CHAPTER 12

Schools, Academic Motivation, and Stage–Environment Fit

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From the time individuals first enter school until they complete their formal schooling, children and adolescents spend more time in schools than in any other place outside their homes. Exploring all of the possible ways in which educational institutions influence motivation and development during adolescence is beyond the scope of a single chapter. In this chapter, we discuss the ways in which schools influence adolescents' social–emotional and behavioral development through organizational, social, and instructional processes ranging from those based in the immediate, proximal relation between students and the tasks they are asked to perform to the role that principals and the school boards play in setting school-level and district-level policies, which in turn influence the social organization of the entire school community.

Understanding the impact of schools on adolescent development requires a conceptual framework for thinking simultaneously about schools as contexts in which development takes place and about the changing developmental needs of students as they move through the school system. In the late 1980s, Eccles and Midgley proposed a model of stage–environment fit to guide research on the impact of school transitions on adolescent development (see Eccles & Midgley, 1989; Eccles et al., 1993). They argued that individuals have changing emotional, cognitive, and social needs and personal goals as they mature. Drawing on ideas related to person–environment fit and self-determination theory (Deci & Ryan, 2002; Hunt, 1975), as well as more general ideas person–process–context models of human development (e.g., Lerner, 2002; Sameroff, 1983), they argued that schools need to change in developmentally appropriate ways if they are to provide the kind of social context that will continue to motivate students' interest and engagement as the students mature. To the extent that this does not happen, they predicted that students would disengage first psychologically and then physically from school as they matured into and through adolescence. This should be particularly true as the adolescents acquired more incentives and more power to control their own behavior. We say more about both of these psychological perspectives on the impact of classroom experiences later.

In 1999, we (see Eccles & Roeser, 1999) proposed a framework for thinking about school influences that conceptualized the school context into a series of hierarchically ordered, interdependent levels of organization beginning at the most basic level of the classroom and then moving up in complexity to the school as an organizational system embedded in a larger cultural system. In adopting this heuristic, we assumed that (1) schools are *systems* characterized by multiple levels of analysis composed of various regulatory processes (organizational, interpersonal, and instructional in nature); (2) these processes are interrelated across levels of analysis; (3) such processes are usually dynamic in nature, sometimes being worked out each day

between the various social actors (e.g., teachers and students); (4) these processes change as children move through different school levels (elementary, middle, and high school); and (5) these processes regulate children's and adolescents' cognitive, social–emotional, and behavioral development. In this chapter, we focus on the interface between various theoretical frameworks that are consistent with these tenets of school influences. We begin with a summary of our multilevel description of school contexts.

AN ECOLOGICAL VIEW OF SCHOOLS AND THEIR IMPACT ON DEVELOPMENT DURING ADOLESCENCE

From the location of the school within macroregulatory systems characterized by national, state, and school district laws and educational policies to the miniregulatory systems that involve the minute-to-minute interactions between teachers and individual students, schools are systems of complex, multilevel, regulatory processes. Eccles and Roeser (1999) described these different levels of the school environment in terms of their hierarchical ordering—moving from the student in a classroom to the school building itself, then to the school district, and finally to the larger communities in which school districts are located. Within each of these levels, we discussed those beliefs and practices that affect students' experiences on a daily basis. At the classroom level, we focused attention on teacher beliefs and instructional practices, teacher–student relationships, the nature and design of tasks and instruction, and the nature and structure of classroom activities and groups. At the level of the school building, we focused attention on organizational climate and such schoolwide practices as academic tracking, school start time, and the provision of extracurricular activities. At the level of the school district, we focused on the between-school grade configurations that create particular school-transition experiences for students. Finally, at the level of schools embedded in larger social systems, we discussed such issues as school resources, as well as the linkages of schools with parents and with the labor market.

We further assumed that in any given school setting these multilevel processes are highly interdependent. Relations between different levels of organization in the school may be complementary or contradictory and may influence students either directly or indirectly. For instance, a principal may decide that all of his or her teachers should use a particular practice such as cooperative learning or small learning communities. However, the impact of such a decision on the daily experiences of students depends on how well this practice is actually implemented at the classroom level. If done well, students should be seen working successfully in groups on complex, authentic problems. Such a well-implemented school policy is likely to produce gains in self-esteem, interethnic relationships, and achievement among students, especially those of low ability or status (Connell & Klem, 2000; Connell, 2003; Felner, Seitsinger, Brand, Burns, & Bolton, 2007; National Research Council [NRC], 2004; Slavin, 1990; Wigfield, Eccles, Schiefele, Roeser, & Davis-Kean, 2006). In contrast, if done poorly, classroom disorganization can result, leading to far less positive outcomes at the student level. How such a schoolwide instructional policy is implemented depends on many factors, including the morale within the school, the relationships between the principal and the teachers, the teachers' understanding and endorsement of the new instructional practice, the way in which the policy change was decided upon, the provision of adequate in-service training, the provision of adequate supports for implementation of new strategies, and the students' willingness to go along with the new practice. Recent debates about the No Child Left Behind policy provide another example of the complex ways in which a new policy—this time a national-level policy—can affect the daily experiences of teachers and students in the

classroom and in the school building (Darling-Hammond & Bransford, 2005; NRC, 2004).

Eccles and Roeser (1999) also assumed that the processes associated with the different levels of the school environment interacting dynamically with each other, rather than static resources or characteristics of the curriculum, teachers, or school per se, influence adolescents' development. In addition, adolescents' own constructions of meaning and interpretations of events within the school environment are critical mediators between school characteristics and students' feelings, beliefs, and behavior.

Finally, in keeping with the stage–environment perspective proposed by Eccles and Midgely (1989), Eccles and Roeser (1999) assumed that these different school-related processes change across the course of children's and adolescents' development as they progress through elementary, middle, and high school. That is, not only are children and adolescents developing, but so too is the whole nature of the schools that they attend. For example, the organizational, social, and instructional processes in schools change as children move from elementary to middle school. Eccles and Midgley (1989) argued that these changes are often associated with declines in many adolescents' motivation and behavior. Understanding the interaction of different school features with the developmental needs of adolescents is critical to understanding the role of schooling in young people's development. In the next sections, we discuss those characteristics of each level of the school that are most likely to be important for understanding the impact of schools on adolescent development. We also discuss how school characteristics at each level may also influence group differences in adolescent development, paying particular attention to gender and ethnic group differences within the United States.

LEVEL 1: CLASSROOMS

The most immediate educational environment for the student is the classroom. This is also the level that has received the most attention from educational psychologists. In this section, we review some of what we know about teacher beliefs, classroom climate, the nature of the academic work itself, and experiences of racial–ethnic discrimination.

Teacher Beliefs

Teacher beliefs have received much attention in educational psychology. In this section, we focus on two types of beliefs: Teachers' general sense of their own teaching efficacy and teachers' expectations for specific students in their class.

Teachers' General Sense of Efficacy

When teachers hold high general expectations for student achievement and students perceive these expectations, students learn more, experience a greater sense of self-worth and competence as learners, feel more connected to their teacher and their school, and resist involvement in problem behaviors (Brophy, 2004; Lee & Smith, 2001; NRC, 2004; Roeser, Eccles, & Sameroff, 1998; Rutter, 1983; Weinstein, 1989; Wigfield, Byrnes, & Eccles, 2006). Alternatively, when teachers lack confidence in their teaching efficacy, they can engage in behaviors that reinforce feelings of incompetence and alienation in their students, increasing the likelihood that their students will develop learned helpless responses to failure in the classroom (see Roeser & Eccles, 2000). As we discuss in more detail later, the prevalence of teachers with a low sense of personal teaching efficacy is higher in junior high and middle schools than in elementary schools. Low teacher efficacy rates are also higher in schools that serve high proportions of ethnic minority and poor adolescents than in schools that serve more affluent and higher achieving adolescents (Darling-Hammond, 1997; Juvonen, Le, Kaganoff, Augustine, & Constant, 2004; Wigfield et al., 2006).

Differential Teacher Expectations

Equally important are the differential expectations teachers often hold for various individuals within the same classroom and the differential

treatments that sometimes accompany these expectations. Many researchers have shown that undermining teacher-expectancy effects depend on how teachers structure activities differently, as well as interact differently with, high- and low-expectancy students and on how the students perceive these differences (Brophy, 2004; Cooper, 1979; Weinstein, 1989; Wigfield et al., 2006). Much of the work on teacher expectancy effects has focused on the negative effects of differential treatment related to gender, race–ethnic group, and/or social class (see Ferguson, 1998; Jussim, Eccles, & Madon, 1996; Valencia, 1991; Wigfield et al., 2006). Jussim et al. (1996) found that even though these effects are typically quite small, *young women, African American adolescents,* and students from poorer homes are more subject to both the positive and negative effects of teacher expectancy effects than are other students.

Researchers such as Steele and Aronson (1995) have linked this form of differential treatment, particularly for African American students, to school disengagement and disidentification (the separation of one's self-esteem from school-related feedback). Steele and Aronson argued that African American students become aware of the fact that teachers and other adults have negative stereotypes of African Americans' academic abilities. This awareness (labeled *stereotype threat* by Steele and colleagues; see Aronson & Steele, 2005) increases their anxieties, which in turn lead them to disidentify with the school context to protect their self-esteem. It is interesting that recent studies using the same theoretical notions and experimental techniques have shown that Asian students believe that teachers and adults expect them to perform very well and that this belief leads Asian students to perform better on tests when their ethnic identity is made salient (Shih, Pittinsky, & Ambady, 1999). Thus, the psychological processes associated with stereotype threat can either undermine or facilitate performance on standardized tests depending on the nature of commonly held stereotypes about the intellectual strengths and weaknesses of different social groups.

