finn's participation-identification model of engagement by mapping student engagement within a larger developmental sequence. This chapter discusses student engagement within specific developmental periods that are tied to the developmental tasks, opportunities, and challenges unique to early childhood, middle childhood, and adolescence. Student engagement is found to be a nuanced developmental outcome, and the differences may be a result of the maturation of biological, cognitive, and socioemotional developmental tasks and the changing contextual landscape for the children and adolescents. Recommendations for future research as well as policy implications are also discussed.

Chapter Aim and Overview

Research consistently shows that student engagement plays a critical role in the development of positive outcomes in children and adolescents such as increasing academic achievement (Carbonaro, 1998; Eccles, 2004; Manke, McGuire, Reiss, Hetherington, & Plomin, 1995; Portes, 2000) and facilitating the development of new social competencies (Karcher, Kuperminc, Portwood, Sipe, & Taylor, 2006; Parra, Dubois, Neville, Pugh-Lilly, & Povinelli, 2002). While it is important to consider the factors that shape student engagement and its potential consequences, we argue that understanding student engagement within the context of the individual's

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developmental history is also important. The goal of this chapter is to provide a cohesive developmental framework and foundation for which to understand student engagement across early childhood, middle childhood, and adolescence. For the purposes of this chapter, we limit our discussion on engagement to school-related activities. School-related activities comprise both schoolwork (e.g., engagement on academic-specific tasks both within and outside of school) and nonacademic school-related activities (e.g., extracurricular activities).

Moreover, this chapter highlights the importance of accounting for changes in developmental tasks (defined in the following sections) and how they codevelop with student engagement over the childhood and adolescent years. Indeed, while much of the student engagement literature has focused on defining the specific components of student engagement, mainly behavioral, cognitive, and emotional engagement (Appleton, Christenson, & Furlong, 2008; Marks, 2000; Rose-Krasnor, 2009), the research examining the interplay of developmental tasks and the development of student engagement is limited. Echoing Finn's (1989) statement about school dropouts initiated by a "chain of events" (Finn, 1989, p. 119), we conceptualize the interplay of developmental tasks and the development of student engagement as a reciprocal process that also occurs over a period of time. In this way, we adapt Finn's original argument for the participation-identification model of engagement (Finn, 1989; Reschly, 2010) by imparting concepts from the developmental literature to identify the direct and indirect effects of developmental tasks on student engagement and vice versa.

Indeed, childhood and adolescence is a time of rapid growth signified by key developmental tasks that capture overt biological and physiological changes, significant cognitive advancements, emotional maturation, as well as new social relationships. The specific manifestation of the developmental tasks within each developmental period, however, will likely vary across individuals and contexts, and these manifestations can in turn be linked to the developing child or adolescent's student engagement. For instance, the social skills children first gain through participation in peer play, a developmental task of early childhood, and further cultivate during middle childhood and adolescence, may promote his/her student engagement in school-related activities. Children and adolescents who are more engaged may subsequently increase their likelihood of successfully reaching a developmental task. Not only does this suggest that student engagement is more likely to happen if children's and adolescents' school experiences are framed within the developmental tasks fitting the general developmental period, but also student engagement can strengthen the accomplishment of developmental tasks. Based on this, the two main questions that guide this chapter are:

1. How do developmental tasks encourage or discourage the development of student engagement?
2. How can student engagement strengthen the acquisition of developmental tasks?

To further understand the reciprocal processes, we first define student engagement. Second, we briefly describe the prominent developmental tasks of early childhood, middle childhood, and adolescence, and the links between these developmental tasks and student engagement. Next, we detail our overarching theoretical framework that stresses the importance of understanding the emergence of the developmental tasks to enhance our knowledge of the development of student engagement. The bulk of this chapter addresses student engagement across these developmental periods and how the key behavioral, cognitive, and socioemotional developmental tasks in childhood and adolescence are related. It must be noted that the majority of the work assessing student engagement discussed here draws from literature that is nonexperimental in nature. As a result, we cannot make any causal statements about the link between developmental periods and student engagement. Where appropriate, we note findings from experimental research and those that are nationally representative or longitudinal in nature. Throughout these sections, we discuss the importance of understanding growth and development and how it codevelops with student engagement. Finally, we conclude with brief

remarks summarizing future research directions in this area and the importance of family, school, and community partnerships for enhancing student engagement across developmental periods.

Defining Student Engagement

In defining student engagement, prior research has identified three distinct dimensions to the construct (e.g., Appleton et al., 2008; Fredricks, Blumenfeld, & Paris, 2004), mainly, behavioral, cognitive, and emotional engagement. According to Fredricks and colleagues (2004) and Blumenfeld and colleagues (2005):

1. *Behavioral engagement* draws on the idea of participation; it includes involvement in academic and social or extracurricular activities. It is usually defined in three ways. The first entails positive conduct, as well as the absence of disruptive behaviors such as skipping school. The second definition concerns involvement in learning and academic tasks and includes behaviors such as effort, persistence, concentration, attention, asking questions, etc. A third definition involves participation in school-related activities such as athletics or school governance.
2. *Cognitive engagement* draws on the idea of investment; it incorporates thoughtfulness and willingness to exert the effort necessary to comprehend complex ideas and master difficult skills.
3. *Emotional engagement* encompasses positive and negative reactions to teachers, classmates, academics, and school, and is presumed to create ties to an institution and influence willingness to do the work. It refers to students' affective reactions in the classroom, including interest, boredom, happiness, sadness, and anxiety.

