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SCHOOL AND COMMUNITY INFLUENCES ON HUMAN DEVELOPMENT

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INTRODUCTION

In 1979, Bronfenbrenner published the first of a series of works charging developmental psychology with the need to study human development from more naturalistic and contextual points of view. He stressed that humans develop within a set of embedded physical and sociocultural contexts of influence beginning with their own biological make-up and ending with the political/historical contexts into which they are born and raised. Bronfenbrenner emphasized that we cannot understand human development without understanding the multidimensional forces that operate across time both within and across these levels of influence—biological, psychological, social, cultural, economic, and political. Although it is true that children are most directly influenced by their immediate relationships and face-to-face interactions with other human beings, particularly their parents, siblings, extended family members, friends, peers and teachers, these proximal human relationships are nonetheless shaped by more distal social, cultural, economic, and political forces in the contemporary societal context. For example, workplace experiences affect parents' mental health and economic resources, which in turn affect parenting behaviors and child outcomes (e.g., Whitbeck et al., 1997). Similarly, neighborhoods structure the types of opportunities and risks children are exposed to whenever they leave their home, and thereby, to the extent their parents adapt their parenting behaviors to the neighborhood environment outside of the home, also affect parent-child interactions in the home (e.g., Furstenberg, Cook, Eccles, Elder, & Sameroff, 1999). Finally, schools are elaborate multilevel institutions that influence children's academic, social-emotional and behavioral development in a wide variety of ways—ranging from teacher influences on student **achievement** associated with the quality of instruction, to physical influences on student mood and motivation associated with the school building itself in terms of noise, light, cleanliness, and overcrowding, to peer influences on students' behavioral conduct based on the social composition of a school's student body (e.g., Rutter & Maughan, 2002).

Since 1979, there has been growing interest in the influences of these extra-familial contexts of human development. Researchers have begun looking at of the contributions of neighborhoods, communities, religious institutions and schools, as well as larger, political, societal, cultural, and historical forces, on young people's academic, social-emotional and behavioral

development. In this chapter, we focus on two of these contexts: schools and community-based settings (such as churches, synagogues or mosques; playgrounds; afterschool clubs; and neighborhood streets). Young people spend many of their waking hours in such settings, and this is increasingly true as they move into adolescence. Although these extra-familial settings afford opportunities and present various risks for healthy development, they have been researched less than the family by developmental scientists until relatively recently. As a result, much of the current work on how school and community settings influence child and adolescent development has been done by scholars from a broad range of disciplines outside of developmental psychology, including educational psychology, sociology, anthropology, applied linguistics, history, and so on. We draw on a variety of these disciplinary resources in this chapter. This kind of interdisciplinary perspective on the role of schools and community settings in child and adolescent development is a necessary dimension of the kind of ecologically oriented and culturally and historically informed developmental science that Bronfenbrenner outlined.

We focus first on schools, because they occupy a central place in the developmental agenda set forth for children in almost every nation of the world. Thus, in the majority of nations, from the time children first enter school in early or middle childhood until they complete their formal education sometime in adolescence, children and youth spend more time in schools than in any other context outside their homes. By virtue of their central role in lives of children and families, schools are increasingly playing a role in the education of children and youth not only in terms of the traditional "three Rs" of reading, writing and arithmetic, but also in terms of moral and character development, the cultivation of motivation to learn and a desire for lifelong learning, the promotion of social-emotional skills and well-being, and the prevention and remediation of emotional-behavioral problems (Greenberg et al., 2003; Roeser & Eccles, 2000).

Exploring all the possible ways in which educational institutions influence the various domains of child and adolescent development is beyond the scope of a single chapter. Instead, we present a developmental systems framework for conceptualizing the context of schooling, and provide a set of examples of pathways of influence by which the multilevel and multidimensional nature of the context of school can influence child and adolescent development. Specifically, we focus on three normative developmental moments when the influences of various dimensions of the context of school on students' motivation, achievement, and well-being are most evident: the transitions into elementary (ages 5–10), middle (ages 10–14), and high school (ages 14–18). We begin this section by describing schools as multilevel social organizations that can influence children's cognitive, socio-emotional, and behavioral development through organizational, social, and instructional processes that operate at several different levels of the overall *school system*. These levels range from the immediate, very proximal relationships between students, tasks, and teachers in the classroom; to quasi-proximal influences in terms of principals and school boards in setting school-level policies; to distal national level policies mandating particular kinds of assessments and funding structures for schools. After providing a descriptive account of these various levels of the school system, we present three examples of how chains of causal processes can operate across multiple levels of the school system to influence students' daily experiences of teaching and learning in school and, thereby, their longer-term educational lifepaths as they enter and pass through elementary and secondary school and beyond (Roeser & Peck, 2003). The first example focuses on the transition into elementary school, the second on the transition from elementary school into either junior high school or middle school, and the third on the transition into high school. In these examples, we try to highlight the important reciprocal relations that exist between students and the people and conditions of their school environments (e.g., Skinner & Belmont, 1993). We also discuss how different students, characterized

by different profiles of personal and socioeconomic risks and assets, fare differentially across these **school transitions**. We focus on schools in the first section of this chapter.

In addition to schools, we also focus on community and neighborhoods as central contexts of human development. Developmental science's interest in community and neighborhood influences has evolved more recently than its interest in schools. Prior to about two decades ago, it was rare to find an article on neighborhood influences in any of the major developmental psychology journals. Since that time, there has been a dramatic rise in their prevalence. Much of this increase reflected initial concerns with children growing up in poverty. In 1987, a sociologist, William Julius Wilson, published an influential book, *The Truly Disadvantaged*, which spotlighted the potential role of neighborhood effects on human development. Since then, various interdisciplinary teams of researchers have initiated large-scale projects to study the impact of neighborhood and community forces on human development. We summarize the results of this work in the second part of this chapter.

We end the chapter with a discussion of how both school and community contexts can affect child and adolescent development through their structuring of peer groups and social networks more generally, and through affordances for participation in organized activities that impart skills, meaning, and satisfying relationships. Schools and communities have a large influence on the nature of the peers with whom individuals spend the most time. Schools also structure the nature of these interactions through grouping and instructional practices. We elaborate on these influences. We also summarize the indirect influence of schools and communities on children's and adolescents' involvement in community-based and after-school extracurricular activities. Children and adolescents also spend a great deal of time out of school. As they get older, much of this time is spent outside the home. Does it matter what they do during this time? Does participating in organized activities such as team sports, volunteer service, or faith-based organizations influence development? How? We summarize emerging theory and research evidence regarding these questions towards the end of the chapter.

SCHOOLS AS CENTRAL CONTEXTS OF DEVELOPMENT

What constitutes the developmental context of schooling? Drawing on developmental contextual perspectives (e.g., Bronfenbrenner, 1979; Ford & Lerner, 1992; Sameroff, 1983), we conceptualize the context of schooling as one that bridges between the macro-levels of society and culture that shape the practice of education from afar, and the middle levels and micro-levels of the school as an organization, its *classrooms* and the people that inhabit these settings whose daily acts of leadership, teaching, and social interaction affect children's learning and development in immediate ways (Cole, 1996). Figure 12.1 depicts the school environment as encompassing such a span of interdependent contexts spanning from the very macro (e.g., national educational policies) to the very micro (design of particular academic tasks) in relation to a given child within the school system. This descriptive model of the context of schooling is guided by seven basic assumptions derived from developmental systems thinking, as follows.

1. The context of schooling involves a complex nested social system, characterized by multiple levels of structure and organization and associated with particular kinds of processes aimed at shaping acts of leadership, teaching and learning.
2. It is the complex configurations of factors across levels, operating through both indirect and direct chains of effects involving people, resources, and educational practices, that exert important influences on children's academic, socioemotional, and behavioral development.

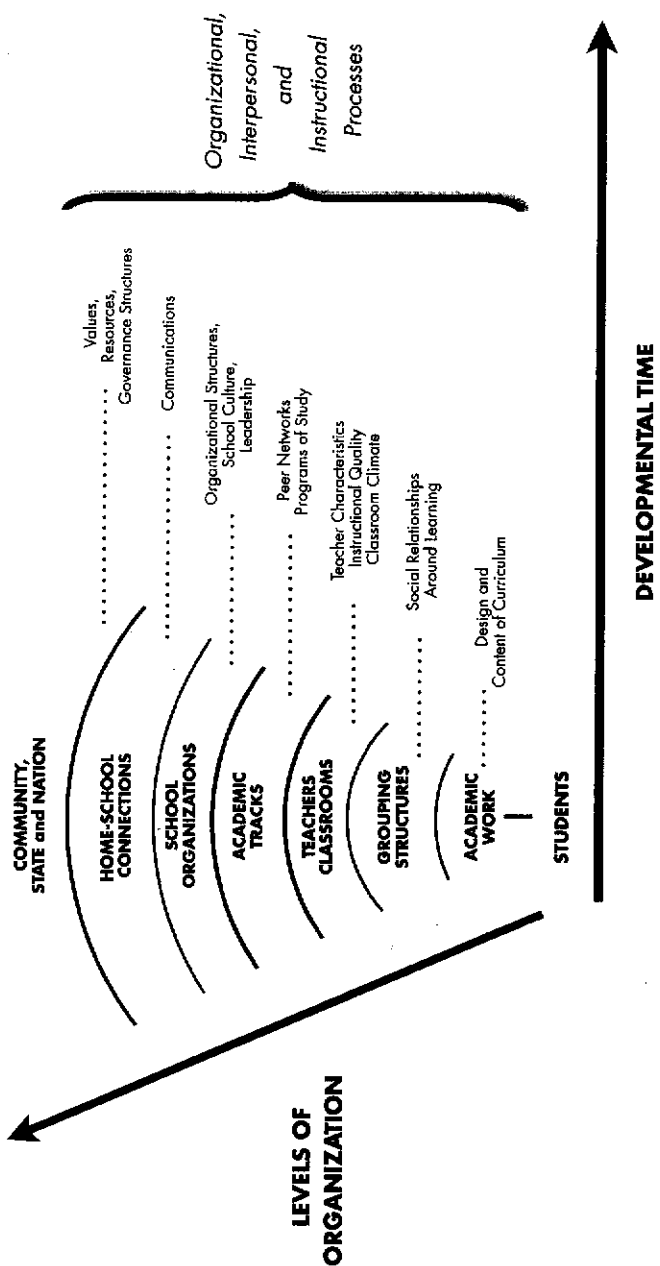


FIGURE 12.1 Model of the context of schooling.

3. The kinds of structures and processes associated with the school system “develop” from both the first-person perspective of, and a third-person perspective on, the growing child as he or she moves through the various institutions that compose the system (elementary, middle, and high schools).
4. The study of human development in contexts such as schools today requires a focus on cultural diversity and the fact that young people from different racial, ethnic, linguistic, and socioeconomic backgrounds face different kinds of barriers and opportunities with respect to education.
5. As whole persons encompassing social, emotional, moral, behavioral and cognitive-intellectual dimensions of being, humans both learn and are affected by acts of teaching and learning across multiple dimensions—not just the cognitive/intellectual one.
6. School socialization effects are mediated to some significant degree by young people’s subjective perceptions of their developmental contexts as well as by their own **agentic** behavior that co-constitutes these contexts in ways that feed back to shape their own development.
7. Education in free and democratic societies is not only about enculturation and a trajectory of increasing participation of cultural ways of knowing, feeling and doing; it is also ideally about the development of qualities of mindful awareness and concern for others that allow for freedom of thought, creativity, harmonious relations among diverse peoples, and myriad forms of social and personal renewal (Roeser & Peck, 2009). In the next section, we elaborate on these assumptions.

Assumption 1: The Context of Schooling Involves Multiple Nested Levels of Organization Generically Called a “School System”

From the location of the school within macro-level government systems characterized by laws and the educational policies of the nation, state, and local school district, “down” to the micro-level of the classroom and the social dynamics between teachers and students from different ethnic and racial backgrounds, the context of schooling in human development can be conceptualized as a multilevel system characterized by an array of political, cultural, economic, organizational, interpersonal, and instructional processes that both directly and indirectly shape the development of educators and students alike (Sarason, 1990; Zolantino & Sleeman, 1975). The different levels of context of schooling can be conceptualized as moving out from the child in a series of temporally and spatially “larger” contexts with their associated processes and webs of influence (see Figure 12.1). Examples of such nested contexts and their related causal processes include the nature of academic work (Level 1); the structure of classroom activities and groups (Level 2); the quality of teachers’ professional preparation, their classroom pedagogy and the **classroom climate** (Level 3); the existence of academic tracks composed of particular types of students and teachers (Level 4); the nature of school organizational structure and culture (Level 5); the presence or absence of linkages between schools and other institutions in the local community (home, community-based organizations; Level 6), and location of the school within district, state, and national governance systems (Level 7). Thus, understanding the context of schooling requires considerable interdisciplinary expertise in order to address the complexity of these seven interdependent levels of school systems and to assess the influences of such complexity on child and youth outcomes. It also requires the measurement of both “etic” and “emic” features of the context of schooling to capture both the tacit and tangible dimensions of these nested levels (Roeser, Urdan, & Stephens, 2009).

Assumption 2: Causal Chains of Influence Operate Within and Across Levels of the Context of Schooling to Affect Child and Adolescent Development

From a developmental science perspective, complex causal chains of effect across multiple levels and involving various organizational, interpersonal and instructional resources and practices are usually necessary to understand a "school effect" on student outcomes (Rutter & Maughan, 2002). For example, imagine a situation in which, due to concerns about equity in achievement among students from different socioeconomic backgrounds, a superintendent mandates that all schools in the district implement a new, equity-producing pedagogical practice called cooperative learning (district level). Principals in this district would presumably then organize their teachers to learn the new pedagogical technique (school level) and to apply it in their classrooms (classroom level). If it were implemented well, all children within classrooms in this school would be seen working in groups (group level) on fairly complex, conceptual problems for which cooperative techniques were designed (academic work level; e.g., Cohen & Lotan, 1997). Research suggests this would lead to increases in self-esteem, inter-ethnic relationships, and achievement among the children, especially for those of low ability or status (student level; Stevens & Slavin, 1995). In contrast, if the policy were implemented in a way that did not prepare the teachers adequately to implement cooperative learning techniques properly in the classroom, it could harm teachers and students by creating groups that actually reinforce preexisting status differences among students as well as peer segregation of students along socioeconomic lines. Such an outcome might affect not only students, but also teachers. It could, hypothetically, undermine their sense of efficacy with regard to effectively teaching students with varying abilities and statuses (Cohen & Lotan, 1997) and thereby lead to diminishing efforts to do so over time (e.g., Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998).

As a second example, consider the influences on both teachers and students that the No Child Left Behind policy, originally designed to increase teacher accountability for student learning and enhance student performance in the core subjects, has actually had (e.g., No Child Left Behind (NCLB) legislation; Nichols & Berliner, 2007). Frustrated with the relatively poor performance of many of America's children compared to children in other modern societies, NCLB was put into place with the goal of holding schools, teachers, and students responsible for greater gains in learning as assessed by standardized tests. It was hoped that by enacting an accountability regime involving frequent and ongoing testing, by providing testing results to parents, and by tying the test results to a series of incentives and punishments for schools, the policy would motivate principals, teachers, parents, and students to work together towards academic improvement. Testing has now been in place since 2003, and there is little evidence of any marked improvements in the performance of America's students on standardized achievement tests in math, reading, and science (Nichols & Berliner, 2007, 2008). Why? How can a developmental science perspective help to analyze this situation? What are the complex webs and chains of causal influences that may lie behind the results of NCLB as an educational policy?

A developmental perspective on this policy focuses attention on issues of context and how well policy-mandated changes might affect the context of schooling, as well as how well those contexts meet or fail to meet the needs and goals of those involved—in this case, teachers and students (e.g., Boyce et al., 1998). For instance, there is growing evidence that mandated testing has a number of unintended negative effects on teachers and students. At the most basic level, high-stakes testing puts extraordinary pressure on teachers to teach to the test and sometimes even engage in less than ethical practices to insure student success on such tests (Berliner, 2003). That is, some teachers, under pressure, act in ways that are actually contrary to their professional ideals. The power of situations in this regard, as social psychology has

repeatedly demonstrated, is considerable (Ross & Nisbett, 1981). Furthermore, mandated testing often leads to the use of particular classroom instructional methods such as drill and practice on test-like items; and that such practices, necessary to address national mandates as assessed by standardized multiple choice tests, are often at odds with teachers' own preferred instructional strategies and assessment practices (Ball, 2002; Nichols & Berliner, 2007). This discrepancy between the kinds of teaching that are mandated through the testing system and related incentives and punishments of NCLB, and the intrinsic desires of teachers themselves with regard to teaching and assessment practices, may lead to diminished motivation for teachers to do this work in the short term and the long term (Deci & Ryan, 2002). Such a dampening of teacher enthusiasm could, in turn, adversely affect students' own motivation, effort, and achievement in the classroom (Brophy, 1988). In this example, one can see how a motivational and developmental science lens on schooling can begin to disclose insights into how a well-intended mandate from the nation, state, or district can have both intended and unintended consequences for teacher and student behavior.

Assumption 3: The Structures, Processes, and Webs of Influence Associated With the Context of Schooling Change Across Development

From both a first-person and a third-person perspective, we can say that the structures and processes of the school system develop as children move into and progress through elementary school, middle school, high school, and on to post-secondary educational settings. That is, not only are children developing, but so too is the whole nature of the context of schooling that they experience over time. The inclusion of a time dimension along the bottom of Figure 12.1 emphasizes this point. For example, Eccles and her colleagues (1993) documented a cluster of grade-related changes in various organizational, social, and instructional processes in schools as students transition from elementary to middle school. They found, for instance, that school size increases, the closeness of relationships between teachers and students declines, and social comparison and competition become more prevalent motivational strategies in classrooms. These changes have been linked to declines in young people's motivation to learn and well-being as they move into and through secondary-school environments in a variety of developmental studies now (see Roeser et al., 2009). Understanding the interaction of different school features on children at different ages of development is a critical component of a developmental science approach to understanding the role of schooling in human development (Eccles & Roeser, 2009; Finn, 2006; Perry & Weinstein, 1998).

Assumption 4: The Study of Development in School Contexts is also the Study of Cultural Diversity and Issues of Equity in Education

Currently, the school-aged population in the US (ages 5 to 18 years) is growing and includes approximately 49 million individuals (Sable & Garofano, 2007). Since 1965, the number of Asian- and Latin-American immigrants to the United States has steadily increased (National Research Council, 1997). These ongoing trends, in conjunction with variations in birth rates among different ethnic populations, have had the effect of increasing the racial, ethnic, and linguistic diversity of the school-aged population in the US (National Center for Education Statistics (NCES), 2005). Racially and ethnically, the school-aged population today is approximately 57% European-American; 20% Latin-American; 17% African-American; 5% Asian-American/Pacific-Islander; and 1% Native American (Sable & Garofano, 2007). The percentage of Latin-American students increased rapidly since the early 1990s and is expected to continue to rise over the next decade. Culturally and linguistically, approximately one in five in the school-aged population is either an immigrant or the child of recent immigrants

(Garcia, Jensen, & Cuellar, 2006; Suarez-Orozco & Saurez-Orozco, 2001); and one in five speak a language other than English (mostly Spanish) in their homes (NCES, 2006). These "new Americans" are primarily from Latin America, Asia and the Caribbean—particularly Mexico, followed by the Philippines, Vietnam, the Dominican Republic, and China (Camarota & McArdle, 2003).

Racial, ethnic, and linguistic background, as well as immigrant generational status, intersects with poverty in the lives of school-aged children and adolescents. Data show that European-American and Asian-American children and adolescents are the least likely to grow up in poverty, regardless of their (immigrant) generational status. In contrast, between a quarter and a third of all African-Americans and Native Americans, and over a third of Latin Americans (especially Mexican immigrants and children of immigrants) between the ages of 5 and 18 years old grow up in poverty in the US today (NCES, 2005).

Due to factors such as poverty and its correlates, data also show ongoing achievement gaps between young people from different racial, ethnic, linguistic and socioeconomic backgrounds. Despite impressive gains over the past 30 years, for example, African-American children continue to score less well on achievement tests than their European-American counterparts (Wigfield et al., 2006). Latin-American and Native-American students have shown less educational progress over the decades compared to European-Americans and still achieve at lower levels, whereas Asian-Americans perform at levels comparable to or exceeding those of Whites (NCES, 2007). For instance, Asian-Americans are much more likely to complete advanced placement courses in math and science before high-school graduation than European-Americans, who in turn were more likely to do so than their African-, Latin-, and Native-American peers (NCES, 2007).