Classroom Climate

Classroom climate refers to the more general character of the classroom and teacher–student relationships within the classroom. In this section, we focus on the following aspects of classroom climate: Teacher–student relationships, classroom management, and motivational climate.

Teacher–Student Relationships

The quality of teacher–student relationships is a key aspect of the classroom climate. Teachers who trust, care about, and are *respectful of students, and who care specifi*cally about students' learning, provide the social–emotional and intellectual scaffolding that students need to approach, engage, and persist on academic learning tasks; to develop positive, achievement-related self-perceptions, values, and a sense of school belonging; and more generally to experience a sense of well-being when in school (Deci & Ryan, 2002; Goodenow, 1993; Midgley et al., 1989b; NRC, 2004; Roeser, Midgley, & Urdan, 1996; Wentzel, 2002; Wigfield et al., 2006). Feeling emotionally supported is one of the most important characteristics of developmental contexts like schools for fostering adolescents' positive development—people and feelings of belonging and support really matter. Declines in both adolescents' perception of emotional support from their teachers and in the adolescents' sense of belonging in their classrooms are quite common as adolescents move from elementary school into secondary schools (NRC, 2004; Roeser, Peck, & Nasir, 2006; Wigfield et al., 2006). This shift is particularly troublesome in our highly mobile society in which teachers represent one of the last stable sources of nonparental role models for adolescents. In addition to teaching, teachers in mobile societies such as the United States can provide guidance and assistance when social–emotional or academic problems arise.

This role is especially important for promoting developmental competence when conditions in the family and neighborhood cannot or do not provide such supports (Eccles, Lord, & Roeser, 1996; NRC, 2004; Simmons & Blyth, 1987).

Classroom Management

Work related to classroom management has focused on two general issues: orderliness/predictability and control/autonomy. With regard to orderliness and predictability, the evidence is quite clear: Student achievement and conduct are enhanced when teachers establish smoothly running and efficient procedures for monitoring student progress, providing feedback, enforcing accountability for work completion, and organizing group activities (e.g., Darling-Hammond & Bransford, 2005; Pintrich & Schunk, 1996; Roeser et al., 2008). Unfortunately, such conditions are often absent, particularly in highly stressed and underfunded schools with inexperienced teachers (Darling-Hammond, 1997; Darling-Hammond & Bransford, 2005; NRC, 2004).

Research on autonomy versus control is equally compelling. Many researchers believe that classroom practices that support student autonomy are critical for fostering intrinsic motivation to learn and for supporting socioemotional development during childhood and adolescence (Deci & Ryan, 2002; Grolnick, Gurland, Jacob, & Decourcey, 2002). Support for this hypothesis has been found in both laboratory and field-based studies (Deci & Ryan, 2002; Grolnick et al., 2002; NRC, 2004). However, it is also critical that the teacher supports student autonomy in a context of adequate structure and orderliness (Wigfield et al., 2006). This issue is complicated by the fact that the right balance between adult-guided structure and opportunities for student autonomy changes as the students mature: Older students desire more opportunities for autonomy and less adult-controlled structure. To the extent that the students do not experience these changes in the balance between structure and opportunities for autonomy as they pass through the K–12 school years, their school motivation should decline as they get older (Eccles et al., 1993).

Motivational Climate

Several teams of researchers have suggested that teachers engage in a wide range of behaviors that create a pervasive motivational climate in the classroom. For example, Rosenholtz and Simpson (1984) suggested a cluster of general teaching practices (e.g., individualized versus whole-group instruction, ability grouping practices, and publicness of feedback) that should affect motivation because these practices make ability differences in classrooms especially salient to students. They assumed that these practices affect the motivation of all students by increasing the salience of extrinsic motivators and ego-focused learning goals, leading to greater incidence of social comparison behaviors and increased perception of ability as an entity state rather than an incremental condition. All of these changes reduce the quality of students' motivation and learning. The magnitude of the negative consequences of these shifts, however, should be greatest for low-performing students: As these students become more aware of their relative low standing, they are likely to adopt a variety of ego-protective strategies that unfortunately undermine learning and mastery (Covington & Dray, 2002; NRC, 2004).

Researchers interested in goal theory have proposed a similar set of classroom characteristics (Maehr & Midgley, 1996; Midgley, 2002; NRC, 2004; Pintrich, 2000; Pintrich & Schunk, 2003). Goal theorists propose two major achievement goal systems: mastery-oriented goals and performance-oriented goals. Students with mastery-oriented goals focus on learning the material and on their own improvement over time. Students with performance-oriented goals focus on doing better than other students in their class. Goal theorists further argue that a mastery orientation sustains school engagement and achievement better than does a performance orientation

(see Maehr & Midgley, 1996; Midgley, 2002). Evidence is quite strong for the first prediction and more mixed for the second: The desire to do better than others often has positive rather than negative consequences, whereas the fear of failing (performance-avoidance goal orientation) undermines school performance (see Midgley, 2002). Finally, these theorists suggest that the publicness of feedback, particularly social comparative feedback, and a classroom focus on competition between students undermine mastery motivation and increase performance motivation. The school-reform work of Midgley, Maehr, and their colleagues has shown that school reform efforts to reduce these types of classroom practices, particularly those associated with performance feedback, social comparative grading systems, and ego-focused, competitive motivational strategies have positive consequences for adolescents' academic motivation (e.g., Maehr & Midgley, 1996). Creating classroom climates that reframe student role identities in terms of cooperation, multiple intelligences, effort, and improvement toward attaining standards rather than in terms of competition and relative ability has been an important approach of school reform movements whose aim is to achieve equity and excellence in learning outcomes (e.g., Darling-Hammond, 1997; Maehr & Midgley, 1996).

The work on understanding group differences in achievement and achievement choices is another example of an attempt to identify a broad set of classroom characteristics related to motivation. The work on girls and math is one example of this approach. There are sex differences in adolescents' preference for different types of learning contexts that likely interact with subject area to produce sex differences in interest in different subject areas (Eccles, 1994; Hoffmann, 2002; Wigfield et al., 2006). Females appear to respond more positively to math and science instruction if it is taught in a cooperative or individualized manner rather than a competitive manner, if it is taught from an applied or person-centered perspective rather than a theoretical or abstract perspective, if it is taught using a hands-on approach rather than a book-learning approach, and if the teacher avoids sexism in its many subtle forms. The reason given for these effects is the fit between the teaching style; the instructional focus; and females' values, goals, motivational orientations, and learning styles. The few relevant studies support this hypothesis (Eccles, 1994; Hoffmann, 2002; Wigfield et al., 2006). If such classroom practices are more prevalent in one subject area (e.g., physical science or math) than another (e.g., biological or social science), one would expect sex differences in motivation to study these subject areas. In addition, however, math and physical science do not have to be taught in these ways; more girl-friendly instructional approaches can be used. When they are, girls as well as boys are more likely to continue taking courses in these fields and to consider working in these fields when they become adults.

The girl-friendly classroom conclusion is a good example of person–environment fit. Many investigators have suggested that students are maximally motivated to learn in situations that fit well with their interests, current skill level, and psychological needs, so that the material is challenging, interesting, and meaningful (e.g., Ainley, Hidi, & Berndorff, 2002; Chen, Darst, & Pangrazi, 2001; Csikszentmihalyi, Rathunde, & Whalen, 1993; Eccles et al., 1993; Hidi, 2001; Hidi & Harackiewicz, 2000; Köller, Baumert, & Schnabel, 2001; NRC, 2004; Renninger, Ewen, & Lasher, 2002). Variations on this theme include aptitude by treatment interactions and theories stressing cultural match or mismatch as one explanation for group differences in school achievement and activity choices (e.g., Fordham & Ogbu, 1986; Ogbu, 1992; Okagaki, 2001; Suarez-Orozco; & Suarez-Orozco, 2001; Valencia, 1991). For example, Valencia (1991) concluded that a mismatch of both the values of the school and the materials being taught contributed to the poor performance and high dropout rates among Latino youth in the high school they

studied. Deyhle and LeCompte (1999) made a similar argument in their discussion of the poor performance of Native American youth in traditional middle school contexts. The misfit between the needs of young adolescents and the nature of junior high school environments is another example of these person–environment fit dynamics.

The Nature of Academic Work

Academic work is at the heart of the school experience. Two aspects of academic tasks are important: the content of the curriculum and the design of instruction. The nature of academic content has an important impact on students' attention, interest, and cognitive effort. Long ago, Dewey (1902/1990) proposed that academic work that is meaningful to the historical and developmental reality of students' experiences will promote sustained attention, high investment of cognitive and affective resources in learning, and strong identification with educational goals and aims. In general, research supports this hypothesis: Content that provides meaningful exploration is critical given that boredom in school, low interest, and perceived irrelevance of the curriculum are associated with poor attention, diminished achievement, disengagement, and alienation from school (e.g., Finn, 1989, 2006; Jackson & Davis, 2000; NRC, 2004). Curricula that represent the voices, images, and historical experiences of traditionally underrepresented groups are also important (Valencia, 1991). Choosing materials that provide an appropriate level of challenge for a given class, designing learning activities that require diverse cognitive operations (e.g., opinion, following routines, memory, comprehension), structuring lessons so that they build on each other in a systematic fashion, using multiple representations of a given problem, and explicitly teaching students strategies that assist in learning are but a few of the design features that scaffold learning and promote effort investment, interest in learning, and achievement (Blumenfeld, 1992; Deci & Ryan, 2002; Wigfield et al., 2006).

