interested in learning about how the world works? If so, what aspects of the world do they seem most interested in learning about? How does the environment they're in at the time either support or not support their curiosity about the world?

4. Find out more about one of the developmentally appropriate practices described in this chapter (by using the Internet, reading, school visits, professional development, etc.). Implement some aspect of this practice into your current school setting if appropriate. Keep a record of the process of implementation, including students' initial reactions, the quality of their involvement (emotionally, cognitively, and creatively), and their own evaluations of the practices some time after the initial implementation of the practice.

5

Middle Schools: Social, Emotional, and Metacognitive Growth

In July of 1963, William Alexander, chairman of the department of education at George Peabody College, was on his way to deliver an address at Cornell University on the successes of the junior high school movement when his flight was delayed at LaGuardia Airport in New York City. Because he had nothing else to do while waiting for his flight, he reviewed his speech and decided that it needed rewriting. Starting with the presentation he had planned to give—a fairly conventional talk on junior high school—he used the several-hour layover to write a new speech that called for substantial reforms in the education of young teens. Criticizing the junior high school format as merely a "junior" version of high school, he suggested changes that would take into consideration the special developmental needs of early adolescence. He argued that there should be a unique institution that would meet those needs: an intermediate or "middle" school between elementary school and high school. The speech that Alexander ultimately gave at Cornell

was the beginning of the middle school movement in America (Alexander, 1995). The number of middle schools—schools geared for students from 11 to 15 years of age—increased from 2,080 in 1970 to 10,944 in 1998 and to almost 12,000 by 2001–2002 (National Association of Elementary School Principals, 2004; Zepeda & Mayers, 2002).

The emergence of the middle school movement in the 1960s represented a milestone in the history of Human Development Discourse. This movement recognized that young adolescents are not simply older elementary school students nor younger high school students, but that there are dramatic changes that occur during this time of life requiring a radically different and unique approach to education. Middle school educators understood that the biological event of puberty fundamentally disrupts the relatively smooth development of the elementary school years and has a profound impact upon the cognitive, social, and emotional lives of young teens. In line with this important insight, they saw the need for the provision of special instructional, curricular, and administrative changes in the way that education takes place for kids in early adolescence. Among those changes were the establishment of a mentor relationship between teacher and student, the creation of small communities of learners, and the implementation of a flexible interdisciplinary curriculum that encourages active and personalized learning.

Regrettably, the rise of Academic Achievement Discourse over the past few years threatens to undermine these reforms. Citing, among other things, poor standardized test results, a recent Rand Corporation report challenged the rationale for having separate middle schools, noting that "research suggests that the onset of puberty is an especially poor reason for beginning a new phase of schooling" (Juvonen, Le, Kaganoff, Augustine, & Constant, 2004, pp. 18–19). The Thomas B. Fordham Institute report *Mayhem in the Middle,* which was critical of middle schools, defined "middle-schoolism" as "an approach to educating children in the middle

grades (usually grades 5–8), popularized in the latter half of the 20th century, that contributed to a precipitous decline in academic achievement among American early adolescents" (Yeche, 2005, p. i). Many large school districts, including those in Cincinnati, Cleveland, Minneapolis, Philadelphia, Memphis, and Baltimore, are now in the process of reconfiguring their schools away from the middle school model and toward a K–8 format (Wallis, Miranda, & Rubiner, 2005).

The enactment of the No Child Left Behind Act certainly is part of the reason for the abandonment of the middle school philosophy in recent years. "The big issue is NCLB doesn't take into account the unique needs of middle schools," noted Steven van Zandt, principal of Aviara Oaks Middle School in Carlsbad, California. "NCLB doesn't address any sort of developmental needs of middle school students at all" (Association of California School Administrators, 2003). NCLB is essentially nondevelopmental for *all* levels of education. It requires uniformly high test scores throughout the K–12 curriculum without regard to developmental changes at different stages of childhood and adolescence.

This is a fundamental mistake. Middle schools, or something very much like them, are needed to provide students in early adolescence with an environment that can help them negotiate the impact of puberty on their intellectual, social, and emotional lives. Educators need to understand the developmental needs of young adolescents, and in particular their neurological, social, emotional, and metacognitive growth. Some of these developmental needs are ignored or subverted by inappropriate educational practices such as fragmented curricula, large impersonal schools, and lesson plans that lack vitality. Practices at the best schools honor the developmental uniqueness of young adolescents, including the provision of a safe school environment, student-initiated learning, student roles in decision making, and strong adult role models (see Figure 5.1 for a more complete list).