Of particular concern today is the educational progress of native and foreign-born children and youth of Mexican descent. Latinos, especially those with familial roots in Mexico, are the largest and most rapidly growing ethnic "minority" group in the United States. Because of their rapid growth, the aggregate level of education of Latin Americans will strongly affect the quality of the future labor force, as well as future demand for public services (Vernez, Abrahamse & Quigley, 1996). Unfortunately, immigrants from Mexico and the next generation experience downward assimilation in the United States due to factors such as low human capital, negative cultural contexts of reception, and curtailed educational attainments (Portes & Rumbaut, 2001). Mexican immigrants are the least likely of all immigrants to attend high school or college, and the same is true for the native-born same-ethnic peers (Slavin & Calderon, 2001). Furthermore, among those who do enroll in post-secondary education, Mexican-descent youth are overrepresented in those who attend 2-year community colleges (Kao & Thompson, 2003).



Differences in school resources: The issue of educational equity is an important part of the study of schooling and development.

In summary, statistics on the demographic composition of the school-aged population, as well as those on differences in educational outcomes among different sub-groups, highlight that an inquiry into the role of schools as early and long-term contexts of child and adolescent development is also an inquiry into cultural diversity in human development. Such an inquiry is also necessarily about significant and longstanding issues of inequality in educational opportunities and outcomes for young people from different racial, ethnic, and socioeconomic backgrounds. Attention to issues of cultural diversity, and issues of educational equity, are an important, if oftentimes implicit, part of the study of schooling and development (Entwisle, Alexander, & Olson, 1997).

Assumption 5: Acts of Teaching and Learning Involve and Affect “Whole Persons”

Acts of teaching and learning are inherently social, emotional, moral, behavioral, and cognitive affairs, simultaneously (Noddings, 2005a; Shulman, 2005). In short, teacher and learning involve whole persons (Roeser & Galloway, 2002). Additionally, good teaching has a lot in common with good parenting and the kind of security for exploration and learning that effective parents afford their young. In both cases, more capable adults need to provide the younger learner with both a safe social-emotional base from which they can start out and return to in times of uncertainty, and scaffolded opportunities for exploration and autonomous skill development that, when feeling safe, the young can take advantage of in the service of learning (Wentzel, 2002). This breadth of the goals in education is illustrated in Table 12.1, where we list various aims of educational training and the kinds of developmental outcomes one would expect to see in the students if these skills are taught effectively. This assumption implies that the social, emotional, and moral dimensions of the teaching and the overall context of schooling need to be made explicit and measured as key components of school and classroom environments (e.g., Jennings & Greenberg, 2009; Pianta & Hamre, 2009; Roeser, Urdan, & Stephens, 2009). In addition, the social, emotional, and moral outcomes of schooling, in addition to cognitive intellectual ones, need to be made explicit and studied in future research studies as well (e.g., Mind and Life Educational Research Network (submitted);

TABLE 12.1
Non-subject matter aims and outcomes of education involving “whole children” and
“whole adolescents”

<i>Domains and Skills</i>	<i>Motive Dispositions</i>	<i>Action Tendencies</i>
<i>Self-regulation</i>		
Emotion regulation	Self-control and resilience	Behavioral inhibition and recovery
Attention regulation	Will power and stick-to-itiveness	Behavioral focus and persistence
	Self-confidence and efficacy	Behavioral initiative and persistence
<i>Prosociality</i>		
Social skills	Cooperation and conscientiousness	Helping and rule-abiding behavior
Conflict resolution skills	Agreeableness	Civil behavior
<i>Mindful awareness</i>		
Self-awareness	Personal responsibility and curiosity	Moral living and lifelong learning
Social awareness	Social responsibility and empathy	Contributions to community
Cultural awareness	Mutual respect and openmindedness	Non-discrimination/celebration of diversity
Global awareness	Universal responsibility and compassion	Contributions to peaceful world change

Noddings, 2005b; Roeser et al., 2009). In summary, the holistic conceptualization of both educational contexts and outcomes in terms of multiple domains of development (e.g., the intellectual, the social, the moral, and the emotional) is an important valued-added perspective that developmental science can add to the study of schooling and its influences on human development.

Assumption 6: Children Co-construct Their Educational Lifepaths Through School by Making Meaning of Schools in Subjective Ways and Through Their Own Agency and Characteristics

Another assumption of a developmental science approach to schooling is that the socialization effects of schooling are mediated to some degree by young people themselves through their subjective perceptions, agentic actions, and evocative characteristics. First, young people shape their own school experiences based on their subjective perceptions of the socialization context and socializing agents in schools. The assumption is that children and adolescents appraise and make meaning of their developmental contexts in terms of how well they "fit" or are "mismatched" with fundamental biological, psychological, and social needs (Boyce et al., 1998; Eccles & Midgley, 1989; Roeser, Eccles, & Strobel, 1998b). Depending on how well the instructional and interpersonal features of school contexts "fit with" or are "mismatched" with the needs of students at various ages, and to the extent that students perceive such fits or mismatches, the theory predicts either positive or negative changes in motivation, well-being and behavior, respectively (Eccles & Roeser, 2009). Of course, students' perceptions are biased or shaped by their previous domain-relevant experiences, so this form of memory-appraisal of present-action sequence forms one way in which students "create" their own developmental life-space.

Another mechanism by which students contribute to their own development in school is through their intrinsic curiosity, competence motivation, exploratory behaviors, and agency in general (Deci & Ryan, 2002). Organisms are active in their own development from the very beginnings of life, and to talk about school effects without an understanding of the transactional nature of such effects is to explore only half of the picture. The notion of person-environment transactions in the determination of achievement and educational lifepaths more generally remains a challenging but important theoretical approach to the study of schooling (e.g., Roeser et al., 2002b).

A third way in which students contribute to their own development in schools is through their evocative characteristics, including both physical (e.g., attractiveness) and personality-based (e.g., extraversion) characteristics, which, by either intentionally or unintentionally eliciting certain kinds of reactions from others, can contribute to the nature of the socializing context and its reciprocal effects on the person (e.g., Caspi & Roberts, 2001).

Although there is a rather large research literature examining the unidirectional effects of "contexts on kids," relatively few studies attend to understanding the conjoint role that students, their perceptions, their own agentic acts, and their evocative characteristics, in conjunction with the nature of their physical and social environments in school, play in their own learning and development there (e.g., Skinner & Belmont, 1993). Understanding such person-environment contributions to educational lifepaths is a clear goal of a developmental science perspective on schooling (Eccles & Midgley, 1989; Roeser & Peck, 2003; Rutter & Maughan, 2002). As Boyce and colleagues (1998) put it with regard to the study of development and psychopathology—and the same applies to the study of development and education—the next phase of research needs to attend to both "the actual *transactions* between children and contexts and the *transduction* of contextual influences into pathways of biological mediation" (p. 143; emphasis in original).



Education in free and democratic societies is not only about enculturation and a trajectory of increasing participation of cultural ways of knowing, feeling and doing; it is also ideally about the development of qualities of mindful awareness and concern for others.

Assumption 7: Education is About Cultural Ways of Knowing and Qualities of Awareness

In addition to socializing young people in culturally sanctioned ways of thinking and feeling (i.e., *civic education*) and scaffolding their development of knowledge and disciplined ways of knowing (i.e., *subject-matter education*), we propose that public education in free and democratic societies necessarily ought to be in places that educate for mindful awareness and related volitional modes of attending, thinking, feeling, perceiving, acting, and interacting. The means by which the public education system can do this we term *contemplative education* (Roeser & Peck, 2009). Whereas the cultivation of civic-mindedness and the acquisition of subject-matter knowledge are essential outcomes of education related to sociocultural participation, the cultivation of awareness and willful self-regulation are preconditions for deep learning, freedom of thought, creativity, harmonious social relationships, and myriad forms of personal and social renewal.

In the next section, we describe the various levels and associated processes that comprise the context of schooling (see Figure 12.1) and provide some examples of research linking these various levels and processes to aspects of children's academic, social-emotional, and behavioral development. After this, we summarize what we know about developmental changes in these various aspects of schooling as children progress through different school types (elementary, middle, and high school), as well as how such changes influence aspects of children's and adolescents' development.

LEVELS OF THE CONTEXT OF SCHOOLING

Level 1: Academic Work

The nature of the academic work students are asked to do is at the heart of their school experience. At a fundamental level, the nature of school work affects not only what children may come to know about themselves and the world, but also their capacities to pay attention

(e.g., listening to stories), their interests and passions, and their morals and ethics (Dewey, 1902; Doyle, 1983). Two key aspects of academic work that can influence students' emotional, cognitive, and moral development are (a) the content of the curriculum in terms of its intellectual substance and its consideration of global social-historical realities (e.g., Noddings, 2005a, 2005b; Partnership for 21st Century Skills, 2008; Zins, Weissberg, Wang, & Walberg, 2004); and (b) the design of instruction in terms of scaffolding knowledge development, and also in terms of its capacity to cultivate interest, meaningfulness, challenge, and deep cognitive, emotional, and behavioral engagement with the material (Blumenfeld, 1992; Blumenfeld, Mergendoller, & Swartout, 1987).

Both the content and the design of academic tasks can be conceptualized in terms of their relative attunement or mismatch with the developmental needs and capacities of students of a particular age and social background, and the needs of society at a particular time in history. Some evidence supports the notion that academic work that is meaningful to the developmental and historical reality of children's experience promotes motivation to learn and helps to "bond" young people with the institution of school (e.g., Burchinal, Roberts, Zeisel, & Rowley, 2008; Roeser, Eccles & Sameroff, 2000). Curricula that represent the "voices," images, role models, and historical experiences of traditionally underrepresented groups may be particularly important for helping students from such groups to identify with school and success in school, and for students from the majority cultural group to develop a broader understanding of the diversity, as well as the experiences and contributions, of minority groups in history (Ball, 2002; Fine, 1991; Graham & Taylor, 2002; Romo & Falbo, 1996; Valencia, 1991). The challenge of providing curricula that address developmentally and historically meaningful topics to a diverse and large school population is a central and ongoing challenge in education in the United States and many developed nations today (Meier, 2008). For instance, studies show that boredom in school, low interest, and perceived irrelevance of the curriculum are associated with diminished engagement and learning and, for some, can be part of the reason for withdrawing from school (Assor, Kaplan, & Roth, 2002; Eccles, 1983; Finn, 2006; Jackson & Davis, 2000; Larson & Richards, 1989; National Research Council and Institute of Medicine (NRC/IOM), 2004; Newmann, Wehlage, & Lamborn, 1992).

Although there exist many innovative curriculum movements today that are reinvigorating the teaching of subject matter (e.g., the Facing History and Ourselves Project; Sleeper & Strom, 2006), we want to draw attention to one emerging movement that aims to provide a new kind of curriculum into public school education: the **social-emotional learning** movement (SEL; Elias et al., 1997). SEL programs focus on teaching content and skills related to learning in five core "non-subject matter" domains: self-awareness, social awareness, responsible decision-making, self-management, and relationship management (Collaborative for Academic, Social, and Emotional Learning, 2003). Reviews and meta-analyses of social and emotional learning programs delivered in classrooms provide evidence that SEL programs can prevent substance abuse (Gottfredson & Wilson, 2003), antisocial behavior (Wilson, Gottfredson, & Najaka, 2001) and mental health problems (Durlak & Wells, 1997). Furthermore, a recent meta-analysis (Durlak, Weissberg, Taylor & Dymnicki, in press) examined the outcomes of over 250 experimental studies of social and emotional learning programs for all students. Of the 27 programs that examined indicators of academic achievement at the post-intervention period, students receiving SEL programs showed significant and meaningful improvements on achievement test performance; the effect was equivalent to approximately a 10 percentage point gain on achievement testing. Further, program students were significantly more likely to attend school, less likely to be disciplined for misbehavior, and received better grades. Thus, evidence is accruing to suggest that by broadening the academic curriculum to include social-emotional learning, dividends for behavioral, social-emotional, and intellectual development can be achieved.

In addition to the "what is taught" in schools, the "how things are taught," including the design of academic tasks, also can influence children's motivation, engagement, and learning (Ball, 2002; Blumenfeld, 1992; Deci & Ryan, 2002; Fredricks, Blumenfeld, & Paris, 2004). 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 they build on each other in a systematic fashion, using multiple representations of a given problem, and explicitly teaching children strategies that assist in learning (e.g., asking oneself if one has understood what was just read) are but a few of the design features that can "scaffold" learning and promote interest, engagement and learning. Work on the role of interest in learning, engagement, and intrinsic motivation highlights the important role of the design of academic tasks in this regard (Renninger, 2000). Increased interest is associated with greater engagement in the task and higher levels of mastery of the material (Fredricks et al., 2004; Renninger, 2000; Wigfield, Eccles, Schiefele, Roeser, & Davis-Kean, 2006). Even more importantly, interesting tasks increase intrinsic motivation to do well (Deci & Ryan, 2002) and increase the likelihood that students develop a strong personal identity as a committed school student (Eccles, 2009). Thus, at this level of analysis, one can see that the nature of academic work plays a central role in a chain of related educational outcomes, including task interest to task engagement, to mastery and learning, to intrinsic motivation to learn, to identification of oneself as a learner who is bonded to school.

From a developmental perspective, there is evidence that the content and design of academic work may not change over time in ways that reflect the increasing cognitive sophistication, diverse life experiences, and identity-linked motivational needs of children and adolescents as they move from the elementary into the secondary-school years (Eccles, 2009; Wigfield et al., 2006). As one indication, middle-school children 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, mathematics, and science (Larson, 2000; Larson & Richards, 1989). Academic work becomes less, rather than more, complex in terms of the cognitive demands as children move from elementary to junior high school (Juvonen, 2007; Juvonen, Le, Kaganoff, Augustine, & Constant, 2004). It may be that declines in children's motivation during the transition to secondary school in part reflect academic work that lacks challenge and meaning commensurate with children's cognitive and emotional needs (Eccles & Midgley, 1989). For instance, Roeser, Eccles, and Sameroff (1998) found that curricular meaningfulness, as perceived by middle-school students, was a positive predictor of longitudinal changes in their valuing of and commitment to school from the beginning to the end of middle school. The findings showed that the more meaningful students found their work in English, science, and social studies, the more they valued their education and learning over time. Efforts at middle-school reform also support this hypothesis: Adolescents' motivation to learn is maintained and does not decline when secondary schools introduce more challenging and developmentally and historically meaningful academic work (Eccles, Wigfield, & Schiefele, 1998; Jackson & Davis, 2000; Lee & Smith, 2001).

In sum, although research in this area is still relatively sparse, some evidence shows that as children develop cognitively and emotionally, and as they begin to take a greater interest in understanding the world and their identity within that world, schools often provide repetitive, low-level tasks that are unimaginative in content and design. This seems particularly true in an age in which learning is increasingly seen as synonymous with performance on multiple choice standardized tests. The nature of these changes in academic work is likely to undermine motivation in most children, as well as to exacerbate motivational and behavioral difficulties in those children who had trouble with academic work earlier in their development during elementary school (see Roeser, Eccles, & Freedman-Doan, 1999). In addition,

although more evidence is needed here as well, there is some indication that teaching children about social and emotional issues may be an important new addition to classroom curriculum in the twenty-first century.

LEVEL 2: GROUPS AND ACTIVITY STRUCTURES

The next level of the context of schooling that can influence child and adolescent development concerns the social structure of learning activities in the classroom. Classroom instruction is delivered through different grouping and activity structures, including whole-group instruction, individualized instruction, and small-group instruction. Groups are often formed on the basis of children's ability level; alternatively, groups can be formed from students representing a diverse array of abilities brought together in a cooperative work arrangement (Oakes, 2005; Stevens & Slavin, 1995). Thus, some classroom grouping strategies are associated with individualistic activity structures, in which individuals work alone and their behavior is independent of others; other foster social comparison in which there is competition; and still others foster collaboration and cooperation. In these ways, different classroom social structures communicate quite different implicit messages about relationships with others, the goals of learning, and children's abilities—messages that, in turn, influence children's perceptions of students' own academic competence and social acceptability, as well as their perceptions of the characteristics of their classmates (Roseth, Johnson, & Johnson, 2008).

Different group structures also elicit different patterns of teacher behaviors and peer group associations. For instance, research has shown that the use of either whole-class instruction or within-class ability groups can highlight ability differences among students, can lead to increased social comparison by students and teachers, and can make salient differential teacher treatment of high and low achievers in the classroom (Oakes, 2005; Wigfield et al., 2006). When this happens, activity structures in the classroom are serving to reinforce rather than disrupt achievement status hierarchies, differentiated competence beliefs between low and high achievers, and friendship selection patterns based primarily on similarities in academic abilities. Given the equation of achievement with intelligence and worth in American society (Covington, 2000), low-ability children often show diminished self-perceptions of competence and feelings of self-worth in classrooms where status differences are made salient by the kinds of activity structures and teaching strategies described above (Oakes, 2005; Rosenholtz & Simpson, 1984). Research also indicates that children positioned as "low ability" in the classroom are more likely perceived by their classmates as less desirable friends than their high-achieving peers (Karweit & Hansell, 1983). In this case, activity structures are exerting influences on the formation of social networks or patterns of social isolation among students. We say more about these processes later when we discuss ability **tracking**.

The use of collaborative or cooperative groups is a popular alternative to either whole-group, ability-grouped, or individualized instruction at the elementary-school level. Stevens and Slavin (1995) concluded that cooperative learning techniques in which students work in small groups and receive rewards or recognition based on group performance lead to increases in student achievement, self-esteem, and social acceptance among students of different social statuses and ethnic backgrounds. With proper instruction in the social skills necessary for group work, cooperative groups can provide numerous "niches" for students with different strengths to participate in the learning process, can increase the amount of social support and reinforcement available in the classroom for learning complex material, can increase contact among students of different abilities and, thus, can foster a broader network of friendship patterns in the classroom and fewer instances of social isolation (Roseth et al., 2008).

From a developmental perspective, the use of whole-group and within-class ability-grouped instruction increases in frequency as children progress from elementary to middle and high school. Within-class ability grouping in reading is widespread even in the early grades; the use of between-class ability grouping in mathematics, English, and science classes increases considerably as children move into and through secondary school (Feldlaufer, Midgley, & Eccles, 1988; Eccles, et al., 1993, 1998; NRC/IOM, 2004). At the same time, the use of both individualized instruction and cooperative grouping declines. This is a good example of a change in educational environment that is mismatched with the needs of youth. A recent meta-analysis of over eight decades of research on approximately 17,000 early adolescents from 11 different countries showed that higher achievement and more positive peer relationships were associated with cooperative rather than competitive or individualistic activity structures in the middle-school classroom (Roseth et al., 2008). We discuss the implications of these grade-related changes in activity structures further below when we address the transition into secondary school.

LEVEL 3: TEACHERS, INSTRUCTION, AND CLASSROOM CLIMATE

The next level of the context of school that is important to consider in developmental research is that of teachers and their beliefs and pedagogical practices, as well as the social and instructional atmosphere of the classroom they create through their presence and practice. With regard to the kinds of teacher beliefs that are consequential for their pedagogical decisions, practices, and interpersonal behavior in the classroom, teachers' professional identity beliefs about themselves as a teacher, as well as their pedagogical beliefs about the kinds of teaching practices that work best in motivating and supporting learning, are important (Roeser, Marachi, & Gehlbach, 2002a). Due in part to these beliefs and the actions they motivate and regulate, the hypothesis is that teachers create particular kinds of classroom learning environments for and with students. Dimensions of learning environments have historically been conceptualized in terms of the order and management of the classroom, the nature of social relationships among peers and between teachers and students, and the instructional climate in terms of ways of motivating learning, providing instruction and support for student learning, and giving feedback to students (Moos, 1979). In the next section, we provide examples of research on key processes operating at the level of teacher identity and pedagogical beliefs, instructional practices, and the classroom climate as a whole that have, independently and interdependently, been shown to affect children's and adolescents' development in school.