Unfortunately, American secondary schools have problems providing each of these types of educational experiences. Larson and colleagues have documented the fact that adolescents are bored most of the time that they are in secondary school classrooms (see Larson, 2000). Culturally meaningful learning experiences are rare in many American secondary schools (Fine, 1991; Garcia-Coll et al., 1996; Graham & Taylor, 2002; Okagaki, 2001; Valencia, 1991; Wigfield et al., 2006). The disconnection of traditional curricula from the experiences of these groups can explain the alienation of some group members from the educational process, sometimes eventuating in school dropout (Fine, 1991; Sheets & Hollins, 1999). Appropriately designed tasks that adequately scaffold learning are also rare in many inner-city and poor schools (Darling-Hammond, 1997). In addition, from a developmental perspective, there is evidence that the nature of academic work too often does not change over time in ways that are concurrent with the increasing cognitive sophistication, diverse life experiences, and identity needs of adolescents as they move from the elementary into the secondary school years (Carnegie Council on Adolescent Development, 1989; Juvonen et al., 2004; Lee & Smith, 1993, 2001).

For example, middle school students report the highest rates of boredom when doing schoolwork, especially passive work (e.g., listening to lectures) and in particular classes such as social studies, math, and science (Larson & Richards, 1989). There is also evidence that the *content* of the curriculum taught in schools does not broaden to incorporate either important health or social issues that become increasingly salient as adolescents move through puberty and deal with the identity explorations associated with adolescence (Carnegie Council, 1989; Juvonen et al., 2004) It may be that declines in some adolescents' motivation during the transition to secondary school in part reflect academic work that lacks challenge and meaning commensurate with adolescents' cognitive and emotional needs

(Eccles & Midgley, 1989). Recent efforts at middle school reform support this hypothesis: Motivation is maintained when middle schools and junior high schools introduce more challenging and meaningful academic work (Jackson & Davis, 2000). We discuss this in more detail later.

Experiences of Racial–Ethnic Discrimination

Researchers interested in the relatively poor academic performance of adolescents from some ethnic-racial groups have suggested another classroom-based experience as critical for adolescent development, namely, experiences of racial–ethnic discrimination (Brody et al., 2006; Essed, 1990; Fordham & Ogbu, 1986; Garcia Coll et al., 1996; Graham & Taylor, 2002; Harris-Britt, Valrie, Kurtz-Costes, & Rowley, 2007; Ruggiero & Taylor, 1995; Sellers, Caldwell, Schmeelk-Cone, & Zimmerman, 2003; Taylor, Casten, Flickinger, Roberts, & Fulmore, 1994; Wong, Eccles, & Sameroff, 2003). Two types of discrimination have been discussed: (1) anticipation of future discrimination in the labor market, which might be seen as undermining the long-term benefits of education (Fordham & Ogbu, 1986); and (2) the impact of daily experiences of discrimination on one's mental health and academic motivation (Essed, 1990; Sellers et al., 2003; Wong et al., 2003). Both types have been shown to adversely affect the development of ethnic minority adolescents. For example, Wong et al. (2003) found that anticipated future discrimination leads to increases in African American youths' motivation to do well in school, which in turn leads to increases in academic performance. In this sample, anticipated future discrimination appeared to motivate the youth to do their very best so that they would be maximally equipped to deal with future discrimination. In contrast, daily experiences of racial discrimination from their peers and teachers led to declines in school engagement and confidence in one's academic competence and grades, along with increases in depression and anger. Interestingly, evidence is beginning to show that a strong positive ethnic identity has protective effects against the aversive effects of daily experiences of racial and ethnic discrimination (Chavous et al., 2003; Harris-Britt et al., 2007; Sellers et al., 2003; Wong et al., 2003).

Thus, educating for diversity and redressing discrimination are among two of goals secondary school educators can pursue in efforts to reduce achievement gaps. If young people from immigrant and ethnic minority backgrounds are afforded environments that offer them social support, the development of life skills and transfer of cultural capital, and strategies for addressing the twin challenges of racism and poverty, then such challenges can become sources of motivation and engagement that eventuate in the pursuit of a college education (Darling-Hammond, 1997). Providing access to equal educational opportunities also requires attention to the language in which instruction is provided. For many immigrant children, schools do not provide adequate linguistic supports to allow the children to master the material being taught in English (Padilla & Gonzalez, 2001).

LEVEL 1: SUMMARY

The studies of classroom-level influences suggest that development is optimized when students are provided with challenging tasks in a mastery-oriented environment that also provides good emotional and cognitive support, meaningful and culturally diverse material to learn and master, and sufficient support for their own autonomy and initiative. Connell and Wellborn (1991), as well as Deci and Ryan (2002), suggested that humans have three basic needs: to feel competent, to feel socially attached, and to have autonomous control in their lives. Further, they hypothesized that individuals develop best in contexts that provide opportunities for each of these needs to be met. Clearly, the types of classroom characteristics that emerge as important for both intellectual, motivational, and socioemotional development would provide such opportunities.

LEVEL 2: SCHOOL BUILDINGS

Schools are formal organizations and, as such, have characteristics and features that are superordinate to classroom characteristics. These aspects of the whole school environment should impact on adolescents' intellectual, social-emotional, and behavioral development. Important school-level organizational features include school climate and sense of community (Connell, 2003; Connell & Klem, 2000; NRC, 2004; Rutter & Maughan, 2002) and the relationships among the students themselves. School organizational features also include such schoolwide practices as curricular tracking, start and stop times, and the availability of extracurricular activities.

General School Climate

Researchers have become interested in the general school climate or culture of the entire school. These researchers suggest that schools vary in the climate and general expectations regarding student potential, and that such variations affect the development of both teachers and students in very fundamental ways (e.g., Bandura, 2006; Bryk, Lee, & Holland, 1993; Darling-Hammond & Bransford, 2005; Jackson & Davis, 2000; NRC, 2004). For example, in their analysis of higher achievement in Catholic schools, Bryk et al. (1993) discussed how the culture within Catholic schools is fundamentally different from the culture within most public schools in ways that positively affect the motivation of students, parents, and teachers. This culture (school climate) values academics, has high expectations that all students can learn, and affirms the belief that the business of school is learning. Similarly, Lee and Smith (2001) showed that between-school differences in teachers' sense of their own personal efficacy as well as their confidence in the general ability of the teachers at their school to teach all students accounted, in part, for between-school differences in adolescents' high school motivation and performance.

Maehr, Midgley, and colleagues argued that just as classroom practices give rise to certain achievement goals, so too do schools through particular policies and practices. A school-level emphasis on different achievement goals creates a schoolwide psychological environment that affects students' academic beliefs, affects, and behaviors (e.g., Maehr & Midgley, 1996; Roeser et al., 1996). For example, schools' use of public honor rolls and assemblies for the highest achieving students, class rankings on report cards, differential curricular offerings for students of various ability levels, and so on all emphasize relative ability, competition, and social comparison in the school and create a school-level ability rather than mastery/task focus. However, through the recognition of academic effort and improvement, rewards for different competencies that extend to all students, and through practices that emphasize learning and task mastery (block scheduling, interdisciplinary curricular teams, cooperative learning), schools can promote a school-level focus on discovery, effort and improvement, and academic mastery.

In studies of adolescents, Roeser et al. (1996) found that students' perceptions of the school mastery goal structure predicted their own personal mastery goals, which in turn were positively predictive of their academic self-efficacy and positive affect in school. Students' perceptions of the school performance goal structure were positively associated with their personal performance goal orientations, which in turn predicted their feelings of self-consciousness in school. What were interesting about this study were the correlations between indicators of the social climate (i.e., respectful and caring relationships between teachers and students) and the academic climate. Students reporting a strong performance-goal structure in their school were much less likely to report that their teachers cared for them, whereas those perceiving a task goal structure in the school were more likely to see their teachers as caring.

Roeser, Eccles, and Sameroff (1998) examined the relation of perceived school goal structures to longitudinal change in adolescent students'

motivation to learn and well-being after controlling for adolescents' sex, race, parental education level, parental occupational prestige, and income. Adolescent students' perceptions of their school as performance oriented were related to diminished feelings of academic competence and valuing of school, increased feelings of emotional distress, and decreased grades over time, whereas perceived school task goal structures were associated with increased valuing of school and diminished emotional distress over time (Roeser et al., 1998). Using the same sample with person-centered techniques, they found that youth who were most engaged in school reported a cluster of positive school perceptions, including a mastery-oriented school climate and positive teacher–student relationships. In contrast, those who were most disengaged reported more of an ability-oriented school (Roeser, Eccles, & Sameroff, 2000). In this study and others, adolescents' perceptions of a school ability goal structure is found to be highly positively correlated (r around 0.60) with perceptions of racial discrimination in school among African- and Latin American youth (Roeser & Peck, 2003; Roeser, 2004).

Similarly, Kaplan and Maehr (1999) reported that perceptions of a mastery goal structure at the school level were associated with greater sense of well-being and less misconduct than when students perceived an emphasis on performance goals in the school. Fiqueira-McDonough (1986) reported related findings in a study of two high schools that were similar in intake characteristics and achievement outcomes but differed in their academic orientation and rates of delinquent behavior. The high school characterized by a greater emphasis on competition and high grades (ability orientation) had higher delinquency rates, and the students' grades were a major correlate of students' involvement in delinquent behavior (low grades predicted increased delinquent behavior).

Overall, these studies suggest that the general school climate, especially its academic goal structures, is associated with aspects of adolescents' academic motivation, well-being, achievement, and school conduct. They also suggest the importance of considering how certain academic cultures in schools may collude with perceptions of racial discrimination, and may undermine students' perceptions of whether the school is a moral place and whether or not teachers actually care for students (see Roeser et al., 2008).

Academic Tracks and Curricular Differentiation

In the middle and high school years, between-class tracking becomes both more widespread and more broadly linked to the sequencing of specific courses for students bound for different post secondary school trajectories (college preparation, general education, and vocational education). As curriculum differentiation practices intensify in public schools during secondary school, students of different ability levels get exposed to (often very) different kinds of academic work, classmates, teachers, and teaching methods (Eccles & Roeser, 1999; Oakes, 2005).