Appleton and colleagues (2008) build on this characterization by further operationalizing the three engagement constructs. For example, attendance, suspensions, voluntary classroom participation, and extracurricular activity participation are part of behavioral engagement (Appleton et al., 2008). They also claim that both cognitive and emotional engagement are not easily observed and are determined by the extent to which the individual values and identifies with the activities and whether they believe the activities are relevant to their future. We expand the latter statement and argue that the components of student engagement cannot be fully observed without the appropriate developmental foundation via the attainment of developmental tasks, which are described in the next section.

Developmental Tasks of Childhood and Adolescence

Developmental tasks describe the main changes and challenges that occur during a certain developmental period. Generally, they represent any number of things from physical milestones to societal expectations for individuals based on age. Beginning in early childhood (birth to 6 years), children are increasingly faced with new and complex socialization forces that influence their behavioral, cognitive, and emotional development. For instance, as noted above, one main developmental task during early childhood is participation in peer play (Newman & Newman, 2009). Through the process of learning rules and playing cooperatively with others, children begin to form meaningful friendships and mental representations of ways of participating in groups. Entry into the formal school setting also brings new opportunities, new information, and new interactions with teachers and peers that can foster or inhibit the child's maturation.

Moving into middle childhood (6–12 years), there is continued growth in intellectual capacities, mastery, competence, and steady physical development. During this time, children are learning the fundamental skills and values that are associated with their particular environment, which increasingly involves the school environment. As children become adolescents (12–18 years), academic expectations increase in complexity and responsibility; youths are expected to learn and to follow the rules and laws that govern conduct in adult society, and they begin to learn about responsible dating and romantic social conduct in their community and culture. Adolescence is also a

period marked by increased exposure to environments outside of the family, and a large developmental task is achieving a psychological sense of autonomy from one's parents (Newman & Newman, 2009). Many parents also consider it important for a child to contribute to the family or community through chores or good deeds, or at least not to destroy and to harm others or community property.

Acceptable performances in these tasks represent important milestones in the eyes of the stakeholders for positive child development, including parents, teachers, other community members, and children themselves. Failing in these domains by not meeting expectations may have consequences for children's current and future opportunities, peer reputation, social support, self-esteem, family relationships, and, of particular relevance of this chapter, student engagement.

Linking Developmental Tasks and Engagement

By acknowledging the larger context of positive development, we can further our understanding of student engagement. For instance, a child or adolescent may be having problems behaviorally engaging in school-related activities if he/she lacks necessary motor or social skills to participate. Social skills may be obtained through participation in peer play, a main developmental task in early childhood (as noted above) that continues to grow in middle childhood. During middle childhood, friendships become based on who plays together, likes the same activities, shares common interests, enjoys each other's company, and counts on each other for help. In addition, children are introduced to the concept of group cooperation through organized activities and team play, which enhances their abilities to analyze and manage social relationships, such as group cooperation. These social skills can in turn influence a child's likelihood to be engaged, and a child that is more engaged may increase his/her likelihood of successfully reaching a developmental task related to friendship formation.

Likewise, a child's or adolescent's ability to become cognitively engaged may be restricted by the development of his/her prefrontal cortex and limbic system, which inform higher order reasoning capabilities. The opposite may be true as well, where cognitive development can be improved by being more engaged. It is not until adolescence that youth begin to have greater self-reflection, become more deliberate and focused, and are able to hypothesize and think about several strategies or outcomes for these hypotheses simultaneously rather than focusing on just one domain or issue at a time (Keating, 2004). Thus, the ability to become cognitively engaged with school is greater during adolescence compared to both early and middle childhood. Increased cognitive student engagement may not only show benefits for academic achievement, but also the continued maturation of cognitive and socioemotional developmental tasks.

With regard to emotional engagement, deficits in the development of the limbic system or social competencies can hinder a child's or adolescent's ability to have affective connections to other people or contexts. As mentioned, peer play begins in early childhood, becomes more purposeful in middle childhood, and then continues to change in composition and importance during adolescence. The continued growth and maturation of these behavioral, cognitive, and socioemotional competencies, paired with the accumulation of learning experiences in and out of the classroom, make it important to understand the links among the developmental tasks and student engagement across developmental periods.

Moreover, it is important to understand the multidimensionality of student engagement because research has shown that engagement helps to mediate the relationship between involvement in school-related activities and healthy developmental outcomes (Bartko, 2005; Weiss, Little, & Blumenfeld, 2005). Indeed, Blumenfeld and colleagues (2005) go so far as to claim that student engagement is necessary to prepare children and adolescents for the transition into adulthood. Furthermore, supporting our argument for the codevelopment of developmental tasks and student engagement, research has found that different behavioral, cognitive, and emotional patterns and psychological states are linked to different developmental outcomes across individuals

such as mood, internalizing and externalizing behaviors, and motivation (Blumenfeld et al., 2005; Larson, 2000; Shernoff, 2010).

With regard to motivation in particular, some scholars have emphasized that student motivation and engagement are separate constructs, while others have argued that motivation is a necessary but not a sufficient condition for engagement (Blumenfeld, Kempler, & Krajcik, 2006). Connell's process model of motivation outlines the process through which motivation influences student engagement (Connell, Spencer, & Aber, 1994; Connell & Wellborn, 1991). The model states that the perceived social context influences students' perceived autonomy and relatedness. This perceived autonomy and relatedness then leads to student behavioral, cognitive, and emotional engagement. Similarly, Blumenfeld and colleagues (2006) stated that motivation is a precursor to cognitive engagement and achievement. We assume that motivation is a precursor to all three types of engagement. Therefore, it is an implicit part of our definition of student engagement.