Figure 5.1

Developmentally Inappropriate and Appropriate Practices in Middle School or Junior High School

Developmentally Inappropriate Practices	Developmentally Appropriate Practices
Unsafe school climate	Safe school climate
Large, impersonal schools	Small learning communities
Impersonal adult interactions	Personal adult relationships
Fragmented curriculum	Engaged learning
Negative role models or no role models	Positive role models
Metacognitive strategies limited to math and reading	Metacognitive strategies integrated into all courses
No significant arts program	Expressive arts activities for all students
No meaningful health and wellness program	Health and wellness focus
Emotionally flat learning experiences	Emotionally meaningful curriculum
Teacher- and administrator-controlled learning environment	Student roles in decision making
Student voices not listened to or respected	Honoring and respecting student voices
Total focus on academic learning to the neglect of social and emotional development	Facilitating social and emotional growth

Developmental Needs of Early Adolescence

Although it's clear that children going through puberty (average age 10½ for girls and 11½ to 12 for boys) are still years away from procreating in our complex contemporary society, as far as nature is concerned they're ready to breed at any time. One of the most important aspects of early adolescence that tends to be overlooked by educators is that millions of years of evolution have been spent making sure that the reproductive systems of young teens develop normally and are in good working order so that the species can continue to replicate itself. As far as nature is concerned, this is the most important thing that can happen in the entire life of an individual organism or species. Consequently, when we address the subject of young adolescents—with their mood swings, their

troubles—we must always keep in the back of our minds the knowledge that the hormonal, neurological, and physical changes that give rise to these "problems" in puberty take place because the body, emotions, and mind are being prepared biologically for this incredibly complex, delicate, and all-important evolutionary task. This doesn't make our job any easier as educators, but at least it sets the context for beginning to approach the matter of understanding early adolescent development and how best to create an educational environment that will optimally help young teens generate *not* children, aggression, or pathos but creative ideas, positive projects, and proactive contributions to the society of which they are becoming an increasingly integral part.

Having said this, we can now turn to the changes themselves. Puberty occurs when a gene, ironically named KiSS-1, triggers the hypothalamus to secrete a substance called gonadotropin-releasing hormone (GRH), which stimulates the pituitary gland to release two forms of gonadotropin: luteinizing hormone and follicle-stimulating hormone. These chemicals in turn trigger the production of male sex hormones like testosterone that promote male sex characteristics and initiate sperm production, and female sex hormones (estrogens) that promote female sex characteristics and start the menstrual cycle. Contrary to popular belief, it is not so much the direct influence of hormones on the body that is associated with the emotional turbulence of puberty. Rather, it is the impact that these hormones have on the development of the brain (Sisk & Foster, 2004). Surges of testosterone at puberty, for example, swell the amygdala, an almond-shaped part of the limbic system (emotional brain) that generates feelings of fear and anger (Giedd et al., 1996). Similarly, estrogen seems to affect serotonin levels at puberty, accounting for higher rates of depression among teenage girls (Born, Shea, & Steiner, 2002). Gonadal hormones in both sexes may account at least in part for a surge in gray matter in the frontal, parietal, and temporal lobes of the neocortex shortly before puberty, followed by a decline thereafter (Giedd et al., 1999). It remains to be seen whether there is a relationship between this

pre-pubertal spike and the initiation of Piaget's cognitive stage of formal operational thinking, which begins around the same time (Flavell, 1963).

Overall, though, early adolescence presents a neurological picture that involves a relatively developed *limbic* system or emotional brain coexisting with a relatively *underdeveloped* prefrontal cortex. The prefrontal cortex is the part of the brain that controls executive functions like inhibition of impulses, reflection, and planning (Giedd, 2004). To put it another way, young teens' brains have their accelerators pressed all the way to the floor, while their brakes have yet to be installed.

What all this means is that the biggest need for young adolescents in education is not getting higher test scores but rather learning how to direct those surging emotional impulses into productive channels, learning how to transmute the drive for mate-seeking into positive social relationships, and learning how to mobilize their newly developed metacognitive abilities in the service of reflecting on and modulating the transformations that are taking place in their bodies and minds. Erik Erikson (1993) saw adolescence as the time of identity formation. Dolls, stamp collections, and praise from the teacher no longer have the panache that they did in earlier years. Instead, in the midst of a raging surge of neuropeptides, young adolescents are struggling to find out who they really are. They do this, according to Erikson, by essentially bouncing their provisional identities off significant others in their midst—groups, gangs, cliques, girlfriends and boyfriends, heroes, and villains—and seeing what sticks. Consequently, adolescence is an intensely social time, when the hunger for belonging, community, social status, and emotional closeness provide the context within which teens discover their identity. Failing this, they risk falling into what Erikson called *role diffusion* or the development of a negative identity such as "addict," "gangbanger," "slut," "doper," "dealer," or all-around "loser."

