# AMERICAN Educator

# Heading Off Disruptive Behavior

How Early Intervention Can
Reduce Defiant Behavior—
and Win Back Teaching Time

# THERE'S NOT ENOUGH ART IN OUR SCHOOLS.

## NO WONDER PEOPLE THINK

# MARTHA GRAHAM

## IS A SNACK CRACKER.

**H**ardly a fitting legacy for the woman who, despite getting a late start at the positively elderly age of 17, became the mother of American dance.

Nearly single-handedly, Martha Graham brought dance into the 20th century. She did nothing less than create an entirely new genre of dance while shattering the expectations of audiences and critics alike with her percussive, angular movement style. She was one of the first dancers to collaborate with contemporary composers instead of using the 18th- and 19th-century compositions her predecessors favored. Her dances have been called "motion pictures for the sophisticated"; her theories on movement and kinesthetics are still vital today, and there is scarcely a dancer alive who doesn't owe a huge debt to her sharp creative mind and fierce perfectionism.

*A common misconception. Not to mention an overlooked marketing opportunity.*

And to think she could have made it her entire life without experiencing the arts. Just like so many kids in our schools today.

**MARTHA GRAHAM IS A TREAT.**

No one has to tell parents that arts education is good for their kids. According to virtually every study out there, they already know that. Parents know that painting and music teach tolerance and openness, help their children express themselves creatively and contribute greatly to their kids' self-worth. They welcome dance and drama as ways their children can develop as individuals and stand out from the crowd. In fact, moms and dads believe the arts are an integral part of their children's education.

So how can they be satisfied with the trivial amount of art kids are taught in school?
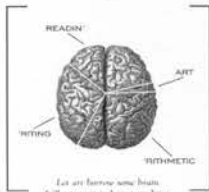
*Let art borrow some brain. It'll return it in better condition.*

**ALL TOGETHER NOW.**

The sad truth is, your kids spend more time at their lockers than in arts classes. If you don't

*Ms. Graham told stories using movement. Here, she tells us how sad it is that kids aren't getting enough art.*

have a problem with this, if you think that's adequate, then fine. Do nothing. On the other hand, if you think this is unacceptable, you need to speak up and demand your child's fair share. Play a part in your kid's schooling. To find out how or for more information about the benefits of arts education, please visit us on the web at AmericansForTheArts.org. Otherwise, even a legacy as rich as the incomparable Martha Graham's can crumble to nothing.
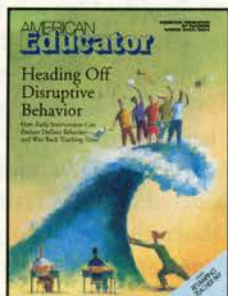
## ART. ASK FOR MORE.

Cover illustrated by
Paul Zwolak

# LETTERS

## Primacy of Content and Civics Refreshing

The Fall 2003 issue of *American Educator* focusing on Education for Democracy was superb. Having been badgered for years by administrators who think teaching is primarily about "learning styles" and "life skills," I found it uplifting to know that there are educators who appreciate the primacy of content. I only wish that I could require every member of our state legislature to read this issue and to act on the need for a solid "civic core" in the state's educational curriculum. Thank you.

—BLAINE T. BROWNE
*Broward Community College, Coconut Creek, FL*

I commend you on the Fall 2003 issue of *American Educator*. The series of articles dealing with the importance of civic education and a decline in the appreciation of democratic values was refreshing. Your articles gave voice to the frustrations of social studies teachers across the land. Many students, and adults for that matter, take for granted the principles our nation was founded on. Your articles are an appropriate call to action for American parents and educators. Thank you for shining a light on this important topic.

—BRIAN KANE
*Boston Lake High School, Clifton Park, NY*

## Was "Reality" Captured— or Omitted?

Diane Ravitch's article, "Leaving Reality Out (How Textbooks Don't Teach about Tyranny, Fall 2003 *American Educator*)," is absolutely fantastic! As a mathematics teacher in Cuba for 16 years and in the United States for 20 years, this is the first time that someone has addressed this issue with such clarity and objectivity—while also being totally impartial. Excellent!

—EDUARDO F. GUTIERREZ
*Clifton Park, NY*

Funny that Diane Ravitch's article is titled "Leaving Reality Out...," because that is exactly what she does in her article. In her "close review" of how U.S. textbooks cover "tyrannical governments," she laments "deferential" coverage of countries like Cuba and China that are considered our adversaries. But, not a word about the lack of any coverage at all in our textbooks of the very well-documented reality of tyrannical governments that are or were "friends" of the U.S.

Her ideological bias is clear: She wants us to believe that only the Soviet Union aided tyrannical governments, and that our students should learn mostly about abuses in "communist or Islamic" countries. Even when she alludes to coverage of abuses in El Salvador, she fails to mention that its death-squad government was kept in power by the billions of dollars of military and economic aid given it by the U.S. Does she really want teachers to ignore U.S. support of tyrannical regimes and to perpetuate the fiction that the U.S. exports only positive values like democracy and

**Let us know what you think!**
*Please send letters to the editor via e-mail to **amered@aft.org** or by mail to American Educator, 555 New Jersey Ave. N.W., Washington, DC 2001. Letters to the editor may be edited for style, clarity, and length.*

# CATCH THEM
## BEFORE THEY
## FALL

Suicide is the third leading cause of death among young people ages 10-18. Each year an additional 520,000 youth require medical services for a suicide attempt. It's clear that something must be done.

In July, the President's non-partisan New Freedom Commission on Mental Health did its part. To find youth at risk, the Commission recommends that schools and primary health-care providers offer every child a mental health screening. The next steps are up to you.

The Carmel Hill Center at Columbia University has prepared a report that explains how every parent, policymaker, educator, health professional and community leader can help save young lives. For a free copy of "Catch Them Before They Fall: How to Implement Mental Health Screening Programs for Youth," visit www.TeenScreen.org

PATH
Positive Action for
Teen Health

Columbia University
**Teen Screen Program**
Mental Health Check-ups for Youth
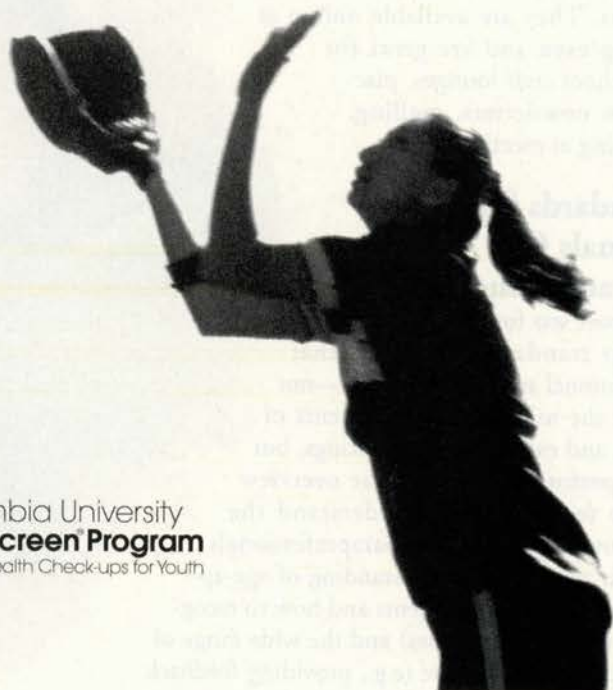
# NOTEBOOK

## FROM AFT

### One-Page Fliers on No Child Left Behind

No Child Left Behind (NCLB), the 2002 reauthorization of the Elementary and Secondary Education Act, is an enormous, confusing, and extremely important law. It is far from perfect—legislation never is. Nevertheless, NCLB presents a vehicle for achieving many of the AFT's foremost goals—including, identifying the achievement gap between advantaged and disadvantaged students, strengthening research-based reading instruction, and making sure that every teacher in every school is qualified. The AFT stands behind NCLB's objectives, but it is also working to revise important aspects of the law's implementation. To help members sort out the law's requirements—and to ensure that AFT's positions and resulting actions are well known—AFT is developing a series of one-page fliers on NCLB.

So far, fliers have been developed on the law's requirements about: adequate yearly progress, paraprofessional qualifications, and teacher qualifications. They are available online at **www.aft.org/esea** and are great for posting in school staff lounges, placing in union newsletters, mailing, and distributing at meetings.

### Skill Standards for Paraprofessionals Can Aid Teachers and Education

This new report sets forth, in the form of employment standards, the skills that today's educational support staff need—not just to meet the minimum requirements of today's K-12 and early education settings, but to be high performing. This clear overview should help teachers better understand the kinds of knowledge and skills paraprofessionals bring to their work (e.g., understanding of age-appropriate curriculum requirements and how to recognize various types of disabilities) and the wide range of tasks these staff can undertake (e.g., providing feedback to students, planning for extra-curricular activities, and communicating with families). These standards could spark ideas about how best to deploy educational support staff—and alert teachers to the kind of training they should advocate for on behalf of their classroom assistants.

