

Hidden assumptions, attitudes, and procedures in failing schools

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More important than the curriculum is the question of methods of teaching and the spirit in which the teaching is given.

–Bertrand Russell

Sometimes the attitudes, beliefs, and procedures that have become ingrained in the schools just do not “fit,” explain, or help every child. Many hidden assumptions, attitudes, and procedures are practiced routinely in schools without much thought or analysis. One possible explanation for their occurrence is that we become comfortable with familiar routines and believe we must be doing OK because that’s the way schools have always operated. Another likely possibility involves a combination of factors including a lack of time, expertise, energy,” or money to look thoughtfully into these issues. Whatever the case, there definitely is a need to do so.

Let’s begin by looking at issues within our society. No doubt we live in a wonderful country. However, possessing freedom and a right to a free public education can have its shadow side. Possibly we’ve grown to regard education as something given to our students: a passive process in which many expect spoon-fed learning. But a true education cannot be obtained in that manner. Education is a process that develops over time through hard work, dedication, and perseverance. Undeniably a right in our country, it is a true gift, but one that must be earned.

All too often we witness students doing only the minimum work to get by in their classes. Our natural response to this is to blame them, to say they are lazy, unmotivated, or even ungrateful. But they have learned such behaviors from their parents, from their teachers, and from society. “We cannot change the norm overnight, but we can make small changes within our schools to triumph over self-defeating learned behavior. At many schools, significant resistance makes change difficult and often slow.

Resistance can be overcome, however, if we acknowledge the problem, stop the blame, and change what we can. Yes, there are many problems in our society over which we have little control: poverty, violence, and family issues, to name a few, but there are also hidden resistances in our schools that, if identified, we can do something about.

Resistance to change is natural; it is a part of our human nature. It is difficult to acknowledge that the beliefs, policies, and approaches we've been educated and trained to use might not always be best. However, I believe that most of us in the fields of education and psychology want to help the children with whom we work. "We must therefore remain open-minded to the possibility of questioning our policies and practices. We need to keep abreast of the current research in our fields, consult with outside professionals, and acknowledge our limitations. We need to look at all possible factors contributing to the problems we see in schoolchildren.

Blaming the Student

One hidden resistance is the assumption that there must be something wrong with a child who is not learning. Why are we reluctant to consider the possibility that the child is not to blame? I suspect it is human nature to become a bit defensive when we believe our work or our personhood is being attacked. However, that is a huge misunderstanding of the issues at hand. We need not feel defensive when most children are doing reasonably well in our classes. We should instead ask, "What can we do differently so that both struggling children and all children can do better?"

Ideally, it is best to address any child's issues holistically, including a complete analysis of the school climate. Keep in mind that positive changes in school climate will benefit all students, making school a safer and more-productive place for all. However, holistic analysis is rare in education. More often than not a struggling child is seen to have a "problem" that must be addressed, rather than the environment containing a hidden problem that could be interfering with learning.

Mark's Case. The case of Mark illustrates how the tendency to blame children can develop. Mark is a ten-year-old from a typical household. His parents both work outside the home, but his mother returns home at three o'clock in the afternoon to care for Mark, his older sister, and one younger brother. He is active and engaged with learning in the classroom and gets along well with his classmates. After school Mark likes to play basketball in the driveway or ride his bike around the neighborhood. Like most boys his age he enjoys computer games, sports, and watching television, although his parents monitor the amount of time and the programs he is allowed to watch.

This case study seems to portray an ideal supportive family and a typical boy with strengths and talents in many areas. Mark's mother and father are caring, involved parents who place a clear value on education. However, in school Mark developed a reputation for hyperactivity and attention problems. His teacher, despite lacking credentials to diagnose ADHD or suggest the use of medication, strongly suggested that he should be placed on Ritalin. This teacher was clearly overstepping her bounds. Although her diagnosis was ruled out by Mark's pediatrician and a psychologist, the hyperactive label "stuck" to him.

In some schools there seems to be an overabundance of children with a particular diagnosis: if not this diagnosis, then another, and children often become what they are labeled. Many children are viewed as deficient or different because they learn differently, do not learn up to expectations, or do not behave like most other children. An accurate diagnosis is often helpful, but a misdiagnosis is likely to be harmful. Such mislabeling or misperception of the child is rarely intentional, but, it can happen routinely without examining other possible causes if the child exhibits a few characteristic "symptoms" of a disorder. Nevertheless, the *misunderstanding* and *overuse* of diagnosis can prove costly to the child.