For thousands of years, cultures have known about the perils and promises of puberty and have organized special educational interventions at this time. They have developed rites of passage

as a means of mobilizing the intense changes taking place during puberty so that these changes may take place not in disorder but in the service of the community into which they are entering (see Eliade, 1994; van Gennep, 1961). By our modern standards, these rites of passage do not pass muster. Many of them were brutal and even fatal for those who failed to survive their rigors. Boys might be placed in a pit and starved for days or engage in other endurance feats. Girls might be secluded in a hut for weeks, or taken off into the ocean and told to swim back to shore. Despite the bizarre (to our contemporary society) nature of many of these rites, one still has to appreciate the ingenuity of these cultures for finding ways in which to take boys and girls and turn them into mature men and women.

One of the tragedies of contemporary life is that no fully developed rites of passage exist for taking adolescents from childhood to adulthood. As a result, many adolescents try to create their own rites of passage through drug experimentation, highway thrills, sexual risk taking, gang violence, binge drinking, or other dangerous activities that serve to separate them from childhood but that do not, alas, manage to incorporate them into the community of mature adults. Although the schools cannot be expected to take full responsibility for this vital role of helping adolescents make the passage into adulthood, they *absolutely must* design their educational practices with these considerations in mind. Schools need to face the reality of puberty head-on and create approaches to learning that engage the social, emotional, and metacognitive dimensions of young adolescence so that these aspects of the self may be allowed to blossom over time into full-bodied maturity.

Inappropriate Developmental Practices in Middle Schools

One of the biggest problems with the recent abandonment of middle schools by school districts around the country is that the

entire middle school philosophy is being rejected in reaction to poorly planned middle school experiments that simply didn't work out. When one looks at these failed middle schools, it becomes apparent that most of them failed because they did not reflect the features of good middle schools in the first place. They were often large, overcrowded, unsafe, impersonal places that called themselves middle schools simply because they served students in the middle grades.

Similarly shortsighted is the idea that the problems of early adolescence can be solved simply by putting 7th and 8th graders back in elementary school. The danger here is that teens will be "administratively relocated" without having their unique developmental needs addressed. A final problem that only compounds the difficulty in creating middle schools that meet the real needs of early adolescence is the role that Academic Achievement Discourse has had in the passage of laws such as the No Child Left Behind Act. Between 2003 and 2005, the number of middle schools identified as "needing improvement" under this law more than doubled. In the school year 2004–2005, 36 percent of all Title I middle schools were identified for improvement (Center on Education Policy, 2005). In response to NCLB, middle schools have increased the amount of class time devoted to direct instruction and decreased the time available for electives. In some cases, student advisory periods set aside for students to speak with teachers or counselors about their personal needs and academic concerns have been turned into test-prep periods (Lounsbury & Vars, 2003). These trends continue to depersonalize the school climate for students at a time when they need personalized treatment more than ever. Here are a few of the educational practices that are most damaging to students in middle schools:

Large, Impersonal Schools. As noted above, some indigenous cultures have intuitively understood the precarious nature of puberty and have devised carefully planned environments within which the dangerous aspects of puberty can be safely navigated to help the adolescent cross the bridge into maturity. Throwing a

student into a large and impersonal middle school environment does not show much thought or sensitivity with regard to this important responsibility. "Good large middle schools are an oxymoron," wrote Theodore Sizer in his book *Horace's Hope*. "Managers who in the name of efficiency pack hundreds of awkward, often frightened preteens into massive buildings forget what a crowd means to an 11 year old, particularly if most of the other people there, both kids and adults, are total strangers and often speak a different language. Efficiency, one wonders, of what sort and for whom?" (Sizer, 1997a, p. 30). Large middle schools are more likely to use substitute teachers to fill teaching vacancies than small or medium-sized schools, thus adding to the impersonal climate (Texas Center for Educational Research, 2001). Moreover, teachers at large middle schools are less likely to collaborate, use innovative teaching approaches, or personalize instruction to meet students' needs (Wasley et al., 2000).