A general consensus on the overall effects of curriculum differentiation as an educational practice remains elusive (Eccles & Roeser, 1999). Research suggests that students who are placed in high tracks evidence some educational benefits; whereas low tracks placements are associated with negative achievement outcomes (see Fuligni, Eccles, & Barber, 1995; Kao & Thompson, 2003; Oakes, Gamoran, & Page, 1992). As just one example, Hallinan and Kubitschek (1999) found that assignment to high track classes accelerated growth in school achievement, whereas assignment to a lower level or vocational track decelerated such growth. Studies have also demonstrated that lower track students report being labeled "dumb"by teachers and peers, feel less committed to school, and feel less successful academically (see Oakes et al., 1992). In our own work, we have found that youth who were in lower

track math, English or ESL (English as a second language) courses saw themselves as less scholastically competent, perceived school as less valuable, and felt less of a sense of school belonging than students in higher track math and English (Roeser, 2005; Roeser et al., 1998). One factor that appears to explain some of these differential effects concerns teacher quality—those students who are placed in lower tracks during secondary school are often exposed to teachers with less qualifications, experience less constructivist teaching practices, and are exposed to what amounts to watered-down curricula (e.g., Darling-Hammond, 1997; Oakes, 2005).

In addition, ability grouping has an impact on students' peer groups: Between-classroom ability grouping and curricular tracking increase the extent of contact among adolescents with similar levels of achievement and engagement with school. For those doing poorly in school, tracking is likely to facilitate friendships among students who are similarly alienated from school and are more likely to engage in risky or delinquent behaviors (Dryfoos, 1990). Dishion, McCord, and Poulin (1999) showed experimentally how such collecting of alienated adolescents increases their involvement in problem behaviors. This collecting of adolescents with poor achievement or adjustment histories also places additional discipline burdens on the teachers who teach these classes (Oakes, 2005), making such classes unpopular with the teachers as well as the students and decreasing the likelihood that the teachers with the most experience will allow themselves to be assigned to these classes.

Given this accumulating evidence on the potential costs of tracking, educational scientists are now questioning the advisability of between class tracking. Concerns have also been raised about the ways in which students get placed in different classes and how difficult it is for students to change tracks once initial placements have been made. These issues are important both early in a child's school career (e.g., Entwisle & Alexander, 1993) and later in adolescence, when course placement is linked directly to the kinds of educational options that are available to the student after high school. Poor children, among whom African American, Latino, and Native American children are overrepresented, are more likely than their wealthier and European- or Asian American peers to be placed in low-ability classrooms and in vocational track courses during secondary school (Oakes, 2005). Even in integrated schools, minority students tend to receive poor access to teaching resources through tracking practices (Oakes et al., 1992; Noguera & Wing, 2006). Furthermore, there is some evidence that students with limited English proficiency who are otherwise capable are placed in lower track classes (see Kao & Thompson, 2003). Finally, careful assessment of these types of track placements has shown that many of these youth are incorrectly assigned to these classes and tracks (Dornbusch, 1994; Oakes, 2005). Such misassignment has long-term consequences for students' ability to go to college once they complete secondary school.

Finally, concerns have also been raised about the marginalization and segregation of ESL students on middle and high school campuses (Olsen, 1997; Valdez, 2001). ESL programs are often housed on the periphery of regular school campuses and often fail to provide real opportunities for them to interact with native English speakers. Furthermore, similar to the misassignment of African American and Latino students to and lack of mobility out of low academic tracks, there is some evidence that ESL students often get reassigned to ESL programs following school transition events even though they may have graduated from such programs into mainstream classes in their previous schools (Valdez, 2001).

School Size

In 1964, Barker and Gump proposed that smaller schools afford young people greater opportunities for close relationships, make it easier for students to be monitored by adults, and have a favorable roles-to-people ratio with

respect to school extracurricular activities that allows for widespread student participation in the life of the school. All of these factors enabled higher achievement, the theory went, by providing bonds between the student and the school (Barker & Gump, 1964). In recent studies, support for the positive influence of small school size has grown. For example, Lee and Loeb (2000) found that elementary school size in an urban Chicago sample of 264 (K–8) schools, 5000 teachers, and 23,000 students was correlated with both teacher beliefs and students' achievement gains. In the smaller schools (size < 400 students), teachers took greater responsibility for fostering students' learning and students showed greater 1-year gains in their mathematics test scores. Lee and Smith (1995) found a negative relation between school size and students' self-reported school engagement (e.g., positive attitudes toward classes, investing effort in school, feeling challenged) in the National Educational Longitudinal Study: 88 datasets of approximately 12,000 students in 830 high schools. Similarly, Elder and Conger (2000) reported that school size was associated with adolescent developmental outcomes among high school students in rural Iowa during the 1990s. Across a variety of measures of academic and social functioning (e.g., grades, problem behavior), results showed that adolescents attending smaller schools, on average, did better than the adolescents attending larger schools after sociodemographic factors were controlled.

In summarizing this work, Lee and Smith (1997) proposed that the most effective K–8 elementary schools with respect to student achievement gains are those that enroll 400 students or less, whereas the ideal 9–12 secondary school in this regard enrolls between 600 and 900 students. Students in elementary/middle schools that are larger than 400, and those in high schools smaller than 600 or larger than 2,100, learn less in reading and mathematics. These findings regarding optimal size were consistent regardless of the social class and racial composition of the school. Unfortunately, minority and poor adolescents are most likely to be concentrated in the most overcrowded and largest secondary schools (United Way, 2008).

Extracurricular and Out-of-School Activities

There is growing interest in the role of extracurricular activities in adolescent development (see chapter 7, vol. 2 of this *Handbook*). Some people are interested because these activities can fill time and thus decrease the time available for adolescents to get in trouble. For example, in communities where few structured opportunities for after-school activities exist (especially poor urban communities), adolescents are most likely to be involved in high-risk behaviors such as substance use, crime, violence, and sexual activity during the period between 2 and 8 PM. Providing structured activities either at school or within community organizations after school when many adolescents have no adults at home to supervise them is an important consideration in preventing adolescents from engaging in high-risk behaviors (Carnegie Council, 1989; Eccles & Gootman, 2001; Mahoney, Harris, & Eccles, 2006).

Others are interested in the potential benefits of such activities for adolescent development (Carnegie Corporation of New York, 1992; Eccles & Gootman, 2001; Eccles & Templeton, 2002; Mahoney et al., 2006; Mahoney, Larson, & Eccles, 2005). There is a positive link between adolescents' extracurricular activities and both educational outcomes (e.g., high school completion, adult educational attainment, occupation, and income) and positive youth development (better mental health and lower rates of involvement in delinquent activities), even after controlling for social class and ability (Barber, Eccles, & Stone, 2001; Eccles & Barber, 1999; Eccles, Barber, Stone, & Hunt, 2003; Mahoney & Cairns, 1997; McNeal, 1995; Peck, Roeser, Zarrett, & Eccles, 2007). Participation in sports, in particular, has been linked to lower likelihood of

school dropout, higher rates of college attendance, greater educational attainment by age 25, and higher occupational attainment at least through the 20s, especially among low-achieving and blue-collar male athletes (Barber et al., 2001; Eccles & Barber, 1999; Eccles & Templeton, 2002; McNeal, 1995).

Participation in school-based extracurricular activities has also been linked to increases on such positive developmental outcomes as high school GPA, strong school engagement, and high educational aspirations (Eccles & Barber, 1999; Lamborn, Brown, Mounts, & Steinberg, 1992). Roeser and Peck (2003) found that among adolescents highly vulnerable to school disengagement, after-school activity involvement was associated with a twofold increase in college attendance rates. In a follow-up study, specific kinds of activity involvements were found to underlie this association – those associated with extracurricular activities at school, with religious activity, and with volunteering were particularly important for educational resilience (Peck et al., 2008). Similarly, participation in high school extracurricular activities and out-of-school volunteer activities predicts high levels of adult participation in the political process and other types of volunteer activities, continued sport engagement, and better physical and mental health (Youniss, McLellan, & Yates, 1997; Youniss, Yates, & Su, 1997). In contrast to these positive associations, sports has also been linked to increased rates of school deviance and drug and alcohol use (e.g., Eccles & Barber, 1999; Lamborn et al., 1992).

These results suggest that participation in organized extracurricular activities can have both positive and negative effects. Why? Summarizing research from several disciplines, Eccles and Templeton (2002) suggested the following possible mediating mechanisms: participation increases the association with academically oriented peers and exposure to academic and prosocial values; participation can lead to enhanced self-esteem and generalization of a high sense of personal efficacy; participation can increase exposure to supportive adults and good mentoring, which, in turn can lead to superior career guidance and encouragement; participation can increase one's social networks and social capital; and finally participation can increase both soft skills and other skills needed for success in school and the transition to adulthood.

Investigators have been especially interested in the links among peer group formation, identity formation, and activity involvement (Eccles & Barber, 1999). For example, Eckert (1989) explored the link between the peer group identity formation and both in- and out-of-school activity involvement. As one moves into and through adolescence, individuals become identified with particular groups of friends or crowds (see also Brown, 1990). Being a member of one of these crowds helps structure both what one does with one's time and the kinds of values and norms to which one is exposed. Over time, the coalescence of one's personal identity, one's peer group, and the kinds of activities one participates in as a consequence of both one's identity and one's peer group can shape the nature of one's developmental pathway into adulthood.

This strong link between activity participation and peer group membership also provides an explanation for the negative influences of sports participation on drug and alcohol use. Knowing what an adolescent is doing often tells us a lot about who the adolescent is with: It is very likely that participation in organized activity settings directly affects adolescents' peer groups precisely because such participation structures a substantial amount of peer group interaction. One's coparticipants become one's peer crowd. And such peer crowds often develop an activity-based culture, providing adolescents with the opportunity to identify with a group having a shared sense of style and commitment. Involvement in a school organization or sports links an adolescent to a set of similar peers, provides shared experiences and goals, and can reinforce friendships between peers (see Mahoney et al., 2005). In turn, these experiences should

influence identity formation as well as other aspects of adolescent development.