The school's motives are almost always well-intentioned: school personnel do not want to overlook a treatable problem. However, are we in turn overlooking other possible causes of school difficulties by simply labeling--putting the blame on--the child and undermining the child's security and sense of self, when changes within the school may be all that are necessary?

Disincentives

Another common but very different hidden problem, which involves a faulty assumption based upon misinterpreted research, has led to decades of misguided efforts to help children develop more positive self-esteem; The self-esteem movement began in the late 1960s with a research project undertaken by Stanley Coopersmith (1967)--a project that has been widely misunderstood. Coopersmith, a psychologist, believed that raising children's self-esteem was important in proper child rearing. His results correlated well with age-old child-rearing practices that require clear rules and enforced limits for children to develop higher self-esteem (cited in Seligman 1995, pp. 27-28).

Unfortunately, many educators paid attention only to the feel-good part of boosting children's self-esteem; they lavished praise on children for their work, even when the children knew they weren't doing well or putting forth their best efforts. Clearly such an approach has backfired. Encouraging a false sense of self-esteem without demanding hard work is a dangerous approach. Indeed, self-esteem decreases when children realize, as most of them do, that the praise they have received is unfounded.

Nathan's Case: Low Expectations. Academic policies must undergo continual appraisal and revision when needed. The case of Nathan portrays one problem that can develop from a misguided assumption. Nathan, an eighth-grader, did not like to read for pleasure, even though he was surrounded by books at home and his parents were both ardent readers. Nathan explained to them that his teacher required him to read ten pages of a novel of his choice, then stop and write a journal entry about what he had read. The approach was counterproductive to really getting into a page-turner of a novel that he might not want to put down; it was very disruptive to the joy of reading.

Although Nathan was not even close to doing his best work, his teacher was nonetheless commending his petty effort. When Nathan's parents asked the teacher exactly what the assignment entailed, she affirmed that Nathan's understanding was correct: her students were required to read only seventy pages over the course of the term! How can anyone learn the love of reading by stopping every ten pages? No one is going to enjoy reading that way. Low expectations are a detriment to all students' unrealized abilities--abilities that may remain concealed in such an environment.

The teacher's explanation of this absurd approach was that she didn't want poorer readers to feel bad about themselves. Students could always read more than assigned, but Nathan, like most boys his age, took the easy route--and was being harmed by this poorly thought-out and dangerous process.

Sally's Case: Unneeded Stress. The case of Sally helps to clarify several hidden procedural problems that could be identified early and corrected by analyzing and accurately understanding the symptoms of children experiencing school-related anxiety. These hidden issues include lack of continuity, undertrained personnel, toxic testing, and overscheduling.

Sally's parents report that she was anxious in school. She got off to a difficult start in first grade when her teacher went on maternity leave and several temporary substitutes

completed the remainder of the school year. Continuity is important, particularly to young children (Brazelton and Greenspan 2000). Could its absence have caused some of Sally's anxiety? (Similar problems can occur when school systems undertake redistricting, another procedure we should question. Students assigned to a different school as a result are uprooted from friends and the comfortable familiarity of their previous neighborhood school.)

By the second grade, Sally found it difficult to focus on her own work. There were two children with severe behavior problems in her class. At times they threw chairs and other objects, or even hit other students. Naturally, those students required considerable extra attention from the classroom teacher, who was not trained to handle behavioral problems of this severity. Sally often crawled under her desk when things got out of control. (Note here another hidden dilemma, related to teachers who lack the training, expertise, and supervision to handle children with severe emotional and behavioral problems.)

By third grade Sally was exhibiting other symptoms related to performance anxiety. In third grade all students took standardized achievement tests, and her teacher stressed the importance of these instruments. Testing has taken on far too much importance in our schools. Additionally, Sally was overscheduled with after-school programs that included drama, soccer, and music lessons. (Readers may want to refer to *The Hurried Child*, by Dr. David Elkind.) Yet the school required her participation in many extended-day activities and graded her participation on her report card. There was even some required weekend participation. Sports, music, and other formerly relaxing activities became a competitive, compulsory grind.