Unsafe School Climate. Entering puberty is difficult enough without having to endure school environments that threaten young teens with bullying, name calling, drugs, and violence. These kinds of negative experiences are poisons that interact insidiously with young adolescents' delicate neurological and emotional makeup and threaten to create negative behavior patterns that will haunt them for the rest of their lives. Of paramount importance in the construction of an optimal school climate is the elimination of these types of negative influences and the provision of a safe and protected school environment within which adolescents can flourish. Yet a study of one Midwestern middle school revealed that 80 percent of students admitted to engaging in physical aggression, social ridicule, teasing, name calling, and issuing threats within the previous 30 days (CNN, 1999). Eighty-seven percent of middle schools report at least one incident of violence, and almost 30 percent report at least one *serious* incidence of violence in the previous year (National Center for Education Statistics, 2003).

Fragmented Curriculum. One of the problems with current emphasis on academic content and skills at the middle school

level is that students are required to meet hundreds of standards that ultimately threaten to overwhelm them in a sea of paperwork and meaningless assignments. One study of Texas middle school principals noted that 88 percent of the principals said that "nearly all" of their teachers incorporated TEKS, or the Texas Essential Knowledge and Skills, into their lesson plans (Texas Center for Educational Research, 2001). As noted in the Carnegie report *Turning Points 2000: Educating Adolescents in the 21st Century:*

> One common complaint is that the sheer number of standards some states and school districts require makes it impossible for a school to attend to every one of them. Taken together, such mandated standards in the disciplines, or even within a single discipline, may require more time for teaching, learning, and assessment than any school could ever hope to provide. Teachers' and administrators' concerns about "covering" everything that the standards apparently demand often tie directly to their concern (or fear) about being held accountable for "a little bit about everything." Coverage means touching on many topics or facts in a shallow fashion (to wit, the American textbook). On a test covering a myriad of topics, students are hard-pressed to recall facts presented in isolation, devoid of meaning or connection, and teachers are held accountable for the inevitably highly variable performance. (Jackson & Davis, 2000, para. 9)

Moreover, textbooks are often inaccurate, misleading, or incomplete in their treatment of math, science, history, literature, and other subjects (see, for example, Loewen, 1996). Adrift in a sea of irrelevant content, young teens are deprived of the opportunity to engage in focused learning adventures that can help them develop their identities, sharpen their metacognitive minds, and channel their burgeoning energies.

Emotionally Flat Learning Experiences. Individuals going through early adolescence are particularly sensitive to the presence or absence of *emotion* in their classroom learning experiences. If they are required to learn in classrooms that largely emphasize lecture, textbooks, written assignments, and tests, their own motivation is likely to wane. And yet, as noted above, NCLB and other

pressures to conform to Academic Achievement Discourse are making these kinds of environments far more common in middle schools.

In one study of middle school students' perceptions of learning experiences, most students reported that active learning motivated them more often than lecture, overhead, or textbook learning. One student, for example, reported his feelings on hearing his teacher say, "Open your textbooks to page 189": "Well, I feel that when I'm working in a group and not in the textbooks that I learn the most—'cause the textbooks—some people, they don't follow it. They put stuff in words and ways that you can't really understand it" (para. 14). Another student responded to an overhead lesson plan by saying: "We hardly had anything to do. We were just getting told all of our information. It's all lectures. You'd come in here and you did no work. You'd just sit there and some people would say, 'Oh, it's a really easy class.' Yeah, it's an easy class because it's so boring" (Bishop & Pflaum, 2005, para. 18). These are not the kind of learning experiences to give to a student whose biological system is shouting at him, "It's time to move out into the world!"

The Best Middle Schools: Examples of Developmentally Appropriate Educational Practices

What we know about early adolescents and their neurological, social, emotional, and intellectual growth provides us with solid guidelines in structuring optimal middle schools. Of paramount importance in this reform effort is the use of Human Development Discourse, not Academic Achievement Discourse, in developing methods, strategies, programs, and environments for young teens. As long as educators continue to look to high test scores, tough standards, and heavy academic content as a solution to middle school woes, they will be fundamentally unprepared to help young

teens make the transition to maturity. What follows is a list of 12 key features that must be a part of any authentic, developmentally appropriate plan for reforming middle schools.

Safe School Climate

The most important factor in meeting the needs of young adolescents in school is a safe school climate. As Abraham Maslow (1987) wisely observed, if people are struggling to meet their basic physiological and safety needs, there is no energy left for meeting their higher needs of love, belonging, esteem, and self-actualization. Zero-tolerance policies are not the solution for making schools safe. They may work in the short run by suspending troublemakers, but they leave the underlying problems of violence untouched (The Civil Rights Project at Harvard University, 2000).