What is important from a school-building perspective is that schools differ in the extent to which they provide positive extracurricular activities for their students. Researchers who study the advantages of small schools often point to the fact that more students get to participate in extracurricular activities in small schools because there are fewer bodies to fill all of the available slots (Barker & Gump, 1964; Elder & Conger, 2000). Large schools have an overabundance of students to fill all of the available activity slots. The situation is even worse in poor, large secondary schools that have had to cut extracurricular activities to stay within their budgets. Recently, federal and state initiatives have emerged to help increase the availability of after-school programs that are housed in school buildings. Unfortunately, most of this money is going to elementary school and middle school programs rather than high schools (Eccles & Gootman, 2001).

Unsupervised Spaces

Another important physical dimension of school buildings to consider is the noninstructional space that adolescents move in and through before school, after school, and between classes. These spaces include the parking lots and the school grounds, the hallways and the bathrooms, the sports fields (if there are any), and the cafeteria(s). One example of the importance of considering noninstructional aspects of the school in studies of schooling and motivation comes from the work of Astor and colleagues (19981999). Astor's (1998) interest is in students' experiences of school violence and their related feelings of anxiety or safety while in school. Clearly, concerns about physical safety can undermine readiness and motivation to learn. These authors have found that even though students may respond affirmatively to a series of questions about how safe they feel in school in general, they still can show strong fears in particular areas of the school or school grounds at particular times of the day where violence is most likely to occur. For example, in a recent study of students in five high school settings in southeastern Michigan, Astor and colleagues (1999) found that most violent events reported by students occurred in what the authors called the "undefined public spaces" of the school—spaces such as parking lots, bathrooms, particular hallways, and so on, where no adults assumed supervisory jurisdiction. These spaces were undefined in terms of adult monitoring of behavior in them, and thus were the frequent sites for fights, unwanted sexual attention, and so forth.

Fagan and Wilkinson (1998) reviewed theory and evidence that suggest several different functional goals that violence can serve for youth, including the securing of high status among peers, acquisition of material goods, dominance of others and retribution for insults to the self, defiance of authority, and a form of "rough justice" in situations in which there is little legitimate adult authority. All of these goals likely reflect responses to the frustration or anticipated frustration of basic needs for autonomy and security in social situations characterized by a lack of adult supervision and an absence of opportunities for wholesome learning, work, and recreation. In sum, understanding how undefined school spaces affect the motivation and well-being of students who are potential victims, as well as how particular school spaces offer disenfranchised victimizers a venue to express themselves in violent ways, can enhance our overall understanding of lives in school contexts.

School Start and Stop Times

School start time is another tangible school-level characteristic that can influence students' motivation, learning, and development. Research conducted by Carskadon (1990, 1997) has shown that as children progress through puberty, they need more sleep and their natural sleep cycles shift to a desire to go to sleep later in the evening and to wake up later in the morning. Unfortunately, secondary schools typically begin earlier in the

morning than primary schools, necessitating earlier rise times for adolescents (Carskadon, 1997). In concert with other changes, such as the later hours at which adolescents go to bed, the earlier school start times of middle and high school create a "developmental mismatch" that can both promote daytime sleepiness and undermine adolescents' ability to make it to school on time, alert, and ready to learn. A study of 5th grade students in Israel, for example, compared of two groups: those in a school that started at 7:10 AM (early risers) and those in a school that started at 8:00 AM (regular risers). Results showed that early risers slept less, reported more daytime fatigue and sleepiness, and reported greater attention and concentration difficulties in school compared to their later rising counterparts (Epstein, Chillag, & Lavie, 1998). The implication is that the time that schools begin can have a profound effect on mood, energy, attention, and, therefore, motivation and learning.

The time at which school ends also has implications for students' motivation to learn and development. In communities where few structured opportunities for after-school activities exist, especially impoverished communities, young people are more likely to be involved in high-risk behaviors such as substance use, crime, violence, and sexual activity, and less likely to be engaged in productive or academically relevant activities during the period between 2 and 8 PM. Providing structured activities either at school or within community organizations after school when many young people have no adults at home to supervise them is an important consideration in preventing students from engaging in high risk behaviors (Eccles & Gootman, 2000) and for keeping educationally vulnerable students on track academically (Peck, Roeser, Zarrett, & Eccles, 2008).

SUMMARY OF SCHOOL-LEVEL EFFECTS

In this section, we reviewed the impact of several features of the whole school on adolescent development. These features included school climate, school size, curricular tracking practices, the availability of extracurricular activities, and the use of noninstructional spaces. There is very strong evidence that each of these schoolwide characteristics impacts adolescent development. Often, between-school variations on these characteristics result from school district policies or financial constraints that are beyond the control of the building's principal and staff. Reform efforts, however, have shown that changes can be created in each of these domains and that such changes can have a positive impact on the development of the adolescents attending the reformed school.

LEVEL 3: SCHOOL DISTRICTS AND SECONDARY SCHOOL TRANSITIONS

School transitions are an excellent example of how the multiple levels of schools interact to affect adolescent development. All school districts must decide how they will group the grade levels within the various school buildings. One common arrangement is to group children in kindergarten through 6th grade in elementary schools, young adolescents in grades 7–9 in junior high schools, and older adolescents in grades 10–12 in senior high schools. Another common arrangement places the transitions after grades 5 and 8, creating elementary schools, middle schools, and senior high schools. The third popular arrangement groups young people in grades K–8 in one school and then grades 9–12 in a high school. In each of these arrangements, the students typically move to a new and often larger building at each of the major transition points. These moves typically also involve increased bussing and exposure to a much more diverse student body. In this section, we discuss two of these transitions: the transition from elementary to middle or junior high school and the transition from middle or junior high school to high school. Because most of the empirical work has focused on the junior high–middle school transition, we emphasize

this transition. Recent research, however, suggests quite similar developmentally inappropriate changes with the transition to high school.

The Middle-Grades School Transition

There is substantial evidence of declines in academic motivation and achievement across the early-adolescence and high school years (Dweck, 2002; Eccles & Midgley, 1989; Eccles et al., 1993; Finn, 2006; Fredricks & Eccles, 2002; Jacobs, Lanza, Osgood, Eccles, & Wigfield, 2002; Roeser, Eccles, & Freedman-Doan, 1999). These declines often coincide with the transition into either middle/junior high or high school. For example, there is a marked decline in some early adolescents' school grades as they move into junior high school (Simmons & Blyth, 1987). Similar declines occur for such motivational constructs as interest in school (Wigfield et al., 2006), intrinsic motivation (Gottfried, Fleming, & Gottfried, 2001; Harter, 1998; Harter, Whitesell, & Kowalski, 1992), self-concepts/self-perceptions and confidence in one's intellectual abilities (Wigfield, Eccles, MacIver, Reuman, & Midgley, 1991), mastery goal orientation (Anderman & Midgley, 1997), and a sense of belonging at school (Anderman, 1999). There are also increases in test anxiety (Wigfield et al., 2006), focus on self-evaluation and performance rather than task mastery (Anderman & Midgley, 1997), and both truancy and school dropout (Rumberger, 1995; Rumberger & Thomas, 2000). Furthermore, increasing evidence indicates that these declines predict subsequent school dropout and high school failure (Connell, Halpern-Felsher, Clifford, Crichlow, & Usinger, 1995; Connell, Spencer, & Aber, 1994; Finn, 2006; Roeser & Eccles, 1998; Roeser, Eccles, & Strobel, 1998). Although these changes are not extreme for most adolescents, there is sufficient evidence of declines in various indicators of academic motivation, behavior, and self-perception over the early adolescent years to make one wonder what is happening (see Eccles & Midgley, 1989; Ryan & Patrick, 2001). Further, although few studies have gathered information on ethnic or social-class differences in these declines, academic failure and dropout are especially problematic among some ethnic groups and among youth from communities and families of low socioeconomic status. It is probable then that these groups are particularly likely to show these declines in academic motivation and self-perception as they move into and through the secondary school years.

Several explanations have been offered for these seemingly negative changes in academic motivation: Some point to the intrapsychic upheaval associated with young adolescent development (see Arnett, 1999). Others point to the simultaneous occurrence of several life changes. For example, Simmons and Blyth (1987) attributed these declines, particularly among females, to the coincidence of the junior high school transition with pubertal development. Still others point to the nature of the junior high school environment itself rather than the transition per se.

Extending person–environment fit theory (see Hunt, 1975) into a developmental perspective (stage–environment fit theory), Eccles and Midgley (1989) proposed that these negative developmental changes result from the fact that traditional junior high schools do not provide developmentally appropriate educational environments for young adolescents. The authors suggested that different types of educational environments are needed for different age groups to meet developmental needs and foster continued developmental growth. Exposure to the developmentally appropriate environment would facilitate both motivation and continued growth; in contrast, exposure to developmentally inappropriate environments, especially developmentally regressive environments, should create a particularly poor person–environment fit, which should lead to declines in motivation as well as detachment from the goals of the institution. What is critical to this argument is that the transition itself is *not* the cause of the declines; instead, it is the nature of the school into which the students move. Within this framework, the right kinds

of middle school reforms can be quite effective at reducing these declines.