This suggests that in order to adequately capture the multidimensional construct of student engagement, it is necessary to observe the extent to which children and adolescents are involved with their schoolwork and extracurricular activities while also assessing whether one believes that the activities are relevant to their current and future goals. In addition, capacities for and expressions of student engagement will vary by developmental periods. In discussing the developmental-stage-specific forms of student engagement during early childhood, middle childhood, and adolescence, we rely on the bioecological theory of human development and the person-environment fit perspective. A description of both theories follows.

Theoretical Considerations

The bioecological theory of human development (Bronfenbrenner & Morris, 1998) and the person-environment fit perspective (Eccles, 2004; Gutman & Eccles, 2007) put forward a way to integrate the extant literature on child and adolescent development and student engagement. First, Bronfenbrenner's bioecological theory asserts that development is a function of the interaction between the developing person and his/her environments. Bronfenbrenner and Morris (1998) defined those interactions as proximal processes and posited that they are the primary vehicle for development. Couched within those proximal processes are two other considerations: the individual's context and characteristics. An individual's context reflects the idea that development is situated within a set of overlapping and multifaceted environmental systems such as the home, school, neighborhood, and larger sociohistorical context that also interact to shape development. For children and adolescents in particular, the family and the school environments are central developmental contexts and have been shown to be significantly related to student engagement (Lohman, Kaura, & Newman, 2007; Roeser & Eccles, 1998; Steinberg, Bradford, & Dornbusch, 1996).

Second, an individual's characteristics can determine whether these proximal processes occur and how an individual experiences his/her contexts. For example, Finn (1989) discussed how race, socioeconomic status, school ability and performance, and autonomy (an important developmental task realized in adolescence) are often reasons given for a school dropout. In this way, the student's demographic and academic characteristics influenced his/her experience of school and subsequent likelihood of dropping out. Likewise, and of particular interest in this chapter, certain developmental tasks may interact with the individual's motivation for, or experiences in, school-related activities to influence the development of student engagement. Child and adolescent characteristics may interact with the family and school contexts in determining student engagement as well. Student engagement itself can also be seen as a personal characteristic that may contribute to the attainment of developmental tasks.

Integrating concepts from the person-environment fit perspective (Eccles, Midgefield, & Wigfield, 1993), we highlight that one size does not fit all in terms of the optimal organization of developmental tasks and ecologies that promote student engagement and vice versa. According to

person-environment fit, processes and characteristics within one context may be coupled with congruent or divergent processes and characteristics in another to shape an individual's development (Catalano, Berglund, Ryan, Lonczak, & Hawkins, 2004; Eccles, 2004; Larson, 2000; Lerner, Brentano, Dowling, & Anderson, 2002; Lerner & Castellino, 2002). With respect to student engagement, this may mean synchrony across the values and practices espoused by families and schools to encourage engagement. Indeed, while Bronfenbrenner originally suggested that contextual levels overlap with each other and tend to be consistent within a society (Epstein, 1983; Miller, 2002), researchers have noted that this is not always the case as contexts may also vary in their degree of embeddedness with one another and are sometimes even at odds with each other (Sternberg & Grigorenko, 2001). Thus, a child's or an adolescent's developmental course may be dependent on whether contexts are in synchrony or in dissynchrony (Bronfenbrenner & Ceci, 1994; Mahoney & Bergman, 2002; Mahoney & Magnusson, 2001). We argue that congruence or synchrony across environments may help foster student engagement, while dissynchrony, incongruence or a mismatch in environments, may hinder student engagement (Goodenow, 1995; Lohman et al., 2007).

Researchers can explore this overlap by taking an ecological approach (i.e., including multiple ecological contexts) in inquiries regarding student engagement during the child and adolescent years. Indeed, a handful of studies have begun to address the individual, family, and contextual factors that are associated with participation and lack of participation in organized activities (Dearing et al., 2009; Mahoney, Vandell, Simpkins, & Zarrett, 2009; Persson, Kerr, & Stattin, 2007). However, most of the work has focused on demographic characteristics that are associated with activity participation (see Anderson, Funk, Elliot, & Smith, 2003; Bohnert, Fredricks, & Randall, 2010; Denault & Poulin, 2009; Fletcher, Elder, & Mekos, 2000, for exceptions); therefore, it is not clear from the extant literature if the factors that are related to who initially participates are the same as the factors that are associated with ongoing activity involvement and different levels of participation across each of the activity dimensions (Eccles, 2005).

To that end, we argue for a more comprehensive and integrative developmental-contextual approach. There is a need for research that explores the individual and contextual factors that are predictive of student engagement and that examines whether these facets of engagement are more or less important depending on the characteristics of the child/adolescent or the ecological context in which they live. In considering the developmental correlates and manifestation of student engagement specifically, longitudinal studies that adjust for some of the individual, family, and neighborhood factors associated with these facets of engagement can help to disentangle the extent to which findings are a function of involvement in organized contexts and how much they reflect self-selection effects (Larson, 2000). From there, researchers, educators, and professionals can determine the optimal developmental correlates to, and of, student engagement.

The Developmental Context of Student Engagement

Guided by Bronfenbrenner's bioecological theory of human development and a person-environment fit framework, what follows is a discussion of student engagement within the specific developmental periods that are tied to the specific developmental tasks, opportunities, and challenges of early childhood, middle childhood, and adolescence.