Instead, schools need to create positive interventions that get at the root of the difficulty, including anti-bullying programs, conflict resolution, character education, gang awareness, alcohol and drug abuse counseling, student court, peer mediation, and anger management. At Lewis Middle School in Paso Robles, California, students tutor kids academically, mediate conflicts, and mingle with shy 6th graders who are having difficulty making the transition from elementary school. "Students are often able to identify problems before adults can," Principal Richard Oyler said (Wilson, 2005). Students focus on the Value of the Month at Sparrows Point Middle School in Baltimore. During the month, they engage in lesson plans, listen to guest speakers, and study material that emphasizes such values as responsibility, respect, tolerance, compassion, or honesty. Clubs at Sparrows Point such as Students Against Destructive Decisions and Future Educators of America have incorporated the monthly values into their projects, and the school has engaged in a Pitch In for Progress campaign that raises money for worthy causes. In the past two years, the school has seen a sharp drop in suspensions and an increase in attendance and in the number of students on the honor roll (Ruddle, 2005). By working to solve the underlying causes of violence, middle schools can ensure that students will not only learn in safe environments but will also become proactive members of society.

Small Learning Communities

A large body of research supports—and demands—the implementation of small school environments at the middle level. Small schools have fewer instances of theft, assaults, and vandalism than large schools (DeVoe et al., 2002). They experience lower dropout rates and increased levels of motivation and learning success (Cotton, 2001). They provide students with a shelter from the storm, so to speak, to enable them to focus on learning and become successful students.

School reformers Thomas Sergiovanni and Deborah Meier recommend no more than 300 students per school, but others believe that middle schools with as many as 700 students can maintain a small school environment (Molnar, 2002). The Talent Development Middle Schools project at Johns Hopkins University focuses on establishing learning communities of 200 to 300, with two or three teachers responsible for no more than 100 students (Herlihy & Kemple, 2004). Having a large middle school campus is no deterrent to creating small communities. Creekland Middle School in Laurenceville, Georgia, has almost 3,000 students, but it is structured into five communities, each with its own administrative staff. Students are assigned to a community in 6th grade and stay there until they leave for high school. Teachers work in teams of two so they can get to know the students better (Jacobsen, 2000). Through creative administrative and funding strategies, any middle school environment can be structured according to a "small is beautiful" ethos.

Personal Adult Relationships

Coming of age in the 21st century is a difficult prospect for many kids who have little contact even with their own parents. According to researcher Mihaly Csikszentmihalyi (2000): "Most of the

time, adolescents are either alone (26%) or with friends (34%) and classmates (19%). Very little time is spent in the company of adults. The typical American adolescent spends only about five minutes a day alone with his or her father—not nearly enough to transmit the wisdom and values that are necessary for the continuation of a civil society" (p. 46). Middle schools and junior high schools that shuttle kids from one teacher to the next every 42 minutes are only making the problem worse.

On the other hand, providing a student with one teacher who serves as an advisor, mentor, counselor, or guide can be instrumental for some kids to help them feel a sense of safety, confidence, and purpose in their learning. Exemplary middle schools assign students to homeroom teachers or advisor–teachers who are with them during their entire journey through the middle grades. At Abraham Lincoln Middle School in Gainesville, Florida, advisors are assigned to 18–22 students for their entire three years at Lincoln. Advisors mentor their charges, serve as advocates for the students, and start the day with rituals that include student sharing (Doda, 2002). Good middle schools use looping, a procedure that keeps students with one or more teachers over a period of two or more years. "Humans need meaningful relationships, particularly when they are in major developmental periods," said John H. Lounsbury, dean emeritus of the School of Education at Georgia College & State University. "So many of the important objectives of education cannot be effectively achieved in a short-term relationship" (Ullman, 2005, para. 2).

Engaged Learning

An observation that has been consistently noted about young adolescents is their decreased motivation for learning compared to kids in the elementary school years. This has traditionally been ascribed to the physiological and emotional changes going on inside them. However, it may be more apt to suggest that it is the quality of the learning environment that in large part determines

whether they will be engaged in their studies (Anderman & Midgley, 1998). If a student enters a large, impersonal system where he or she is told exactly what to learn, read, study, and memorize, then it is likely that the student will not be motivated. On the other hand, if the student is given a significant role in determining the kinds of learning experiences he or she will have, then the burgeoning energies of adolescence will only fuel the motivation to learn. Seventh graders at Helen King Middle School in Portland, Maine, have produced a CD-ROM about Maine's endangered species. At Harry Hurt Middle School in Destrehan, Louisiana, students take part in a program called the Wetland Watcher, which involves monitoring water quality, planting trees to halt coastal erosion, and educating others about the importance of taking care of the environment (Ball, 2004). Students at Martin Luther King Jr. Middle School in Berkeley, California, prepare and eat their own organically grown lunches from their own gardens (Furger, 2004a). In each of these cases, students are engaged directly in real-life pursuits rather than artificially contrived lesson plans that have little or no relevance to their lives.