Two approaches have been used to study the middle school transition: one focused on more global school-level characteristics such as school size, degree of departmentalization, and extent of bureaucratization and the other on more specific classroom and motivational dynamics. The first type is best exemplified by the work of Simmons and Blyth (1987). They pointed out that most junior high schools are substantially larger than elementary schools and that instruction is more likely to be organized departmentally. As a result, junior high school teachers typically teach several different groups of students, making it very difficult for students to form a close relationship with any school-affiliated adult precisely at the point in development when there is a great need for guidance and support from nonfamilial adults. Such changes in student-teacher relationships are also likely to undermine the sense of community and trust between students and teachers, leading to a lowered sense of efficacy among the teachers, an increased reliance on authoritarian control practices by the teachers, and an increased sense of alienation among the students. Finally, such changes are likely to decrease the probability that any particular student's difficulties will be noticed early enough to get the student necessary help, thus increasing the likelihood that students on the edge will be allowed to slip onto negative motivational and performance trajectories, leading to increased school failure and dropout.

The latter is best exemplified by the work of Eccles and Midgley and by the studies on middle school reform initiated by the Carnegie Foundation after their report *Turning Points* (Carnegie Council, 1989; Jackson & Davis, 2000). These scholars have looked at several specific aspects of the classroom and school environment and have shown that negative changes in these aspects of student' experiences at school as they make the middle or junior high school transition are linked to the declines in school motivation and engagement. They have also shown that changing these aspects of the middle school environment can be effective in reducing the declines in school engagement often associated with this school transition (Anderman, Maehr, & Midgley, 1999; Maehr & Midgley, 1996).

Grade-Related Differences in Teacher Beliefs

Differences in all types of teacher beliefs have been shown in studies comparing elementary and middle grades teachers. For example, junior high school teachers on average have lower confidence in their own teaching efficacy than do elementary school teachers (i.e., their ability to teach and influence all of the students in their classes; Feldlaufer, Midgley, & Eccles, 1988; Midgley & Feldlaufer, 1987; Midgley, Feldlaufer, & Eccles, 1989a). An equally troubling difference occurs for teachers' views of their roles in their students' lives. For example, Roeser and colleagues found that with increasing grade level, middle school (6th–8th grades) teachers are less likely to endorse the notion that students' mental health concerns are part of the teacher role (Roeser & Midgley, 1997; Roeser, Marachi, & Gehlbach, 2000). Thus, at a time when adolescents need academic and social–emotional guidance and support from both parents and nonparental adults (i.e., during early adolescence), teachers appear less likely to be able to provide such support given the number of students they teach, their educational training, and the size of secondary schools. This creates holes in the safety net available to adolescents at a time when they are in particularly acute need of adult support and guidance (Simmons & Blyth, 1987). It is not surprising that the most at-risk youth often fall through these holes.

Grade-Related Differences in Authority Relationships

Despite the increasing maturity of students, junior high school teachers place a greater emphasis on teacher control and discipline

and provide fewer opportunities for student decision making, choice, and self-management than do elementary school teachers (e.g., Feldlaufer et al., 1988; Midgley & Feldlaufer, 1987). Both stage–environment fit theory (Eccles et al., 1993) and self-determination theory suggest that these practices will create a mismatch between young adolescents' desires for autonomy and control and their perceptions of the opportunities in their learning environments; this mismatch is predicted to lead to a decline in the adolescents' intrinsic motivation and interest in school. Evidence supports this prediction (see Wigfield et al., 2006).

Grade-Related Differences in Affective Relationships

Junior high and middle school classrooms are often characterized by a less personal and positive teacher–student relationship than are elementary school classrooms (Feldlaufer et al., 1988; Midgley, Feldlaufer, & Eccles, 1988). Given the association of classroom climate and student motivation reviewed earlier, it should not be surprising that moving into a less supportive classroom leads to a decline in these young adolescents' interest in the subject matter being taught in that classroom, particularly among the low achieving students (Furrer & Skinner, 2003; Anderman & Anderman, 1999; Midgley et al., 1988).

Grade-Related Differences in Grading Practices

There is no stronger predictor of students' self-confidence and efficacy than the grades they receive (Guay, Marsh, & Boivin, 2003). If academic marks decline with the junior high or middle school transition, then adolescents' self-perceptions and academic motivation should also decline. In fact, junior high school teachers do use stricter and more social comparison–based standards than do elementary school teachers to assess student competency and to evaluate student performance, leading to a drop in grades for many young adolescents as they make the transition to junior high school (Alspaugh, 1998; Eccles & Midgley, 1989; Finger & Silverman, 1966; Harter, Whitesell, & Kowalski, 1992; Simmons & Blyth, 1987). Imagine what such a decline in grades might do to young adolescents' self-confidence and motivation. Although Simmons and Blyth (1987) did not look at this specific question, they did document the impact of this grade drop on subsequent school performance and dropout. Even after controlling for a youth's performance prior to the school transition, the magnitude of the grade drop following the transition into either junior high school or middle school was a major predictor of leaving school early in both studies (see also Finn, 2006; Roderick, 1993; Roderick & Camburn, 1999).

Grade-Related Differences in Motivational Goal Context

Several of the changes just noted are linked together in goal theory. Classroom practices related to grading practices, support for autonomy, and instructional organization affect the relative salience of mastery versus performance goals that students adopt as they engage in the learning tasks at school. Given changes associated with these practices, it is not surprising that both teachers and students think that their school environment is becoming increasingly focused on competition, relative ability, and social comparison as the young adolescents progress from elementary to middle or junior high school (Midgley, Anderman, & Hicks, 1995). Midgley et al. (1995) found that both teachers and students indicated that performance-focused goals were more prevalent and task-focused goals were less prevalent in the middle school classrooms than in the elementary school classrooms. In addition, the elementary school teachers reported using task-focused instructional strategies more frequently than did the middle school teachers. Finally, at both grade levels the extent to which teachers were task-focused predicted the students' and the teachers' sense of personal efficacy. It is thus no surprise that

personal efficacy was lower among the middle school participants than among the elementary school participants. Extending this work, Roeser et al. (2002) looked at how elementary and middle school teachers' motivational practices and perceptions of the learning environment for teachers was related to their perceptions of their own work environments using both self- and principal reports.

Results showed that teachers who were more performance-oriented based on self-reported instructional practices also (1) believed there was an emphasis on performance goals for students in the wider school environment; (2) worked in schools where their school principals reported greater use of performance-oriented practices and policies in the school as a whole; and (3) believed there was competition among staff and inequitable treatment of teachers by the administration (school performance goal structure for teachers). Similarly, teachers at both levels who reported a greater mastery orientation also (1) perceived a broader emphasis on such goals for students in the wider school culture and (2) perceived an emphasis on innovation and improvement for teachers among the staff and administration. These results suggest that the changing nature of the motivational climate for learning for students as they progress through school is paralleled by a changing motivational climate for teaching for teachers as well.

Anderman et al. (1999) also extended this work by comparing two groups of young adolescents: a group who moved into a middle school that emphasized task-focused instructional practices, and a group who moved into a middle school that emphasized more traditional performance/ability-focused instructional practices. Although these two groups of students did not differ in their motivational goals prior to the school transition, they did after the transition. As predicted, the adolescents who moved into the first type of middle school were less likely to show an increase in their extrinsic motivational and performance-oriented motivational goals.

Summary

Changes such as those just reviewed are likely to have a negative effect on many children's motivational orientation toward school at any grade level. However, Eccles and Midgley (1989) argued that these types of school environmental changes are particularly harmful at early adolescence given what is known about psychological development during this stage of life. Evidence from a variety of sources suggests that early adolescent development is characterized by increases in desire for autonomy, peer orientation, self-focus and self-consciousness, salience of identity issues, concern over heterosexual relationships, and capacity for abstract cognitive activity (see Brown, 1990; Eccles & Midgley, 1989; Simmons & Blyth, 1987; Wigfield, Byrnes, & Eccles, 2006). Simmons and Blyth (1987) argued that adolescents need safe, intellectually challenging environments to adapt to these shifts. In light of these needs, the environmental changes often associated with transition to junior high school are likely to be especially harmful in that they emphasize competition, social comparison, a performance-goal orientation rather than a mastery-goal orientation, and self-assessment of ability at a time of heightened self-focus; they decrease decision making and choice at a time when the desire for control is growing; and they disrupt the opportunity for a close relationship between students and teachers at a time when adolescents may be in special need of close adult relationships outside of the home. The nature of these environmental changes, coupled with the normal course of individual development, is likely to result in a developmental mismatch so that the fit between the young adolescent and the classroom environment is particularly poor, increasing the risk of negative motivational outcomes, especially for adolescents who are having difficulty succeeding in school academically.

The High School Transition

Although there is less work on the transition to high school, the existing work suggests

quite similar problems (Coleman & Hoffer, 1987; Jencks & Brown, 1975; Roeser & Gonzalez, 1997; Wehlage, Rutter, Smith, Lesko, & Fernandez, 1989). For example, high schools are typically even larger and more bureaucratic than are junior high schools and middle schools. Lee and Smith (2001) provided numerous examples of how the sense of community among teachers and students is undermined by the size and bureaucratic structure of most high schools. There is little opportunity for students and teachers to get to know each other, and, likely as a consequence, there is distrust between them and little attachment to a common set of goals and values. There is also little opportunity for the students to form mentor-like relationships with nonfamilial adults, and little effort is made to make instruction relevant to the students. Such environments are likely to undermine further the motivation and involvement of many students, especially those not doing particularly well academically, those not enrolled in the favored classes, and those who are alienated from the values of the adults in the high school (e.g., Roeser et al., 1999). These hypotheses need to be tested.