Counterproductive Scheduling. Looking at a typical day's academic schedule should get us thinking. Students are required to change subjects every forty-five to fifty minutes (younger children even more often). The rationale behind this hectic schedule involves the idea that children cannot maintain attention for a longer time--an inaccurate belief and a faulty approach for many learners. They can easily get back to the tasks at hand and learn in more depth if not required to stop and change classes and subjects while engrossed in learning.

Arbitrary time restraints on students are ludicrous, and that includes schedules for lunch, bathroom breaks, and other basic needs. Kids should be allowed to address their basic needs when necessary. For example, it's very difficult for many students to think right before

lunch when they haven't eaten since early morning. Even adults are allowed a mid-morning coffee break. Anticipating the bell at the end of class, students often shut down to learning sometime earlier. Such barriers to learning are disruptive to all students, particularly those who learn in depth. Many students cannot quickly gear up for art or history when still deep in thought about a math problem or some other concept that may have sparked their interest in the previous class--and it is harmful to interrupt such thought processes.

Excessive Class Size. Then there is the issue of the number of students in each class. Well-documented research clearly shows a correlation between smaller numbers and higher levels of achievement (*Reducing Class Size*, 1999). Large classrooms require teachers to teach in different ways, too. It's much more difficult to conduct experiments, debates, and seminars with large classes. Lecture, the more typical approach, will not meet the needs of many students. In the early grades teachers often use worksheets extensively, sometimes to reinforce learned material, but often to keep large classes under control with busywork.

Take the case of Carol. The only child of an intact professional family, Carol was complaining by third grade that school was boring and that the work was the same day after day. Carol and her parents regarded the numerous worksheets as attempts to keep the children busy in a classroom where many students' problems had overwhelmed the teacher. The teacher's aide assigned to the classroom had no educational background or training. Typical children were not thriving in this setting.

"Busy" Homework. Assigning excessive homework is another problematic area. Certainly homework is necessary at times to reinforce learning that occurred during the day. However, more and more homework seems to be assigned because of arbitrary policies: i.e., high school students will receive two hours of homework every night. Such policies need revision. Most homework is only busywork that frustrates kids and turns them off to school. Their time could be much better spent relaxing with family, reading a good book, or engaging in sports.

Report Card Abuse. The age-old issue of grading, progress reports, and report cards is another policy that needs revamping. The typical grading practices frequently provide too much negative feedback; they can make students anxious, or worse yet, stop caring. Chad is one young student suffering the ill effects of this policy. His mother was sent weekly "progress reports," where she noticed that her bright, academically successful child received

only negative--never positive--comments. Grades, originally intended to motivate students and inform them of their growth, have too often become a form of criticism with all the harmful ramifications.

The School Structure. Even the physical layout of the school building and classrooms calls for reappraisal. The products used in building, and in renovations and upkeep, are also problematic in many schools. Careful planning must go into the specifications of new schools and include information from architects and builders, along with research from the fields of education, psychology, and medicine, to address such concerns.

Behavior Management

Discipline and behavior management issues are far too large a problem for all schools. In fact, there is such a focus on what kids might do wrong, many kids think acting inappropriately is the norm. Clearly, not all teens act irresponsibly all the time. Many teens do not experience regular periods of storm and stress, as the media seem to portray. We need to start expecting that children can and will act responsibly.

Along those lines, children need to be given more responsibility for their learning, to have choices in what they want to learn and how they want to learn it. "We need to trust that they want to learn, that they want to do the right thing and will behave in their best interests--at least most of the time. Many of our current discipline and behavior policies contradict the schools' mission of teaching children to become responsible, knowledgeable individuals.

"One Size Fits All." One parent expressed her concerns about how inflexibly disciplinary issues were handled. She described her child's school as having only one way of dealing with problems: "They [the administrators and teachers] have this pretense that the kids will sit quietly at their desks, do all of their work, and life's going to be perfect: They don't allow for individual differences."

Another parent, the mother of David, expressed her thoughts about the handling of discipline problems. The school's policies, she thought, were inconsistent and ineffective. For example, one boy was frequently out of control in the classroom, and there had been an incident involving physical violence. The aggressive child was spoken to in the principal's office and then returned to class with no other consequences or follow-up. She related numerous times when serious discipline problems were handled inappropriately.

This same parent volunteered in the classroom and observed other problems. She saw that the children with obvious behavioral problems were being rewarded for inappropriate actions. She noticed that in special classes such as music and gym, these children were allowed to use drums or their choice of musical instrument just to avoid an incident. She spoke of children with severe behavioral and emotional disorders monopolizing the teachers' time and energy at the expense of the other children. The regular kids, left out, were falling through the cracks.