Positive Role Models

Perhaps the most critical element in the ancient rites of passage was the presence of mature individuals to help adolescents make the transition into full membership in the society. As noted above, this factor is often missing from the lives of young teens. Middle schools need to be places where a student will have contact with older people who have vital lives of their own and who are themselves authentic human beings. There are many middle school programs where this is a focus. Eyes to the Future, for example, is a National Science Foundation–sponsored program that pairs 7th and 8th grade students with high school girls and women mentors working in science, math, and technology. Math Understanding through the Science of Life brings together Duke University engineering students and middle school students to study worms

predict the weather, and engage in other projects that apply mathematics to the real world (Dickinson, 2001). There are many other ways in which middle schools can expose their students to positive role models. Parent volunteers can offer their services as experts in specific fields. Outside experts can be engaged to share their findings with students. The school can offer a program of positive role models in the curriculum to study the lives of famous individuals who overcame adversity, or successful individuals in the community who come in and talk about what helped them achieve success. The Role Model Program in San Jose, California, for example, brings business and community leaders into Santa Clara County classrooms to encourage positive life choices and educational achievement. In these and other ways, middle school educators can help to counteract much of the negative influence young teens receive from tainted media heroes, celebrated gang leaders, and other damaged individuals who never quite made the journey into maturity.

Metacognitive Strategies

Students entering the emotional turmoil of adolescence are going through a major shift in their ability to think. They are entering the formal operational stage of cognitive development. Now, for the first time, they can think about thinking itself. They can stand above themselves and look down and reflect on what they're doing. This capacity is an important resource for adolescents who have their foot on the gas pedal before their brakes have been fully installed. Instead of acting on impulse, the mind can be trained to observe what's going on and to take appropriate measures. Typically, educators steeped in Academic Achievement Discourse have jumped on formal operations in adolescence as a justification to teach students in the middle grades pre-algebra or algebra. This is an oversimplification of this important resource of the mind.

Students should be helped to use their new kind of mind in learning study skills, reflecting on curriculum materials, exploring the nature of conflicts in their lives, and setting realistic goals for

themselves. At Knotty Oak Middle School in Coventry, Kentucky, students are taught how to unpack any text by accessing what they already know about the topic, visualizing the material, and hunting down material in the text from which they can draw specific conclusions. "Learning is messy," says English Department Chairwoman Constance Tundis. "I tell my kids I want to see wood burning. I want to see five crossouts because that means you're thinking five times more deeply. It's all about asking questions and not looking for answers. If they know what to attack, what to look for, how to connect, they'll find the right answers" (Steiny, 2005, para. 17). Harvard Project Zero's Practical Intelligence for School project has prepared materials to guide middle school students in creating their own approaches to studying, planning, reflecting, and coping with the many demands of school and schoolwork (Blythe, White, & Gardner, 1995; Williams, Blythe, White et al., 1996). Similarly, with conflict resolution, students can be helped to step outside of themselves long enough to look at the social or emotional difficulties they find themselves in and seek positive solutions to resolving them.

Expressive Arts Activities

Given all of the emotional and physical tumolt roiling inside of young adolescents, it's a wonder that more focus has not been placed on the expressive arts at the middle school level. Expressive arts should be considered *a core component* of any middle school plan. The arts provide opportunities for young teens to express themselves in an atmosphere that is *without judgment* in areas such as sculpture, painting, drama, music, and dance. It's virtually impossible to fail in the expressive arts. In the course of expressing themselves artistically, students can sublimate sexual energies, channel violent impulses, sort out emotional conflicts, and build a deeper sense of identity. These are all critical developmental tasks in early adolescence.

At Clarkson School of Discovery, a public magnet middle school in Bladen County, North Carolina, students read children's

literature and then develop the characters through creative movement. They also construct "heirlooms," or books that they want to keep for the rest of their lives, using photography, art, and language. At Hand Middle School in Columbia, South Carolina, students write poems and fiction about weather patterns and take on the roles of famous poets during the Harlem Renaissance (Stevenson & Deasy, 2005). Young adolescents should have the opportunity to do some type of creative art activity *every day,* whether it is integrated into the regular curriculum as above or engaged in as a freestanding activity. When young teens write poems, work in clay, draw, paint, dance, and sing, they are creatively involved in the act of forming themselves as autonomous individuals. The benefit to society could not be greater.