Early Childhood

Much of the context for student engagement research centers on early childhood education and intervention programs such as Head Start (Barnett, 1995), of which Bronfenbrenner was an early proponent (Bronfenbrenner, 1975). The emphasis is on providing effective learning opportunities to develop the building blocks for cognitive and linguistic development, literacy, and social competencies (Bierman et al., 2008;

McWilliam & Casey, 2008; Ramey & Ramey, 2004), which parallel the important developmental tasks of this period. To that end, the early childhood engagement literature is more concerned with the developmental markers associated with a child's school readiness potential rather than student engagement itself (Blair, 2002; Hair, Halle, & Terry-Human, 2006; Kagan, 1990; McCormick et al., 2006; Ramey & Ramey, 2004). Ramey and Ramey, however, argued that a child's school readiness in early childhood can influence his/her future student engagement.

Indeed, research has found that participation in early childhood education programs such as Head Start promotes cognitive, behavioral, and socioemotional competencies that influence later well-being and academic achievement (Barnett, 1995; Fantuzzo & McWayne, 2002; Hair et al., 2006; Luo, Hughes, Liew, & Kwok, 2009; McCormick et al., 2006). The success of early childhood programs comes from structured curricula that emphasize strategic learning interactions, positive teacher-student relationships, and brain development, with the overall objective of promoting school readiness (Barnett, 1995; Bierman et al., 2008; Currie, 2001; Ramey & Ramey, 2004). The early childhood education literature defines school readiness as the acquisition of basic behavioral, cognitive, and socioemotional skills needed to meet school demands in reading, writing, and math (Kagan, 1990; Ramey & Ramey, 2004). In this way, the main developmental tasks of early childhood are framed within the school context. For example, school readiness is generally measured via the child's behaviors in the classroom, which focuses the discussion of student engagement on the ability to follow classroom rules, perform tasks, or engage in cooperative participation with classmates (Bierman et al., 2008; Luo et al., 2009; McWilliam & Bailey, 1992; McWilliam & Casey, 2008), which reflect the developmental tasks of moral development and peer play. A further discussion of how the developmental tasks of early childhood map onto concepts of student engagement follows; additional early childhood education literature not specific to engagement will be used to supplement the discussion.

Behavioral Engagement

The behavioral component of engagement has been an area of emphasis in the early childhood literature (Coolahan, Fantuzzo, Mendez, & McDermott, 2000; Fantuzzo & McWayne, 2002; McWilliam & Bailey, 1992; McWilliam & Casey, 2008) given that children's behavioral problems in the classroom are often cited as a risk factor for poor school readiness and long-term academic performance (Coolahan et al., 2000; Fantuzzo & McWayne, 2002; Kuperschmidt, Bryant, & Willoughby, 2000; Raver, 2002). This further demonstrates the bioecological idea of how a child's characteristics can influence his/her interaction with the environment, in this case, the classroom. Thus, care should be taken to provide children with the space and resources needed to maintain a level of focused attention and constructive behaviors (McWilliam & Casey, 2008). Staying on task and the ability to follow rules and directions in the classroom become ways to define positive student engagement in early childhood (Bierman et al., 2008; Liew, McTigue, Barrois, & Hughes, 2008; Luo et al., 2009). Moreover, the extent to which a child has a self-theory, a developmental task of early childhood, may influence the degree to which a child can follow rules and directions in the classroom (Wigfield & Karpathian, 1991).

Another behavioral component to student engagement in early childhood, and a developmental task, is peer play as noted above (Coolahan et al., 2000; Fantuzzo & McWayne, 2002). Peer play captures the child's interaction with his/her peer group and carrying out shared activities (Fantuzzo & McWayne, 2002). Research has shown that peer play can be an antecedent to long-term school success (Coolahan et al., 2000; Fantuzzo & McWayne, 2002) as well as self-regulation (Bierman et al., 2008). Specifically, interactive play is associated with active engagement in classroom learning activities, prosocial classroom behavior such as helping and sharing, a motivation to learn, task persistence, and autonomy (Bierman et al., 2008; Coolahan et al., 2000; Fantuzzo & McWayne, 2002).

Cognitive Engagement

A child's ability to follow rules and instructions and otherwise be behaviorally engaged can be influenced by, and also influence, the child's cognitive development. The research on early childhood cognitive development finds that children at this stage begin to transition from externally to internally regulated actions (Kochanska, Coy, & Murray, 2001; Kochanska & Knaack, 2003). This is defined as self-regulation and effortful control whereby the child learns how to control and inhibit his/her own emotions and behaviors (Liew et al., 2008; Kochanska & Knaack, 2003; Kochanska et al., 2001), and may also reflect the child's acquisition of a personal self-theory, which, as previously described, is an important developmental task in early childhood. The extent to which a child has an internal sense of control and can self-regulate his/her behaviors has been shown to influence that child's engagement in a learning environment, specifically the child's ability to participate in classroom activities, control attention, and stay on task (Bierman et al., 2008). Again, student engagement in school during early childhood is often measured by the child's classroom behaviors and is a function of his/her interaction with the school context.