Boys and Girls. It also appears that in school settings boys end up in time-out or suffer other forms of discipline much more often than girls. This phenomenon should get us wondering why that is the case. Are boys not ready for school? Do they have more behavioral problems? Are there unrealistic gender expectations in our schools? There are behavioral differences between the genders, and little boys should not be made to feel they are "bad" every time they act differently than girls. Girls usually adapt better to rules in school settings. This is not to say that we should overlook or excuse inappropriate behavior, nor should we throw up our hands and mutter, "Boys will be boys"--but possibly we should understand boys better and make the school climate more conducive to them.

Administration Attitudes. Then there are the issues involved with the "tone" or attitudes of the administration, faculty, and staff. In many schools this tone is pleasant, welcoming, and affirming. However, in some schools even the parents almost feel considered children, again, called down to the principal's office. In such schools, communication is not welcomed, and parental involvement is not encouraged. In these closed schools, the attitudes are authoritarian and nondemocratic. No room exists for negotiation or reflection upon assumptions, attitudes, or procedures.

One parent succinctly summed up her thoughts about such a setting: she believed the tone was set by the upper administration and if nothing were done, the problems would indeed perpetuate themselves. She understood that in the system her child attended, the superintendent backed up the principal, the principal backed up the teachers, and the teachers backed up the staff, but no one listened to the parents or the students. In the case of one child (I'll call her Becky), an unkind lunchroom staff woman frequently addressed the students in an angry, demeaning tone. At first Becky was so fearful she was not able to eat. Soon she and her friends skipped lunch altogether rather than encounter the paid bully. The children have

developed poor eating habits. Unfortunately, no one listened to the complaints of these children or their parents. The same personnel and policies remained.

Student Health and Nutrition

We must also take better care of children's health. Consider the timing of the school day. Research study after research study documents that natural sleep cycles change during adolescence; teens stay awake later and need to sleep later in the morning. Unfortunately most high schools start very early: 7:30 a.m. or even earlier is not unusual, which means many adolescents are getting up before 6:00 a.m. to finish homework and get on the school bus. However, adolescents without at least 8 to 9 1/2 hours of sleep per night are at increased risk for depression and attention issues, along with a decreased capacity to learn--not to mention a higher risk of auto accidents for those sleepy students who have their driver's licenses. So what do the schools do? They begin the academic day earlier and earlier--based not upon research, which clearly states what benefits the child best, but upon a budget issue. School buses cost money, and high school students must get up and start early so that the younger children can then be picked up and brought to their schools.

Even basic policies on eating and exercise need review. Children need nutritious food and need it more often than adults. Many children need several healthful "mini" meals throughout the day, yet the school schedule does not allow for that. According to Mayo Clinic experts, children, unlike adults, need extra nutrients and calories to fuel their growth and development. Many children are unable to focus, particularly in the class right before lunch, because their need for food is more urgent than anything the teacher might be attempting to teach: Children who are allowed to pay attention to their bodies' needs learn to eat when needed, not when they are not hungry. If children were allowed nutritious snacks during the morning hours, if and when needed, more of them "would be alert, not craving the high-fat, sugary temptations that target those in need of quick energy. (Parents and educators also should be aware that food additives and food colorings can interfere with some very sensitive children's ability to focus and learn. Since such additives have no nutritional value, they should be avoided by all children.)

"When lunchtime finally arrives, children typically have twenty to twenty-five minutes for lunch, which includes standing in line to load their trays. Usually there are only a

few minutes to gulp down a few bits; the rest is dumped into the trash. Lunchtime needs to be relaxed, allowing time for socialization and a break from the academic routine. Only nutritious selections should be accessible to children, along with adequate time for consumption. Several tempting choices should be readily available, including healthful main courses and desserts.

The incidence of childhood obesity has grown rapidly in this country for many reasons. In our industrialized nation, fast foods are a way of life for many, offering convenience, availability, and attractiveness to children through aggressive advertising campaigns. According to Mayo Clinic research, in just two decades the number of overweight youths between ages six and eleven has doubled in the United States. The obesity rate has tripled for American teenagers. Furthermore, the annual National Health and Nutrition Examination Survey by the Centers for Disease Control and Prevention found that about one-third of U.S. children are overweight or at risk of becoming overweight. It appears that approximately 25 million U.S. children and adolescents are now considered overweight (Mayo Clinic 2006).