Teacher Professional Identity and Pedagogical Beliefs

Social cognitive and sociocultural approaches to the study of teaching and learning have demonstrated the important role that teachers' beliefs play in shaping their pedagogical decisions and strategies in the classroom (Calderhead, 1996; Shulman, 2005). The kinds of beliefs that have been found to motivate teachers' instructional decisions and interpersonal behavior in the classroom include their efficacy beliefs regarding their teaching and interpersonal capabilities, their instructional goals and styles of managing classrooms and motivating students, and the kinds of expectations and beliefs that teachers may have about individual—or even groups of—students they teach, and their views about what it means and takes to “learn” something. More recently, scholars have begun to examine how teachers' social-emotional competencies are also key determinants of their behavior in the classroom (Jennings & Greenberg, 2009).

Efficacy for teaching beliefs. Teachers' efficacy beliefs regarding their ability to perform the core tasks of teaching—managing a classroom, teaching for understanding and assisting students who need additional support, and maintaining emotional balance while doing these—are key processes affecting not only teaching-related behaviors in the classroom, but also the regulation of emotion and well-being. Tschannen-Moran, Woolfolk Hoy, and Hoy (1998), for instance, found that teachers' efficacy beliefs were positively related to their investment of effort in teaching, their persistence in working with students with academic difficulties, and their willingness to experiment with new teaching strategies. Other studies have shown that when teachers hold high generalized expectations for student learning and students perceive these expectations, students achieve more and experience a greater sense of competence as learners (Ashton, 1985; Brophy, 2004; Eccles et al., 1998; Lee & Smith, 2001; Midgley, Feldlaufer, & Eccles, 1989; NRC/IOM, 2004; Weinstein, 1989). Unfortunately, as we discuss later, the proportion of teachers with a high sense of teacher efficacy decreases as children move from elementary into secondary school. In addition, the proportion of teachers with a strong sense of teaching efficacy is lower in schools that educate a predominance of poor and minority children (Darling-Hammond, 1997; Eccles et al., 1993; Juvonen, 2007; Juvonen et al., 2004; NRC/IOM, 2004; Roeser & Midgley, 1997).

With respect to emotional well-being and regulation, Roeser and Midgley (1997) found that elementary-school teachers who felt more efficacious with regard to their ability to successfully teach all of their students also reported less stress in dealing with the emotional-behavioral problems that some of their students displayed in their classrooms. This makes sense because efficacy indexes confidence to be successful at a task given current resources and supports (Bandura, 1994), whereas stress results when environmental challenges overcome individuals' ability to cope given current resources and supports (Folkman & Lazarus, 1984). Self-efficacy beliefs and subjective stress go hand-in-glove.

Role beliefs. Teachers' beliefs about what their professional role entails are another important component of their professional identities. Two common role definitions that teachers identify with are that of the "academic instructor" (oriented toward teaching academic content) and that of the "socializer" (oriented toward addressing children's social-emotional and behavioral needs; fosterer of the "good citizen"). In a study of 98 elementary-school teachers, Brophy (1988, 2004) found that an endorsement of the "instructor" role was critical for teachers' ability to ensure student achievement, but that some of the most effective teachers were those who blended an academic with a socializing focus. In addition, he found that teachers who saw themselves primarily as "instructors" responded much more negatively to those students who were under-achievers, academically unmotivated, or disruptive during learning activities than to the other students in the class; in contrast, "socializers" responded most negatively to either the hostile aggressive and defiant students or the children who thwarted the teachers' efforts to form close personal relationships. In this study, one can see how different role beliefs are associated with both instructional outcomes and interpersonal processes in the classroom, insofar as role beliefs seem to index the kinds of sensitivities teachers have to being "triggered" emotionally in the classroom.

Differential expectations for student success. Another set of teacher beliefs that have been studied in relation to student outcomes is the differential expectations that teachers have regarding the likelihood of success of different students within the same classroom. Most of the studies linking differential teacher expectations to either their own behaviors or to their students' achievement and motivation have been done under the rubric of teacher expectancy effects. The issue is whether teacher expectancies about different students' prospects for success, and the related differential patterns of student interaction that can flow from these

expectancies, translate into levels of student achievement that "live up" or "live down" to the teachers' initial expectancies (Rosenthal, 1974). In developmental science, this kind of "self-fulfilling prophecy" is an example of how hypothesized "interactional continuity," operating here through differential teacher expectancies and related behavior that reinforces students' present ability level, can influence students' achievement trajectories in school over time (Caspi & Roberts, 2001).

The history of research in this area has been controversial and contested, but it appears that teacher-expectancy effects depend on whether teachers structure activities differently for, and interact differently with, high- and low-expectancy students, as well as on whether the students perceive these differences (Jussim, Eccles, & Madon, 1996; Weinstein, 1989). A great deal of the work on teacher-expectancy effects has focused on differential treatment related to gender, ethnic group, and/or social class. Most of this work has investigated the potential undermining effects of low teacher expectations on girls (for mathematics and science), on minority children (for all subject areas), and on children from lower social class family backgrounds (again for all subject areas) (Eccles & Wigfield, 1985; Jussim et al., 1996; Parsons, Kaczala, & Meece, 1982; Rists, 1970).

Weinstein (1989) and her colleagues, for instance, found that both high- and low-achieving students report perceiving differential teacher treatment of students on the basis of ability in most elementary-school classrooms. High achievers are seen by students of all ability levels as receiving higher expectations, more opportunities to participate in class, and more choice about work, whereas low achievers are seen as receiving more negative feedback, more control, and more feedback concerning work completion and following rules. The greater the perceived differential treatment in a classroom, the greater is the impact that teachers' expectations will have on achievement and children's self-perceptions of competence (Weinstein, 1989). Observational studies of teacher behavior validate these perceptions: Teachers often do treat high and low achievers differently in these ways (Brophy, 1988; NRC/IOM, 2004).

Other work, however, suggests that teacher expectancy effects may not be as negative as once believed. For the effect to be of great concern, one needs to demonstrate that it has a negative biasing effect (i.e., that teachers' expectations lead to changes in motivation and performance over time beyond what would be expected given knowledge of the characteristics of the specific students; Jussim et al., 1996; Jussim, Palumbo, Chatman, Madon, & Smith, 2000; Madon et al., 2001). Evidence for such negative biasing effects is minimal in the short run. Much of the association between teacher expectations for individual students and subsequent student motivation and performance reflects the "accurate" association between teacher expectations and student characteristics, such as prior achievement levels and behavioral patterns (Jussim et al., 1996; Madon et al., 2001). In addition, not all teachers respond to their expectations with behaviors that undermine the motivation and performance of the low-expectancy students. Some teachers respond to low expectations with increased instructional and motivational efforts for particular students and succeed in increasing both student motivation and learning (Goldenberg, 1992). Nonetheless, small but consistent teacher expectancy effects over time can have a large cumulative effect on students' motivation and achievement (Jussim et al., 1996; Smith, Jussim, & Eccles, 1999), particularly if these effects begin in kindergarten and the first grade (Entwisle & Alexander, 1993). Finally, Jussim et al. (1996) found that girls, low-socioeconomic status students, and minority students are more susceptible to these effects than European American, middle-class boys.

Weiner (1991) and Graham (1991) studied a slightly different aspect of within-classroom variations in the teacher-student interaction linked to teacher expectancy effects. Weiner (1991) hypothesized that teachers' emotional reactions may convey their expectations to students. Specifically, it was hypothesized that teachers may display pity in providing negative feedback to those students for whom they have low expectations. In contrast, it was

hypothesized that teachers would display anger in providing negative feedback to those students for whom they have high expectations. Such a difference in effect could underlie teacher expectancy effects. Graham (1991) investigated this hypothesis by manipulating bogus instructors' emotional reactions to experimental participants' (learners') performance on a laboratory task: "Instructors" who showed pity and offered excessive help, for example, produced "learners" who either attributed their "failures" to lack of ability and lowered their expectations for success (Graham & Barker, 1990) or engaged in a variety of behaviors (e.g., making excuses for their poor performance) designed to maintain the learners' sense of self-worth (Covington, 1992). Similarly, Parsons, Kaczala, and Meece (1982) demonstrated that, when praise is used in a way that conveys low teacher expectations (i.e., patronizing praise for low-level successes), it undermines junior high-school students' confidence in their abilities as well as their expectations for success. In contrast, when overt criticism conveys high teacher expectations (i.e., when the teacher uses public criticism only with high-performing students to protect the low-performing students' egos), high rates of criticism are associated with higher than predicted confidence in one's ability.

Researchers such as Steele and Aronson (Aronson & Steele, 2005; see Nisbett, 2008, for a review) have linked perceptions of differential expectations, particularly for African-American students, to school disengagement and disidentification (the separation of one's self-esteem from all forms of school-related feedback). Steele and Aronson argue that when African-American students believe that teachers and other adults have negative stereotypes of African-American children's academic abilities and this belief is made salient, the African-American students' performance anxieties increase and their academic confidence decreases, which, in turn, lead them to disidentify with the school context to protect their self-esteem. It is interesting that other studies using the same theoretical notions and experimental techniques have shown that Asian-American students believe that teachers and adults expect them to perform very well and that belief leads Asian students to perform better on tests when their ethnicity is made salient (Shih, Pittinsky, & Ambady, 1999). Furthermore in very similar studies, Shih and her colleagues have found that Asian-American females perform better on tests of math ability when their Asian identity is made salient and worse on the same tests when their female identity is made salient (Ambady, Shih, Kim & Pittinsky, 2001; Shih et al., 1999).

Researchers interested in the relatively poor academic performance of adolescents from some ethnic groups have suggested another classroom-based experience linked to teachers' expectations, beliefs, and prejudices: **discrimination**, specifically, the impugning of one's intellectual ability based on ethnicity, race, or gender (Brody et al., 2006; Chavous, Rivas-Drake, Smalls, Griffin, & Cogburn, 2008; Fordham & Ogbu, 1986; Garcia Coll et al., 1996; Graham & Taylor, 2002; Ruggiero & Taylor, 1995; Roeser et al., 1998a; 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 in school and other settings that can affect mental health and academic motivation (Chavous et al., 2008; Sellers, Caldwell, Schmeelk-Cine & Zimmerman, 2003; Roeser et al., 1998a; Wong et al., 2003). Both types have been shown to adversely affect the development of ethnic-minority adolescents.

For instance, in a 2-year longitudinal analysis of African-American early adolescents across seventh to ninth grade of junior high, Wong et al. (2003) found that adolescents who perceived more incidents of racial discrimination with teachers, school staff, and classmates in Grade 8 also showed declines in their academic self-concept and teacher-reported grades and increases in their self-reported psychological distress for Grade 7 to Grade 9. Furthermore, they found that African-American youth who had a positive connection to their ethnic group

showed less of a decline in school motivation, achievement, and well-being over time in relation to level of perceived discrimination. 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. Similarly, in a study of Puerto Rican 13- to 14-year-old early adolescents, Szalacha et al. (2003) found that adolescents who perceived more incidents of racial discrimination with classmates, store clerks, teachers, and neighbors also reported lower global self-worth. Several researchers have pointed out that the impact of experiences of racism may be particularly salient during middle childhood and early adolescence as children begin to solidify their ethnic identities and are often exposed to more heterogeneous student populations in terms of ethnic, religion, and other social categories (Rowley, Burchinal, Roberts, & Zeisel, 2008; Wong et al., 2003).

In a large study of Asian, Mexican, and Central and South American immigrant high-school students growing up in major metropolitan areas of the United States, Portes and Rumbaut (2001) found that a majority of youth in their sample reported feeling discriminated against at school and in other settings. The major sources of this perceived discrimination were European-American classmates, teachers, and neighbors. Such experiences were associated with greater feelings of depression among the youth in the study.

Rosenbloom and Way (2004) also studied the dynamics of discrimination in multiracial urban high schools. Asian-American students reported harassment by peers, whereas African-American and Latin-American students were more likely to report discrimination by adults such as teachers. The authors linked the experiences of discrimination among different groups: when teachers preferred Asian-American students and saw "model minority," the African-American and Latino adolescents resented this differential teacher treatment and thus harassed the Asian-American students.

One interesting finding is beginning to emerge for this work on discrimination: it appears that when youth have a strong positive ethnic identity, it has protective effects against the potential aversive effects of daily experiences of ethnic discrimination. Several researchers have found that those African-American youth who have strong and positive ethnic identities are much less negatively affected by experiences of racial discrimination than their less strongly identified peers (Burchinal et al., 2008; Chavous et al., 2003; Harris-Britt, Valrie, Kurtz-Costes, & Rowley, 2007; Wong et al., 2003). Thus, educating for diversity and redressing discrimination are two goals that educators might pursue in their efforts to reduce the persistent ethnic group differences in school achievement.

Pedagogical Goals

Another key set of cognitions that are associated with teachers' classroom behavior concerns their beliefs about the purposes or goals of instruction and learning in school (e.g., Covington, 2000). **Achievement goal theory** is a social-cognitive approach to the study of motivated behavior in achievement settings that posits that cognitive *purposés* or goals organize the quality of individual's attention, emotion, cognition, and consequently, behavior during teaching or learning (Ames, 1992; Maehr & Midgley, 1996). Ames (1992) has used goal theory to describe how mastery- or performance-oriented classrooms can emerge from the goals that teachers hold implicitly about the purposes of learning and related ways of teaching and motivating learning. Specifically, Ames linked teachers' pedagogical goals to the ways that teachers use time in their classrooms; distribute authority; recognize, group and evaluate students; and design classroom tasks. She focused on two particular achievement goals that teachers can espouse that then shape their pedagogical practice—a relative ability or a mastery goal orientation (Roesser, Midgley, & Urdan, 1996). These two goal orientations are hypothesized to lead to two different patterns of instruction.

The first pattern, called a "relative ability-goal orientation," is one in which teachers believe that the goal of learning is demonstrating one's abilities, especially relative to others. Grouping by ability, differential rewards for high achievers, public evaluative feedback, academic competitions, and other practices promoting the notion that academic success means outperforming others and proving one's superior ability are practices employed by such teachers that are consistent with this goal orientation (Ames, 1992; Midgley, 2002). Unfortunately, most youth, by definition, are not "the best" and thus may not receive rewards and recognition in classrooms that emphasize relative ability. We know that in ability-oriented classrooms, children are more likely to use low-level strategies to learn, experience more anxiety and negative affect, and devote attentional resources to making themselves look smarter or avoiding looking dumber than other students rather than learning the material (Ames, 1992; Midgley, 2002). Urdan, Midgley, and Anderman (1998) found that fifth grade teachers' reports of their performance-oriented approaches to instruction (e.g., helping students see how their performance compares to others, pointing out students who do well academically as models for other students) were positively associated with students' reported use of self-handicapping in the classroom (purposefully withdrawing effort in order to protect self-worth). This study and others suggest that children who lack confidence in their academic competence are particularly vulnerable in such environments (Covington, 2000). Although few studies have looked at this, it seems plausible that learned helpless responses to academic failure, the avoidance of engaging in work, negative emotional experiences, and stereotype threat effects are more likely to beset low-ability students in ability-focused environments (Dweck, 2002; Roeser, 2004).

On the other hand, some teachers hold the view that mastery, self-improvement, and progressive skill development are the valued ends of learning in the classroom. These beliefs "show through" in terms of greater efforts to acknowledge individual effort and improvement regardless of a child's current ability level, provisions of choice and collaborative work in which social comparison and status differences are de-emphasized, and more teacher talk to students about the idea that mastering new content, learning from mistakes, and continuing to try despite setbacks are more highly valued hallmarks of learning and being successful (e.g., Turner et al., 2002). For example, using observational data, Meece (1991) found that upper elementary teachers in classrooms rated by students as more mastery-oriented than other classrooms were more likely to promote meaningful learning, adapt instruction to the developmental levels and interests of students, support student autonomy and peer collaboration, and emphasize the intrinsic value of learning. Other studies have shown that ninth grade teachers' self-reported mastery-oriented approaches to instruction (e.g., stressing to students the importance of understanding work and not just memorizing it, making an effort to provide students with work that has meaning in their everyday lives) were positively associated with students' aggregate perceptions of their classrooms as mastery-oriented. These aggregate perceptions were related, in turn, to lower incidences of student-reported disruptive behavior in the classroom. Mastery-oriented pedagogical practices have also been linked to reductions in students' concerns about their ability relative to peers and the feelings of self-consciousness, anxiety, or disenfranchisement that can accompany such concerns (Assor, Vansteenkiste, & Kaplan, 2009; Maehr & Midgley, 1996; Midgley, 2002; Murayama & Elliot, 2009; NRC/IOM, 2004; Roeser et al., 1996). In addition, mastery-focused classrooms can foster children's use of deeper processing strategies to learn, positive affective around learning, and more of an intrinsic, task-mastery-oriented motivation approach to learning in the students (Covington, 2000).

For developmental changes in teachers' professional identity, beliefs, and goals, grade-level changes have been documented for all of these types of teacher beliefs. For example, grade-level differences in teachers' efficacy beliefs regarding their ability to teach and influence all of

the students in their classes have been found. Midgley, Feldlaufer, and Eccles (1989a) showed that teachers in junior high-school environments feel less efficacious than their colleagues who teach in elementary-school settings. These results are not surprising due to the larger number of students, the lack of extended contact with students during the day, and the content-focused educational training that secondary teachers experience in comparison to their elementary-school colleagues. Nonetheless, this decline in teacher efficacy can have a major impact on child development, particularly for the low-performing children. As discussed more fully later in this chapter, students' experiencing a decline in their teachers' sense of efficacy as they transition into secondary school is associated with declines in aspects of motivation and school engagement. Early adolescents need role models who provide supportive feedback about their ability to be successful academically. If teachers do not feel particularly efficacious in relation to their teaching, their students are likely to lose confidence in their ability to learn.

There are also grade-related differences in teachers' role beliefs. Compared to teachers in elementary-school settings, teachers in secondary-school settings see their role more in relation to content instruction than to socialization (McPartland, 1990). This difference likely reflects two factors: First, secondary teachers' education is more focused on particular content areas than on child development. Second, aspects of teachers' work in secondary schools such as departmentalization by academic discipline and large student loads also promote a focus on academic content issues rather than individual mental health concerns. Similarly, Roeser et al. (2002a) found that secondary-school teachers are less likely to endorse the notion that students' mental health concerns are part of the teacher role than elementary-school teachers. An important implication of such findings is that, at a time when adolescents need academic and socioemotional guidance and support from both parents and non-parental adults (i.e., during early adolescence), teachers may be less likely to provide such support given the number of students they teach, their educational training, and the size of secondary schools (Eccles et al., 1993). Although elementary teachers seem sensitive to both internalized and externalized distress in children (Roeser & Midgley, 1997), secondary-school teachers may fail to notice children who are experiencing internalized distress and having difficulty adjusting to the transition to middle or high school. This seems especially true of children who struggle emotionally but continue to perform at an acceptable academic level (Juvonen et al., 2004; Lord, Eccles, & McCarthy, 1994). Consequently, because secondary teachers have so many students, they may not be able to be sensitive to mental health issues until these problems severely undermine academic performance or disrupt classroom activities. This creates a hole in the "safety net" available to children at a time when they are in particularly acute need of adult support and guidance (Simmons & Blyth, 1987).

Grade-level differences have also been identified for teachers' endorsement of mastery versus ability goals and related pedagogical practices. For example, Midgley and her colleagues (Midgley, 2002; Midgley, Anderman, & Hicks, 1995; Roeser et al., 1998a; Roeser, Midgley, & Maehr, 1994) found that, as children progress from elementary to middle school, both teachers (in reflecting on their own work environments and the learning environments for students in the school) and students (in reflecting on their school environments) report that their school environment is more focused on competition, relative ability, and social comparison than on learning, task mastery, and individual improvement. These changes occur during a time when adolescents are particularly vulnerable to social comparisons with peers. They are beginning to differentiate ability from effort and also are starting to view ability more as a "fixed capacity" than an incremental skill. Not measuring up to one's peers in terms of academic ability in school settings that increasingly emphasize ability differences is very likely to undermine academic motivation and well-being among

students generally and vulnerable students in particular (Roeser & Eccles, 2000; Roeser et al., 1998b).