Emotional Engagement

A child's emotional engagement has implications for school readiness and academic achievement (Bierman et al., 2008; Liew et al., 2008; Raver, 2002). Particularly in early childhood, children are beginning to interact with persons other than their parents such as peers and teachers. Having positive interactions with multiple people, such as parents and other caring individuals, can help promote learning and build a warm and responsive social context (Ramey & Ramey, 2004). These interactions in turn can encourage a sense of belonging and liking in school and the development of social-emotional competencies, which has been shown to decrease off-task and aggressive behavior and increase prosocial classroom and task engagement (Bierman et al., 2008; Raver, 2002). Teachers especially can help nurture interest in school and learning activities (Bierman et al., 2008). Likewise, the added influence of interacting with nonfamilial adults can contribute to the child's emotional maturation more generally and shows the importance for synchrony across contexts, or person-environment fit. In other words, the multiple opportunities for positive interactions can have multiplicative effects for encouraging the child's engagement.

Future Research

Research in early childhood education demonstrates that participating in early childhood programs can improve a child's school readiness, which has important implications for a child's future academic success by providing another context that encourages positive development. Indeed, the results from research show children who participate in early childhood programs make gains in vocabulary and math, behavioral, and social skills (Barnett, 1995; Bierman et al., 2008). Beyond those findings, early childhood education research has yet to investigate the relationship between school readiness and student engagement specifically (Blair, 2002). For instance, research is needed to examine how student engagement might vary by school readiness levels, which in turn may be influenced by whether the child possesses certain developmental tasks and the contextual factors associated with engagement. Thus, early childhood researchers should work to integrate the research in early childhood education and other developmental research into a cohesive framework that captures all three components of student engagement. Moreover, engagement research in the early childhood literature should expand its scope to include nonschool/learning environments in understanding the developmental precursors to student engagement in early childhood education. As the theoretical considerations we propose suggest, it is important to take an ecological approach to the study of developmental outcomes, student engagement included. Currently, most of the literature has focused specifically on the preschool, kindergarten, and special education environments (e.g., Mahoney & Wheeden, 1999; Malmskog & McDonnell, 1999; McWilliam & Casey, 2008).

Middle Childhood

During this time, children continue to transition into more formal schooling and learning environments, and there is a concurrent increase in the literature on student engagement, especially as it pertains to academic achievement and school adjustment (Ripke, Huston, & Casey, 2006; Simpkins, Fredricks, Davis-Kean, & Eccles, 2006; Skinner, Furrer, Marchand, & Kinderman, 2008). The increase in literature, however, is limited to research within the school context. Indeed, during middle childhood, the classroom becomes the most salient learning environment, with additional learning experiences provided through after-school activities. The accumulation of these experiences is said to contribute to the development of student engagement in middle childhood (Ripke et al., 2006; Rose-Krasnor, 2009; Simpkins et al., 2006).

As with development in general (according to the bioecological theory), engagement in middle childhood has been defined as a function of individual student characteristics and learning experiences (Marks, 2000), and sustained interactions between the student and activity context (Appleton et al., 2008; Rose-Krasnor, 2009).

Moreover, student engagement during middle childhood increases in importance as the role of parents and teachers in promoting classroom and participation in extracurricular activities begins to wane (Ripke et al., 2006; Simpkins et al., 2006; Skinner et al., 2008). Engagement is also at its peak during middle childhood while children are in elementary school (Marks, 2000), perhaps paralleling the development of children's abilities to manage group cooperation (i.e., team play). In this way, learning to manage group work may foster engagement, and being engaged may facilitate team play. In addition, research on engagement in middle childhood begins to differentiate between behavioral, cognitive, and emotional engagement. The definitions and influences of these three types of engagement are discussed in further detail in the following sections.

Behavioral Engagement

Results taken from teacher's reports of students' behaviors show that behaviorally engaged students are characterized as being attentive in class, responsive to rules and instructions, and initiate action (Finn, 1989; Luo et al., 2009). Indeed, the classroom becomes an important learning environment for youth in middle childhood, and the extent to which children actively participate and are involved in classroom tasks and activities has been argued as a prerequisite for achievement and engagement (Finn, Folger, & Cox, 1991; Ladd, Birch, & Buhs, 1999; Skinner et al., 2008). This demonstrates the bioecological argument that active interactions with a person's environment drive development. Moreover, the continued maturation of developmental tasks during middle childhood may facilitate or hinder engagement; developmental tasks may facilitate the development of student engagement if the child has successfully reached the task, whereas difficulties in coping with new developmental tasks can hinder the development of engagement. As the main propositions of the person-environment fit perspective suggest, the extent to which the child's contexts fit his/her developmental needs can also contribute to the expression of engagement.

Beyond the classroom environment, after-school activities offer another context and opportunity for students to become engaged behaviorally (Simpkins et al., 2006; Vandell, Pierce, & Dadisman, 2005). Behavioral engagement in after-school activities is defined as the child's attendance and involvement in the activities (Morris & Kalil, 2006; Rose-Krasnor, 2009; Vandell et al., 2005). Middle childhood is often when children begin to become involved in activities outside of school; participating in activities such as sports, and arts and music lessons has been shown to promote psychosocial and academic outcomes for children (Dumais, 2006; Ripke et al., 2006). Research has also shown that positive experiences outside of the classroom can supplement and benefit the child's engagement in the classroom (Luo et al., 2009; Rose-Krasnor, 2009). Hence, synchrony among school-related activities can positively influence the development of student engagement. Moreover, the literature suggests that a child's behavioral engagement is a precursor to skill development, positive social interactions, and

emotional engagement (Morris & Kalil, 2006; Rose-Krasnor, 2009).