Although several genetic causes for childhood obesity are known, poor food choices, too much food, and decreased activity levels are the primary catalysts. Our sedentary lifestyle is on the rise, and schools need to address the changing times. Most kids enjoy and excel in using technology, and clearly technology has increased the potential for educational advancement, yet it does decrease the time kids have for active pursuits.

Amazingly enough, the trend in education has been to ignore the need for increased activity levels by cutting down on the hours and days allocated for physical education. Particularly at the middle school and high school levels, adolescents are often required to take only one term of physical education per year. Even in elementary schools, recess time has been shortened in the faulty belief that academic time is wasted when kids are out running around. In truth kids are better able to focus when their need for physical activity is addressed--particularly those who may be misdiagnosed with attention problems.

Leaving Some Children Behind

We also should examine some interpretations of laws developed to protect children's right to education. Such terms as "least restrictive environment," "mainstreaming," and

“inclusion” are meant to protect children from discrimination and to integrate children with special needs into regular classrooms. Of course that’s a good idea--most of the time. But sometimes a regular classroom cannot provide the education some children require to be “not left behind.”

Teachers cannot be experts in all areas; it is a disservice when a student is not placed with personnel expert in specific issues. A child experiencing severe learning difficulties should be placed in a specialized school for a year or two to be taught in the most appropriate manner. Then the student can be re-integrated into the mainstream, self-esteem intact, with skills to thrive academically. Teachers should be chosen for each child based upon the child’s needs, not upon which classroom has space.

Another approach might allow a parent to switch the child’s class or school when there is a failure to thrive in an academic setting. Sometimes a change in school settings is all that is needed to provide the child with a better “fit.” It’s not unusual for a child to receive poor grades and to experience problems because of the school setting. The special education team may be called in to search for problems (with the child, the parents, or even society) when all that may be needed is a change in school environment.

The Status of Teachers. Of course we should mention two serious problems at this point. We should be encouraging the best and brightest college students to become teachers. But many talented young adults go into other fields that command higher salaries. Further, we reward our best teachers by assigning them to teach children who will learn anyway. A quote from Sen. Hillary Clinton clearly articulates this problem:

Merit pay to individual teachers would discourage teachers from helping troubled students and would create a distorted competition among teachers. I don’t think that’s a very good way to inspire teachers. We want our best teachers to work with the kids who are the hardest to teach. If teachers are going to be told that the people who look better on a test are the ones who are going to get them rewarded in salary or compensation, why would anyone take on the kids who are harder to teach? (*New York Times*, April 6, 2000, p. 25)

Over time our nation’s schools have been expected to take on more roles and responsibilities. Often classroom teachers have not been adequately prepared or fairly

compensated for those tasks. Teachers are expected to be jacks-of-all-trades. Many school systems respond by assigning a teacher's aide to the classroom, although that individual usually has little or no training.

That response can at best be seen at best as a Band-Aid approach. We certainly wouldn't allow a surgeon to operate without proper credentials and training. Yet often we entrust the education and ultimately the futures of our children to individuals who lack adequate expertise. Most teachers want to help children, and they take their jobs seriously. They would welcome additional education and training.

That said, perhaps it is time to question teacher-tenure policies. Many schools are saddled with teachers who have lost their enthusiasm, or even those who are clearly incompetent or not dedicated to their profession. Although such teachers need a chance to change and improve their approaches, they should not be allowed to impact children's education negatively year after year. Yes, it is important to have some degree of security in one's job, but the motivation and ability to do good work consistently are also important. In a positive school climate, both teachers and students benefit.

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This article has surveyed several troublesome school-related issues in which assumptions, attitudes, and procedures are determined and implemented in the name of education. It may be helpful to keep the following "Hidden Dangers Vicious Cycle" in mind when analyzing such problems.

We need to ask ourselves why so many children do not want to go to school and why they do not value a good education. Even those who do manage to graduate from high school are often ill prepared to deal with the academic rigors of college.

Many other countries do not have the same issues in their schools. It has not always been this way in our country, and we can make changes to improve the quality of education before more harm is done.