Finally, from the students' perspective, experiences of ethnic discrimination increase with grade level as well. Greene, Way, and Pahl (2006) found that African-American and Asian-American adolescents report increasing levels of discrimination from adults as they move through high school. African-American students also report an increasing amount of discrimination from peers during this same time period, suggesting that for African-American students, experiences of discrimination in general increase as they progress through high school. Interestingly, the Latino and Puerto Rican students in the same study did not show these same patterns; if anything these groups reported less ethnic discrimination as they moved through high school (Burchinal et al., 2008).

In summary, teachers' beliefs about themselves as a teacher and about the teaching role, about the students they teach, and about the goals and purposes of learning are all important factors that constitute a "psychological environment" that accompanies the pedagogical practices and forms of interaction related to these teacher beliefs. As such, these beliefs represent one important factor that can shape student outcomes in school indirectly through effects on teacher behavior as students move through the school system. In addition, many teacher beliefs "change" from the perspective of the developing child in ways that may be contraindicated with respect to the kinds of supports and learning environments young people need during adolescence. Next, we turn to the qualifications and quality of instruction that teachers deliver as a related set of factors that are consequential for child development at the teacher/classroom level of analysis.

Teacher Qualifications and Quality of Instruction

Teacher qualifications, in terms of their educational preparation and training, as well as teachers' ability to deliver high-quality classroom instruction, are the next school context factors we discuss that are important for child and adolescent development in schools.

Teacher qualifications. Research on teacher qualifications and student achievement outcomes has revealed that the qualifications of the teachers that children encounter, especially in the early years of school when foundational literacy and numeracy skills are the focus of the curriculum, have substantial effects on students' academic growth and subsequent educational trajectories through high school (Hill, Rowan, & Ball, 2005; Rowan, Correnti & Miller, 2002). In a review of evidence from three different national data sources, Darling-Hammond (1999) concluded that teacher preparation and certification are by far the strongest correlates of student achievement in reading and mathematics, even after taking account of students' socioeconomic and sociolinguistic background. The importance of teacher qualifications for student achievement has now been demonstrated in 46 countries that participated in the Trends in International Mathematics and Science Study (TIMSS) in 2003: Greater teacher qualifications were associated with increased mathematical achievement across nations (Akiba, LeTendre, & Scribner, 2007). In addition, evidence shows that teachers with greater qualifications also are more likely to use reform-oriented teaching practices in middle-school math classrooms (Smith, Desimone, & Ueno, 2005). Thus, it appears that teacher preparation and qualifications can improve instructional quality, which in turn can affect student achievement.

Darling-Hammond (1999) reviewed evidence showing that knowledge of the subject matter to be taught is essential to good teaching, but also that the returns of subject matter expertise in terms of improvements in student learning diminish as that expertise grows well beyond the curriculum to be taught. That is, beyond some basic mastery of the curricular content to be

taught, other teacher qualifications such as the complexity of a teachers' pedagogical content knowledge (e.g., knowing how to teach a particular subject), developmental knowledge (e.g., knowing how to teach a particular subject to students of a particular age), and skill in bringing these to bear collectively on instruction matter more for student outcomes. For instance, research on effective teaching has shown that the most effective teachers are those who are flexible and able to adapt their teaching approaches to fit the needs of different students and the demands of different instructional goals or content (Doyle, 1985).

In addition, Darling-Hammond (1999) noted the troubling tendency of poor and ethnic-minority children to be over-exposed to "out-of-field" teachers teaching their subject matter classes. For instance, in Grades 5 through 8, it is estimated that 70% of poor and ethnic-minority adolescents have "math" teachers who do not possess even a college minor in math or a math-related field; the percentage is 50% during the high-school years (Peske & Haycock, 2006). Research among high-school students has demonstrated the negative achievement-related impact of having an out-of-field teacher on mathematics in particular (Goldhaber & Brewer, 2000). Research shows that not only are large proportions of the teaching staff in poor schools made up of non-credentialed or unqualified teachers, but substitutes also regularly fill the places of full-time teachers in these schools, there is little support for English-language learners (ELLs), and staff turnover is high (Darling-Hammond, 1997, 2000).

ELLs for whom English is a second language (ESL students) are also disproportionately exposed to unqualified teachers in US schools. Approximately 75% of ELLs in US schools speak Spanish (Fashola, Slavin, Calderon & Duran, 2001). Integrated language and subject matter courses that emphasize both receptive skills in listening and reading and production skills in speaking and writing are needed to assist ESL students in mastering both English and the subject matter (August & Hakuta, 1998; Valdes, 2001). Resistance to native language programs nationally and a shortage of teachers who are proficient in English and Spanish and who know how to prepare content instruction for ELL students hamper these efforts nationwide (Fashola et al., 2001).

In summary, teacher qualifications are an important source of educational inequality in US schools generally and the educational lifepaths and so-called "achievement gaps" involving poor and ethnic-minority children from particular racial/ethnic groups (African-, Latin-, and Native-American youth in particular). Although the NCLB Act of 2002 included a provision to redress inequality in teacher qualifications in high-concentration poor and ethnic-minority schools, such provisions did little to remedy the inequities. The lack of effect NCLB had on redressing real inequalities in teacher qualifications has been attributed in part to the relatively low standards for what constituted a highly qualified teacher in NCLB, and in part to the relatively low resources that were dedicated to teacher training by the law (Darling-Hammond, 2007; Peske & Haycock, 2006).

Instructional quality. As noted above, closely related to teacher qualifications is the quality of instruction that teachers deliver in the classroom. Research on instructional quality in both developed and developing nations has shown that it matters for students' learning and achievement (Heyneman & Loxly, 1983; Pianta & Hamre, 2009). Given the research reviewed above linking teacher qualifications and student outcomes, this research also suggests that instructional quality and teaching practices are important mediators between teacher qualifications and student achievement (e.g., Smith et al., 2005).

Although valid assessments of instructional quality remain a complex challenge in this area of research, recent research has shown that instructional quality is often mediocre in US public schools, especially if the students are poor (Pianta, Belsky, Houts & Morrison, 2007; Quint, 2006). Mashburn et al. (2008), for instance, in a study of over 2000 children enrolled in public pre-school programs, found that the quality of teachers' instruction predicted gains in

academic and language skills. These authors also found that teacher quality was lower in classrooms with more than 60% low-income children, when teachers lacked a degree in early childhood education, and when they held less child-centered and more adult control-oriented beliefs concerning child development (Pianta et al., 2005).

Similarly, a study of elementary schools showed that teachers in high-poverty and high-minority schools are more likely to use certain kinds of pedagogical practices more than others, including the exercise of strong control over students and the limiting of their use of constructivist teaching practices, because, in part, they believe that poor children lack the inner control necessary to play a responsible role in their own learning (Solomon, Battistich, & Hom, 1996). Furthermore, because a substantial minority of low-income students are perceived as arriving to school with social-emotional and behavioral problems that compromise their readiness to learn (Adelman & Taylor, 1998), their teachers are more likely to experience feelings of burden in relation to their level of emotional needs (Roeser & Midgley, 1997); feel a need to distance themselves from their students emotionally (Solomon et al., 1996); and feel less efficacious as a teacher (Bandura, 2006). The use of heavy extrinsic inducements and controlling, teacher-centered forms of instruction in these environments may be a function of teachers' feeling overwhelmed and inefficacious in such settings and also the relative inexperience and high turnover of teachers in high-poverty, high-minority schools (Darling-Hammond, 1997, 2007). As these selected research studies indicate, at both elementary- and secondary-school levels, improvements in instructional quality remain a critical challenge for reform efforts (e.g., Pianta & Hamre, 2009; Quint, 2006). However, improvements in instructional quality often require other kinds of contingent reforms to be maximally effective (see Quint, 2006). For instance, Greenwald, Hedges, and Laine (1996) found that teachers' education, ability, and experience, in conjunction with being in small schools and lower teacher-student ratios, were the constellation of factors that mattered most for aggregate achievement at the school and district levels.

Changes in teacher qualifications and instructional quality. Very little research has looked at how the nature of teacher qualifications or instructional quality changes over time from the perspectives of students as they progress through the school system. This represents one fruitful area for future research on human development in the contexts of schools.

Teacher-Student Relationships, Climate and Management

The nature of the classroom climate, referring to the general social-relational atmosphere of the classroom and its basis in teacher-student relationships, as well as how the classroom is organized and managed, is an important context feature at this level of analysis that can affect child and adolescent development.

Classroom climate and teacher-student relationships. Research suggests that the quality of teacher-student relationships in terms of instrumental and social support, trust, and caring, and the fostering of a sense that all students are valued members of a learning community who belong in the classroom, is essential for the development of students' academic motivation, engagement, learning, and social-emotional well-being in school (Burchinal et al., 2008; Deci & Ryan, 2002; Eccles et al., 1998; Goodenow, 1993; NRC/IOM, 2004; Pianta, 1999; Roeser et al., 1996; Wentzel, 2002). Perceptions of teacher social support and sense of belonging and membership in a learning community are especially important precursors to individuals' motivation to learn (Osterman, 2000). Sense of belonging is perhaps especially critical for young people who must traverse significant ethnic and racial, socio-economic, and sociolinguistic borders to feel fully part of a school in which middle-class,

majority cultural norms often predominate (Davidson & Phelan, 1999; Garcia-Reid, Reid, & Peterson, 2005; Lucas, Henze, & Donato, 1990). Correlational studies with adolescents show that students' perceptions of caring teachers enhance their feelings of self-esteem, school belonging, and positive affect in school (NRC/IOM, 2004; Roeser & Eccles, 1998; Roeser et al., 1996). In a naturalistic longitudinal study, Pianta et al. (2008) found that emotional supportive interactions in pre-school predicted trajectories of reading and math development across elementary school, though the associations were small. In sum, emotionally supportive teachers are a critical foundation for motivation to learn. The importance of relationships for reinvigorating education and reengaging disenfranchised students is at the heart of many of the most innovative approaches to school reform over the past couple of decades (Brown, 1997; Connell, 2003; Quint, 2006; Schaps, 2003).

Several researchers are studying how classroom climate is related to students' emotions in the classroom, and in turn their motivation and learning (Frenzel, Goetz, Ludtke, Pekrun, & Sutton, 2009; Frenzel, Pekrun, & Goetz, 2007; Goetz, Frenzel, Hall, & Pekrun, 2007; Goetz, Frenzel, Pekrun, Hall, & Ludtke, 2007; Goetz, Pekrun, Hall, & Haag, 2006; Pekrun, Goetz, Titz, & Perry, 2002). These researchers argue that emotional reactions to experiences in the classroom have a large impact on student engagement and learning; and have separated individual emotional reactions to classroom experiences from shared emotional reactions. Findings have revealed that shared emotional reactions across students within the same classroom are influenced by shared perceptions of teachers' enthusiasm and enjoyment (Frenzel et al., 2007). Furthermore, these shared positive and negative emotions were linked to the general level of achievement in the classroom: As a group, students in high-achieving classrooms reported more positive emotions (pride and enjoyment) and less extreme negative emotions (anxiety, shame, and hopelessness). Interestingly, at the individual level, there was a negative association between the average achievement level of the class and the individual student's positive emotional reactions during the class: Individual students reported more positive emotions if they were in a lower-achieving than a higher-achieving classroom, in part because they felt less pressure and a greater sense of control over their own achievements in the lower-achieving classroom (Pekrun, Goetz, & Frenzel, 2007).

Developmental changes in classroom climate and teacher-student relationships. Declines in perception of emotional support from their teachers and in a sense of belonging in the classrooms are quite common as students move from elementary into secondary schools (Burchinal et al., 2008; NRC/IOM, 2004; Roeser et al., 1994; Wigfield, Byrnes, & Eccles, 2006). This shift is particularly troublesome in our highly mobile society in which teachers represent one of the last stable sources of non-parental role models for adolescents. In addition to teaching, teachers in mobile societies such as the United States can provide guidance and assistance when socioemotional 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/IOM, 2004; Simmons & Blyth, 1987). Research on the importance of adult mentors in adolescents' lives, particularly in high-risk and very mobile communities, supports this point of view (DuBois, Holloway, Valentine, & Cooper, 2002). Although the positive effects are quite weak, adult mentors do provide stability for their mentees, and their mentees fare better in terms of school achievement, staying out of trouble, and maintaining positive mental health.

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; Lee, 2000; Pintrich & Schunk, 2003). Unfortunately, such conditions are often absent, particularly in highly stressed and underfunded schools with inexperienced teachers (Darling-Hammond, 1997; Darling-Hammond & Bransford, 2005; NRC/IOM, 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; Ruthig et al., 2008). Support for this hypothesis has been found in both laboratory and field-based studies (Deci & Ryan, 2002; Grolnick & Ryan, 1987; NRC/IOM, 2004; Patail, Cooper, & Robinson, 2008; Roeser et al., 1998a). Pekrun and his colleagues have argued that students' perceptions of being in control of their academic outcomes lead to positive emotions, which, in turn, lead to increased engagement (e.g., Pekrun, 2006).

Other researchers have shown how student autonomy support needs to co-occur with other classroom management and instructional features such as adequate structure, orderliness, and relevant curriculum for its benefits on student motivation, engagement, and learning to be fruitful (Assor et al., 2002; Skinner & Belmont, 1993). The issue appears to be one of finding a proper balance between autonomy and structure (Deci & Ryan, 2002). This need for teachers to balance autonomy support and scaffolding and structure during learning activities is further 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, but teachers often are less trustful of older students and therefore look to control them more (Eccles et al., 1993). To the extent that students do not experience developmentally appropriate 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).

Developmental changes in classroom management. Contrary to what one might expect to happen given the increasing developmental maturity of the children, secondary-school teachers, compared to elementary-school teachers, use more control-oriented strategies, enforce stricter discipline, and provide fewer opportunities for student autonomy and decision-making in the classroom (Midgley, 2002; Midgley & Feldlaufer, 1987; Midgley, Feldlaufer, & Eccles, 1988). Apparently, as children move from elementary to junior high-school environments, their teachers believe that they are less trustworthy and need to be controlled more. To explain this pattern, Willower and Lawrence (1979) suggested that, as children grow older, bigger, and more mature, and as peer subcultures become stronger during adolescence, teachers are increasingly likely to see students as a threat to their authority and thus respond with more control and discipline. Stereotypes about adolescents as unruly and out of control are likely to reinforce such beliefs and strategies. High-profile school violence cases likely increase teachers' concerns about their own safety as well as the safety of other school personnel and students, leading to even tighter controls over high-school students' behaviors (Elliott, Hamburg, & Williams, 1998; Lee & Smith, 2001). Finally, the demands of secondary-school environments, in which teachers have to deal with many students, may predispose them to use more controlling strategies as a way of coping with so many students.

Practices that provide less support for autonomy are likely to be especially problematic at early adolescence when children express an increased desire for opportunities to make choices and have their voices expressed in the classroom (Assor et al., 2009; Eccles et al., 1993). This may be particularly true for students who, because they are poor or have a history of academic or behavioral problems, are placed in low-ability tracks and classrooms where controlling

strategies are particularly prevalent (Oakes, 2005). We discuss this further later. In summary, the set of research studies presented provides an example, collectively, of how complex causal chains across different levels of the school system, in this case involving organizational factors (large student loads), teacher beliefs (e.g., adolescents need to be controlled), and related teacher practices (less student autonomy in the classroom), can impact students' motivation, learning and achievement.

Motivational person–environment fit. The work on understanding group differences in achievement and achievement choices as a function of person (students)–environment (school context) configurations is another example of an attempt to identify a broad set of classroom characteristics that can affect child and adolescent motivation and development over time. Many investigators have suggested that students are maximally motivated to learn in situations that fit well with their interests, current skill levels, and psychological needs (e.g., Csikszentmihalyi, Rathunde, & Whalen, 1993; Eccles et al., 1993; Krapp, Hidi, & Renninger, 1992; NRC/IOM, 2004). Research on female participation and achievement in mathematics in the classroom 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, 2009; Hoffmann, 2002; Wigfield et al., 2006). Females appear to respond more positively to math and science instruction if taught in a cooperative or individualized manner rather than a competitive manner, if taught from an applied or person-centered perspective rather than a theoretical or abstract perspective, if 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 student–classroom fit between the teaching style, the instructional focus, and females' own values, goals, motivational orientations, and learning styles. The few relevant studies support this hypothesis (Eccles & Harold, 1993; Hoffmann, 2002). 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 learn and subsequent pursuit of courses in these subject areas. The good news is that 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 (Eccles, 1994, 2009).

Variations on this theme of **person–environment fit** being important in understanding classroom effects on students include research studies on aptitude by treatment interactions in the determination of student achievement (e.g., Roeser et al., 2002b) and theories stressing cultural match or mismatch as one explanation for group differences in school achievement and activity choices (e.g., Fordham & Ogbu, 1986; Suarez-Orozco & Suarez-Orozco, 2001). For example, Valencia (1991) concluded that a mismatch of the values of the school and the materials being taught contributed to the poor performance and high dropout rates among the Latino youth in the high school he and his colleagues studied. Dehyle and LeCompte (1999) made a similar argument in their discussion of the poor performance of Native-American youth in traditional middle-school contexts (see also Burchinal et al., 2008). 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 (Eccles et al., 1993; Konings, Brand-Gruwel, van Merriënboer, & Broers, 2008).

Summary of Teacher and Classroom Level of Analysis

In this section, we summarized studies of classroom- and teacher-related factors that suggest that development is optimized when students are provided with challenging tasks in a

mastery-oriented environment that provides good emotional and cognitive support, meaningful material to learn and master, and sufficient support for their own autonomy and initiative. Furthermore, there is some evidence that quality instruction is related to teacher preparation and qualifications. Connell and Wellborn (1991) and Deci and Ryan (2002), in their **Self-Determination Theory**, suggested that humans have three basic needs: to feel competent, to feel socially attached, and to have autonomous control in one's life. Further, both sets of authors hypothesized that individuals develop best in contexts that provide opportunities for each of these needs to be met under the guidance of more-expert, qualified, and caring individuals. The types of classroom characteristics that emerge as important for both socioemotional and intellectual development characteristically seem to provide opportunities for students to meet these three basic needs and thereby to flourish more in their development. In addition, in their **Expectancy Value Theory** of achievement choices, Eccles and her colleagues argue that teacher and classroom characteristics like those discussed in this section influence the students' motivation to engage in learning through their impact on the students' expectations for success and the subjective value they attach to engaging in the learning activities provided by the teacher. We will see examples of such influences throughout this chapter.

LEVEL 4: ACADEMIC TRACKS AND CURRICULAR DIFFERENTIATION

The next level of influences is that of academic tracks or "curriculum differentiation policies." These terms refer to the regularities in the ways in which schools structure sets of learning experiences for different types of student (Oakes, 2005). The process of providing different educational experiences for students of different ability levels is a widespread yet very controversial practice in American schools.

Tracking takes different forms at different grade levels. It includes within-class ability grouping for different subject matters or between-class ability grouping in which different types of children are assigned to different teachers. Within-classroom ability grouping for reading and mathematics is quite common in elementary school. 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 prep, general, vocational). Differentiated curricular experiences for students of different ability levels structure experience and behavior in three major ways: First, tracking determines the quality and kinds of opportunities to learn the child receives (Oakes, 2005); second, it determines exposure to different peers and thus, to a certain degree, the nature of social relationships that youths form in school (Fuligni, Eccles, & Barber, 1995); and, finally, it determines the social comparison group students use in assessing their own abilities and developing their academic identities (Marsh, Trautwein, Ludtke, Baumert, & Koller, 2007; Marsh, Trautwein, Ludtke, & Brettschneider, 2008).

Despite years of research on the impact of tracking practices, few strong and definitive answers have emerged (Fuligni et al., 1995). The results of these studies vary depending on the outcome assessed, the group studied, the length of the study, the control groups used for comparison, and the specific nature of the context in which these practices are manifested. The research situation is complicated by the fact that conflicting hypotheses about the likely direction and the magnitude of the effects of tracking emerge depending on the theoretical lens one uses to evaluate the practice. The strongest justification for tracking practices derives from a person-environment fit perspective. Children will be more motivated to learn if their educational materials and experiences can be adapted to their current competence level. There is some evidence consistent with this perspective for children placed in high-ability classrooms, high within-class ability groups, and college tracks (Fuligni

et al., 1995; Gamoran & Mare, 1989; Kulik & Kulik, 1987; Pallas, Entwisle, Alexander, & Stluka, 1994).