Cognitive Engagement

While behavioral engagement reflects a child's attendance and participation with an activity, cognitive engagement captures the child's knowledge and beliefs about the activity and self (Appleton et al., 2008; Ripke et al., 2006; Rose-Krasnor, 2009; Simpkins et al., 2006). The key developmental tasks in middle childhood include the development of concrete operational reasoning, skill learning, and self-evaluation (Newman & Newman, 2009); thus, children continue to develop their self-regulatory skills that encourage self-perceptions of competence and intrinsic motivation (Appleton et al., 2008; Ripke et al., 2006; Simpkins et al., 2006; Skinner et al., 2008). Having positive self-perceptions and self-efficacy beliefs has been linked to academic achievement as well as future activity participation (Appleton et al., 2008; Simpkins et al., 2006). In middle childhood, students with high cognitive engagement are characterized as having high self-efficacy beliefs and being mastery oriented (Luo et al., 2009). Subsequently, children demonstrating high cognitive engagement are more likely to sustain their engagement in school and activities over time (Ripke et al., 2006; Rose-Krasnor, 2009). In this way, cognitive engagement is an individual characteristic that facilitates interactions within the school context and that encourages engagement.

The child's engagement in activities also becomes more self-directed compared to early childhood; as children develop a greater sense of self-efficacy, the role of parents' and teachers' demands on classroom and activity engagement wane (Hughes, Luo, Kwok, & Loyd, 2008; Skinner et al., 2008). In other words, while parents and teachers may still introduce children to activities and promote activity participation, children can begin to develop their own beliefs and interests toward the activity, which drives their future engagement (Ripke et al., 2006).

Emotional Engagement

A child's emotional engagement is represented by the extent to which the child feels a sense of belonging to his/her school, values learning and shows excitement toward classroom and after-school activities (Finn, 1989; Luo et al., 2009; Rose-Krasnor, 2009). During middle childhood, the student-teacher relationship and the child's relationship with friends contribute to the child's social skill development, which demonstrate how the accumulation of positive interactions across multiple people and contexts can reinforce both positive development and student engagement. Indeed, Ladd et al. (1999) found that stressful teacher and peer relationships negatively influenced classroom engagement, which was defined by participation in classroom activities and academic achievement. A warm and supportive student-teacher relationship has been shown to facilitate gains in achievement (Birch & Ladd, 1997; Hughes et al., 2008; Skinner et al., 2008) with elementary school students reporting greater classroom support than in middle and high school (Marks, 2000). Peer validation has been shown to improve school living and engagement, with engagement defined as classroom involvement and behaviors (Ladd et al., 1999).

Future Research

Extant research has identified middle childhood as the prime developmental period to cultivate student engagement given that children become increasingly involved in relationships outside of the home and move into formal schooling. As such, the literature's focus on the school context is justifiable because it is through these increased school experiences that children gain opportunities to develop their academic engagement. However, we cannot neglect the potential influence that other contexts, such as the home and neighborhood, still have on a child's development and student engagement. Indeed, related research on adolescents has shown that having positive bonds with one's parents, peers, and teachers lays the foundation for supportive learning environments, which in turn increase academic achievement and social skill development (Eccles, 2004; Libbey, 2004). Thus, to expand our understanding of the multidimensionality of student engagement, similar research on the implications of person-environment fit on engagement during

the middle childhood and elementary school years is needed; longitudinal research on early and middle childhood can enhance the discussion on student engagement, especially when considering student engagement within a developmental and ecological context.

Adolescence

Given that engagement research started off as a model for understanding dropout (Finn, 1989), there are a multitude of studies that cover the adolescent years—the time when youth have the opportunity to dropout. Moreover, Eccles et al. (1993) showed a decline in student engagement during the transition to junior high school. They documented that these changes in engagement are a function of poor person-environment fit through decreased opportunities for autonomy and relatedness at critical point in development when both aspects are important in explaining healthy developmental outcomes (Eccles et al., 1993). After this period of early adolescence, Janosz, Archambault, Morizot, and Pagani (2008) found that student engagement tends to be stable for many over the course of adolescence and that many display moderate to high levels of behavioral, cognitive, and emotional engagement, albeit lower than in the middle schooling years.

Developmentally, during adolescence, individuals experience rapid physical maturation as well as rapid development of cognitive skills. Youth begin to have greater self-reflection, become more deliberate and focused, and are able to hypothesize and think about several strategies or outcomes for these hypotheses simultaneously rather than focusing on just one domain or issue at a time (Keating, 2004). Thus, the ability to become cognitively engaged with school is greater during adolescence compared to both early and middle childhood. Peers also become even more salient compared to prior developmental periods, and Ryan (2001) demonstrated that peers significantly predicted changes in academic performance over time. Experiences with peers coupled with the family, classroom, and school context are important determinants of student engagement during adolescence (Libbey, 2004; Mullis, Rathge & Mullis, 2003). Overall, compared to the literature on student engagement in early and middle childhood, research on student engagement during adolescence has clearly delineated between behavioral, cognitive, and emotional engagement.