Health and Wellness Focus

As students' bodies change during puberty, somebody needs to be around to help them understand what's happening to them. A recent poll by National Public Radio, the Kaiser Family Foundation, and Harvard's Kennedy School of Government indicates that only 7 percent of Americans say sex education should not be taught in the schools (Henry J. Kaiser Family Foundation, 2004). Sex education should be only a part of a larger effort to inform young adolescents about issues relevant to their lives such as substance abuse, depression, eating disorders, and other ills that can begin at this stage of development. Moreover, all of this should be done within a context that emphasizes how to stay healthy, rather than how to avoid disease. At Madison Junior High in Naperville, Illinois, students wear heart monitors during their weekly 12-minute run and use a comprehensive computer-based fitness station that measures everything from strength and flexibility to cholesterol levels (Furger, 2001). Health courses in middle schools at Parsippany–Troy Hills School District in New Jersey cover everything from stress management and sexually transmitted diseases to substance abuse and pregnancy and childbirth. By not shying away from

sensitive subjects that are critical to the lives of young adolescents, middle school educators can show that they are really tuned in to the lives of their students.

Emotionally Meaningful Curriculum

Given that the limbic system or "emotional brain" is particularly active during early adolescence, it seems clear that the curriculum needs to be built around topics and themes that have emotional content and that engage students' feelings in a gripping way. Yet, as noted above, much of the curriculum in middle schools is textbook-based (read: *bo*-ring) and aligned to standards that may sound good to the politicians who enacted them into law but fall far short of reaching the real worlds of passionate teenagers.

Exemplary middle schools teach history, social studies, literature, science, and even math in ways that have an impact on the emotional lives of young teens. At Benjamin Franklin Middle School in Ridgewood, New Jersey, for example, students read about the Warsaw Ghetto and then discuss how they can combat injustices that they see in their own lives. In another class, students reflect in their journals on what it must feel like to be a foster child (Curtis, 2001a). Science students at Central Middle School in Quincy, Massachusetts, study genetics by creating family trees and examining the appearance of traits such as musical ability in their genealogy (Harvard Project Zero, 2006).

Whatever the lesson might be, teachers should always attempt to link it in some way to the feelings, memories, or personal associations of the students. A simple strategy might be to ask students to "think of a time in your life when you . . . ." If the topic is the American Revolution, students might think of examples of revolution in their own lives. If the topic is the central problem of a character in a novel, they might think of similar problems they faced in the past. Any time teachers can connect the curriculum to young adolescents' limbic systems, and then link those emotions to metacognitive reflections ("How would you handle the problem

differently now?"), they are teaching in a developmentally appropriate way for this level.

Student Roles in Decision Making

Although student-initiated learning is an important component of good middle schools, students must also have a wider role to play in the affairs of the school. They should be involved in maintaining discipline through teen court, shaping school assemblies or special events, and providing meaningful feedback about courses, the school environment, and other aspects of running the school. They should have an opportunity to express their ideas and feelings in a democratic context in the classroom. It seems rather strange to me that we expect students to learn about democracy in school climates that are more often run like dictatorships! Students at Webb Middle School in Austin, Texas, participate in shared decision making through class meetings. At one meeting, for example, a student shared his concerns about hallway safety and suggested a hall monitor system that was embraced by his classmates and implemented as school policy (Appelsies & Fairbanks, 1997). Talent Middle School students in Talent, Oregon, lead parent–teacher conferences (Kinney & Munroe, 2001). In Olympia, Washington, middle school students tutor student teachers from a local college in how to use high-tech tools (Armstrong, 2001). In each of these cases, young teens are being empowered at an age when their biological imperative is demanding that they be recognized.

Honoring and Respecting Student Voices

A deeper manifestation of giving students significant roles in decision making in the school is the respect that needs to be given to their authentic voices. This may be the most important thing that educators at the middle school level can do for their students: help them find their own true voice. Students at this age are struggling with a myriad of inner voices internalized from peers, gangs, the media, and other sources, and in the midst of all of this, they are

faced with the significant challenge of trying to pick from that hodgepodge of noises their own unique identity—their own true voice.

Teachers in middle schools should be greatly concerned with helping students develop their own individual voices through poetry, journal writing, and other meaningful writing assignments. At Broad Meadows Middle School in Quincy, Massachusetts, students engage in a program called Writing Wrongs. Instead of writing phony business letters from a textbook, they write real letters to real people to solve real problems. One letter persuaded a mayor to adopt the student's own adopt-a-neighborhood cleanup program. Other students wrote letters to politicians and businesspeople about child labor practices in third world countries, and as a result they testified before the U.S. Department of Labor, addressed graduate students at Harvard, and raised $147,000 to set up a school in Pakistan for children in bonded labor (Adams, 2001). As young teens notice their deeper voices being listened to and recognized, they acquire confidence and a sense of selfhood that will stand them in good stead as they face the challenges of the future.