The results for children placed in low-ability and non-college tracks do not confirm this hypothesis. By and large, when long-term effects are found for this group of children, they are usually negative primarily because these children are typically provided with inferior educational experience and support (e.g., Jackson & Davis, 2000; Lee & Smith, 2001; Pallas et al., 1994; Vanfossen, Jones, & Spade, 1987). Low track placements have been related to poor attitudes towards school, feelings of incompetence, and problem behaviors both within school (non-attendance, crime, misconduct) and in the broader community (drug use, arrests) as well as to educational attainments (Oakes, 2005). But whether academic tracks promote such outcomes or reflect preexisting differences remains a matter of considerable debate. It is also important to note that these negative effects result from the stereotypically biased implementation of ability-grouping programs. A different result might emerge for the low-competence students if the teachers implemented the ability tracking program more in keeping with the goals inherent in the person-environment fit perspective—that is, by providing high-quality instruction and motivational practices tailored to the current competence level of the students.

Social comparison theory leads to a different prediction regarding the effect of ability grouping and tracking on one aspect of development: ability self-concepts. People often compare their own performance with the performances of others to determine how well they are doing (Marsh, Chessor, Craven, & Roche, 1995; Marsh et al., 2007; Reuman, 1989). They typically conclude they are doing well, and that they have high ability, if they are doing better those around them. In turn, this conclusion should bolster their confidence in their ability to master the material being taught.

Ability grouping should narrow the range of possible social comparisons in such a way as to lead to declines in the ability self-perceptions of higher-ability individuals and to increases in the ability self-perceptions of lower-ability individuals. Marsh and his colleagues refer to this effect as the big fish in a small pond effect (BFSPE). Evidence supports this prediction. For example, Reuman (1989) found that being placed in a low-ability mathematics class in the seventh grade led to an increase in self-concept of mathematics ability and a decrease in test anxiety; and conversely, being placed in a high-ability mathematics class led to a decrease in self-concept of mathematics ability. Similarly, Marsh et al. (1995) found that being placed in a gifted and talented program led to a decline over time in the students' academic self-concepts. Additionally, Marsh and his colleagues have shown consistent evidence that attending a more academically elite high school leads to reductions in students' academic ability self-concepts that persist over time (Marsh et al., 2007). These results have led Marsh and his colleagues to conclude that academic tracking comes at a cost to confidence in one's academic abilities for academically able students. Similarly, Frenzel, Pekrun, and their colleagues have found that individual students experience slightly more negative emotions (anxiety, hopelessness, and shame) and slightly fewer positive emotions (enjoyment and pride) when they are in higher achieving classrooms (Pekrun et al., 2007).

Whether such reductions in students' academic self-confidence and increases in negative emotions actually undermine these students' academic achievement remains to be tested. The main educational argument for having such elite tracks and schools is that such educational environments provide more challenging and engaging educational experiences for academically able and gifted students—experiences that should lead to increased learning, performance, and motivational engagement. Consistent with this perspective, classic achievement motivation theorists predict, and have found supporting evidence, that individuals with a high need for achievement are most motivated to do their best work when the odds of success are at about .5 (Atkinson, 1957). If this is true then lowering the academic self-concepts of high-achieving students should actually increase their motivation to do their very best. The impact

of these changes on other aspects of development likely depends on a variety of individual and contextual factors. If the net result of the BFSPE is to bring both low and high performers closer to the .5 probability level, then ability grouping should have a positive impact on all of the students in both ability groups who are highly motivated and a negative impact on all of the individuals in both ability groups who have low motivation to succeed. Theories focused on the importance of challenging material in a supportive environment suggest an increase in motivation for everyone provided that the quality of instruction leads to equally challenging material for all ability levels. Conversely, if the social comparison context also increases the salience of an entity view rather than an incremental view of ability (earlier discussion of teacher's views about intellectual ability; Dweck, 2002), then the decline in ability self-concepts of the high-ability individuals might lead them to engage in more failure-avoidant and ego-protective strategies.

Yet another way to think about the impact of ability grouping on development is in terms of its impact on peer groups: Between-classroom ability grouping and curricular differentiation promotes continuity of contact among children and adolescents with similar levels of achievement and engagement with school. For those doing poorly in school, such practices can structure and promote friendships among students who are similarly alienated from school and are more likely to engage in risky or delinquent behaviors (Dryfoos, 1990). The "collecting" of children with poor achievement or adjustment histories also places additional burdens on teachers who teach these classes (Oakes, 2005).

Tracking and ability grouping can also lead to the concentration of children with similar behavioral vulnerabilities. For instance, Kellam, Rebok, Wilson, and Mayer (1994) found that proportions of moderately to severely aggressive children ranged from 7–8% to 63% among two first-grade classrooms in the same elementary school. They found that these differing rates were a direct result of between-class ability grouping policy. As a result of this policy, children in these two classrooms were exposed to very different environments: one in which aggression was deviant (only 7–8% of students were aggressive) and one in which it was pretty much the norm (63% aggressive students). It seems likely that aggressive behavior would not necessarily lead to peer rejection in the classroom with high rates of aggression. On the contrary, in such an environment, aggression might confer status and social rewards among peers and thus be reinforced. By placing children with similar vulnerabilities in the same environment, both the reinforcement of negative behavior and promotion of friendships among similarly troubled children are more likely. This phenomenon has been well documented by Dishon and colleagues (Dishon, Poulin, & Burraston, 2001) in their intervention work with aggressive children and adolescents. They have found that aggressive and delinquent behavior often increases rather than decreases when aggressive youth are put together in an intervention group designed to decrease problem behavior.

In summary, between-class ability grouping and curriculum differentiation provide examples of how school policy, teacher beliefs and instruction, and student characteristics can all conspire to create maladaptive transactions that perpetuate poor achievement and behavior among low-ability children. Such a hypothetical sequence is depicted in Figure 12.2. The placement of many low-ability children in lower academic track classrooms may cause some teachers to feel overwhelmed and inefficacious. This might translate into poor instructional quality, a lowering of expectations for student success, and use of controlling strategies on the part of such teachers. These factors, in turn, could promote student disengagement (e.g., Kagan, 1990), which then feeds back into the teachers' beliefs and practices. Eventually, academic failure of certain low-ability children can result from these reciprocal processes. The BFSPE studied by Marsh and his colleagues demonstrates that there can also be disadvantages of tracking for high-ability students.

Another important and controversial aspect of curriculum differentiation involves how

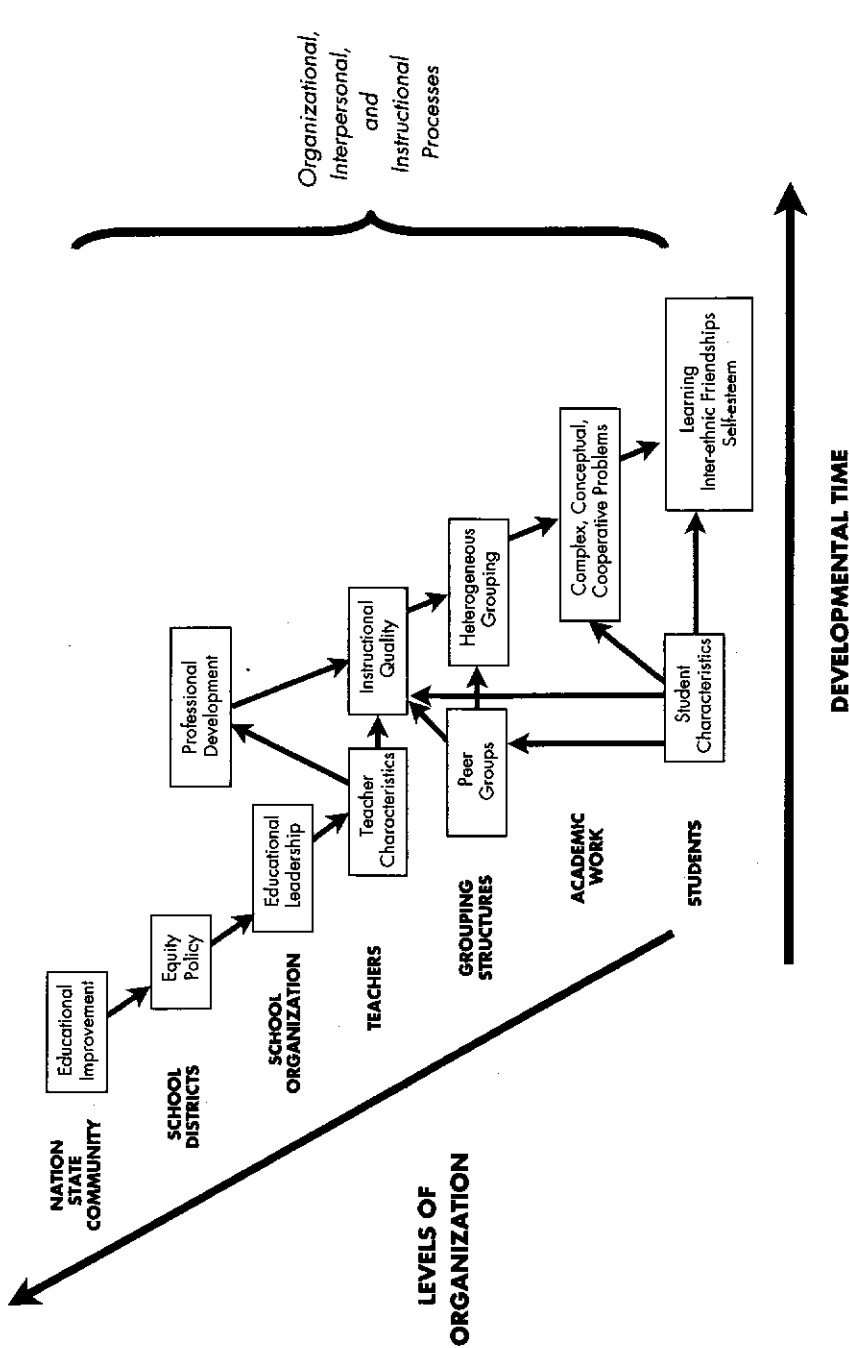


FIGURE 12.2 Causal chains of influence on child/adolescent development within a school system: The hypothesized case of using heterogeneous grouping and complex instruction as a means of increasing educational equity.

students get placed in different classes and how difficult it is for students to move between class levels as their academic needs and competencies change 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. Dornbusch (1994) described the impact of tracking on a large, ethnically diverse sample of high-school students in northern California. Analyzing the data course by course, Dornbusch found that 85% of his sample stayed in the same track during high school—there was little mobility. Furthermore, Dornbusch found that many average students were incorrectly assigned to lower track courses. This mistake had long-term consequences for these students, in effect putting them on the wrong path toward meeting the requirements for getting into California's higher educational system. Of particular concern was the fact that these youth and their parents, who were more likely to be of lower socioeconomic background and African- or Latin-American, were not informed of the potential consequences of course decisions made by school personnel during the child's early high-school career. In this case curricular differentiation practices and the absence of school-home communication exerted a profound influence on the lifepaths of these average students who, though able, were placed in lower-ability classrooms in high school.

Similar concerns have been raised about the marginalization and segregation of ESL students on middle- and high-school campuses (Valdes, 2001). There is also some evidence that students with limited English proficiency who are otherwise capable are placed in lower track classes (see Kao & Thompson, 2003). ESL programs are often housed on the periphery of regular school campuses and often fail to provide real opportunities for interaction 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 (e.g., Dornbusch, 1994), there is some evidence that ESL students often get reassigned (downwardly) to ESL programs following school transition events even though they may have graduated from such programs into mainstream classes in their previous schools (Valdes, 2001).

A different perspective on tracking and educational equity comes from national studies using multilevel modeling analyses to examine how between-school differences in the extent of tracking and other reforms relate to student motivation and achievement. For instance, in a study of middle schools, Lee and Smith (1993) found that the extent to which middle schools had engaged in restructuring practices (less departmentalization, more team teaching, more heterogeneous grouping, etc.), students were more engaged in learning and learned more, and there was a more equitable social distribution of these outcomes. Studies of religious schools and high schools have shown similar results—the more that all students in a school are expected to learn a core curriculum, the less inequality there is in student achievement by social background factors (Bryk, Lee, & Holland, 1993; Lee & Bryk, 1989; Lee, Croninger, & Smith, 1997a; Lee & Smith, 1993, 1995; Lee, Smith, & Croninger, 1997b).

LEVEL 5: SCHOOLS AS ORGANIZATIONS WITH CULTURES

Schools also function as formal organizations that are characterized by various "cultures"—including a management/work culture for teachers and a learning culture for students. The effective schools research unequivocally established that features of the internal life of the school culture matter for student outcomes above and beyond students' initial social background characteristics (Good & Weinstein, 1986; Rutter & Maughan, 2002). As Lee (2000) summarized it: "Effective schools have strong leadership focused on academic outcomes. They closely monitor student work. In such schools, teachers hold high expectations for all students. Their social environments are purposeful. Their climates are orderly" (p. 126). These

aspects of the school culture impact children's intellectual, socioemotional, and behavioral development. Below we review works on school organizational factors including fiscal resources and student characteristics (Lee, Bryk, & Smith, 1993; Lee & Smith, 2001); school size (Wyse, Keesler, & Schneider, 2008); the social, moral, and academic culture of the school as a whole (e.g., Roeser et al., 2009); unsupervised spaces in a school (Astor, Benbenishty, Zeira, and Vinokur, 2002; Bryk et al., 1993; Goodenow, 1993; Lee & Smith, 2001; Roeser et al., 2009); and school-wide practices such as school start and end times (Carskadon, 1990, 1997) and the yearly school calendar (Alexander, Entwisle, & Olson, 2007).

School Resources

School resources have been studied in various ways with respect to school, including in terms of per-pupil expenditures, the qualifications of the workforce (reviewed above), and the characteristics of the student body itself in terms of social capital. All of these forms of resources can affect developmental outcomes in schools (Greenwald et al., 1996). For instance, the schools attended by African- and Latin-American students generally, as well those attended by rural students in at least a dozen states, are schools with particularly high concentrations of impoverished students (Adelman & Taylor, 1998; Johnson & Strange, 2005). In terms of financial resources, these schools receive fewer state and local resources in terms of per-pupil expenditures than schools in more wealthy communities (Darling-Hammond, 2000; Johnson & Strange, 2005). This is due to the fact that K-12 education is largely funded at the state and local levels. Thus, the resources of a school or district are inextricably linked to where people live and the property wealth of their neighbors. Those in poor communities tend to go to schools with fewer resources, and those in affluent communities tend to go to well-resourced schools (Sawhill, 2006). Although the direct effect of per-pupil expenditures on achievement remains unclear, what is becoming clearer is how the lack of resources for hiring and retaining qualified teachers is a major way that under-resourced schools affect child and adolescent development through the qualifications of the teachers they hire (e.g., Loeb, Darling-Hammond, & Luczak, 2005).

In addition to the resource-teacher qualifications link, other studies have examined how the "mix" of socially disadvantaged students or those with significant emotional-behavioral difficulties has been associated with the educational outcomes of all students in a given school (Rutter & Maughan, 2002). In general, as the ratio of students who are socially disadvantaged goes up in a school, its aggregate achievement goes down. The aggregate behavioral histories of a school's student body also matter. LeBlanc, Swisher, Vitaro, and Tremblay (2007) found that between-school variation in the proportion of students with histories of disruptive problems predicted subsequent rates of classroom behavior problems among high-school students. A variety of mechanisms, including those of peer influences on motivation understood in the context of tracking, and social environments in which maladaptive norms develop, have been proposed to account for these influences (e.g., Rutter & Maughan, 2002).

School resources in terms of adequate materials, a safe environment, and qualifications of the teaching staff are important for students' learning and well being. School district level variations in such school resources are a major contributor to the continuing inequity in educational outcomes for several minority groups in the United States. Thirty-seven percent of African-American youth and 32% of Latin-American youth, compared to 5% of European-American and 22% of Asian-American youth, are enrolled in the 47 largest city school districts in this country; in addition, African-American and Hispanic youth attend some of the poorest school districts in the United States. Twenty-eight percent 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 as (or more important than) ethnicity in the

differences in achievement that emerge. Teachers in these schools report feeling less safe than 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; Lee & Smith, 2001). 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.

School Size

Early studies of schools focused primarily on objective characteristics of schools such as school size, teacher-student ratios, number of books in the library, and per-pupil expenditures (Barker & Gump, 1964). School size emerges as one of the most important of these structural characteristics. Barker and Gump (1964) proposed that smaller secondary schools afford young people various opportunities not available in larger schools, opportunities that foster engagement and achievement. Such opportunities included (a) closer relationships between teachers and students, (b) greater adult monitoring of and responsibility for student progress; and (c) a particularly favorable roles-to-people ratio with respect to school extracurricular activities and the need for many students in the school to participate to fulfill those roles. By affecting these mediating processes, school size was hypothesized to affect student outcomes. Subsequent research has consistently verified these hypotheses.

For instance, in a national probability study of high-school students, Crosnoe, Johnson, and Elder (2004) found that students' attachment to school in general and to their teachers in particular was significantly negatively correlated with school size. Lee and Loeb (2000), in an urban Chicago sample of 264 (K-8) schools, found that in smaller schools (<400 students), teachers took greater responsibility for fostering students' learning and students showed greater 1-year gains in mathematics achievement.

Positive relationships, opportunities to participate in the life of the school, and closer monitoring by teachers are key mechanisms in translating school size into greater student bonding with school, motivation to learn and engagement (e.g., Hawkins, 1997; Hawkins, Kosterman, Catalano, Hill & Abbott, 2008). In a national study of high schools, Lee and Smith (1995) found that the greater the school size, the less positive were students' attitudes towards classes, investment of effort in school, and feelings of challenge. In summarizing the work on school size, 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 1200, learn less in reading and mathematics. Findings regarding optimal size were consistent regardless of the social class and racial composition of the school. This work and studies by others suggest that the impact of school size on achievement depends on quality of instruction provided. If the schools focus primarily on social climate and devote limited focus to academic press, the students feel quite good about attending the school but their academic achievement is no higher than that of students attending much larger schools (Wyse et al., 2008). Again, this work provides a nice illustration of how complex configurations of factors in school systems, not single factors in isolation, account for "school effects" *per se* on students.

Others have studied issues of school size in the context of the schools-within-schools or small learning community approaches (Maroulis & Gomez, 2008; Ready & Lee, 2008). The schools-within-schools approach grew out of two concerns: reducing the size of each student's learning community without having to build new schools, and providing students

with greater choice over their high-school curriculum. Educators decided that they could create several smaller learning communities within the existing large high-school buildings. Furthermore, they decided that they could increase student choice and sense of autonomy by focusing these smaller learning communities on specific subject matter or career topics such as math/science, the arts, health, and vocational education. Unfortunately, unless school administrators are very careful, these smaller learning communities often end up creating the same problems that we discussed under academic tracking; namely, tracking highly linked to the students' social class, which can then exacerbate problems of inequity in educational experiences (Ready & Lee, 2008). The students like these smaller learning communities and report feeling that their educational options fit better with their own career and educational goals, even though they acknowledge the status hierarchies associated with the different communities that can be created along social class lines in certain schools-within-schools programs.

Connell (2003; Connell & Klem, 2000) has created a major school reform model, *First Things First*, which uses small learning communities as a key component. He also requires that the schools create these communities in ways that do not segregate students based on current ability levels and social class. Finally, he provides the schools with major academic learning supports to keep the focus on learning rather than social climate. The results of his reform efforts in risk schools are quite promising. Not only has the reform succeeded in raising the academic performance of the schools, it has also reduced the differentials in performance across social class groups and increased both attendance and high-school graduation rates.