Behavioral Engagement

For adolescents, behavioral engagement is consistently defined as time on task, study behaviors, school and class attendance, and participation in class discussions. Often, teacher reports of student behaviors are used to gauge behavioral engagement. In addition, official school attendance records and adolescent self-reports are also widely used in the literature. Most of the research on adolescent behavioral engagement has focused on student truancy and dropout, which Blumenfeld et al. (2005) argued reflects the disengaged student. Many disengaged students are dissatisfied with school, are disruptive in the classroom, have parents that are more controlling, and have more family conflict (Corville-Smith, Ryan, Adams, & Dalicandro, 1998). With regard to the family's influence, Leone and Richards (1989) found that adolescents who completed their homework with their parents had higher achievement scores. Shumow and Miller (2001) also found that parental assistance with homework was positively associated with measures of school engagement. Beyond the family, peers, teachers, and extracurricular activities can influence the development of student engagement during adolescence. As described in the developmental section, two key developmental tasks during adolescence is the increasing salience and influence of platonic and romantic peer relationships. For instance, several studies suggest that peers are particularly influential on adolescents' day-to-day school activities such as doing homework and the effort put forth during class (Midgely & Urdan, 1995; Steinberg et al., 1996). Klem and Connell (2004) found that middle-school student attendance was higher when their teachers created caring, well-structured classroom environments. Extracurricular and after-school activities provide another way for adolescents to be behaviorally engaged with

the school context outside of the classroom environment (Feldman & Matjasko, 2005). This further serves to illustrate the importance of recognizing how individual interactions and characteristics within one context (e.g., school, afterschool) may be coupled with congruent or divergent processes in another (e.g., home) to drive an individual toward engagement.

Cognitive Engagement

Cognitive engagement is defined as attention to task, task mastery, and preference for challenging tasks. During adolescence, youth have developed the self-regulatory skills necessary for the self-perceptions of competence and intrinsic motivation, and abstract thinking. Furthermore, as students move from elementary to middle school, their desire for easy work increases. However, the standards-based educational context in the USA tends to foster extrinsic motivation, which can create dissonance between the adolescent's developmental characteristics and the learning environments in which they participate. Indeed, as students progress from elementary through high school, their self-worth increasingly depends more on their ability to achieve competitively (Harari & Covington, 1981). Extrinsic rewards for learning, such as good grades and performance on standardized tests, are symbols of success that maintain one's self-worth. The increased emphasis on competition and evaluation of student performance from elementary through high school (Gottfried, Fleming, & Gottfried, 2001) may, in part, contribute to the documented decline in students' intrinsic motivation from elementary through middle school (Lepper, Corpus, & Iyengar, 2005) and preference for challenge, curiosity, interest, and mastery from elementary school to high school (Harter & Jackson, 1992).

Despite this decline in intrinsic motivation over the course of childhood and adolescence, certain contextual conditions are related to higher levels of intrinsic motivation. Gottfried, Fleming, and Gottfried (1998) found that a cognitively stimulating home environment (e.g., access to hobbies, books, trips to museums) was significantly related to academic intrinsic motivation over the course of childhood and adolescence. Steinberg, Lamborn, Dornbusch, and Darling (1992) found a positive relationship between authoritative parenting and cognitive engagement. Ryan and Patrick (2001) found that students' perceptions of teacher support were a significant predictor of cognitive engagement during middle school. Ryan and Patrick (2001) found that peer group characteristics were significantly related to achievement orientation (i.e., intrinsic motivation) and that peers significantly predicted decreases in achievement orientation over time. However, Goodenow and Grady (1993) found that peer academic values were less important than feelings of school belonging in explaining adolescent academic motivation. In an experimental study conducted on a sample of college students, Patrick, Tisley, and Kempler (2000) found that teacher enthusiasm was related to higher intrinsic motivation scores. Thus, echoing the theoretical considerations we described, students' cognitive engagement is situated within a set of overlapping environmental systems that interact to shape development.

Emotional Engagement

Emotions such as fear, anxiety, boredom, or enthusiasm about a school-related task have been considered in investigations of emotional engagement in academic tasks. Along with behavioral and cognitive engagement, emotional engagement also tends to decrease upon the transition to adolescence (Eccles et al., 1993). Caraway, Tucker, Reinke, and Hall (2003) investigated the relationship between fear of failure and academic engagement. They found that fear of failure significantly predicted a decrease in GPA. In addition, test anxiety was negatively related to grades, but it was not significantly related to student engagement or attendance. McNeely, Nonnemaker, and Blum (2002) found that adolescents who report higher levels of school connectedness had higher grades and were less likely to skip school. Furthermore, certain schools were more likely to have students who reported higher levels of school connectedness. Smaller schools and those with less harsh disciplinary policies tended to have students who reported feeling connected to their schools.

In a study using experiential sampling methods, Shernoff (2010) investigated whether the quality of experience in after-school programs mediated the relationship between program participation and academic achievement. He found that feelings of challenge and importance while participating in after-school programs were positively related to academic achievement (Shernoff 2010).

Knollmann and Wild (2007) explored whether the relationship between parental support for autonomy and emotional engagement with homework varied by adolescent cognitive engagement (i.e., intrinsic vs. extrinsic motivation). Even though autonomy is a key developmental task of adolescence, Knollmann and Wild found that extrinsically motivated students reported more negative affect under autonomy-supportive conditions while the opposite was true for intrinsically motivated adolescents. This suggests that cognitive engagement moderates the influence of family factors on emotional engagement. In this, we once again see the interplay between the individual's developmental characteristics and the manifestation of student engagement.