The report was developed by the Education and Training Voluntary Partnership (ETVP), a coalition of over 150 organizations with knowledge of and interest in the work of educational support and early education staff. The effort was launched in 1998 by just five organizations, including the AFT. The standards describe the major responsibilities of
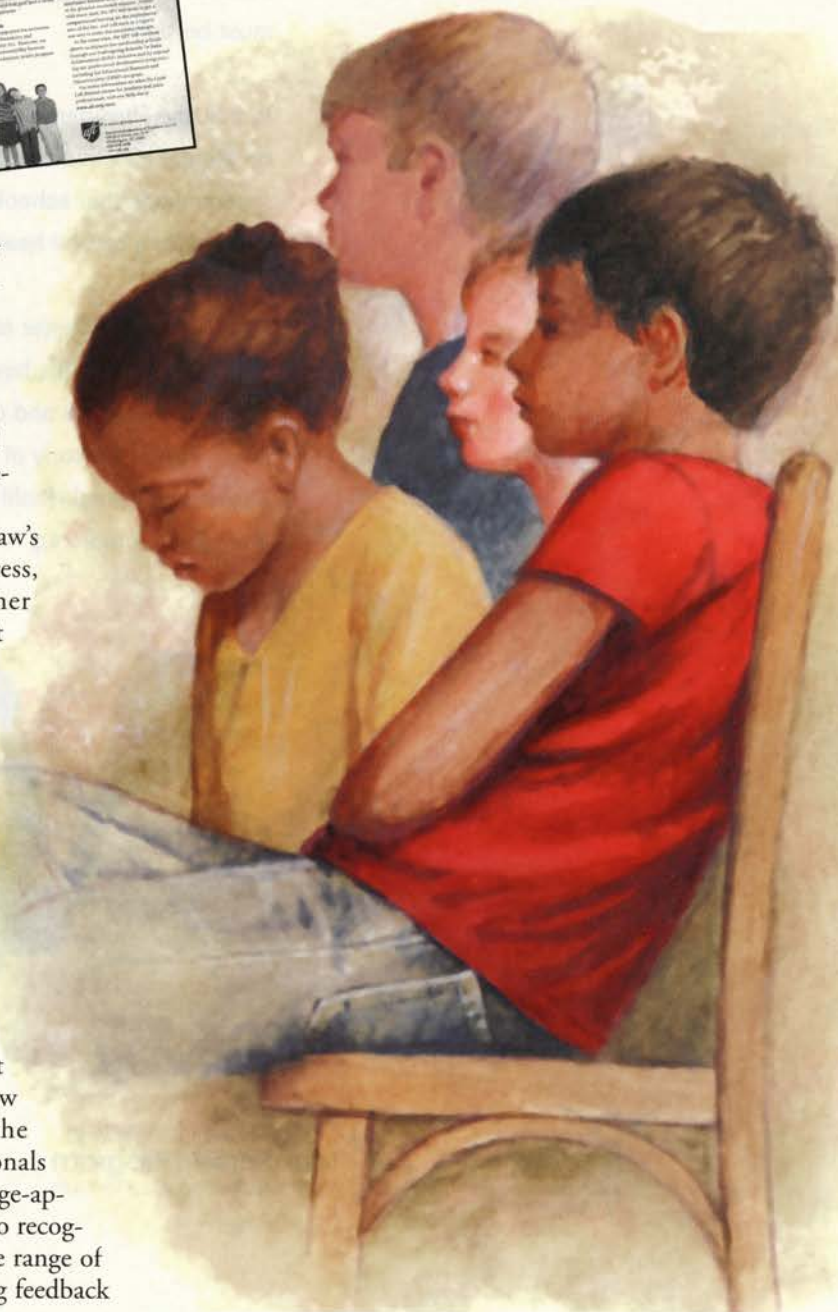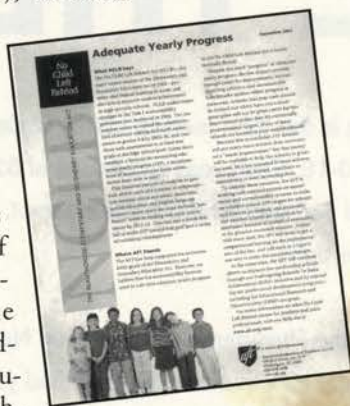
paraprofessionals, related competence measures, and the academic, workplace, and occupational knowledge they need to perform well in their jobs. They were developed through an extensive research and validation process including focus groups with hundreds of frontline workers across the country and reviews by dozens of subject-matter experts. In addition to the immediate help they can provide teachers, the ETVP hopes that these standards will become the basis for paraprofessional certifications, vocational courses, professional development, and meaningful job evaluations. To see the complete set of standards, go to **www.etvp.org/ALLFinalStandards.pdf**.

# HELP WANTED: MAKE HISTORY

## Preserve the Memory of a Human and Labor Rights Champion

"When will our consciences grow so tender that we will act to prevent human misery rather than avenge it?" Eleanor Roosevelt asked this question in the February 16, 1946, edition of her "My Day" column. From her strong support of the Women's Trade Union League to her push for civil rights and living wages, working to stir our consciences was a central theme of her tireless efforts. Mrs. Roosevelt chaired the United Nations' subcommittee that drafted the Universal Declaration of Human Rights; helped shape the New Deal; and pushed for youth programs, employment assistance for women, inclusion of blacks in federal programs, and the creation of planned communities with adequate housing.

Today, the Eleanor Roosevelt Papers Project aims to develop a comprehensive, Web-based archive of Mrs. Roosevelt's extraordinary life—and it needs your help. The Project wants to hear from everyone who has a personal story about Mrs. Roosevelt. If you heard her deliver a speech, read her "My Day" columns, know some connections between her and your family or your union, or have some other tie to her, please contact Brigid O'Farrell at the Eleanor Roosevelt Papers Project, The George Washington University, 2100 Foxhall Road N.W., Washington, DC 20007. Telephone: (in Washington, D.C.) 202-242-6717 or (in California) 650-728-3380. E-mail: **mbofarrell@aol.com**. To learn more about Eleanor Roosevelt and the Project, visit **www.gwu.edu/~erpapers/**.

## You and Your Students Can Contribute to the Veterans History Project

Famous or ordinary, we each hold part of the nation's collective memory and, whether through stories at the dinner table or speeches in front of thousands, we each share some of that history with others. But, like all those who in some way placed their country above themselves, our veterans embody an especially important piece of our national heritage. Now you and your students can recognize their sacrifices while learning research skills by volunteering for the Veterans History Project. Created by the American Folklife Center, a division of the Library of Congress, the project "enlists" regular people of all ages to conduct oral history interviews and collect photos, diaries, and other materials that veterans may want to share. To participate, just follow the step-by-step guide on the project's Web site—from biographical data forms to interview questions to an online seminar, everything you need is here: **www.loc.gov/folklife/vets/vets-home.html**. Once your project is complete, submit it to the Library of Congress or to one of the hundreds of partner organizations all over the U.S., including libraries, school history clubs, museums, American Legion Posts, and universities.

*As part of her efforts to fully understand the Depression and shape New Deal policies, Eleanor Roosevelt visited coal mines, migrant-worker camps, sharecroppers' land, and slums. In this 1935 photo, Roosevelt is inspecting a coal mine with representatives of the United Mine Workers and mine officials.*

# Heading Off
# Disruptive Behavior

*How Early Intervention Can Reduce Defiant Behavior—*
*and Win Back Teaching Time*

By Hill M. Walker, Elizabeth Ramsey, and Frank M. Gresham

More and more children from troubled, chaotic homes are bringing well-developed patterns of antisocial behavior to school. Especially as these students get older, they wreak havoc on schools. Their aggressive, disruptive, and defiant behavior wastes teaching time, disrupts the learning of all students, threatens safety, overwhelms teachers—and ruins their own chances for successful schooling and a successful life.

In a poll of AFT teachers, 17 percent said they lost four or more hours of teaching time per week thanks to disruptive student behavior; another 19 percent said they lost two or three hours. In urban areas, fully 21 percent said they lost four or more hours per week. And in urban secondary

*Hill M. Walker is founder and co-director of the Institute on Violence and Destructive Behavior at the University of Oregon, where he has been a professor since 1967. Walker has published hundreds of articles; in 1993 he received the Outstanding Research Award from the Council for Exceptional Children and in 2000 he became the only faculty member to receive the University of Oregon's Presidential Medal. Elizabeth Ramsey is a school counselor at Kopachuck Middle School in Gig Harbor, Wash., and a co-author of the Second Step program. Frank M. Gresham is distinguished professor and director of the School Psychology Program at the University of California-Riverside. He is co-author of the Social Skills Rating System and co-principal investigator for Project REACH. The Division of School Psychology in the American Psychological Association selected him for the Senior Scientist Award. Together, Walker, Ramsey, and Gresham wrote* Antisocial Behavior in School: Evidence-Based Practices, *on which this article is based.*

schools, the percentage is 24. It's hard to see how academic achievement can rise significantly in the face of so much lost teaching time, not to mention the anxiety that is produced by the constant disruption (and by the implied safety threat), which must also take a toll on learning.

But it need not be this way in the future. Most of the disruption is caused by no more than a few students per class*—students who are, clinically speaking, "antisocial." Provided intervention begins when these children are young, preferably before they reach age 8, the knowledge, tools, and programs exist that would enable schools to head off most of this bad behavior—or at least greatly reduce its frequency. Schools are not the source of children's behavior problems, and they can't completely solve them on their own. But the research is becoming clear: Schools can do a lot to minimize bad behavior—and in so doing, they help not only the antisocial children, they greatly advance their central goal of educating children.