School Culture

The concept of the culture of the school as a whole, and the fact that different schools, like different communities, vary in their interpersonal, moral and academic cultures, expectations and goals for students, has made an important contribution to our understanding of school effects (e.g., Bandura, 2006; Bryk et al., 1993; Comer, 1980; Lee & Smith, 2001; NRC/IOM, 2004; Rutter, Maughan, Mortimore, & Ouston, 1979; Sarason, 1990). For example, in their analysis of why students achieve more in Catholic public schools, Bryk et al. (1993) discuss how both the academic and social cultures of Catholic schools fundamentally differ from those within most public schools in ways that positively affect the motivation of students, parents, and teachers. These cultures or general school climate are characterized by high value placed on learning, high expectations that all children can learn and master a core curriculum, and affirm the belief that though the business of school is learning, each person has inherent value and dignity and each person is a valued member of a social community (see also Lee & Smith, 2001). As a second example of general school culture factors that are consequential for student achievement, Bandura and his colleagues documented between-school differences in the aggregate level of teachers' efficacy beliefs (Bandura, 1994), a concept called collective efficacy. School-level differences in the collective efficacy of elementary-school teachers have been related to differences in students' aggregate reading and mathematics achievement (e.g., Goddard, Hoy, & Woolfolk Hoy, 2000).

Research and intervention work has also been done on how to create positive moral cultures in schools. This work, done by the Child Development Project (CDP) in Oakland, California, takes a school-level approach to fostering students' social and ethical development as well as their cognitive and academic development. Critically important to this approach are practices that directly engage students in cooperative and community-building activities at school. These include the use of cooperative learning techniques in classrooms, classroom management strategies that rely on student participation in norm setting and decision-making, teaching of conflict resolution skills, and curricula that focus students on themes of care. Research and intervention studies have shown that such practices foster a "community

of care" that positively influences students' self-understanding, motivational beliefs and feelings of belonging, and in-school behavior (Battistich et al., 1999; Schaps, 2003).

Work in the area of school violence has also focused on the social and moral cultures of the school as a whole. Astor and his colleagues (Astor Meyer, & Behre, 1999; Astor et al., 2002; Benbenishty & Astor, 2007; Benbenishty, Astor, Zeira, & Vinokur, 2002) have shown that both the levels of school violence and students' concerns about their safety at school decrease as the social climate in the schools increases. It is likely that these two aspects of schools are reciprocally related: as climate decreases, violence increases, and as violence and bullying increase, the general social climate in the school further deteriorates.

In addition to the social and moral dimensions of the school culture, Maehr and Midgley (1996) argued that schools can be characterized by *academic* cultures as well. Just as teachers' instructional strategies are associated with and give rise to certain achievement goals in students, so too, these authors argue, do schools as a whole through their particular policies and practices (see also Midgley, 2002). The argument is that schools, through practices such as how they recognize students, create school-level emphasis on different achievement goals that then affect students' own goals and beliefs in their engagement and behavior (Midgley, 2002; Roeser et al., 1996; Urda & Roeser, 1993). 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 are all practices that emphasize relative ability, competition, and social comparison in the school ("school ability orientation"). In contrast, 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 focus on discovery, effort and improvement, and academic mastery ("school task orientation"). Maehr and Midgley (1996) spent 3 years working with one middle school to test these ideas. Although it was quite difficult to actually change the school's practices, student motivation did increase as the school became more task-focused and less ability-focused (see also NRC/IOM, 2004).

Anderman, Maehr, and Midgley (1999) presented evidence that Maehr and Midgley's attempts to alter the school-level goal structure in their school improvement work influenced the goal structures students perceived in their classrooms. Anderman and his colleagues (1999) found that when students moved from elementary schools into the treatment middle school (where efforts were underway to create a mastery goal structure), they reported a slight decrease in personal performance goals whereas students entering the control middle school reported an increase in performance goals. In addition, students moving to the treatment school reported no change in their perceptions of a performance goal structure in their classrooms whereas those moving into the comparison middle school reported increased emphasis on performance goals.

The academic goal focus of a school has important implications for students' mental health as well. In a series of studies, Roeser and Eccles found that middle-school adolescents' belief that their school was ability-focused was associated with declines in their educational values, achievement, and self-esteem, and increases in their anger, depressive symptoms, and school truancy from seventh to eighth grade. These effects were found after controlling for prior levels of each adjustment outcome, adolescents' prior academic ability, and their demographic background (ethnicity, gender, family income; Roeser & Eccles, 1998; Roeser, Eccles, & Sameroff, 1998a). These results support the idea that schools that emphasize ability are likely to alienate a significant number of students who cannot perform at the highest levels, leading to anxiety, anger, disenchantment, and self-selection out of the school environment (Eccles & Midgley, 1989; Finn, 1989; Maehr & Midgley, 1996; Midgley, 2002). In contrast, schools that emphasize effort, improvement, task mastery, and the expectation that all students can learn

appear to enfranchise more children in the learning process, promote adaptive attributions (e.g., achievement is based on effort and is therefore malleable), reduce depression, and decrease the frustration and anxiety that can be generated in achievement settings.

An extension of this work on academic climates with high-school students comes from a study by Figueira-McDonough (1986). She studied 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, particularly among low-achieving students, than the school that was "more diverse in its goals and [took] a greater interest in students' non-academic needs," where school attachment (valuing of school, liking teachers) was greater on average. Furthermore, individual differences in school attachment were a primary predictor of delinquent activity: Students with lower school attachment were more involved in delinquency than students with higher school attachment. Figueira-McDonough (1986) concluded that the broader concern of this school with motivation and diverse needs of students enhanced adolescents' attachment to school, which, in turn, discouraged involvement in delinquency.

Research using students' perceptions of the school culture has documented that perception of the school academic culture is correlated with perception of the teacher-student relationships. For instance, adolescents who perceive a task orientation in their school also report that their teachers are friendly, caring, and respectful. These factors, in turn, predict an increased sense of belonging in school among adolescents (Roeser et al., 1996). In contrast, perceptions of a school ability orientation are negatively correlated with adolescents' perceptions of caring teachers (Roeser et al., 1996). From the adolescents' perspective, a de-emphasis on comparison and competition and an emphasis on effort and improvement are intertwined with their view of caring teachers. Other research has documented that adolescents' perceptions of a school performance goal structure are positively correlated with perceptions of racial discrimination in school among African- and Latin-American youth (Roeser & Peck, 2003; Roeser, 2004). It may be that by adolescence, certain ethnic-minority students become more aware of the differential reward structures and opportunities in the school, who the primary benefactors of these structures and opportunities are, and how such disparities in opportunities and outcomes mirror what youth see between racial/ethnic groups in the wider society. Focusing on task-oriented motivational strategies in schools may thereby reduce the salience and potentially debilitating effects of racial/ethnic stereotypes and relative ability-oriented rewards structures on the achievement of particular groups of students.

Research on school cultures has revealed that school-wide policies and practices can influence not only students' motivation and achievement, but also teachers' professional identities, work motivation, and pedagogy. As studies of "effective schools" have shown, competent leadership and a sense of mutual support among school staff are two important ingredients in effective schools (Good & Weinstein, 1986). However, not all schools have work environments in which there is equitable treatment of teachers, democratic decision-making processes, a spirit of innovation, and opportunities for the professional development of all teachers. From a goal theory perspective, it is hypothetically possible to describe the work environment of a school as emphasizing competition, social comparison, and differential treatment of teachers (e.g., a performance goal structure); cooperation, equity, and a spirit of innovation (e.g., a mastery goal structure); or to some degree, both. Roeser, Marachi, and Gehlbach (2000) found that when teachers perceived differential treatment of teachers by their administrators, and a sense of competitiveness among the teaching staff in the school, they were more likely to endorse classroom practices that highlighted ability differences and competition between students. On the other hand, when teachers in elementary and middle schools perceived support for innovation, experimentation, and even acceptance of "failure" when innovating

from school leaders and their colleagues, they were more likely to emphasize these values and goals through their own classroom pedagogy. Together, these findings underscore the possibility that real change in students' motivation and learning through reform efforts may turn on whether or not a supportive work culture for teachers in which cooperation, innovation, and experimentation are valued exists in a school (Good & Weinstein, 1986; Maehr, 1991; Maehr & Midgley, 1996; Sarason, 1990). Again, this set of findings underscores interdependencies across levels of the school system when one is trying to understand the influence of schooling on child and adolescent development. As Sarason (1990, pp. xiii-xiv) put it:

Schools have been intractable to change and the attainment of goals by reformers . . . the unreflective acceptance of the belief that schools exist only or primarily for children is one of the root causes of this intractability. Schools should exist equally for the development of both faculty and students . . . teachers cannot create and sustain the conditions for the productive development of children if those conditions do not exist for the teachers.

Unsupervised School Spaces

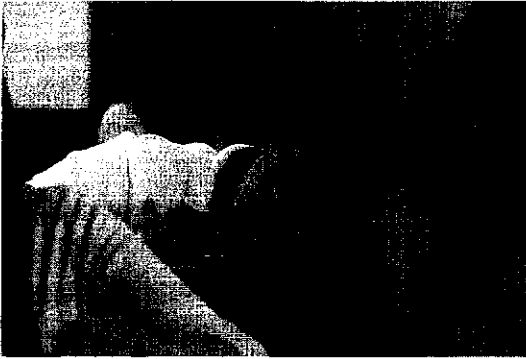
Another important physical dimension of school buildings is the non-instructional spaces that adolescents move in and through before school, after school, and between classes. These spaces include the parking lots and the school grounds, the hallways and the bathrooms, the sports fields (if any), and the cafeteria(s). One example of the importance of such spaces in the study of schooling and development comes from the work of Astor and his colleagues (1999) on school violence. 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 study of students in five high-school settings in southeastern Michigan, Astor and his colleagues (1999) found that most violent events reported by students occurred in what the authors called the "undefined public spaces" of the school—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 other negative behaviors.

School violence and bullying can have a negative impact on the target victims' and observing students' motivation and well-being (Nishina & Juvonen, 2005). In terms of the perpetrators, Fagan and Wilkinson (1998) reviewed theory and evidence that suggest several different functional goals that violence can serve for youth. These included 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. Thus, understanding the origins of school violence requires that we look at how school organizational factors and the psychological processes of the perpetrators co-contribute to school violence and its impacts on victims. In addition, understanding how undefined school spaces may offer disenfranchised students a venue to express themselves in antisocial ways at school may lead to new insights into how to reduce antisocial behavior by providing additional monitoring in unsupervised areas, as well as providing young people with more constructive opportunities for autonomy, belonging, status, competence, and well-being in the context of school and the way classrooms and the school as a whole are run.

School Hours and Schedules

Scholars have looked at two aspects of school schedules in terms of their impact on human development: school start and ending times, and the nature of the annual school calendar.

School start and end times. School start time is yet another example of how regulatory processes associated with schools can interact with individual regulatory processes, here biological ones, to influence development. Research conducted by Carskadon (1990, 1997) has shown that as children progress through puberty they actually need more, not less, sleep. During this same period, as children move through elementary to middle and high school, schools typically begin earlier and earlier in the morning, 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 the 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.



The “developmental mismatch” of increased need for sleep and earlier school start time can promote daytime sleepiness in adolescents.

The time at which school ends also has implications for child and adolescent adjustment. In communities where few structured opportunities for after-school activities exist, especially impoverished communities, children are more likely to be involved in high-risk behaviors such as substance use, crime, violence, and sexual activity during the period between 2 and 8 p.m. Providing structured activities either at school or within community organizations after school, when many children have no adults at home to supervise them, is an important consideration in preventing children and adolescents from engaging in high-risk behaviors (Carnegie Council on Adolescent Development, 1989; Eccles & Templeton, 2002) and for keeping educationally vulnerable students on track academically (Mahoney, Lord, & Carryl, 2005b; Peck, Roeser, Zarrett, & Eccles, 2008).

School calendar. American schools typically are in session from September into June. This calendar reflects the historical need for students to be available to work on family farms during the summer. Such need is no longer typical for the vast majority of America’s students. What is the consequence of this calendar for learning? This question has become highly salient in educational policy discussions due to increasing evidence that social class differences in school achievement result in large part because of social class differences in the “summer learning gap.” Most recently, work by Alexander, Entwisle, and their colleagues

showed that much of the social class differential in school achievement reflects differences that already exist when the students enter kindergarten and differences that accumulate over the elementary-school years in learning over the summer vacations. On average, children living in poor families learn less and forget more over the summer vacation than children living in middle-class and upper-class families, in part because these families are able to provide their children with a variety of structured learning experiences over the summer (Alexander et al., 2007). When they compared the actual rate of learning over the course of the school year across social class lines in the Baltimore school district, Alexander and his colleagues found little if any social class difference; in contrast, they found a substantial difference over the summer time. Work on summer schools has shown that well-designed summer school programs can help ameliorate this social-class differential (Alexander et al., 2007).

LEVEL 6: SCHOOL-HOME-COMMUNITY CONNECTIONS

Home-School Connections

Parent involvement in their child's schooling has consistently emerged as an important factor in promoting both academic achievement and socioemotional well-being (Comer, 1980; Eccles & Harold, 1993). Parent involvement in the form of monitoring academic activities and homework, providing assistance with homework, engaging children in educational enrichment activities outside of school, and active participation in classroom activities and in school organizations (e.g., governance, parent-teacher associations) (Epstein, 1992) communicates positive educational expectations, interest, and support to the child. Parent involvement also helps to establish a "safety net" of concerned adults (parents and teachers) that can support children's academic and socioemotional development and assist children if adjustment problems should arise (Jackson & Davis 2000; NRC/IOM, 2004).

Evidence also suggests that home-school connections are relatively infrequent during the elementary years and become almost non-existent during the middle- and high-school years (e.g., Carnegie Council on Adolescent Development, 1989; Eccles & Harold, 1993; Epstein, 1992; Stevenson & Stigler, 1992). This lack of involvement has been attributed to few efforts on the part of schools to involve parents, especially as children transition out of neighborhood-based elementary schools into the larger, more impersonal middle- and high-school environments (Eccles & Harold, 1993). The cultural belief that teachers are in charge of children's learning also contributes to the low levels of parent involvement in schools in the United States (Stevenson & Stigler, 1992). Other characteristics and experiences of parents that reduce involvement include a lack of time, energy, and/or economic resources, lack of knowledge, feelings of incompetence, failure to understand the role parents can play in education, or a long history of negative interactions of parents with the schools (Eccles & Harold, 1993; NRC/IOM, 2004).

School-Community Connections

Comer (1980) stressed the importance of school-community connections and partnerships. He argued that schools are a part of the larger community and that they will be successful only to the extent that they are well integrated into that community at all levels. For example, schools need to be well connected to the communities' social services so that schools can play a cooperative role in furthering children's and their families' well-being. Conversely, communities need to be invested in their schools in ways that stimulate active engagement across these two societal units. For example, when the business community is well connected to the school, there are likely to be increased opportunities for students to develop both the skills and

knowledge necessary to make a smooth transition from school into the world of work. Such opportunities can range from frequent field trips to various employment settings to apprenticeships to direct involvement of employees in the instructional program of the school.

Concern about a stronger link between communities and schools has led to a recent increase in opportunities for students to be involved in community service-learning opportunities. In 1989, the Turning Points report (Carnegie Council on Adolescent Development, 1989) recommended that every middle school include supervised youth service in the community or school as part of the core academic curriculum. Today 25% of elementary schools, 38% of middle schools, and 46% of all high schools have students participating in either mandatory or voluntary service-learning activities (NCES, 2004).

Evidence for a positive impact of service-learning on various indicators of child and adolescent development is accumulating (NRC/IOM, 2004). For example, participants in well-designed service-learning programs do better than comparison groups on measures of problem-solving ability, reading and mathematics achievement, and course failure (Eyler, Root, & Giles, 1998; Fisher, 2001; Melchior & Bailis, 2002; Moore & Allen, 1996). Participation in service-learning programs is also linked to positive social assets, civic engagement, community involvement, and increased social and personal responsibility (e.g., Kahne, Chi, & Middaugh, 2002; Scales, Blyth, Berkas, & Kielsmeier, 2000), empathetic understanding (Scales et al., 2000), improved attitudes toward diverse groups in society (Yates & Youniss, 1996), altruistic motivation (Scales et al., 2000), closer communication with one's parents (Scales et al., 2000), more positive or mastery-oriented motivation for school work (Scales et al., 2000), greater commitment to academic learning (Scales et al., 2000), increased feelings of personal efficacy and self-esteem (Kahne et al., 2002; Yates & Youniss, 1996), and a better sense of oneself (Hamilton & Fenzel, 1988; Hart, Yates, Fegley, & Wilson, 1995). Finally, service-learning has also been related to reductions in problem behaviors. In a review of programs aimed at reducing adolescent pregnancy and unprotected sex, Kirby (2002) concluded that service-learning is an effective approach. Service-learning has also been linked to decreases in problem behavior in terms of lower course failure, school suspension, and school dropout (Allen, Philliber, Herrling & Kuperminc, 1997), fewer discipline problems (Calabrese & Schumer, 1986), and reduced absenteeism (Melchior & Bailis, 2002).

Part-time employment is another example of school-community linkage that relates to the quality of adolescents' adjustment. Although part-time work outside of school hours can promote developmental competence by providing structured, safe opportunities in which adolescents can acquire skills, learn to follow structured routines, work cooperatively with others, and serve others (Mortimer, Shanahan, & Ryu, 1994), some have suggested that too much employment can undermine school success and promote engagement in problem behaviors. For instance, Steinberg, Fegley, and Dornbusch (1993) found that adolescents who work 20 hours or more per week show poor grades, lower school commitment, and less engagement in class activities than their non-working peers. One possible reason for these relations is that adolescents who work long hours are getting insufficient sleep. Steinberg et al. (1993) found that about one-third of the adolescents in their study who worked 20 hours a week or more also reported they were frequently too tired to do their homework and often chose easier classes to accommodate their heavy employment schedules. Although it is true that academically disengaged adolescents are more likely to seek out other settings such as part-time work to get their needs met, it is also true that increased work hours predict academic disengagement (Steinberg et al., 1993).

Mortimer and her colleagues found a much more positive association between working during the high-school years and successful adolescent development. In their multiyear longitudinal study of 1000 adolescents, they found that working an average of 20 hours a week or less bolsters self-confidence, time management skills, career exploration, and responsibility. It

also was associated with increased likelihood of attending and completing college (Mortimer et al., 1994; Staff, Mortimer, & Uggen, 2004). Two issues are critical in explaining the differences in these two major studies: amount of time worked and prior academic and psychological functioning. Adolescents who take near full-time jobs while they are in high school, in part because they are already alienated from school, are likely to become further disengaged from schooling as they find a more rewarding niche at work. In contrast, working 10–20 hours per week is a positive growth experience for those adolescents who are doing adequately in other aspects of their development (Zimmer-Gembeck & Mortimer, 2006).

Closer ties between schools and communities may be especially important in high-risk neighborhoods. Both researchers and policy makers have become concerned with the lack of structured opportunities for youth after school (e.g., Carnegie Corporation of New York, 1992; Eccles & Gootman, 2002; Eccles & Templeton, 2002). In most communities, adolescents finish their school day by 2 or 3 in the afternoon. Also in most communities there are few structured activities available for these youths other than work. And typically, their parents are working until early evening—leaving the adolescents largely unsupervised. Such a situation is worrisome for two reasons: First, communities are missing an opportunity to foster positive development through meaningful activities and, second, adolescents are most likely to engage in problem behaviors during this unsupervised period. A closer collaboration between communities and schools could help solve this dilemma. At the most basic level, school buildings could be used as activity centers. At a more cooperative level, school and community personnel could work together to design a variety of programs to meet the multiple needs of their youth. We discuss this issue more extensively later in the chapter.

In this section, we summarized the multiple ways through which schools as complex organizations can influence child development. We stressed the fact that the various levels of organization interact in ways that shape the day-to-day experiences of children, adolescents, and teachers. We also stressed that there are systematic differences in these organizational features and that these differences help to explain differences in both teachers' behaviors and children's development within the school context. In the next sections, we provide three more specific examples of how these processes interact with each other and with the developmental level of the child to influence human development. The first focuses on transition into elementary school; the second and third focus on the transition from elementary school to either middle or junior high school and then on to high school. Both of these examples illustrate how children are exposed to systematic age-related changes in their out-of-family contexts of development and how these changes can impact their development.