Future Research

While a large amount of research on student engagement during adolescence exists, there are some notable gaps. First, longitudinal work is needed that links all three aspects of student engagement during adolescence with early and middle childhood measures of engagement. Making such links will allow us to understand the important precursors of adolescent student engagement and the potential reciprocal processes that exist between developmental tasks and student engagement. Furthermore, research on the specific forms of behavioral engagement is needed. We know relatively little about time on task, disruptive classroom behavior, and participation in classroom discussions during adolescence. In addition, studies that use experiential sampling methodology will continue to document the links between behaviors, cognitions, and emotions around school-related tasks during adolescence.

Conclusion

At the onset of this chapter, we offered two main guiding questions, essentially how developmental tasks influence student engagement and vice versa. These two questions capture the idea that human development and the development of student engagement can and most likely occur in tandem. All things considered, there are potential connections between research on child and adolescent development and the development of student engagement. The connections, however, are not always transparent, and thus this chapter aimed to present one interpretation of the two streams of theory and research.

As discussed in this chapter, theoretically, a combination of the bioecological theory of human development (Bronfenbrenner & Morris, 1998), person-environment fit perspective (Eccles et al., 1993), and the participation-identification model (Finn, 1989; Reschly, 2010) can create a more comprehensive picture of student engagement, its correlates, and its consequences. Where the participation-identification model excels in outlining the development of student engagement, it does not map out how student engagement itself occurs within a larger developmental sequence. The student engagement literature does point out that engagement changes as students progress through school (Finn, 1989) because of changing opportunities for engagement due to changing contexts. Furthermore, it is important to include a discussion of developmental tasks because children and adolescent may face challenges in successfully reaching those tasks, which may cause some youth to be ill-equipped to reach their full potential for student engagement. The opposite may be true as well, where changes and challenges in student engagement influence successful developmental transitions.

The emphasis on the proximal processes, contexts, and individual characteristics that contribute to human development in the bioecological theory and person-environment fit perspective further help to enhance our understanding of the developmental context of student engagement. First, the bioecological theory recognizes that

development is shaped by interactions between people, their characteristics, and their contexts (Bronfenbrenner & Morris, 1998). Applying this to the student engagement research discussed in this chapter, we see that the manifestation of behavioral, cognitive, and emotional engagement at the different developmental periods is often a result of the individual's own capacities and his/her participation in the family, and especially, school contexts. As Finn (1989) mentioned as well, the contexts are themselves important as they provide the opportunities for children and adolescents to be engaged. More generally, the contexts provide the social and structural resources that can mold healthy development. Additionally, it is important to have congruence between the person and their contexts. As espoused by the person-environment fit perspective (Eccles et al., 1993), having synchrony across healthy environments fosters healthy development and in the same vein can facilitate the development of student engagement. As discussed in this chapter, behavioral, cognitive, and emotional engagement are conceptually and methodologically distinct at each developmental period. These differences may be a result of the maturation of developmental tasks and the changing contextual landscape for the children and adolescents. Taken together, student engagement is a nuanced developmental outcome.

Future Research

To further understand the differences in student engagement across developmental periods, developmental and engagement research should focus on growing the empirical evidence for the ecologies and interplay of developmental tasks and the development of student engagement. Indeed, as discussed in this chapter, the research on student engagement in early and middle childhood is especially lacking, and a majority of the research on student engagement has focused on just the school context. While the school context does become increasingly salient in the lives of children and adolescents, it is necessary to understand the developmental processes that occur across multiple contexts such as the school, home, and neighborhood to not only encourage healthy human development, but the development of student engagement as well. According to bioecological theory, it is important to account for multiple contexts in understanding student engagement. Additional research is needed on the family context and how parents support or detract from the development of student engagement. Furthermore, the person-environment fit perspective calls attention to whether specific contexts fit with the developmental needs of children and adolescents, whether these contexts are in synchrony with each other, and the changing nature and consequences of contextual synchrony/dissynchrony across early childhood, middle childhood, and adolescence. Methodologically, we recommend further development of observational (Pittman, Merita, Tolman, Yohalem, & Ferber, 2003) and survey measures (Bohnert et al., 2010; Lippman & Rivers, 2008) of individual-level behavioral, emotional, and cognitive student engagement, and that these measures be integrated into the multifaceted and longitudinal studies of student educational attainment and student activity involvement.

Application and Policy Implications

There is growing recognition among educators and policymakers that student engagement inside and outside (i.e., civic engagement; not discussed in this chapter) of school settings is important for the positive growth and development of America's young children. In addition, a new report finds that student engagement may be particularly important for older adolescents who are preparing for the roles of adult life (Deschenes et al., 2010); yet the extant literature on the developmental precursors of student engagement or how student engagement may manifest across developmental periods is limited, resulting in potentially discontinuous developmental transitions into adult roles (Sherrod & Lauckhard, 2009). Again, there is an important interplay between

the development of engagement and human development more generally that needs to be recognized.

To facilitate the many transitions children and adolescents face, family, school, and community initiatives that promote student engagement may be crucial for the growth and development of student engagement. Moreover, we argue for the potential importance of creating integrative multicontextual partnerships that enhance student engagement across developmental periods. Indeed, the bioecological theory and person-environment fit perspective paired with the developmental and engagement research reviewed in this chapter suggest that what might be the most optimal for successful student engagement and human development is consistency through the developmental periods in providing adequate resources to address the developmental and educational challenges in childhood and adolescence. As we began this chapter saying, the development of student engagement must be understood within the context of the individual's developmental history. The two are not separate outcomes, rather they complement each other; both involve a sequence of events, and by recognizing that these sequences occur simultaneously, educators, researchers, policy makers, and other professionals can build environments that promote positive development in multiple domains.

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