Facilitating Social and Emotional Growth

Academic Achievement Discourse puts social and emotional growth on the back burner while it goes about its work of meeting standards and boosting test scores. Yet educators do this at great peril to society. Good middle schools help students develop their emotional intelligence and their intrapersonal and interpersonal intelligence (Gardner, 1993; Goleman, 1997). They use cooperative learning as a key to fostering positive social relationships. They have well-trained counselors on staff and maintain good referral networks for students needing special help with their emotional problems from mental health professionals. They engage students in curriculum-related activities that serve to develop their social and emotional intelligences

At Webb Middle School in Austin, Texas, students create life graphs or visual autobiographies that depict the ups and downs of their lives, including trips, accidents, family milestones, and other personally meaningful events. They then choose an event from the graph to expand into a written narrative such as "How I Learned to Play Basketball," "A Trip to Mexico," or "Being Made Fun Of." They also create identity boxes that contain photos, relics, poems, and other treasures, and they are then videotaped presenting their boxes to the rest of the class (Appelsies & Fairbanks, 1997). At Walden III Middle School in Racine, Wisconsin, students go through a Rites of Passage Experience that involves presenting evidence of competence in 16 areas, including English, math, ethics, and physical challenge, to a committee of teachers, peers, and community members (George Lucas Educational Foundation, 1997). By giving primary attention to the development of social and emotional learning in middle school, educators ensure that students will have the personal tools they need in order to function optimally in the broader society around them.

Too many educators believe that early adolescence is either a time for whipping kids into shape for the academic rigors of high school or a time for patient (if painful) endurance while they go about their tortuous process of growing up. It is neither. There is a great middle area between these two extremes that must be the focus of those who wish to deal with the reality of young teens. Young adolescents live rich and intense lives. To demand that they leave these lives outside of the school boundaries is to commit a serious injustice to them, and it also threatens to deprive society of the gifts these kids have to give. By embracing the passion of early adolescence and using that energy to revitalize the classroom, educators will ensure that these vibrant young voices will sing out their hopes, fears, joys, and sorrows in a way that can benefit not only themselves but the rest of society as well.

For Further Study

1. Visit a middle school that employs some of the developmentally appropriate practices described in this chapter. Then visit a middle school that follows some of the developmentally inappropriate practices examined in the chapter. Compare your experiences. What was the general emotional tone of each school? Where did students appear to be learning more? Where did they seem most involved in the learning process? Discuss your reflections and observations with colleagues who have visited the same or similar schools.

2. Think back to your own early adolescence. What were some of your hopes, fears, joys, and dreams? What particular problems took center stage at that time in your life? What was school like for you? Do you remember any teachers who were particularly supportive or unsupportive? What courses, activities, and learning experiences do you remember enjoying the most (and the least) in school? Write down your memories as they come to you. Share them with a colleague (or a group of colleagues) who have gone through the same process. Discuss what has changed about being a young teen since you were that age.

3. Observe young teens involved in formal and informal learning activities inside and outside of school. What sorts of inferences can you make about their emotional, social, and creative lives based on the behaviors that you see? How do the environments you observe them in either support or not support their developmental needs?

4. Ask at least five adolescents between the ages of 11 and 15 what they think about school. Ask them what their favorite and least favorite courses are in school. Ask them about their favorite and least favorite teachers (do this in a school where you are *not* one of the teachers). If they don't enjoy their school experience, ask them what sorts of changes might make their time in school more satisfying to them.

5. Which of the developmentally appropriate practices for young adolescents described in this chapter are most important in your opinion? What other practices would you add to this list? Which practices seem most absent from the middle schools in your area? Support the development and implementation of one or more of these practices in your district or community.

6

High Schools: Preparing Students to Live Independently in the Real World

On February 26, 2005, Bill Gates, the founder of Microsoft and one of the richest people on earth, addressed governors, CEOs, and leading educators at the National Education Summit on High Schools held in Washington, D.C. In his address, Gates called the American high school obsolete. He decried the lack of preparedness of most high school graduates for college and work in the 21st century. He recommended that high school be reformed so that all students who graduate will be ready for college. Gates noted in his speech: "We have one of the highest high school dropout rates in the industrialized world. Many who graduate do not go on to college. And many who do go on to college are not well-prepared—and end up dropping out. That is one reason why the U.S. college dropout rate is also one of the highest in the industrialized world" (Gates, 2005). There is a certain irony in Mr. Gates's comments. He was a college dropout.