SCHOOL TRANSITIONS AS WINDOWS ON THE INFLUENCE OF SCHOOL CONTEXT EFFECTS

Because they involve simultaneous changes in the school context and child developmental outcomes, school transitions provide a unique opportunity to assess school context effects on human development. All school districts must decide both when they allow children to begin school and how they will group the grade levels within the various school buildings. One common arrangement is to group children in kindergarten through sixth grade in elementary schools, children in Grades 7 through 9 in junior high schools, and children in Grades 10 through 12 in senior high schools. The other most common arrangement places the transitions after Grades 5 and 8—creating elementary schools, middle schools, and senior high schools. In both of these arrangements, children typically begin public schooling at age 5 with the entry into kindergarten. In addition, children typically move to a new and often larger building at each of the major school transition points (e.g., the move to middle or junior high

school). These school transitions typically also involve increased bussing and exposure to a much more diverse student body. Despite sound theoretical reasons to expect that such transitions should influence children's development (Eccles, Midgley, & Adler, 1984), until recently there has been little empirical work on school transition effects. Because most of the empirical work has focused on the junior high-/middle-school transition, we emphasize this transition after briefly reviewing the work on the entry to elementary school.

Transition into Elementary School

Entrance into elementary school and then the transition from kindergarten to first grade introduces several systematic changes in children's social worlds (Perry & Weinstein, 1998). First, classes are age stratified, making age-independent ability social comparison much easier. Second, formal evaluations of competence by "experts" begin. Third, formal ability grouping begins usually with reading group assignment. Fourth, peers have the opportunity to play a much more constant and salient role in children's lives. Each of these changes should affect children's development. We know that first grade children modify both their expectations and their behavior more to failure feedback than children in preschool and kindergarten (Parsons & Ruble, 1977; Stipek & Hoffman, 1980). Changes such as those described above could certainly contribute to these changes in children's response to failure. We also know that parents' expectations for, and perceptions of, their children's academic competence are influenced by report card marks and standardized test scores given out during the early elementary-school years, particularly for mathematics (Alexander & Entwisle, 1988; Arbreton & Eccles, 1994).

Morrison and his colleagues have exploited the fact that schools have cut-off ages for eligibility to start school to examine the effects of age versus schooling on student development. As a result of these cut-offs, there is a group of children whose ages fall very near to the cut-off point (e.g., needing to be 5 years of age by September 1 of the school year). Those who make this cut-off get to start school; those who don't have to wait another year to begin formal schooling. By comparing the performance of these children on a variety of indicators, Morrison and his colleagues are able to estimate the effects of schooling versus maturing on various aspects of cognitive development (e.g., Christian, Morrison, Frazier, & Massetti, 2000). In general, they have found that the impacts of schooling are quite specific: Those children who attended kindergarten and first grade did better than children near in age who did not start school on tests of reading and letter recognition, mathematical skills, general information, and phonemic segmentation. In contrast, they did not do better on tests of receptive vocabulary and subsyllabic segmentation.

Evidence is emerging of significant long-term consequences of children's experiences in the first grade (Schulting, Malone, & Dodge, 2005). This is particularly true for experiences associated with ability grouping and within-class differential teacher treatment. Studies have shown that teachers use a variety of information in assigning first-grade students to reading groups, including temperamental characteristics (such as interest and persistence), ethnicity, gender, and social class (e.g., Alexander, Entwisle, & Dauber, 1994; Rist, 1970). Alexander et al. (1994) demonstrated that differences in first-grade reading group placement and teacher-student interactions have a significant and substantial effect (even after controlling for beginning differences in competence) on motivation, achievement, and behavior many years later. Furthermore, Pallas et al. (1994) demonstrated that these effects are mediated in part by differential instruction and in part by the exaggerating impact of ability group placement on parents' and teachers' views of the children's abilities, talents, and motivation.

The Middle Grades School Transition

There is substantial evidence of declines in academic motivation, interest in school, and achievement across the early adolescence years; particularly as these adolescents make the transition to middle or junior high school (approximately ages 11–14; see Anderman & Maehr, 1994; Anderman et al., 1999; Eccles et al., 1993; Juvonen et al., 2004; Rumberger, 1995; Wigfield, Eccles, & Pintrich, 1996). There are also increases in test anxiety (Wigfield & Eccles, 1989), focus on self-evaluation rather than task mastery (Nicholls, 1990), and both truancy and school dropout (NRC/IOM, 2004; Rosenbaum, 1976, 1991). Although these changes are not extreme for most adolescents, there is sufficient evidence of declines in various indicators of academic motivation, behavior, and self-perceptions and values over the early adolescent years to make one wonder what is happening. And 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 low-SES communities and families. It is probable then that these groups are particularly likely to show these declines in academic motivation and self-perceptions as they move into and through the secondary-school years (e.g., Roeser & Eccles, 1998; Roeser et al., 1999; Roeser & Peck, 2003).

Several explanations have been offered for these “negative” changes in academic motivation: Some point to the intrapsychic upheaval associated with early adolescent development (Blos, 1965). 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 (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 early adolescents. They suggested that different types of educational environment are needed for different age groups to meet individual 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.

This analysis suggests several important developmental questions. First, what are the developmental needs of the early adolescent? Second, what kinds of educational environments are developmentally appropriate for meeting these needs and stimulating further development? Third, what are the most common school environmental changes before and after the transition to middle or junior high school? Fourth, and most importantly, are these changes compatible with the physiological, cognitive, and psychological changes early adolescents are experiencing? Or is there a developmental mismatch between maturing early adolescents and the classroom environments they experience before and after the transition to middle or junior high school that leads to a deterioration in academic and socioemotional development and performance for some children?

Stage–environment fit and the transition to junior high or middle school. Until quite recently, few empirical studies focused on differences in the classroom or school environment across grades or school levels (Juvonen et al., 2004). Most descriptions focused on school-level characteristics such as school size, degree of departmentalization, and extent

of bureaucratization. For example, Simmons and Blyth (1987) pointed out that most junior high schools are substantially larger than elementary schools and 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 non-familial 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. In the next sections, we discuss these issues in more detail.

Teacher control. First, despite the increasing maturity of students, junior high-school classrooms, compared to elementary-school classrooms, are characterized by a greater emphasis on teacher control and discipline, and fewer opportunities for student decision-making, choice, and self-management (e.g., Jackson & Davis, 2000; Juvonen et al., 2004; Midgley, 2002; Midgley & Feldlaufer, 1987). As outlined earlier, stage-environment fit theory suggests that the mismatch between young adolescents' desires for autonomy and control and their perceptions of the opportunities in their learning environments should result in a decline in the adolescents' intrinsic motivation and interest in school. Mac Iver and Reuman (1988) provided some support for this prediction: They compared the changes in intrinsic interest in mathematics for adolescents reporting different patterns of change in their opportunities for participation in classroom decision-making questions across the junior high-school transition. Those adolescents who perceived their seventh-grade mathematics classrooms as providing fewer opportunities for decision-making than had been available in their sixth-grade mathematics classrooms reported the largest declines in their intrinsic interest in mathematics as they moved from the sixth grade into the seventh grade.

Teacher-student relationships. As noted earlier, junior high-school classrooms are characterized by a less personal and positive teacher-student relationship than elementary-school classrooms. 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 early adolescents' interest in the subject matter being taught in that classroom, particularly among the low-achieving students (Dotterer, McHale, & Crouter, 2009; Juvonen et al., 2004; Midgley et al., 1988).

Teacher efficacy. Junior high-school teachers also feel less effective as teachers than elementary-school teachers, especially for low-ability students (Juvonen et al., 2004; Midgley et al., 1988). Given the association of teacher efficacy and students' beliefs, attitudes, motivation, and achievement (Ashton, 1985; NRC/IOM, 2004), it is again not surprising that these differences in teachers' sense of efficacy before and after the transition to junior high school contributed to the decline in early adolescents', particularly low-achieving adolescents', confidence in their academic abilities and potential (Midgley, Feldlaufer, & Eccles, 1989).

Groups and activity structures. The shift to junior high school is also associated with an increase in practices such as whole-class task organization and between-classroom ability

grouping (Jackson & Davis, 2000; Juvonen et al., 2004; Oakes, Gamoran, & Page, 1992). As noted earlier, such changes should increase social comparison, concerns about evaluation, and competitiveness (Eccles et al., 1984; Rosenholtz & Simpson, 1984). They are also likely to increase teachers' use of normative grading criteria and more public forms of evaluation, both of which have been shown to have a negative effect on early adolescents' self-perceptions and motivation.

Grading practices. There is no stronger predictor of students' self-confidence and efficacy than the grades they receive. If academic marks decline with the junior high-school transition, then adolescents' self-perceptions and academic motivation should also decline. In fact, junior high-school teachers use stricter and more social comparison-based standards than elementary-school teachers to assess student competency and to evaluate student performance, leading to a drop in grades for many early adolescents as they make the junior high-school transition (Eccles & Midgley, 1989; Roderick, 1993; Simmons & Blyth, 1987). This decline in grades is not matched by a decline in the adolescents' scores on standardized achievement tests, suggesting that the decline reflects a change in grading practices rather than a change in the rate of the students' learning (Kavrell & Petersen, 1984). Imagine what such decline in grades might do to early 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 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 early school leaving (see also Roderick, 1993).

Pedagogical goals. Several of the changes noted above 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 learning tasks at school. The types of change associated with the middle grades school transition should precipitate greater focus on performance goals. As noted earlier, Midgley and her colleagues found support for this prediction (Midgley, 2002; Midgley et al., 1995). In this study, 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. Not surprisingly, personal efficacy was lower among the middle-school participants than among the elementary-school participants.

Anderman et al. (1999) 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.

School reform efforts. Jackson and Davis (2000) summarized many middle-school reform efforts. They concluded that the following middle-school characteristics support both learning and positive youth development:

1. a curriculum grounded in rigorous academic standards and current knowledge about how students learn best, which is relevant to the concerns of adolescents
2. instructional methods designed to prepare all students to achieve at the highest standards
3. organizational structures that support a climate of intellectual development and a caring community with shared educational goals
4. staff who are trained experts at teaching young adolescents
5. ongoing professional development opportunities for the staff
6. democratic governance that involves both the adults and the adolescents
7. extensive involvement of parents and the community
8. high levels of safety and practices that support good health.

Similar conclusions were reached by Juvonen and her colleagues (2004).

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. But Eccles and Midgley (1989) have 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 (Brown, 2004; Eccles & Midgley, 1989; Keating, 1990; Simmons & Blyth, 1987; Wigfield et al., 1996). 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 seem especially harmful in that they emphasize competition, social comparison, and ability self-assessment at a time of heightened self-focus; they decrease decision-making and choice at a time when the desire for control is growing; they emphasize lower-level cognitive strategies at a time when the ability to use higher level strategies is increasing; and they disrupt social networks at a time when adolescents are especially concerned with peer relationships and 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 early 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; Jackson & Davis, 2000; Lee & Smith, 2001; NRC/IOM, 2004; Wehlage, Rutter, Smith, Lesko, & Fernandez, 1989). For example, high schools are typically even larger and more bureaucratic than junior high schools and middle schools. Lee and Smith (2001) provide 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 a non-familial adult and little effort is made to make instruction relevant to the students. Such environments are likely to further undermine 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. These hypotheses need to be tested.

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 in those of middle grades students; unfortunately, this diversity is often associated more with the students' social class and ethnic group than with differences in their talents and interests (Bryk et al., 1993; Lee et al., 1993; Lee & Smith, 2001). As a result, curricular tracking has served to reinforce social stratification rather than foster optimal education for all students, particularly in large schools (Dornbusch, 1994; Bryk et al., 1993; Lee et al., 1993; Lee & Smith, 2001). Bryk et al. (1993) 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 influences cognitive, motivational, and achievement outcomes is needed.

Summary of School Transitions Research

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 is an increasing number of intervention studies showing that the junior high-school transition does not have to yield negative consequences for vulnerable youth. Middle grades educational institutions can be designed in a developmentally progressive manner, and when they are, the majority of early adolescents gain from this school transition.

We have now completed our discussion of school influences on development. In this section, we outlined the many ways in which schools affect the socioemotional development and achievement of children and adolescents. We stressed the need to take both a systems level and a developmental perspective on the school. We now turn to a similar discussion of neighborhood influences. Like schools, neighborhoods are complex places in which children and adolescents spend a great deal of time. Unlike schools, much of this time is unstructured and unorganized. In addition, neighborhoods are far less well integrated contexts than schools. They include a wide array of people, contexts, and both opportunities and risks. Consequently, both the theoretical and the empirical research on neighborhood effects is much more diverse and scattered. It is also more recent, and therefore less voluminous. The major themes in this work are summarized in the next section.

NEIGHBORHOOD AND COMMUNITY INFLUENCES

Recent interest in the potential impact of neighborhoods and communities on human development has grown out of two major lines of work: Bronfenbrenner's articulation of an

ecological view of development and renewed concerns with the impact of poverty on children and adolescents.

The publication of Wilson's book *The Truly Disadvantaged* in 1987 was probably the biggest single impetus to the study of poverty in the past 50 years. He outlined the problems of inner-city neighborhoods with unusually high concentrations of poverty, arguing that such neighborhoods pose major threats for socializing the next generation. According to Wilson, inner-city poverty of the 1980s and 1990s is quite different from inner-city poverty in previous generations because employment opportunities have moved out of these neighborhoods, leaving behind a situation in which the adults cannot find employment within their neighborhoods and communities. This in turn leads to high rates of unemployment, demoralization, and drug use, along with the deterioration of both the two-parent family and community well-being. Together these characteristics create a situation in which children have few successful role models and little obvious incentive to do well in school. Instead, they have many models of hopelessness and illegal behaviors. They also live in run-down housing with abundant health risks. Parents who do not have the economic means to leave these neighborhoods must cope with these conditions as they try to rear their children to become hopeful, healthy, and fully functioning members of the larger society. Wilson stressed just how difficult this task is if one lives in these truly disadvantaged neighborhoods.

Research related to Wilson's hypotheses, as well as to work by Bronfenbrenner and his colleagues (Bronfenbrenner & Morris, 1998) and the growing interest in the effects of poverty on human development (e.g., McLoyd, 1990; Sharkey, 2009), is accumulating. First and foremost, all researchers acknowledge the importance of studying both direct and indirect effects of neighborhood characteristics (Brooks-Gunn, Duncan, & Aber, 1997a, 1997b; Elder & Conger, 2000; Furstenberg et al., 1999; Runyan et al., 2009; Sampson, Raudenbush, & Earls, 1997). Most attention has been focused on the indirect effects of neighborhood characteristics mediated through the family, school, and peer networks. For example, the stresses on parents of living in poor, under-resourced neighborhoods are assumed to undermine effective parenting, especially for vulnerable parents (e.g., those who are unemployed or who have other major problems). In addition, the realities of the neighborhood are assumed to influence parents' goals and interactions with neighborhood institutions and residents (e.g., parents are likely to keep their children in the house or apartment as much as possible if the streets and parks in their community are dangerous). Similarly, because schools are funded to a great extent from neighborhood resources, the quality of the schools children attend is directly related to the incomes of the families living in their neighborhood. Finally, the kinds of peers children are likely to associate with are directly influenced by the types of children and families who live in their neighborhood. As noted below, work assessing these types of indirect influence is just beginning. Thus far, results support their importance (Brooks-Gunn et al., 1997a, 1997b).

Second, the nature and range of neighborhood influences on development differ by age. Infants and preschoolers are affected most by the indirect effects of neighborhood characteristics on their parents' behaviors and by the direct effects of varying health hazards associated with living in different types of communities. As children get older, they are affected more directly by the other institutions in the neighborhood, such as the schools and community recreational facilities, and by the peers and adults who reside in their neighborhood. These out-of-home neighborhood influences are especially influential during adolescence and young adulthood (Brooks-Gunn et al., 1997a, 1997b).

Third, we are just beginning to study the influences of neighborhood culture on development. Most work has focused on the establishing that there are neighborhood effects; that is, that children's development is affected by the characteristics of the neighborhoods in which they grow up independent of the characteristics of their families. This is not an easy thing to

demonstrate because families living in different neighborhoods are also quite different from each other (Firkowska et al., 1978). The best example of this problem is family income. Poor families live in poor neighborhoods; rich families live in rich neighborhoods. How, then, does a researcher know if the relation of neighborhood poverty to children's school grades is due to "neighborhood effects" or to their parents' income? Researchers are still working out exactly how to answer this question.

An attempt to separate out these influences is the work by Rosenbaum and his associates (e.g., Rosenbaum, 1980, 1991; Rosenbaum, Kulieke, & Rubinowitz, 1988). In 1976, the courts in Chicago ordered the Chicago Housing Authority to redress ethnic discrimination in housing placement by offering poor families the opportunity to move to better housing. Families who accepted this offer were randomly assigned to housing either in a better inner-city neighborhood or in a middle-class suburban community outside of Chicago. Rosenbaum and his colleagues studied the long-term differences in developmental outcomes for the children in these two types of families. Youths reared in the suburbs were much more likely to graduate from high school, to complete a college track high-school academic program, and to attend college than youths reared in the alternative inner-city neighborhood. Given the experimental design of this study, it provides the strongest empirical support available that the neighborhood in which a child grows up has an impact on that child's developmental outcomes. The source of this effect, however, was not identifiable in this study. Researchers are now shifting their focus to understanding the processes that might account for such a neighborhood effect.

The US government enacted a major social policy experiment by providing a randomly selected group of very poor families in several large cities with the opportunity to move to middle-class neighborhoods in nearby suburbs (The Move to Opportunity Program—MTO). Researchers from several different disciplines are studying the consequences of this experiment for children's development. So far the evidence looks quite good for elementary-school-aged children and for mothers: The children are doing better in school and in general social functioning than the control group children, and the mothers are doing better on both schooling and employment outcomes than the control group mothers (Leventhal & Brooks-Gunn, 2004). The MTO adolescents are also less involved in criminal behavior than the control group adolescents.

These studies support the hypothesis that neighborhood characteristics should influence the course of human development for residents. But how do neighborhood characteristics influence development? Jencks and Mayer (1990) suggested three likely sources of influence that are of particular importance to this chapter: contagion, collective socialization, and resource exposure. By *contagion*, Jencks and Mayer (1990) were referring to the impact primarily of peer groups and young adults on children's behaviors, goals, and values. They argued that both good and bad behaviors are easily modeled and picked up by younger children as they watch the older children, adolescents, and young adults in their neighborhood. If most of the adolescents in a neighborhood drop out of school and use drugs and alcohol, then younger children are likely to adopt similar behavior patterns and values as they grow up. In addition, the older individuals in the neighborhood often actively recruit younger children and adolescents into the most typical activity settings (e.g., either gangs or more positive settings linked to faith-based or prosocial activity-based organizations such as Girl Scouts), further increasing the likelihood of children adopting the behavior patterns and values of the older residents in their communities. By and large, evidence supports this hypothesis (Brooks-Gunn et al., 1997a, 1997b; Furstenberg et al., 1999).

By *collective socialization*, Jencks and Mayer (1990) meant the collaborative efforts in the community to socialize the next generation. Somewhat like the recruitment component of the contagion effect discussed above, adults in a community sometimes have common goals for their children. If they are able to implement these goals with common strategies and

socialization practices, they should be able to increase the likelihood of the children becoming the types of individuals they want them to become. Having abundant and consistent role models of the desired kinds of adult outcomes in the neighborhood should also increase this likelihood. Although work assessing this hypothesis is just beginning, initial findings provide promising support (Brooks-Gunn et al., 1997a, 1997b).

Closely related to this perspective is the work by Sampson et al. (1997) on collective efficacy. These researchers defined *collective efficacy* in terms of two components: social cohesion (shared values and goals) and confidence in shared social control mechanisms. After controlling for family-level characteristics such as income, education, and employment, and neighborhood-demographic characteristics such as the percentage of families living below the poverty line, the percentage of immigrant and African-American families, and the instability of the resident structure, Sampson et al. found that neighborhoods with a high sense of collective efficacy among the residents had lower rates of crime and delinquency. These investigators are also gathering extensive developmental data on the children in these neighborhoods. In the future, we will learn whether living in a neighborhood with a high sense of collective efficacy also serves as a protective factor in children's development.

By *resource exposure*, Jencks and Mayer (1990) meant the availability of opportunities versus dangers and risks. Communities vary in the presence and quality of such good things as schools, faith-based institutions, and other types of activity-base organization, recreational facilities, health facilities, access to affordable stores and markets, and police monitoring, as well as such risky things as the presence of liquor stores and drug outlets, the proportion of run-down versus quality housing, and both gang and police harassment. Jencks and Mayer argued that exposure to these types of risks and opportunities should influence the behaviors of all members of the community. The little available evidence is supportive of these predictions, but the effects of these general neighborhood characteristics are quite weak and, by and large, appear to be mediated through their impact of families and peer groups (Brooks-Gunn et al., 1997a, 1997b). In the next section we discuss the evidence for more positive effects of participating in organized activities, which are, typically, differentially available across various types of neighborhoods.