In recent decades, antisocial behavior has been the subject of intense study by researchers in various disciplines including biology, sociology, social work, psychiatry, corrections, education, and psychology. Great progress has been made in understanding and developing solutions for defiant, disruptive, and aggressive behavior (see Burns, 2002). The field of psychology, in particular, with its increasingly robust theories of "social learning" and "cognition," has developed a

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* In the AFT's poll, of the 43 percent of teachers who said they had students in their classes with discipline problems, more than half said the problems were caused by one to three students. Poll conducted by Peter D. Hart Research Associates, October 1995.

powerful empirical literature that can assist school personnel in coping with, and ultimately preventing, a good deal of problematic behavior. Longitudinal and retrospective studies conducted in the United States, Australia, New Zealand, Canada, and various western European countries have yielded knowledge on the long-term outcomes of children who adopt antisocial behavior, especially those who arrive at school with it well developed (see Reid et al., 2002). Most importantly, a strong knowledge base has been assembled on interventions that can head off this behavior or prevent it from hardening (Loeber and Farrington, 2001).

To date, however, this invaluable knowledge base has been infused into educational practice in an extremely limited fashion. A major goal of this article (and of our much larger book) is to communicate and adapt this knowledge base for effective use by educators in coping with the rising tide of antisocial students populating today's schools. In our book, you'll find fuller explanations of the causes of antisocial behavior, of particular forms of antisocial behavior like bullying, and of effective—and ineffective—interventions for schools. And all of this draws on a combination of the latest research and the classic research studies that have stood the test of time.

In this article, we look first at the source of antisocial behavior itself and ask: Why is it so toxic when it arrives in school? Second, we look at the evidence suggesting that early intervention is rare in schools. Third, we look at a range of practices that research indicates should be incorporated into school and classroom practice. Fourth, in the accompanying sidebars we give examples of how these practices have been combined in different ways to create effective programs.

## I. Where Does Antisocial Behavior Come from and What Does That Mean for Schools?

Much to the dismay of many classroom teachers who deal with antisocial students, behavior-management practices that work so well with typical students do not work in managing antisocial behavior. In fact, teachers find that their tried and true behavior-management practices often make the behavior of antisocial students much worse. As a general rule, educators do not have a thorough understanding of the origins and developmental course of such behavior and are not well trained to deal with moderate to severe levels of antisocial behavior. The older these students become and the further along the educational track they progress, the more serious their problems become and the more difficult they are to manage.

How can it be that behavior-management practices somehow work differently for students with antisocial behavior patterns? Why do they react differently? Do they learn differently? Do they require interventions based on a completely different set of learning principles? As we shall see, the principles by which they acquire and exercise their behavioral pattern are quite typical and predictable.

One of the most powerful principles used to explain how behavior is learned is known as the Matching Law (Herrnstein, 1974). In his original formulation, Herrnstein (1961)

Frequent and excessive noncompliance in school (or home) is an important first indicator of future antisocial behavior.



stated that the rate of any given behavior matches the rate of reinforcement for that behavior. For example, if aggressive behavior is reinforced once every three times it occurs (e.g., by a parent giving in to a temper tantrum) and prosocial behavior is reinforced once every 15 times it occurs (e.g., by a parent praising a polite request), then the Matching Law would predict that, on average, aggressive behavior will be chosen five times more frequently than prosocial behavior. Research has consistently shown that behavior does, in fact, closely follow the Matching Law (Snyder, 2002). Therefore, how parents (and later, teachers) react to aggressive, defiant, and other bad behavior is extremely important. The Matching Law applies to all children; it indicates that antisocial behavior is learned—and, at least at a young enough age, can be unlearned. (As we will see in the section that reviews effective intervention techniques, many interventions—like maintaining at least a 4 to 1 ratio of praising versus reprimanding—have grown out of the Matching Law.)

### First Comes the Family...
Antisocial behavior is widely believed to result from a mix of constitutional (i.e., genetic and neurobiological) and environmental (i.e., family and community) factors (Reid et al.,

2002). In the vast majority of cases, the environmental factors are the primary causes—but in a small percentage of cases, there is an underlying, primarily constitutional, cause (for example, autism, a difficult temperament, attention deficit/hyperactivity disorder [ADHD], or a learning disorder). Not surprisingly, constitutional and environmental causes often overlap and even exacerbate each other, such as when parents are pushed to their limits by a child with a difficult temperament or when a child with ADHD lives in a chaotic environment.

Patterson and his colleagues (Patterson et al., 1992) have described in detail the main environmental causes of antisocial behavior. Their model starts by noting the social and personal factors that put great stress on family life (e.g., poverty, divorce, drug and alcohol problems, and physical abuse). These stressors disrupt normal parenting practices, making family life chaotic, unpredictable, and hostile. These disrupted parenting practices, in turn, lead family members to interact with each other in negative, aggressive ways and to attempt to control each others' behavior through coercive means such as excessive yelling, threats, intimidation, and physical force. In this environment, children learn that the way to get what they want is through what psychologists term "coercive" behavior: For parents, coercion means threatening, yelling, intimidating, and even hitting to force children to behave. (Patterson [1982] conducted a sequential analysis showing that parental use of such coercive strategies to suppress hostile and aggressive behavior actually increased the likelihood of such behavior in the future by 50 percent.)

For children, coercive tactics include disobeying, whining, yelling, throwing tantrums, threatening parents, and even hitting—all in order to avoid doing what the parents want. In homes where such coercive behavior is common, children become well-acquainted with how hostile behavior escalates—and with which of their behaviors ultimately secure adult surrender. This is the fertile ground in which antisocial behavior is bred. The negative effects tend to flow across generations much like inherited traits.*

By the time they are old enough for school, children who have developed an antisocial profile (due to either constitutional or environmental factors) have a limited repertoire of

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*It is important to note that the kind of coercive interaction described is very different from parents' need to establish authority in order to appropriately discipline their children. This is accomplished through the clear communication of behavioral expectations, setting limits, monitoring and supervising children's behavior carefully, and providing positive attention and rewards or privileges for conforming to those expectations. It also means using such strategies as ignoring, mildly reprimanding, redirecting, and/or removing privileges when they do not. These strategies allow parents to maintain authority without relying on the coercion described above and without becoming extremely hostile or giving in to children's attempts to use coercion.

** This unfortunate behavior pattern soon leads to peer rejection (Reid, Patterson and Snyder, 2002). When behaviorally at-risk youth are rejected and forsaken by normal, well-behaved peers, they often begin to form friendships amongst themselves. If, over several years (and particularly in adolescence), these friendships solidify in such a way that these youth identify with and feel like members of a deviant peer group, they have a 70 percent chance of a felony arrest within two years (Patterson et al., 1992).

cooperative behavior skills, a predilection to use coercive tactics to control and manipulate others, and a well-developed capacity for emotional outbursts and confrontation.

### ...Then Comes School

For many young children, making the transition from home to school is fraught with difficulty. Upon school entry, children must learn to share, negotiate disagreements, deal with conflicts, and participate in competitive activities. And, they must do so in a manner that builds friendships with some peers and, at a minimum, social acceptance from others (Snyder, 2002). Children with antisocial behavior patterns have enormous difficulty accomplishing these social tasks. In fact, antisocial children are more than twice as likely as regular children to initiate unprovoked verbal or physical aggression toward peers, to reciprocate peer aggression toward them, and to continue aggressive behavior once it has been initiated (Snyder, 2002).**

From preschool to mid-elementary school, antisocial students' behavior changes in form and increases in intensity. During the preschool years, these children often display aversive behaviors such as frequent whining and noncompliance. Later, during the elementary school years, these behaviors take the form of less frequent but higher intensity acts such as hitting, fighting, bullying, and stealing. And during adolescence, bullying and hitting may escalate into robbery, assault, lying, stealing, fraud, and burglary (Snyder and Stoolmiller, 2002).

Although the specific form of the behavior changes (e.g., from noncompliance to bullying to assault), its function remains the same: Coercion remains at the heart of the antisocial behavior. As children grow older, they learn that the more noxious and painful they can make their behavior to others, the more likely they are to accomplish their goals—whether that goal is to avoid taking out the trash or escape a set of difficult mathematics problems. An important key to preventing this escalation (and therefore avoiding years of difficult behavior) is for adults to limit the use of coercive tactics with children—and for these adults to avoid surrendering in the face of coercive tactics used by the child. This has clear implications for school and teacher practices (and, of course, for parent training, which is not the subject of this article).

Frequent and excessive noncompliance in school (or home) is an important first indicator of future antisocial behavior. A young child's noncompliance is often a "gate key" behavior that triggers a vicious cycle involving parents, peers, and teachers. Further, it serves as a port of entry into much more serious forms of antisocial behavior. By treating noncompliance effectively at the early elementary age (or preferably even earlier), it is possible to prevent the development of more destructive behavior.

### II. Early Intervention Is Rare

How many children are antisocial? How many are getting help early? To study the national incidence of antisocial behavior among children, researchers focus on two psychiatric diagnoses: oppositional defiant disorder and conduct disor-

der. Oppositional defiant disorder, the less serious of the two, consists of an ongoing pattern of uncooperative, angry behavior including things like deliberately trying to bother others and refusing to accept responsibility for mistakes. Conduct disorder is characterized by severe verbal and physical aggression, property destruction, and deceitful behavior that persist over time (usually one or more years). Formal surveys have generally indicated that between two and six percent of the general population of U.S. children and youth has some form of conduct disorder (Kazdin, 1993).