The few available studies provide initial support (see Lee & Smith, 2001; Roeser et al., 1999). For example, Fine (1991) documented how secondary school practices cumulate to drive out students who are not doing very well academically. Similarly, studies of ethnic minority youth provide extensive evidence that alienating and noninclusive high school practices undermine the school engagement and achievement of students of color (e.g., Darling-Hammond, 1997; Deyhle & LeCompte, 1999; Ferguson, 1998; Jackson & Davis, 2000; Lee & Smith, 1993; Suarez-Orozco & Suarez-Orozco, 1995; Taylor et al., 1994; Valencia, 1991). Recent work by Midgley and colleagues provides additional support. In a longitudinal study of adolescents from elementary school to high school, they were able to look at the impact of both the middle school and the high school transition. They found less evidence of negative changes in school experiences as the students moved into middle school than when they moved into high school. As one would expect with the stage–environment fit theory, they found that the motivational declines were associated with the high school rather than the middle school transition (see Midgley, 2002, for relevant chapters). They concluded that middle school reform efforts have been effective in changing the middle school environment in ways that support rather than undermine the young adolescents' school engagement and motivation. Further, they concluded that reform is now needed at the high school level. These reforms look very much like the reforms that were advocated for the middle school years. Most large public high schools also organize instruction around curricular tracks that sort students into different groups. As a result, there is even greater diversity in the educational experiences of high school students than of middle grades students; unfortunately, this diversity is often associated more with the students' social class and ethnic group than with differences in the students' talents and interests (Lee & Smith, 2001).

Consequently, curricular tracking has served to reinforce social stratification rather than foster optimal education for all students, particularly in large schools (Dornbusch, 1994; Lee & Smith, 2001). Lee and Smith documented that average school achievement levels do not benefit from this curricular tracking. Quite the contrary—evidence comparing Catholic high schools with public high schools suggests that average school achievement levels are increased when all students are required to take the same challenging curriculum. This conclusion is true even after one has controlled for student selectivity factors. A more thorough examination of how the organization and structure of our high schools influence cognitive, motivational, and achievement outcomes is needed.

Summary

In this section we summarized the evidence related to the impact of school transitions on

development. As one would expect, given what we now know about the ecological nature of the junior high school transition, many early adolescents, particularly the low achievers and the highly anxious, experience great difficulty with this transition. In many ways, this transition can be characterized as a developmentally regressive shift in one's school context. Consistent with our stage–environment fit perspective, such a shift has negative consequences for many youths' school engagement and performance. Also consistent with our stage–environment fit perspective, there are now an increasing number of intervention studies showing that the junior high school transition does not have to yield negative consequences for vulnerable youth. Educational institutions for the middle grades can be designed in a developmentally progressive manner; when they are, the majority of early adolescents gain from this school transition. Finally, emerging evidence on the senior high school transition suggests that reforms are badly needed at this level.

LEVEL 4: SCHOOLS AS EMBEDDED ORGANIZATIONS IN THE LARGER COMMUNITY

The most distal aspect of school influence on adolescent development lies in the fact that schools are embedded in much larger social systems. Characteristics of the communities and the nations in which schools are placed influence everything about what goes on in the school building itself. Discussing all of the macro influences is beyond the scope of a single chapter. In this section we focus on two macro characteristics: private versus public schools and school resources.

Public Versus Private Schools

The question of whether public versus private schools do a better job motivating adolescent students and reducing achievement gaps between those from different social backgrounds is long-standing. Because of their record with socially disadvantaged students in particular, various researchers have commented on the "religious schools effect" of Catholic schools in terms of student achievement and educational attainments, especially among adolescent non-Catholics, those of lower socioeconomic status, and African Americans and Latinos living in urban areas (Bryk et al., 1993; Coleman, Hoffer, & Kilgore, 1982; Jeynes, 2002). In a meta-analysis of the effects of Catholic religious school attendance and personal religious commitment on academic achievement and school conduct, for instance, Jeynes (2002) found that, after accounting for socioeconomic status and gender, the effect sizes for religious school attendance were between 0.20 and 0.25 of a standard deviation for both academic achievement and school conduct. These effects were particularly evident for Black and Hispanic secondary school students. Although some suggest these effects are due to Catholic schools selecting superior students, others have suggested that this claim is overdrawn and that the effects of a Catholic school education on achievement are quite robust (e.g., Bryk et al., 1993; Sander, 1995).

Three core features of the culture of these schools have been examined as instrumental in the reduction of inequality that are relevant here: a communal organization, a philosophy of human dignity, and a restricted range of curricular offerings (Bryk et al., 1993). First, Catholic secondary schools tend to be somewhat smaller than public secondary schools and have strong communal culture grounded in a rich array of rituals and activities outside of the classroom where teachers and students get to know one another beyond their school-related roles. This community environment provides a social basis for motivating school learning—a set of caring relationships and corresponding sense of community become faculty, staff and students become major motivators of in-school behavior.

In addition, these secondary schools are characterized by a set of shared moral commitments and a spiritual ideology that emphasize the dignity of each individual and

a corresponding ethic of care. These shared beliefs are grounded in a religious theology (Christian personalism) in which social justice and the desire to provide a humanistic education for all individuals are paramount, and in which the dignity of the individual as having moral worth is preeminent to a view in which worth is accorded to individuals based on relative social and academic statuses. Thus, the school culture is one that bridges two worlds for individuals—a moral–spiritual one in which the dignity of all individuals is recognized and acknowledge as primary; and a pragmatic one in which individuals are prepared for the demands of economic and civic life in a capitalist democracy. It is our view that this moral center and related humanistic approach to education that characterizes the culture of Catholic schools affords young people a nonstatus-based foundation of worth and a sense of belonging and corresponding sense of dignity that disrupts pervasive negative images in the wider culture that may afflict ethnic minority youth and undermine their perceptions of themselves as successful students.

The final, related feature of Catholic secondary schools is their "delimited technical core" (Bryk et al., 1993, p. 297). Students in these schools have many required classes and less electives. Generally, all students are exposed to a common curriculum that the faculty expect them to learn. Although administrative sorting still occurs, there are less "tracks" and less differentiation of curricula by such tracks. The message to students is that every student is not only capable of, but is expected to, learn the core curriculum.

Similarly, Eccles, Lord, and Midgley (1991) found that student outcomes, as rated by both teachers and students, were better in those attending K–8 schools than those who made a transition into a middle or junior high school during grade 6, 7, or 8. Students in K–8 schools were less likely to be truant, violent, or use substances at school, and were more likely to say they felt prepared for and interested in their classwork compared to students in middle or junior high schools. Furthermore, students in the K–8 schools reported higher self-concepts and greater locus of control, received higher grades, and did better on standardized achievement tests than those in the middle grades schools. These K–8 schools were predominantly private religious schools (74%) and were smaller size. Both sector (religious) and size (small) were identified by Eccles et al. (1991) as factors that could explain why students in K–8 schools showed greater student commitment and engagement than those who were in middle schools or junior high schools during these grades.

School Resources

School resources in terms of adequate materials, a safe environment, and continuity of teaching staff are often considered important for adolescents' learning and well-being. Early studies of school effects on adolescents' development and achievement were based on economic models in which the relation of so-called tangible school inputs (e.g., school resources or size) to student outputs (e.g., achievement and attainments) was the focus. Although the central question of how much school resources matter for raising achievement and reducing inequality in student outcomes is still being debated, school district–level variations in such school resources are likely a major contributor to the continuing inequity in educational outcomes for several minority groups in the United States.

Evidence does show that tangible physical plant of the school can affect students' behavioral conduct in school. In their study of 12 London area secondary schools, Rutter and colleagues (1979) found that although the age of the school buildings was not significantly related to achievement or behavioral outcomes in students, the cleanliness and use of plants, pictures, and other decorations inside the school buildings was a significant predictor of the level of behavioral misconduct students displayed in the school (after accounting for their social background). The more inhospitable and

cold the school was, the greater the misconduct of students. This finding may reflect the "broken windows" theory (Wilson & Kelling, 1982) of delinquency and crime in relation to school physical environments. The basic thesis is that abandoned and dirty physical spaces connote a message of a lack of ownership and monitoring, and therefore become seedbeds for criminal activity and violence. It may be harder to value school and feel good about oneself as a learner in a broken-down, leaky school building that communicates a serious lack of societal value for teachers and students (Kozol, 2006). It also may be harder for an adolescent to be intrinsically motivated in a school environment in which poor lighting, crowding, noise, and debris are features that are as common as technology, books, and adequate desks and chairs (e.g., Clark et al., 2006; Evans, 2004).

Unfortunately, about 37% of African American youth and 32% of Latino youth, compared to 5% of European American and 22% of Asian youth, are enrolled in the 47 largest city school districts in this country; in addition, African American and Latino youth attend some of the poorest school districts in this country. In turn, 28% of the youth enrolled in city schools live in poverty, and 55% are eligible for free or reduced-cost lunch, suggesting that class may be as important (or more important) as race in the differences that emerge. Teachers in these schools report feeling less safe than do teachers in other school districts, dropout rates are highest, and achievement levels at all grades are the lowest (Council of the Great City Schools, 1992; United Way, 2008). Finally, schools that serve these populations are less likely than schools serving more advantaged populations to offer either high-quality remedial services or advanced courses and courses that facilitate the acquisition of higher order thinking skills and active learning strategies. Even adolescents who are extremely motivated may find it difficult to perform well under these educational circumstances (United Way, 2008).

SECONDARY SCHOOL REFORM EFFORTS

We want to end our chapter with a discussion of several promising efforts at secondary school reforms. As noted earlier, in 1989 the Carnegie Corporation issued the report *Turning Reports* calling for the reform of education for early adolescents. Based in part on notions linked to stage environment fit as well as linked to the needs of early adolescent children, they suggested that the middle grades should have the following characteristics:

- Create small learning communities that will allow close relationships to emerge between teachers and students.
- Teach a core academic program to everyone that includes opportunities for service.
- Ensure success for all by eliminating tracking, using cooperative learning, providing flexible scheduling and adequate resources to meet the learning needs of all students.
- Empower teachers and administrators to take control of and responsibility for their schools.
- Staff schools with teachers who are trained to teach early adolescents.
- Foster health and fitness.
- Reengage families.
- Connect schools with communities.