Furstenberg and his colleagues (1999) have suggested another mechanism of influence: *family management*. They suggested that the impact of neighborhoods on development would be moderated by the quality of parenting to which the children were exposed. Effective parents should adjust both their childrearing practices and the nature of their children's exposure to opportunities and risks outside the home depending on the type of community in which they live. In turn, these practices should either buffer the children from exposure to potential risks or facilitate their growth through exposure to positive opportunities. They referred to this set of practices as family management. The little available evidence suggests that many well-functioning parents do vary their practices depending on their community and that successfully implementing locally effective strategies does buffer against the negative impact of neighborhood risks on development, particularly in early and middle childhood periods (Brooks-Gunn et al., 1997a, 1997b; Duncan & Brooks-Gunn, 1997; Furstenberg, et al, 1999).

Summary of Neighborhood and Community Influences

There has been an increase in the amount and quality of work being done on neighborhood and community effects on human development. Although still in its infancy, this work has documented the influence of community characteristics on community members. As Bronfenbrenner (1979) predicted, communities influence the development of children primarily through their influence on the microsystem (i.e., through their influence on parenting

practices, teacher behavior, school resources, and peer group behaviors). Because of the importance of the microsystem, the magnitude of neighborhood effects is quite small. Effective parents are able to buffer their children's development from the risks and dangers in many neighborhoods. Nonetheless, the impact of the neighborhood on development increases as children get older (Elliott et al., in preparation), partly because parental control and influences decrease as children move into adolescence and young adulthood. During these periods of life, individuals have much more control over their own behaviors and, consequently, their interactions with larger social units outside the home. This increasing independence can put them at greater risk to out-of-family influences on their development.

COMMUNITY- AND SCHOOL-BASED FREE-TIME ACTIVITIES

Communities and schools may also affect human development through their influence on the availability of structured leisure time activities. The release of *A Matter of Time* by the Carnegie Corporation of New York (1992) put the spotlight on the role of productive use of time in successful development. It illustrated how much discretionary time children and adolescents have and how much of this time is spent on unstructured activities such as "hanging out" with one's friends, watching television, and listening to music. The report stressed that constructive, organized activities are a good use of children's and adolescents' time because (1) doing good things with one's time takes time away from opportunities to get involved in risky activities; (2) one can learn good things (such as specific competencies, prosocial values and attitudes) while engaged in constructive activities; and (3) involvement in organized activity settings increases the possibility of establishing positive social supports and networks. To date, there has been relatively little longitudinal, developmentally oriented research focused on either the benefits or the costs of how children and adolescents spend their discretionary time. Most of the relevant research has been done in sociology and leisure studies, and most of the work has focused on adolescents.

Most of the sociological and psychological research on activity involvement has focused on extracurricular school activities. This research has documented a link between adolescents' extracurricular activities and adult educational attainment, occupation, and income, after controlling for social class and ability (Eccles & Templeton, 2002). This work also documented the protective value of extracurricular activity participation in reducing involvement in delinquent and other risky behaviors (e.g., Eccles, Barber, Stone, & Hunt, 2003; Mahoney, Larson, & Eccles, 2005a).

Research within leisure studies has taken a slightly different path, focusing on the differences between relaxed leisure and constructive, organized activities: Relaxed leisure is characterized as enjoyable, but not demanding (watching TV). In contrast, constructive, organized leisure activities (such as team sports, performing arts, and organized volunteer activities) require effort and commitment and provide a forum in which to express one's identity or passion (e.g., Larson, Hansen, & Moneta, 2006; Larson & Kleiber, 1993). These activities are assumed to have more developmentally beneficial outcomes than relaxed, unstructured leisure because they provide the opportunity (1) to acquire and practice specific social, physical, and intellectual skills that may be useful in a wide variety of settings; (2) to contribute to the well-being of one's community and develop a sense of agency as a member of one's community; (3) to belong to a socially recognized and valued group; (4) to establish supportive social networks of both peers and adults that can help one in both the present and the future; and (5) to experience and deal with challenges.

Recent research supports these assumptions about the positive effects of participation in organized activities (Larson & Hansen, 2005; Mahoney et al., 2005a, 2005b). For example,

Mahoney and Cairns (1997) and McNeal (1995) found that participation in extracurricular activities is related to lower rates of school dropout, particularly for high-risk youth. Mahoney (1997) also showed a connection to reduced rates of criminal offending. In addition, adolescents involved in a broad range of adult-endorsed activities report lower rates of substance use than their non-involved peers (Youniss, Yates, & Su, 1997b). Sport, in particular, has been linked to lower likelihood of school dropout and higher rates of college attendance (Eccles et al., 2003; McNeal, 1995), especially among low-achieving and blue-collar male athletes (Holland & Andre, 1987).

Participation in school-based extracurricular activities has also been linked to increases on such positive developmental outcomes as high-school grade point average, strong school engagement, and high educational aspirations (Barber, Eccles & Stone, 2001; Eccles & Barber, 1999; Lamborn, Brown, Mounts, & Steinberg 1992). 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 (Barber et al., 2001; Glancy, Willits, & Farrell, 1986; Youniss, McLellan, & Yates, 1997a; Youniss et al., 1997b).

In contrast to these positive associations, sport 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 activities can have both positive and negative effects. Why? Several explanations for the positive results associated with participation have been offered: Rehberg (1969) suggested the importance of association with academically oriented peers, exposure to academic values, enhanced self-esteem, generalization of a high sense of personal efficacy, and superior career guidance and encouragement. Coleman (1961) stressed the values and norms associated with the different peer clusters engaged in various types of extracurricular activities. Otto and Alwin (1977) added skill and attitude acquisition (both interpersonal and personal) and increased membership in important social networks. Other investigators have focused on links among peer group formation, identity formation, and activity involvement (Eccles & Barber, 1999; Eccles & Templeton, 2002; Eckert, 1989; Mahoney et al., 2005a). For example, Fine (1992) stressed how participation in something like Little League shapes both the child's definition of himself as a "jock" and the child's most salient peer group. In turn, these characteristics (one's identity and one's peer group) influence subsequent activity choices, creating a synergistic system that marks out a clear pathway into a particular kind of adolescence.



Involvement in sports links an adolescent to a set of similar peers, provides shared experiences and goals, and can reinforce friendships.

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 whom the adolescent is with: It is very likely that participation in organized activity settings directly affects adolescents' peer group precisely because such participation structures a substantial amount of peer group interaction. One's co-participants 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." Involvement in a school organization or sport links an adolescent to a set of similar peers, provides shared experiences and goals, and can reinforce friendships between peers (Larson, 1994; Mahoney et al., 2005a).

Participation in religious institutions, often called "congregations," and their affiliated youth groups is another important context of development that has been under-researched in the developmental sciences (King & Roeser, 2009; Roehlkepartain & Patel, 2006). A national study on religion showed that approximately half of all American adolescents attend religious services at a congregation weekly, with another quarter of youth attending services less than weekly but more frequently than just on the major religious holidays of their tradition (Smith & Denton, 2005). Furthermore, about half of all US adolescents (ages 13–17 years) indicate a strong, positive orientation to matters of religion, faith, and religious experience in their lives (Smith & Denton, 2005). With regard to this half of the youth population, a growing body of evidence shows links between religious participation/development and better health and well-being, as well as between religious participation and reduced rates of emotional distress and antisocial behavior (see King & Roeser, 2009; Oser, Scarlett, & Bucher, 2006).

Smith (2003) theorizes that religious institutions exert constructive influences on youth development, for instance by providing youth with three types of capital, including: (1) *spiritual capital* in the form of religious mentors and role models, moral and religious worldviews, and contexts for reflection and spiritual contemplation; (2) *cultural capital* in the form of opportunities for skill development (i.e., leadership skills) and for learning core cultural knowledge (e.g., Biblical events); and (3) *social capital* in the form of social ties across differently aged peers, non-parental adults, and members of wider communities and society. Such forms of capital, in turn, inform identity, activity choices, and the nature of one's social networks in positive and prosocial ways (King & Roeser, 2009). For instance, participation in religious congregational contexts has been linked to faith development (Roehlkepartain & Patel, 2006), defined as the degree to which a young person comes to internalize the priorities, commitments, and perspectives of their religious tradition (Benson, Donahue, & Erickson, 1989), and less contact with deviant peers and more contact with parents, non-parental adults, and non-deviant peers (King & Furrow, 2004; Larson et al., 2006; Martin, White, & Perlman, 2001).

PEER CULTURE AS A PRIMARY MEDIATOR OF SCHOOL, COMMUNITY, AND FREE-TIME ACTIVITY EFFECTS

Throughout our discussion of school, community, and organized activity effects on development, we have suggested ways in which particular characteristics might influence peer interactions. In this section, we discuss these connections in more detail. As discussed earlier, schools, activity settings, and communities provide the places in which a great deal of peer interaction takes place. Peer groups are often formed from among the residents in communities and the participants in organized activities. This geographical clustering of peer networks can have either positive or negative effects on development, depending on the nature of the individuals involved and the shared values and norms of the groups that emerge.

Researchers are just beginning to explore the full range of such influences. In this section, we explore this issue. We focus on those aspects of peer relations closely linked with the school, activity setting, and community contexts. Specifically, we focus on peers as co-learners, on the reinforcing and socializing mechanism within peer groups, and on the individual children's attempts to coordinate multiple goals.

Peers as Co-Learners

The extensive work on the advantages of cooperative learning provides one lens on the link between peers and schooling. This work has stressed several roles of peers as co-learners. Most directly, doing learning activities in a social context is usually more fun and, thus, intrinsically interesting (Slavin, 1990). Peers can also help each other understand and learn the material through group discussion, sharing of resources, modeling academic skills, and interpreting and clarifying the tasks for each other (NRC/IOM, 2004; Schunk, 1987). Each of these characteristics should influence achievement through its impact of the children's expectations for success, their valuing of the activity, and their focus on learning rather than performance goals. One way in which positive social interactions have been facilitated in classrooms is through cooperative learning (Slavin, 1990). Finally, cooperative learning is also linked to the mechanism discussed earlier: When cooperative learning is used in classrooms, children are more accepting of one another, and fewer children are socially isolated. Thus, greater use of such techniques can mitigate the effects of peer rejection and lack of belonging on students' academic motivation.

Closely related to the work on cooperative learning is the work on peer tutoring. Children learn a great deal from teaching other children (Eccles & Templeton, 2002; Jackson & Davis, 2000; McLaughlin, 2000; Sieber, 1979). Such an arrangement benefits both the tutor and the tutee. An interesting variant on peer tutoring is described in *Turning Points* (Carnegie Council on Adolescent Development, 1989): cross-age tutoring. A special group of eighth graders was trained and then allowed to tutor first graders in reading. What made the eighth graders special was the fact that all of them were doing quite poorly in school and were reading substantially below grade level. Nonetheless, they did read better than the first graders. It was hoped that the intervention would help both the eighth and first graders; and it did! Both the school engagement and performance of the group of eighth graders increased dramatically—so much so that they stayed in school and were reading at grade level when they graduated from high school. In addition, their tutees continued to read at grade level as long as they interacted with their older student tutor. This intervention demonstrates the power of cross-age tutoring as a way to provide older students with a meaningful and fulfilling task as well as younger children with the extra help they need to avoid falling behind.

Similar cross-age dynamics operate in communities. As noted earlier, older children and adolescents sometimes recruit younger children in the dominant peer group activity settings in particular neighborhoods; these can be either positive settings such as faith-based institutions or recreational centers or more negative settings such as gangs. Some of the most successful youth development programs discussed in *A Matter of Time* (Carnegie Corporation, 1992) involve cross-age mentoring programs like the one described earlier (see also McLaughlin, 2000).

Peer Group Influences

Much of the classic work on peer influences on development focused on the negative effects of peer groups on adolescents' commitment to doing well in school. Investigators have now turned their attention to understanding the specific mechanisms by which peer groups can

either support or undermine positive development through their impact on both school engagement and involvement in other positive activities. This research has documented that children tend to cluster together in peer groups that share the same motivational orientations and activity preferences and that such clustering serves to reinforce their existing motivational orientation and activity preferences, leading to a strengthening of these individual differences over time (e.g., Berndt & Keefe, 1995; Berndt, Laychak, & Park, 1990; Epstein, 1983; Kindermann, McCollam, & Gibson, 1996; Youniss, 1980). But whether such effects are positive or negative depends on the nature of the peer groups' motivational values and behavioral orientations (Eccles et al., 2003). For example, high-achieving children who seek out other high achievers as friends should end up with more positive academic motivation as a result of their interactions with like motivated children. In contrast, low achievers who become involved with a group of friends who are also low achievers should become even less motivated to do school work and more interested in other activity settings (Fuligni et al., 1995; Kindermann, 1993; Kindermann et al., 1996).

The role of peer group influences is likely to vary across different ages. For example, peers may play an especially important role during adolescence. There are two major differences between children and adolescents in peer-group processes. Adolescents are more aware of, and concerned about, peer-group acceptance, and adolescents spend much more unsupervised time with peer groups in social, sports, and other extracurricular activities (Eccles & Templeton, 2002). For example, early adolescents rate social activities as very important to them, and like them better than most of the other activities they do, particularly academic activities (Brown, 2004; Wigfield, Eccles, Mac Iver, Reuman, & Midgley, 1991). Furthermore, Harter (1990) found that early adolescents' physical appearance and social acceptance are the most important predictors of their general self-esteem, much more important than their perceptions of their own cognitive competence. These results suggest that the potential role of peer groups should be greater during adolescence and that the nature of the effect should depend on the values of the peer group and the specific domains being considered. Hanging out with a group of friends highly motivated for school achievement should facilitate academic motivation and achievement, perhaps to the detriment of motivational commitment in other domains. Similarly, although hanging out with a low academic motivation group should undermine academic motivation, it may facilitate motivation and involvement in some other arena depending on the values of the peer group.

The work by Stattin and Magnusson (1990) provides an example of this process. They reported that some young women (early maturers) are particularly likely to be channeled into early heterosocial peer groups and activities. Because these females look sexually mature, they are more likely to become involved with older peers, particularly with older male peers who interact with them in a gender-role stereotypic manner. As these young women get caught up in this peer social system, they shift their attention away from academic activities and into heterosocial activities and roles. As a result, they lower their educational aspirations, shift the value they attach to academic pursuits and, in fact, end up obtaining less education than one would have predicted based on their prepubertal academic performance and motivation. Instead, they often marry and become parents earlier than their female classmates.

Work by Stattin, Kerr, Mahoney, Persson, and Magnusson (2005) elaborates on these early findings. They follow a sample of adolescents as they move through adolescence and into adulthood. Just like the girls in the Stattin and Magnusson study, these early maturing girls were likely to drop out of school earlier and then to both marry and have children earlier than their later maturing peers. But this was true for only a subset of the early maturing girls: those who attended community recreation centers, where they met and then began dating older males. Thus, Stattin et al. (2005) were able to document the pathway by which these

early maturing girls moved into a risky older peer group. The recreation centers in their communities provided the setting in which these peer influences were able to be manifest.

Peers' Role in the Coordination of Multiple Goals

The work by Stattin et al. is also illustrative of the importance of coordinating multiple goals. Just as schools and communities are complex organizations with multiple purposes and goals, so individuals have multiple goals. Learning to coordinate and manage one's goals is a key developmental task. Peers can play a central role in this process by making various goals and activities more or less salient and more or less desirable. Adolescence is an ideal time in which to observe the dynamics of this process. Similar processes have been suggested for various ethnic groups. Several investigators have suggested that some groups are likely to receive less peer support for academic achievement than affluent European-American youth (e.g., Fordham & Ogbu, 1986; Willis, 1977). Steinberg, Dornbusch, and Brown (1992) concluded that both the lower performance of African-Americans and Latin-Americans and the higher performance of European-Americans and Asian-Americans are due more to ethnic differences in peer support for academic achievement than ethnic differences in either the value parents attach to education or the youths' beliefs regarding the likely occupational payoff for academic success. Even though the adolescents in each of these groups reported strong support for school achievement from their parents, the Latin-American and African-American students reported less support for school achievement among their peers than either the European-American or Asian-American students. Consequently there was less congruence between parents and peers in the valuing of school achievement. Some of the African-Americans indicated that they had great difficulty finding a peer group that would encourage them to comply with their parents' valuing of educational success. As a result, they reported that they had to be very careful in selecting which of their African-American peers to have as close friends. European-American and Asian-American students are much less likely to report this kind of peer dilemma.

Summary of Peer Effects

Peer influences are an integral part of both school and neighborhood effects. Spending time with one's peers is a major activity in both of these extra-familial contexts: In fact, the opportunity to spend so much time with one's peers is one of their major distinguishing characteristics. In this section, we have stressed that the impact of peers in these settings depends on the nature of the individuals and the inherent activities. Characteristics of both schools and neighborhoods influence the types of peers to whom, and the types of peer-group activities to which, children and adolescents will be exposed. If these peers have positive, prosocial values and behaviors, these associations are likely to facilitate positive developmental outcomes; if these peers have more problematic values and behaviors, these associations are likely to put the children's development at risk. Schools and neighborhoods also structure the kinds of activities individuals have the opportunity to engage in during their free time.

CONCLUSIONS

In this chapter, we have summarized the many ways in which schools, activity settings, and communities can influence child and adolescent development. We began by pointing out how the multiple levels of school organization interact to shape the day-to-day experiences of

children and teachers. We stressed how one must think of schools as complex organizations to understand how decisions and regulatory processes at each level impact on schools as a context for development. 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. The 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. (The changes can also be developmentally irrelevant, but we did not discuss these types of changes.) Children move through this changing context as they move from grade to grade and from school to school. Similarly, children develop and change as they get older. They also have assumptions about their increasing maturity and the privileges it ought to afford them. We believe optimal development occurs 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. Furthermore, we summarized evidence that the risk of negative developmental outcomes is increased when these two trajectories are out of synchrony—particularly when the context changes in a developmental regressive pattern.

We also discussed the relation of school characteristics to other contexts of development, particularly the community and the peer group. We then discussed how neighborhood characteristics can influence development independent of its association with schools. We summarized how both school and neighborhood influences are mediated by their impact on peer interactions and activity involvement. Throughout we stressed the need to look at interactions among these various contextual influences. Researchers seldom consider interactions across contexts of development. Instead, they tend to specialize in one context—for example, the family or the peer group. But people live in multiple contexts. Making sense of, and coordinating the demands of, these multiple contexts are among the more challenging developmental tasks. We know very little about how individuals manage these tasks and about how the ability to manage these tasks develops over time. We know relatively little about how characteristics of one context influence the characteristics of other contexts. We summarized some of the ways in which school, peer, leisure activity setting, and neighborhood characteristics influence the nature of children's peer groups and peer interactions. Much more such work and theorizing are needed.

Another way to think about multiple contexts is in terms of their relative ability to meet human needs. As we noted earlier, Connell and Wellborn (1991) suggested that individuals develop best in contexts that provide opportunities to feel competent, to feel socially connected and valued, and to exercise control over their own destiny. If this is true, then individuals ought to be drawn toward those contexts that provide these opportunities in developmentally appropriate doses. Variations across contexts on these characteristics could explain why individuals come to prefer one context over another—for example, adolescents who are not doing well in school or who are having difficulty getting along with their parents might turn to their peer group to find a sense of competence and positive self-esteem. Essentially, we are arguing that when individuals have some choice over where to spend their time, they will choose to spend the most time in those social contexts that best fulfill their needs for a sense of competence, for high-quality social relationship, for respect from others for their autonomy and individuality, and for a sense of being valued by one's social partners. If they can fulfill these needs within social contexts that reinforce normative behavior, they are likely to do well in school and other culturally valued institutions. If they cannot fulfill their

needs in these types of social contexts, they are likely to seek out other social contexts, which, in turn, may reinforce more norm-breaking and problematic behaviors. Thus, if we want to support positive, normative developmental pathways for our children and adolescents, it is critical that we provide them with ample opportunities to fulfill their basic human needs in social contexts that reinforce positive normative developmental pathways.

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