### Students with Emotional Disturbance Served by Age, Selected School Years
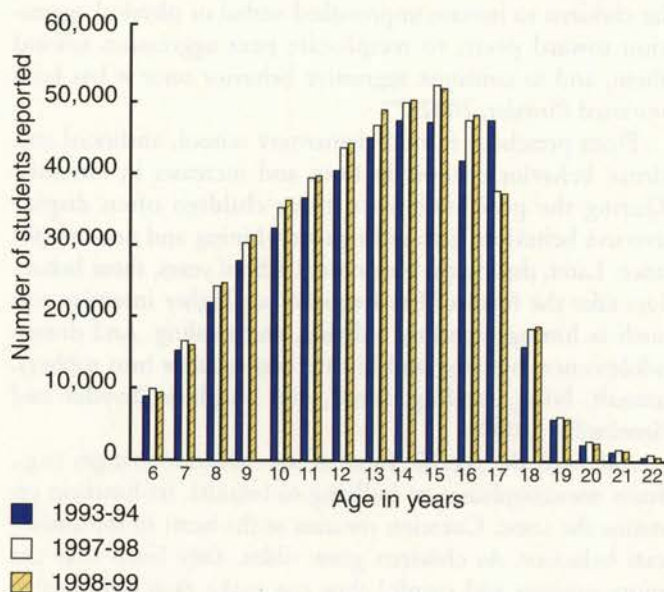


Without someone intervening early to teach these children how to behave better, half of them will maintain the disorder into adulthood and the other half will suffer significant adjustment problems (e.g., disproportionate levels of marital discord and difficulty keeping a job) during their adult lives (Kazdin, 1993). (It is worth noting that on the way to these unpleasant outcomes, most will disrupt many classrooms and overwhelm many teachers.) When we add in oppositional defiant disorder (which often precedes and co-occurs with conduct disorder), estimates have been as high as 16 percent of the U.S. youth population (Eddy, Reid, and Curry, 2002).

In contrast, school systems typically identify (through the Individuals with Disabilities Education Act [IDEA]) slightly less than one percent of the public school population as having emotional and behavioral problems. Further, the great tendency of schools is to identify these behavioral problems quite late in a child's school career.

The figure above provides a stark example of this practice, which is more typical than not in today's public school systems. Walker, Nikiosha, Zeller, Severson, and Feil (2000) examined the number of K-12 students in the 1993-94, 1997-98, and 1998-99 school years who were certified as emotionally disturbed (the IDEA category that captures antisocial students). As the figure shows, the number of students

certified as emotionally disturbed peaks around age 15 (approximately 50,000 cases) during the 1997-98 and 1998-99 school years. Similarly, the older data, from the 1993-94 school year, show the peak in referrals spread over the ages 14, 15, and 17. These results suggest that a large number of students, who were no doubt in need of supports and services for emotional disturbance in their elementary and middle school years, were not referred, evaluated, or served under special education.* Only in adolescence, when their behavior problems had become so intractable and difficult to accommodate, were many of these students finally identified and served. This practice of delayed referral is the polar opposite of what research clearly shows is necessary.

Our society's social, cultural, and economic problems are spilling over into our schools. They are greatly complicating schools' central task of educating students safely and effectively. But the research is clear and growing: Even though many children and youth come from and return to chaotic, coercive home environments on a daily basis, they can still acquire sufficient behavioral control to succeed in school—and to allow classmates to learn in an orderly environment.

We have substantial knowledge about how to divert at-risk children, youth, and families from destructive outcomes.** We believe the problem is not one of knowing what to do, but of convincing schools to effectively use research-based intervention programs over the long term.

The remainder of this article is devoted to providing educators with guidelines and programs for early intervention that greatly reduce antisocial behavior. There are no magic bullets in the material presented herein. Dealing with the antisocial student population is difficult, frustrating, and, because schools tend to intervene too late, often without identifiable rewards. However, of all those who suffer from conditions and disorders that impair school performance, these students are among those with the greatest capacity for change—particularly when they first start school.

## III. What Can Schools Do?

Schools are not the source of children's antisocial behavior, and they cannot completely eliminate it. But schools do have substantial power to prevent it in some children and greatly reduce it in others.

First, and in some ways most importantly, schools can help by being academically effective. The fact is, academic achievement and good behavior reinforce each other: Experiencing some success academically is related to decreases in acting out; conversely, learning positive behaviors is related to doing better academically. Kellam and his colleagues (1994), for example, showed experimentally that gains in

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*Kauffman (1999) suggests that the field of education actually "prevents prevention" of behavioral disorders through well-meaning efforts to "protect" difficult children from being labeled and stigmatized by the screening and identification process.

**Successful model programs have been reviewed and described extensively by Catalano, Loeber, and McKinney (1999), by Loeber and Farrington (2001), and by Reid and his colleagues (2002).

Aggressive first-grade boys assigned to orderly classrooms had odds of 3:1 in favor of being highly aggressive in middle school. Those assigned to chaotic classrooms had odds of 59:1 for being highly aggressive in middle school.
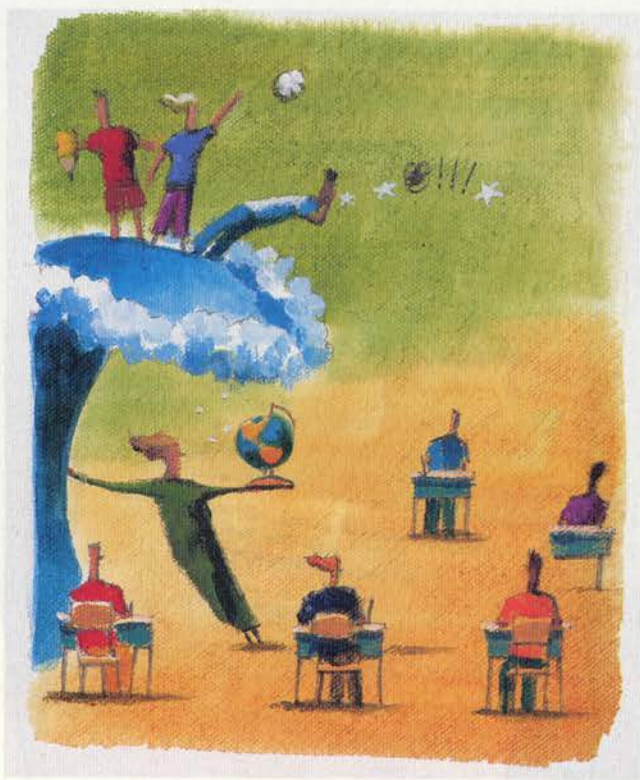


first-grade academic achievement, as measured by standardized achievement tests, resulted in substantially reduced levels of aggression, according to behavior ratings by their teachers. And, confirming what common sense tells us, Caprara, Barbaranelli, Pastorelli, Bandura, and Zimbardo (2000) found that positive behaviors (like cooperating, sharing, and consoling) among very young children contributed to their later academic achievement.

Second, schools can, to a large and surprising extent, affect the level of aggression in young boys just by the orderliness of their classrooms. An intriguing longitudinal study dramatically illustrates the role of this variable in the devel-

opment or prevention of aggressive behavior from first grade to middle school (Kellam, Rebok, Ialongo, and Mayer, 1994). After randomly assigning students to first-grade classrooms, researchers found that nearly half of the classrooms were chaotic and the remainder were reasonably well-managed. Of the boys in the study who began schooling in the top quartile of aggressive behavior (as rated by their teachers), those assigned to orderly classrooms had odds of 3:1 in favor of being highly aggressive in middle school. However, those boys assigned to chaotic classrooms had odds of 59:1 for being highly aggressive in middle school. This seminal finding suggests that poor classroom management by teachers in grade one is a huge, but preventable, factor in the development of antisocial behavior—and, conversely, that effective classroom management can have an enormous long-term positive effect on behavior. Thus, working closely with first-grade teachers (and, presumably, other early-grade teachers) on their behavior management can yield substantial future benefits for students and their schools by offsetting destructive outcomes.

But to some extent, this just begs the larger question: How can schools and their teachers create and sustain orderly classrooms? We summarize here the key findings and conclusions from 40 years of research. First, we present a three-tiered intervention model that matches the extent of children's behavioral problems to the power (and, therefore, cost) of the programs implemented. Second, we offer tools that can accurately and effectively identify students as young as kindergarten (and, in daycare or preschool settings, even at-risk three-year-olds can be identified) who are likely to become school behavior problems (and, later in life, delinquents and even adult criminals). Third, we review five techniques that, in combination, are at the heart of preventing antisocial behavior. Fourth, we describe specific programs with substantial and growing records of effectiveness that successfully incorporate all of the above into entirely doable, economical, and feasible school interventions. These programs can be purchased by schools from a variety of for-profit publishers and non-profit child and family services organizations. Some are inexpensive; the more expensive interventions tend to be individualized to meet the needs of highly aggressive children. All of the programs described in this article can be funded with either IDEA resources or school improvement funds. Programs for antisocial children, such as those described here, can also be funded in partnership with mental health agencies and/or through grants available through the Safe and Drug Free Schools division of the U.S. Department of Education. (See box, page 15, for more information on funding.)