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It is, in fact, nothing short of a miracle that the modern methods of instruction have not yet entirely strangled the holy curiosity of inquiry; for this delicate little plant, aside from stimulation, stands mainly in need of freedom; without this it goes to wrack and ruin without fail. It is a grave mistake to think that the enjoyment of seeing and searching can be promoted by means of coercion and a sense of duty.

—Albert Einstein

References and Suggested Readings

- Brazelton, T.B., and S.I. Greenspan. 2000. *The Irreducible Needs of Children: What Every Child Must Have to Grow, Learn, and Flourish*. Cambridge, Mass.: Perseus Publishing.
- Coopersmith, S. 1967. *The Antecedents of Self-Esteem*. San Francisco: W. H. Freeman.
- Cottle, T. 2004. "Feeling Scared," *Educational Horizons* 83(1): 42-54.
- Einstein, A. Retrieved January 10, 2007, from http://www.enthink.com/quotations/teachers_and_teaching/.
- Elkind, D. 1981/1988/2001. *The Hurried Child: Growing Up Too Fast Too Soon*. Cambridge, Mass.: Da Capo Press.
- Globalism in Education. "The Effects of Class Size in Higher Education." Retrieved October 1, 2007, from <http://english.ttu.edu/kairos/10.2/coverweb/samuels/zine/size.html>.
- Gunzelmann, B. 2004. "Hidden Dangers within Our Schools: What Are These Safety Problems and How Can We Fix Them?" *Educational Horizons* 83(1): 66-76.
- Gunzelmann, B. 2005. "Toxic Testing: It's Time to Reflect upon Our Current Testing Practices." *Educational Horizons* 83(3): 212-220.
- Gunzelmann, B., and D. Council. 2006. "The New Gender Gap: Social, Psychological, and Educational Perspectives." *Educational Horizons* 84(2): 94-101.
- Kohn, A. 2004. "Safety from the Inside Out: Rethinking Traditional Approaches." *Educational Horizons* 83(1): 83-41.
- Mayo Clinic. 2006. "Childhood Obesity." Retrieved January 30, 2007, from <http://www.mayoclinic.com/health/childhood>.

- Mayo Clinic. 2006. Classroom of the Future. *Mayo Foundation for Medical Education and Research*. Retrieved January 30, 2007, from <http://www.mayodinic.org/levine-classroom-future/1>.
- Meier, D. 2002. *In Schools We Trust: Creating Communities of Learning in an Era of Testing and Standardization*. Boston: Beacon Press.
- Meier, D. 2004. "For Safety's Sake." *Educational Horizons* 83(1): 55-60.
- Morrow, J. 2001. *Choosing Excellence: "Good Enough" Schools Are Not Good Enough*. Lanham, Md.: Scarecrow Press.
- Morrow, J. 2004. "Safety and Excellence." *Educational Horizons* 83(1): 19-32.
- Nagourney, A. 2000. "School Cuts Are an 'Admission of Failure,' Mrs. Clinton Says." *New York Times* (April 6).
- National Sleep Foundation. 2007. Retrieved August 14, 2007, from http://www.sleepfoundation.Org/site/c.huIXKjMOIxF/b.2419131/k.6C23/How_Much_Sleep_is_Enough.htm.
- Noonan, J. 2004. "School Climate and the Safe School: Seven Contributing Factors." *Educational Horizons* 83(1): 61-65.
- Reducing Class Size/What Do We Know? 1999. Archived Information. Retrieved October 1, 2007, from http://www.ed.gov/pubs/ReducingClass/Class_size.html.
- Rose, L. C. 2004. "No Child Left Behind: The Mathematics of Guaranteed Failure." *Educational Horizons* 82(2): 121-130.
- Russell, B. Retrieved January 10, 2007, from http://www.ehthink.com/quotations/teachers_and_teaching.
- Seligman, M. 1995. *The Optimistic Child: A Revolutionary Program to Safeguard Children from Depression and Build Lifelong Resilience*. New York: Houghton Mifflin.
- Seligman, M. 1998. *Learned Optimism*. New York: Pocket Books.
- U.S. Environmental Protection Agency. "High Performance Schools." Retrieved May 27, 2007, from <http://www.epa.gov/iaq/schooldesign/highperformance.html>.
- U.S. Environmental Protection Agency. "Green Indoor Environments." Retrieved May 27, 2007, from <http://www.epa.gov/iaq/greenbuilding/index.html>.

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