Similar recommendations have been offered by several other scholars, including Connell and colleagues at the Institute for Research and Reform in Education (Connell, 2003), Roderick (1993), Juvonen et al. (2004), Lehr, Johnson, Bremer, Cosio, Thompson (2004), as well as the many professionals interested in the "Middle School Philosophy" (see Felner et al., 1997; Jackson & Davis, 2000; Lipsitz, Mizell, Jackson, & Austin, 1997; MacIver & Plank, 1997; MacIver, Young, & Washburn, 2002; Midgley & Edelin, 1998). An increasing number of scholars and student advocates have argued for a return to the K–8 format because it seems to create more developmentally suitable environments for the early

adolescent years (e.g., Juvonen et al., 2004; Simmons & Blyth, 1987).

The importance of small schools, schools within schools, or small learning communities has been stressed in many reform proposals, along with the need to provide rigorous, challenging, and high-quality instruction. Small learning communities are likely to be particularly important during this developmental period because they support the emergence of strong teacher–student relationships that will allow students some autonomy within a very tight support network. These characteristics should support stronger engagement and identification with the school institution. When engagement is accompanied by high-quality instruction then academic failure should be preventable. Interestingly, there are calls for quite similar reforms at the high school level.

Not surprisingly, the Carnegie Corporation report stimulated a major reassessment of schooling for early adolescents throughout the country. The results have been disappointing. Many districts changed from a junior high school format to a middle school format based on the fact that middle school philosophy includes many of the components outlined in the Carnegie Corporation report. Unfortunately, many of these changes failed to produce truly successful middle schools. Often, the new middle schools looked a lot like the old junior high schools except for the fact that they contained grades 6–8 rather than grades 7–9 (Jackson & Davis, 2001; Juvonen et al., 2004).

In 2000, Jackson and Davis (2000) summarized the findings of these many middle school reform efforts. They concluded that the following middle grade school characteristics support both learning and positive youth development:

- A curriculum grounded in rigorous academic standards and current knowledge about how students learn best and is relevant to the concerns of adolescents
- Instructional methods designed to prepare all students to achieve at the highest standards
- Organizational structures that support a climate of intellectual development and a caring community with shared educational goals
- Staff who are trained experts at teaching young adolescents
- Ongoing professional development opportunities for the staff
- Democratic governance that involves both the adults and the adolescents
- Extensive involvement of parents and the community
- High levels of safety and practices that support good health

Similar conclusions were reached by Juvonen and colleagues (2004), Lehr et al. (2004), and the NRC (2004) in their reviews of well-studied intervention and reform efforts. Juvonen et al. (2004) also argued that K–8 structures might be more successful at implementing the types of classroom characteristics and building-level opportunities most supportive of continued academic engagement and positive youth development.

Together, these recommendations fit very nicely with the stage–environment fit perspective we outlined earlier. They are consistent with both the developmental needs of early adolescence and what we know about high-quality instruction. We would like to provide a brief description of four promising programs as examples of changes that can be made at various levels within the secondary school context that could support these types of changes: the Coca-Cola Valued Youth Program (CCVYP, www.idra.org/CCVYP/default.htm#vyp), the Teen Outreach Program (www.cornerstone.to), Oyserman's possible selves intervention (Oyserman, Terry, & Bybee, 2002) and the First-Things-First whole school reform program (Institute for Research and Reform in Education [IRRE], 2004). We pick these particular programs because they relate directly to the developmental needs during adolescence.

The CCVYP took unique advantage of adolescents' desire to make a difference in their

community. It offers 7th- through 12th-grade students considered to be at risk for dropping out of school an opportunity to tutor elementary school students who were also identified as being at risk. The tutors are provided with training and support by teacher coordinators. Such a program is unique in its attention to providing adolescent youth with a meaningful and authentic opportunity to "matter" in their school community. By allowing them to tutor younger children, the program also provides academically challenged youths with an opportunity to feel good about their academic skills and their ability to help other children do well in school. Finally, it provides an unobtrusive and respectful means for the tutors' teachers to become both mentors and protectors.

The Teen Outreach Program (TOP; Allen, Kuperminc, Philliber, & Herre, 1994; Allen, Philliber, Herrling, & Kuperminc, 1997), a national volunteer service program, is designed to both help adolescents understand and evaluate their future life options and develop life skills and autonomy in a context featuring strong social ties to adult mentors. The three program components are supervised community service, classroom-based discussions of service experiences, and classroom-based discussion and activities related to social–developmental tasks of adolescence. Participants choose their volunteer activities with the assistance of trained staff who help match the individual's interests and skills with community needs. TOP sites typically offer a minimum of 20 hours per year of volunteer service for each participant. In one evaluated program, participants averaged 45.8 hours of volunteer service during their 9 months of involvement.

The Teen Outreach Curriculum provides a framework for classroom meetings that include structured discussions, group exercises, role-playing exercises, guest speakers and informational presentations. These discussions are designed to help students prepare for, and learn from, their service experiences by dealing with topics such as lack of self-confidence, social skills, assertiveness, and self-discipline. Trained facilitators lead discussions of such topics as values clarification, managing family relationships, and handling close relationships. Participants are encouraged to discuss their feelings and attitudes.

Several evaluation studies have been done on TOP (Allen et al., 1994, 1997). The students who performed more volunteer service were at lower risk for course failure while they were involved in the program; they were also less likely to be suspended from school and to get pregnant. Also, implementation quality of the TOPS curriculum did not significantly influence program outcomes (Allen, Philliber & Hoggson, 1990), suggesting that it is the community service and possibly the mentoring components that are the most important program.

The intervention work by Oyserman and colleagues (Oyserman, Gant, & Ager, 1995) is based on the importance of group and individual differences in possible selves for students' engagement in school. Oyserman et al. (1995) found that African American students are more motivated to invest time and energy in mastering school learning materials if they include academic success in their future possible selves and if these African American adolescents included academic success in their view of what it means to be a successful African American (Oyserman et al., 1995). Subsequently, Oyserman and colleagues have developed and tested school-based interventions designed to increase the salience of academic achievement in both individuals' possible selves and ethnic identity. For example, using a randomized treatment intervention design, Oyserman et al. (2002) provided a group of African American adolescents with a series of experiences designed to help them expand both their views of themselves in various future occupations and the means of obtaining these various occupational goals. These means included increased commitment to educational success. Those students who were part of the treatment reported greater bonding with school and greater concern with doing well in school than the controls. They also evidenced better school attendance.

First Things First, created by the Institute for Research and Reform in Education, entails three basic strategies: the creation of small learning communities, the creation of strong connections between family and school, and the provision of high-quality instruction. These strategies were selected because they facilitate the following four experiences for students:

1. "Continuity of care" and strong student–teacher relationships
2. "Flexible scheduling that allows for additional instructional time and attention to individual learning needs"
3. "High, clear and fair standards for academics and conduct"
4. Exposure to "enriched and diverse learning opportunities"

To accomplish these goals, IRRE works with districts to provide the following three experiences for the teachers and staff: (1) "equip, empower, and expect staff to implement effective instructional practices"; (2) flexibility to redirect resources to meet emerging needs; and (3) "ensuring collective responsibility." (All quotes are from pages 6 and 7 of IRRE, 2004). All three of these features require school districts to put together teams of teachers that work with the same students over time and across school years. These teams are provided with common planning time and with remedial curricular materials that can be used to help students succeed. The teams are also provided with resources for their own continued development as high-quality teachers and mentors. All students are provided with a family advocate who works with 15–20 students and their families over time to help the students succeed. This reform has been implemented in many school districts across the country and has been carefully evaluated in the Kansas City, Kansas, school district. The results of this evaluation are quite positive for both the middle and senior high school grades. The program both reduces high school dropout and increases academic performance, as well as closing the gap in academic performance between White and Black students.

SUMMARY AND CONCLUSIONS

We have outlined many ways in which schools affect the development of adolescents and stressed the need to take both a systems-level and a developmental perspective on schools. We began by pointing out how the multiple levels of school organization interact to shape the day-to-day experiences of adolescents and teachers. We also stressed the interface of schools as complex changing institutions with the developmental trajectories of individuals. To understand how schools influence development, one needs to understand change at both the individual and the institutional level. Stage–environment fit theory provides an excellent example of the linking of these two developmental trajectories. Imagine two trajectories: one at the school level and one at the individual level. Schools change in many ways over the grade levels. The nature of these changes can be developmentally appropriate or inappropriate in terms of the extent to which they foster continued development toward the transition into adulthood and maturity. Youth travel through this changing context as they move from grade to grade and from school to school. Similarly, youths develop and change as they get older. They also have assumptions about their increasing maturity and the privileges it ought to afford them. Optimal development is most likely when these two trajectories of change are in synchrony with each other—that is, when the changes in the context mesh well with, and perhaps even slightly precede, the patterns of change occurring at the individual level.

We also discussed the many ways in which experiences at school are influenced by the larger cultural and social milieu in which schools are nested. Culturally shared beliefs influence how we fund our schools, what and how we teach, and how we design school policy

at all levels. These policies, in turn, influence the types of connections that schools have with families, communities, higher educational institutions, the labor market, and the daily experiences of youths in the schools they attend. On some levels, our schools are succeeding very well in supporting both learning and positive youth development for many groups of people. At other levels, schools are not supporting optimal learning or preparation for adult development for many young people. Adolescents of color, particularly African Americans, Latinos, and Native Americans, still perform less well than European Americans and some groups of Asian Americans (for discussions, see, e.g., Jencks & Phillips, 1998; Steinberg, Dornbusch, & Brown, 1992; Suarez-Orozco & Suarez-Orozco, 1995; Valencia, 1991).

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