## A. Three Levels of Intervention
Research has shown that the best way to prevent antisocial behavior is actually to start with an inexpensive schoolwide intervention and then add on more intensive interventions for the most troubled kids. Building on work done by the U.S. Public Health Service, Hill Walker and his colleagues developed a model with three progressively more intensive levels of intervention to address challenging behavior within schools (Walker, Horner, Sugai, Bullis, Sprague, Bricker, and

Kaufman, 1996). This model has proved to be very popular among educational researchers and has been broadly adopted by practitioners as a way to select and coordinate interventions. It is sometimes referred to in educational forums as "the Oregon Model." However, this approach is clearly a matter of public domain and is not owned by anyone. The three levels of intervention are known as "universal," "selected," and "indicated." Each is briefly described below.

"Universal" interventions are school or classroom practices that affect all students. Examples of universal interventions relevant to behavior are classwide social skills training and well-enforced school discipline codes. (Outside of education, the polio vaccination is an example of a "universal intervention.") It may seem odd to implement a program for all students when most teachers can easily identify children who have, or are developing, antisocial behavior. But schoolwide

programs accomplish three things. First, they improve almost all students' behavior—and most students, even if they don't qualify as troublemakers, still need some practice being well-behaved. Second, universal interventions have their greatest impact among students who "are on the margins"—those students who are just beginning to be aggressive or defiant. Sometimes, systematic exposure to a universal intervention will be sufficient to tip them in the right direction. Third, the universal intervention offers a foundation that supports the antisocial students throughout the day by reinforcing what they are learning in their more intensive selected and indicated interventions; these latter interventions are more efficient and have a greater impact when they are applied in the context of a prior, well-implemented, universal intervention.

Approximately 80 to 90 percent of all students will respond successfully to a well-implemented universal intervention (Sugai et al., 2002). Once the school environment is or-

# Prevention Begins with Screening

Early intervention is critical for preventing antisocial behavior. The longer children go without intervention, the more bridges (to adults and peers) they burn and the more committed to acting out they become. And if they reach just 8 years old without such intervention, their bad behavior is likely to be a lifelong condition—infecting the climate of dozens of classrooms along the way.

Researchers have done extensive work in identifying predictors of future antisocial behavior; and they've used those predictors to develop screening devices for schools. Here we describe one such device, the Systematic Screening for Behavior Disorders (SSBD), that has three "gates" for identifying the most troubled children in grades one to six. (For more on the "multiple gating" approach to screening, see the main article.)

In SSBD's first gate, teachers are asked to nominate three students in their classes who match each of two patterns of behavior (for a total of six students nominated). The first behavior pattern is known as externalizing, which refers to behavior problems that are directed outward by the child toward the social environment. Examples include defying teachers, being aggressive toward others, failing to comply with teacher directions, and arguing (Walker and Severson, 1990).

Although many children behave this way from time to time, such behavior is problematic when it occurs too often; that's why externalizing patterns are known as behavioral excesses. The second pattern, known as internalizing, refers to behavior problems that are directed inward. Internalizing behavior problems include depression, anxiety, and social withdrawal. These problems are known as behavior

deficits since they involve a lack of required skills in coping successfully with daily tasks and challenges. Although internalizing students very rarely disrupt the classroom, they do indirectly influence teaching time because they are frequently the victims of externalizing students' aggression. Their submissiveness in the face of aggression not only damages their self image, it also reinforces the antisocial

## SSBD Gate 2 Rating Scales

As discussed above, Gate 2 of the Systematic Screening for Behavior Disorders (SSBD), teachers rate selected children using the two short instruments below. These instruments have been nationally normed, so they play a key role in determining which students are in the normal range for bad behavior and which need intensive interventions.

### Critical Events Index

*To complete this rating scale, the teacher just fills in some basic information (name, date, grade, etc.) and then checks off any of 33 behaviors that the student has exhibited during the school year. The teacher also has an opportunity to list two behaviors that are not on the checklist. Shown are six of the behaviors listed.*



SYSTEMATIC SCREENING FOR BEHAVIOR DISORDERS (SSBD)
SSBD Stage Two Rating
for Externalizing Students

Critical Events Index

1. Steals.
2. Sets fires.
4. Has tantrums.
7. Exhibits large weight loss or gain over past three months. (Significant weight fluctuation would be in excess of 20% change in body weight.)

derly, the antisocial students pop up like corks in water. These students have "selected" themselves out as needing more powerful "selected" interventions that employ much more expensive and labor-intensive techniques. The goal with these students is to decrease the frequency of their problem behaviors, instill appropriate behaviors, and make the children more responsive to universal interventions (Sugai et al., 2002). While selected interventions typically are based in the school, to be their most effective they often require parental involvement. Nevertheless, even when parents refuse to participate, selected interventions still have positive effects and are well worth the effort.

The vast majority of antisocial students will start behaving better after being involved in universal and selected interventions, but schools can expect that a very small percentage of antisocial students (about one to five percent of the total youth population) will not. These are the most severe aggressors.

cases—the most troubled children from the most chaotic homes—and they require extremely intensive, individualized, and expensive interventions. These interventions, called "indicated," are typically family focused, with participation and support from mental health, juvenile justice, and social service agencies, as well as schools. Most non-specialized schools will find that running such an intervention is beyond their capacity. It's for such students that alternative education settings are necessary.

This three-tiered intervention model offers a structure that educators can use when they are reviewing and trying to coordinate programs. It ensures that all students' needs will be met efficiently—each child is exposed to the level of intervention that his behavior shows he needs. This is a very cost-effective model for schools because interventions become much more expensive as they become more specialized.

But it all begins with effective early screening.

In Gate 2 of the SSBD, teachers rate the externalizing and internalizing behavior patterns of the six students identified in Gate 1. Teachers use two brief rating scales that measure the frequency of these students' "adaptive" and "maladaptive" behaviors. Teachers also rate these children on the Critical Events Index, which assesses whether a student has exhibited any of 35 externalizing or internalizing behavior problems within the past six months. (Sample items from these rating scales are provided below.) If students score well above average (i.e., exceed the normative cutoff point), they move on to Gate 3 in which professionally trained observers record their classroom and playground behavior.

In Gate 3, a school psychologist, guidance counselor, or social worker assesses the students on two measures of school adjustment that estimate the amount of time a target behavior occurs during a specified observation session. The first measure, known as Academic Engaged Time, is used during independent seatwork periods. The second measure, the Peer Social Behavior Observation Code, assesses the quality, distribution, and level of students' social behavior during recess periods on the playground. Students who exceed predetermined criteria on these two measures are then considered to "pass" Gate 3. These students are referred for a more comprehensive assessment, the results of which help determine the right intensive intervention to meet their needs.

—HW, ER, AND FG

## Combined Frequency Index for Adaptive and Maladaptive Behavior

*This scale lists 12 adaptive and 11 maladaptive student behaviors. Teachers are asked to circle a number between one and five to indicate how often each behavior occurs – one for never and five for frequently. Shown are four items from the maladaptive list.*

## B. Early Screening and Identification of Potentially Antisocial Students

Many fields have well-established practices to identify problems early and allow for more effective treatments. For instance, in medicine, routine screening procedures such as prostate-specific antigen (PSA) tests to detect prostate cancer, mammograms to detect breast cancer, and Papanicolaou (Pap) tests to detect the early states of cervical cancer have been routine for years. Unfortunately, similar proactive, early identification approaches are not commonly used to identify children with, or at risk of developing, antisocial behavior.

But research shows that early identification is absolutely critical: Children who have not learned appropriate, non-coercive ways to interact socially by around 8 years of age (the end of third grade) will likely continue displaying some degree of antisocial behavior throughout their lives (Loeber and Farrington, 1998). We also know that the longer such children go without access to effective and early intervention services (particularly after the age of 8), the more resistant to change their behavior problems will be (Gresham, 1991) and the more expensive it will be to induce the change.

Yet, as discussed previously, schools offer special education services to just one percent of students, though two to 16 percent manifest some form of antisocial behavior—and virtually no special education services are provided before students become adolescents. The technology (usually simple normed checklists and observation instruments, as described below) for identifying such children is gradually becoming more accurate for children at younger and younger ages (Severson and Walker, 2002).

A particularly valuable approach to screening is known as "multiple gating" (Loeber, Dishion, and Patterson, 1984). Multiple gating is a process in which a series of progressively more precise (and expensive) assessments or "gates" are used to identify children who need help with their behavior. One such screening procedure is the Systematic Screening for Behavior Disorders (SSBD) (Walker and Severson, 1990).

This screening procedure offers a cost-effective, mass screening of all students in grades one to six in regular education classrooms. The SSBD is made up of a combination of teacher nominations (Gate 1), teacher rating scales (Gate 2), and observations of classroom and playground problem behavior (Gate 3). It was nationally standardized on 4,500 students for the Gate 2 measures and approximately 1,300 students for the Gate 3 measures. It represents a significant advance in enabling the systematic and comprehensive screening of behavioral problems among general education students (Gresham, Lane, and Lambros, 2002). The major advantage of the SSBD is first, its ease of use, and second, its common set of standards for teachers to use in evaluating students' behavior; these standards remove most of the subjectivity that is endemic to the referral process commonly used in schools (Severson and Walker, 2002). If all schools employed universal screening (and backed it up with effective early interventions), an enormous amount of defiant and destructive behavior could be prevented—and innumerable teaching hours could be preserved. (To learn more about the SSBD and see sample items from the Gate 2 rat-

Researchers have found that teachers do tend to praise their regular students for good behavior, but they tend not to seize opportunities to praise antisocial students when they are behaving well.



ing scales that teachers fill out, see sidebar on page 12.)

## C. Key Features of Effective Interventions

When dealing with well-established antisocial behavior, a combination of the following techniques is usually required in order to successfully bring about behavior change: (1) a consistently enforced schoolwide behavior code, (2) social-skills training, (3) appropriately-delivered adult praise for positive behavior, (4) reinforcement contingencies and response costs, and (5) time-out (see Wolf, 1978). Each of

these techniques is briefly explained below.

Over the past three decades, an extensive body of research has developed on the effectiveness of these techniques for preventing and remediating problem behavior within the context of schools. Studies of the use of these techniques show that positive strategies (appropriate praise, social-skills training, providing free-time privileges or activities) are generally sufficient for developing and maintaining the appropriate behavior of most students. However, students with challenging behavior often also require sanctions of some type (e.g. time-out or loss of privileges) in order to successfully address their problems. Extensive research clearly shows that, to be most effective, intervention programs or regimens incorporating these techniques should be applied across multiple settings (classrooms, hallways, playgrounds, etc.), operate for a sufficient time period for them to work, and should involve teachers and parents in school-home partnerships whenever possible.

No single technique applied in isolation will have an enduring impact. Used together, however, they are effective—especially for antisocial students age 8 or younger. Assembling these techniques into feasible and effective daily routines can be done by individual teachers in well-run schools. But it is difficult, time-consuming, and fraught with trial and error. Among the fruits of the past several decades of research on this topic is a group of carefully developed and tested programs that integrate these techniques into entirely doable programs that don't overly distract teachers from their main job: teaching. Several are briefly described in this and the following section. In addition, two programs (one universal and one selected) are highlighted in the sidebars on pages 16-17 and 18-19.

### 1. A Well-Enforced Schoolwide Behavior Code

A schoolwide behavior code creates a positive school climate by clearly communicating and enforcing a set of behavioral standards. The code should consist of 5 to 7 rules—and it's essential to carefully define and provide examples of each rule. Ideally, school administrators, teachers, related services staff, students, and parents should all be involved in the development of the code. But writing the code is just the first step. Too often, teachers and others complain, a behavior code is established—and left to wither. To be effective, students must be instructed in what it means, have opportunities to practice following the rules, have incentives for adhering to it (as described in the third and fourth techniques below), and know that violating it brings consequences.

One excellent, inexpensive program for teaching the schoolwide behavior expectations reflected in a code is called Effective Behavior Support (EBS). The principal features of EBS are that all staff (administrative, classroom, lunchroom, playground, school bus, custodial, etc.) recognize and abide by the same set of behavioral expectations for all students. The behavior expectations are explicitly taught to students and they are taught in each relevant venue. In groups of 30 to 45, students are taken to various parts of the school (e.g., the bus loading zone, cafeteria, main hallway, gym, and classrooms) to discuss specific examples of behaviors that would, and would not, meet the behavior expectations.

Once they have learned the expectations, they are motivated to meet them by earning rewards and praise for their good behavior.

### 2. Social Skills Training

As discussed earlier, many antisocial students enter school without adequate knowledge of—or experience with—appropriate social skills. These skills must be taught, practiced, and reinforced. This is the purpose of social skills training. Skills taught include empathy, anger management, and problem solving. They are taught using standard instructional techniques and practiced so that students not only learn new skills, but also begin using them throughout the school day and at home. While the training is vital for antisocial students, all students benefit from improving their social skills—especially students "on the margin" of antisocial behavior. Social skills curricula are typically taught in one or two periods a week over the course of several months and in multiple grades. One of the most tested and effective social skills curricula, called Second Step, is described in the sidebar on page 16.

### 3. Adult Praise

Adult praise (from teachers, parents, or others) is a form of focused attention that communicates approval and positive regard. It is an abundantly available, natural resource that is greatly underutilized. Researchers have found that teachers

## Funding Early Interventions

With the research reviewed here, building support for the idea of early interventions should not be difficult—but finding funds could be if you don't know where to look. One source is Title I. Schools in which at least 40 percent of the students are poor should look into using the schoolwide provision of Title I to fund universal interventions. Under Title I schoolwide, you can combine several federal, state, and local funding streams to support school improvement programs. Insofar as students are identified as emotionally disturbed, their interventions can be funded by IDEA. The federal government also provides funding to reduce behavior problems through the Safe and Drug Free Schools and Communities Act. In this case, state education agencies receive funds to make grants to local education agencies and governors receive funds to make complementary grants to community-based organizations. Schools can also partner with mental health agencies, enabling services to be covered by insurance such as Medicaid and the State Children's Health Insurance Program. Plus, most states have funding streams that could support the programs described in this article. (For more information on funding, see chapter two of *Safe, Supportive, and Successful Schools: Step by Step*, available from Sopris West for $49; order online at **www.sopriswest.com/swstore/product.asp?sku=872**.)

# Good Behavior Needs To Be Taught
## How a Social Skills Curriculum Works

*Social skills training may sound at first like just another requirement to be piled onto teachers and crammed into precious teaching time—just another thing that parents, not teachers, should be doing. But school requires a unique set of social skills like sitting quietly, sharing, and discussing problems. Learning them can be difficult even for well-behaved children; for children from chaotic homes, such skills may never be learned without direct instruction, modeling, and practice. So social skills training benefits a wide range of students and can be a worthwhile investment even for schools with moderate or mild levels of student misbehavior. In just 30 minutes once or twice a week, teachers or counselors can deliver the training and avoid countless acts of bad behavior. In the long run, teaching time will be won back, not lost.*
*—EDITORS*

Cliff Heights Elementary School was nearly overwhelmed with bad behavior. It is located in a working-class neighborhood in Chicago, and serves approximately 800 students from low- and middle-income families. Violent behavior, including random acts of assault and vandalism and occasional drive-by shootings, characterize the daily life of this neighborhood.

Before the implementation of Second Step, Cliff Heights teachers and staff were frustrated with the number of students in their classrooms who had low academic skills and poor school adjustment records. Teachers had to spend most of their time dealing with bad behavior; there were playground fights almost every day, despite the new requirement that two classroom teachers supervise recess, in addition to the three regular playground supervisors. At the same time, a small, vocal group of parents was asking Cliff Heights to do something about the situation. They were very concerned about drugs, gangs, and the disrespectful behavior toward adults and property they saw in the school.

Cliff Heights was lucky to have Ms. Gilfrey, a fulltime counselor, who ran anger-management, social skills, and self-esteem groups for selected students. They seemed to be effective and were popular with teachers, parents, and students; however, only a small number of students in the school were being reached by each group. Clearly, another strategy was needed if the problems at Cliff Heights were to be adequately addressed.

Ms. Gilfrey, together with the principal, decided to devote an entire staff meeting to a problem-solving session focused on what the school could do to decrease students' aggressive, disruptive, and sometimes dangerous behavior. Teachers were concerned about Ms. Gilfrey's groups since they were held during class time and pulled out the very students who most needed academic instruction and support.

As an alternative to the groups, Ms. Gilfrey described Second Step, a social and emotional skills training program that can be used classwide or schoolwide from preschool through grade nine. It is a "universal" intervention that supports good behavior in all children, but most especially in marginal children who are on the brink of becoming antisocial. Second Step teaches the same skills at each grade level— empathy, impulse control, social problem solving, and emotion management—to reduce impulsive and aggressive behavior and to increase social competence. Lesson content varies according to grade level, but all students have opportunities for modeling, practice, and reinforcement of skills.

In addition to its easy-to-use curriculum, the program offers training for educators, program evaluation materials, parent education videos, and teachers' and administrators' guides that explain the underpinnings of the program and support implementation. Because the curriculum relies on the instructional skills most teachers already have, the recommended training consists of a one-day session for teachers—though teachers also have the option of using training videos and a discussion guide. (Schools or districts can also designate a Second Step coordina-

tor who would participate in a three-day training and then be able to train new teachers as needed.) At each grade level, multimedia kits contain everything teachers will need—from songs and puppets for preschoolers to videos and overhead transparencies for adolescents. In elementary grades, the primary lesson format is an 11" x 17" photo lesson card such as the one shown here. The photo illustrates a story that stimulates discussion and initiates role-playing exercises.

The Cliff Heights teachers were interested in the program but were hesitant to take on anything more. They already felt extremely stressed by the demands and pressures of increasing class sizes, the complex needs of their students, reduced resources, and the diversity of students' backgrounds and behavioral characteristics.

Ms. Gilfrey was determined to make a violence prevention program work at Cliff Heights. Too often, she had helped at-risk students make positive behavioral changes, only to watch them confront negative reactions from peers. Another recurring problem had been that, even when students were able to improve socially, the improvement tended to be restricted largely to her office (i.e., the training setting) and was reflected only in students' talk, and not in actual behavior. Getting students to behave well throughout the school day tended to be difficult and ephemeral.

Following the staff meeting, however, Ms. Gilfrey decided that schoolwide implementation would have to be put on hold. She decided to approach only the third-grade teachers to conduct a trial test of the program.

Ms. Gilfrey struck a deal with the third-grade teachers: She agreed to take primary responsibility for preparing and teaching the lessons if the classroom teachers would make 30 minutes of classtime available twice a week for a two-month period. The teachers were also asked to participate in all role-play activities included in the lessons. After two lessons, one third-grade teacher,

Mr. Michaelson, decided he would teach the curriculum himself. There were modifications he wanted to make, including teaching the lessons at different times during the day. Ms. Gilfrey agreed and made herself available for support and assistance.

After one month of leading students through the curriculum and demonstrating how to teach it, Ms. Gilfrey asked the other teachers to teach the lessons themselves. She offered to stay in the classroom and help when necessary as the teachers assumed the responsibility for Second Step. Apparently, the third-grade teachers had spoken with Mr. Michaelson, who was quite pleased with the program, and he had encouraged them to take charge of teaching it. It quickly became clear that Ms. Gilfrey's presence was not needed to teach and manage Second Step successfully. The teachers were able to integrate Second Step instruction into their ongoing teaching activities and were able to review, practice, and reinforce the skills taught as students displayed them throughout the school day.

During this time, Ms. Gilfrey also trained all playground supervisors as well as the school principal. Her goal was for everyone (herself included) to help the third-graders practice the key social skills they were learning—especially when conflict arose. This was a smart move on Ms. Gilfrey's part: It is extremely important that each student be recognized and praised by teachers, counselors, playground supervisors, the principal, and school support staff for displaying these skills in natural school settings.

Within two months of Second Step's implementation, the principal observed a substantial decline in office referrals and the number of playground incidents reported to the front office—and support increased among the faculty for schoolwide implementation over the next few years. These results are consistent with the findings from formal evaluations of Second

Step. In one such evaluation, trained observers recorded students' behavior in intervention and nonintervention classrooms and found that in Second Step classrooms, aggression decreased 29 percent from fall to spring—but in nonintervention classrooms, aggression went up 41 percent. At the same time, while positive and neutral behavior increased by 10 percent in Second Step classrooms, it increased by just one percent in nonintervention classrooms. The following fall, six months after the end of the Second Step intervention, students who had been exposed to Second Step were still better behaved (see Grossman et al, 1997).

Second Step is available nationwide through the Committee for Children. To learn more about it, visit **www.cfchildren.org/program_ss.shtml**. To request a free preview of the curricula, call 800-634-4449, ext. 200 or use the Web site's online request form.

—HW, ER, AND FG

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### Grade 1 — Unit II Impulse Control and Problem Solving

## Lesson 2: Stop, Calm Down, and Think

### Concept

Calming-down techniques help reduce impulsive behavior initiated by strong emotions.

*Language concept: impulsive*

### Objectives

Students will be able to:
• Identify impulsive behaviors.
• Identify strong emotions.
• Demonstrate and practice calming-down techniques.

### Materials

You will need the following:
• Poster: Calming Yourself Down

### Notes to the Teacher

Children's impulsive behaviors often stem from strong emotions. Strong emotions overwhelm clear, careful thinking about what to do. The calming-down techniques presented here are meant to help interrupt the escalation of strong emotions into antisocial behaviors. They appear throughout the program. Display the Calming Yourself Down poster in the classroom for easy reference throughout the year.

Carefully review the Unit II Unit Card for a description of teaching deep breathing. For deep breathing to be effective, it must be done slowly.

**Book links:**
*Lilly's Purple Plastic Purse* by Kevin Henkes; *Alexander and the Terrible, Horrible, No Good, Very Bad Day* by Judith Viorst

### Story and Discussion

Today we'll learn what we can do when we're having strong feelings and we're about to act without thinking.



Alice          Bob

Show photo. Here are Bob and Alice. Alice was walking home from school when Bob jumped out from behind a tree and yelled "Boo!" He scared Alice, who screamed. Alice feels like hitting Bob for scaring her.

1. **How does Alice feel?** (Scared, mad, embarrassed.) **What might Alice do without thinking?** (Hit Bob. Run into the street.)

2. **How might Bob feel if Alice hits him?** (Angry, mad.)

3. **Do you think Bob meant to make Alice mad?** (Maybe. Can't really tell.) **How could Alice find out?** (Ask Bob.)

4. **Do you think Alice has carefully thought about what she is about to do?** (No.) Sometimes people do the first thing that pops into their head. When people do things quickly without thinking, they are acting *impulsively*. If Alice hits Bob without thinking, she is acting impulsively.

Alice needs to stop and think, ask how her body feels, and find a way to calm down. Let's look at this poster for different ways to calm down. Point to each step on the poster as you read it aloud.

Let's practice different ways to calm down. Model as you discuss each step. The first idea is to take three deep breaths. Breathe in slowly through your nose. Hold your breath. Then breathe out slowly through your mouth. Imagine having a bowl of hot soup in front of you. As you breathe in, you're smelling it, and as you breathe out, you're blowing on it to cool it off.

Next, let's practice counting backward slowly from 5 to 1. Counting can help keep us from getting more upset. When you're very upset or have very strong feelings, you may even want to count backward from 10.

The next way—thinking calming thoughts—works well when you have time alone. Some things I think about that make me feel calm are _____. What are some calming thoughts you might use?

The last way to calm down is to talk to yourself. You can remind yourself to stop, calm down, and think. You might say "I need to stop and think" or "I need to calm down." What would you say to yourself?

We'll keep the poster up on the wall. Use it to help yourself calm down when you have strong feelings and want to act without thinking. What are some strong feelings you might have? (Anger, excitement, fear, worry.)

### Role-Play

Listen to these situations and tell me what the impulsive behavior and strong emotion are for each one.
• You lose a game of checkers. You throw the board on the floor. (Throwing. Anger.)
• A big dog barks at you. You run away. (Run away. Fear.)
• You jump into a mud puddle and start splashing your friend. (Splashing. Excitement.)

Now let's role-play these situations. Instead of acting impulsively, stop and act out one of our ways to calm down. After we're calm, we can think about what to do next.

Model for students, pointing to the poster as you model each step. I don't like losing at checkers. I feel like throwing the game on the floor. My body tells me that I'm angry. I need to calm down. I'll take three deep breaths. I could also talk to myself. I could say, "I can be calm. Maybe we can play another game and I'll win this time. If not, I won't get upset."

After modeling, ask: How did I do? Did I stop and calm down?

Have students practice. You will need to repeat the situations.

### Wrap-Up

Sometimes it's hard to think when we have strong feelings. When we act without thinking, we may hurt ourselves or someone else. Today we learned how to calm down so that we don't act impulsively. We will use our classroom poster to help us remember ways to calm down.

### Transfer of Learning

When emotions (both negative and positive) are strong, coach children to use the calming-down techniques. Reinforce students who stop themselves from acting impulsively: "Rachel, I noticed you taking deep breaths and remaining calm when Jack pushed in front of you in line."

*Remember the Day:* Ask students whether they used the calming-down steps. What were the situations? How did they feel afterward?

**Second Step**
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*The lesson above teaches first-grade students how to control their impulsive behavior. Students talk out the scenario in the picture in which Bob scared Alice, exploring the behavior, its impact on others, and appropriate responses. Students also role play similar situations so they can practice calming down and avoiding impulsive reactions that would escalate the problem—and that they would likely regret later.*

*(Continued from page 15)*

do tend to praise their regular students for good behavior, but they tend not to seize opportunities to praise antisocial students when they are behaving well (Mayer & Sulzer-Azaroff, 2002). This is indeed unfortunate because praise that is behavior specific and delivered in a positive and genuine fashion is one of our most effective tools for motivating all students and teaching them important skills. Reavis et al.

(1996) note that praise should be immediate, frequent, enthusiastic, descriptive, varied, and involve eye contact. We would also suggest that the ratio of praise to criticism and reprimands be at least 4:1—and higher if possible. Although antisocial students may not immediately respond to praise because of their long history of negative interactions with the adults in their lives, when paired with other incentives (such as the type of reward system described below), the

# Dealing with Jimmy the "Terror"—
## How an Intensive Intervention Works

To grasp the importance of a "selected" intervention, meet Jimmy. Jimmy was commonly referred to as a "terror" soon after entering kindergarten; he had a short attention span and was agitated much of the time—going off at the drop of a hat. Academic tasks and appropriate group behavior (e.g., participating in circle time and listening to the teacher in small groups) were extremely difficult for Jimmy. He could not seem to keep his hands off others and was constantly pestering his classmates.

Jimmy's peer relationships were a disaster. He was aggressive, controlling, and bullying in his peer-related social behavior—and his peers went to extraordinary lengths to avoid him. Based on peer popularity ratings, he was the most disliked student in his class.

Ratings of Jimmy's behavior on the aggression subscale of the Achenbach Child Behavior Checklist showed that he scored in the 99th percentile for boys his age. Observations of his playground and classroom behavior revealed a high rate of rule infractions and aggressive social behavior, as well as low levels of academic engagement. Jimmy's school used First Step to Success as its selected intervention and enrolled him in it.

First Step is an intervention that works to prevent and offset emerging antisocial behavior patterns among K-3 students (see Walker, Kavanagh, Stiller, Golly, Severson, and Feil, 1997). The program consists of three components: (1) a universal screening (similar to the Systematic Screening for Behavior Disorders described on page 12) to identify students in need of an intensive intervention; (2) a parent program called Homebase that teaches parents how to reward good behavior at home; and, (3) a school-based program called CLASS (Contingencies for Learning Academic and Social Skills) that targets and systematically rewards identified students for appropriate behavior and making friends.

For Homebase, a consultant (called the behavior coach) conducts six weekly sessions with parents at home, supported with a midweek call home. Each week the coach prepares parents to teach their children a new skill, such as cooperating or gaining self-control, by explaining the skill's importance and reviewing activity cards and other instructional materials that parents will use during the week.

In school, CLASS is a 30-day program that uses three of the techniques described in the accompanying article: individual and group reinforcement contingencies, response costs, and adult praise. Initially, the behavior coach explains the program to the teacher, parents, and target student, all of whom must agree to participate. Next, the coach takes about 30 minutes to teach the child expected, good behavior; throughout the program, follow-up sessions on good behavior are provided as needed. Once the coach and student are ready to begin, the coach explains the program to the rest of the class.

The intervention begins with a point system in which the student can earn a group activity reward (as well as rewards at home and occasional sur-prises) by behaving appropriately. For set blocks of time each day, the behavior coach provides feedback to the child by holding up a red (stop and think) card for bad behavior and a green (keep doing what you're doing) card for good behavior. If, at a specified interval, the green card is up, then the student earns a point. (For example, when the program begins, the first block of time is 20 minutes and the interval for earning points is every 30 seconds.) To receive a reward, the student must earn 80 percent of the possible points in each block of time. Over the course of the program the blocks of time and the intervals for earning points become longer, making it more difficult to earn rewards. If the student fails to earn a reward in a certain block of time, that block is repeated. So even though the program consists of 30 planned days, some students do need to repeat a few blocks and, therefore, may extend completion of the program past 30 school days.

The first five days are very intensive and would be nearly impossible for a teacher to do alone. During this time the behavior coach administers the point system. The teacher takes over on day six, but the coach is still available for support. Over the next 15 days, the point system is slowly faded out, with the student having to behave appropriately for longer blocks of time to earn a reward. The final 10 days rely on teacher (and parent) praise to motivate good behavior; though time-out is also used as needed to deal with aggression and defiance. Typically, the coach coordi-

positive impact of praise will eventually increase.

## 4. Reinforcement Contingencies and Response Costs

Rewards and penalties of different sorts are a common feature of many classroom management strategies. Research shows that there are specific "best" ways to arrange these reinforcements to effectively motivate students to behave appropriately. These strategies are called individual reinforcement contingencies, group reinforcement contingencies, and response costs. Individual contingencies are private, one-to-one arrangements between a teacher or parent and a student in which specified, positive consequences are made available dependent ("contingent") upon the student's performance. Earning a minute of free time for every 10 or 15 math problems correctly solved, or attempted, is an example of an individual contingency.

nates CLASS and Homebase so that there are connections between the skills that students are learning at home and at school (and so that the teacher is not overly diverted from his or her class responsibilities).

When the First Step coach conducted a home visit to explain the program and the parent's role in it, Jimmy's mother said he could participate in the school intervention, but she wanted no part of Homebase. The behavior coach agreed to implement the school intervention part of First Step, but asked Jimmy's mother to provide home privileges and rewards, as the CLASS program requires, and to monitor his school performance. She agreed.

The First Step coach explained CLASS to Jimmy, his teacher, and his peers. Jimmy's classmates were somewhat skeptical about the program's ability to improve his behavior—as was his kindergarten teacher Mr. Spira. However, three months into the school year, Mr. Spira was willing to try almost anything to improve Jimmy's daily school behavior.

On day 1 of the program, Jimmy made the reward criterion for the morning session, but failed to make the second session's reward criterion. Thus, he earned an activity award for himself and his classmates after the morning session, but missed the afternoon reward opportunity and home privileges for that day. He came to school in a sullen, agitated state on day 2 and failed to achieve the criterion for both sessions. As a result, the next day the procedures for day 2 were repeated. Jimmy said that he did not think the program's available reward options were attractive enough and he was not sure he wanted to continue with it.

The First Step coach agreed to review the list of school and home rewards and to add options that were of greater interest to Jimmy, but she refused to increase their magnitude as Jimmy originally wanted. Jimmy seemed pleased with this compromise and agreed to continue the program. He made the daily reward criterion for all sessions for program days 3-5. On day 6, Mr. Spira assumed control of the program under the coach's supervision. Jimmy had some difficulty with this transition, failing to make the criterion for that day. However, he did well on days 7-10 when, according to the First Step protocol, the program was extended to the playground, lunchroom, and gym.

On days 10-15, Jimmy had to repeat, several times, program blocks that are required in this part of CLASS in order to meet the reward criterion. However, he negotiated the subsequent, more difficult five-day program block (days 15-20) on the first try and did quite well in the process. He earned nearly all the available points for this five-day period and seemed to enjoy the recognition and praise he received from his peers, teacher, and mother. During the maintenance phase of CLASS (days 21-30), Jimmy was working for teacher and parent praise only. His performance was somewhat irregular over this 10-day period, but his overall level of good behavior was still substantially above his preintervention level.

Once CLASS ended, the First Step coach strongly encouraged Mr. Spira to continue praising Jimmy as much as possible for good academic work, appropriate classroom behavior, and positive social behavior toward peers. Mr. Spira agreed and also decided to provide a weekly review and debriefing for Jimmy regarding his social behavior and academic performance. The First Step coach arranged with Jimmy's mother to make a surprise home privilege available from time to time when the reports of Jimmy's school performance were positive.

Mr. Spira was asked to rate Jimmy's behavior on the Achenbach Aggression Subscale after CLASS ended. His ratings indicated that Jimmy's overall level of aggression was reduced from the 99th percentile to the 70th percentile. An analysis of archival school records for Jimmy showed that the number of discipline contacts with the principal's office averaged nearly 4.0 per week in the month immediately preceding CLASS; discipline contacts averaged 0.3 per week in the month following the program.

With a fuller implementation of the First Step home component, Jimmy's results would have been better. The most rigorous evaluation of First Step to date was a randomized trial involving 46 kindergartners and a waitlist of kindergartners serving as the control group (see Walker, Kavanagh, Stiller, Golly, Severson, and Feil, 1998). The program's developers found that First Step led to increases in adaptive behavior and academic engaged time, as well as decreases in aggression and other forms of maladaptive behavior. The average effect size was .86, which researchers considered to be robust. A follow-up study, when the children were in grades five and six, found that the initial behavioral improvements seen in kindergarten were still evident (see Epstein and Walker, 2002).

First Step is available through Sopris West. To order the program, or request a free preview video, go to **www.sopriswest.com/swstore/product.asp?sku=159**.

—*HW, ER, AND FG*

Group contingencies are arrangements in which an entire group of individuals (e.g., a class) is treated as a single unit and the group's performance, as a whole, is evaluated to determine whether a reward is earned, such as an extra five minutes of recess. (Note: A group can fail to earn a reward, such as an extra five minuters of recess, but should not be penalized, such as by losing five minutes of the normal recess.) This strategy gets peers involved in encouraging the antisocial student to behave better. For example, if the antisocial student disrupts the class, instead of laughing at his antics, other students will encourage him to quiet down so that they can all earn the reward. To make it easier to keep track of students' behavior, reinforcement contingencies are often set up as point systems in which students must earn a certain number of points within a certain time period in order to earn a reward.

"Response costs" are a form of penalty that is added to the package of contingencies when working toward a reward is not quite enough to change students' behavior. Teachers can increase the effectiveness of contingencies by adding a response cost so that good behavior earns points and bad behavior subtracts points—making it much harder to earn a reward. (Response costs are the basis for late fees, traffic tickets, penalties in football, foul shots in basketball, and other sanctions in public life.) This technique is further explained in the sidebar on First Step to Success, an intensive program for extremely aggressive K-3rd-grade children (see page 18).

### 5. Time-Out

Time-out is a technique of last resort in which students are removed for just five to 15 minutes from situations in which they have trouble controlling their behavior and/or their peers' attention is drawn to their inappropriate behavior. We recommend both in-classroom time-out for minor infractions and out-of-classroom time-out (the principal's office or a desginated time-out room) for more serious infractions. Students should be given the option of volunteering for brief periods of time-out when they temporarily cannot control their own behavior, but teachers should *never* physically try to force students into time-out. Finally, *in-class* time-out should be used sparingly and should *not* be used with older students. Older students who need to be removed from a situation can be sent to the principal's office or another "cool-down" room instead of having an in-class time-out.

The research foundation for these techniques is quite strong and the empirical evidence of their effectiveness is both persuasive and growing. For the past 40 years, researchers in applied behavior analysis have worked closely with school staff and others in testing and demonstrating the effectiveness of these techniques within real world settings like classrooms and playgrounds. Literally hundreds of credible studies have documented the effectiveness of each of these techniques—as well as combinations of them—in remediating the problems that antisocial children and youth bring to schooling. The research has also surfaced guidelines for the effective application of the techniques in school contexts (Walker, 1995).

Effective programs require an upfront investment of time and energy, but they more than "pay for themselves" in terms of teaching time won back.
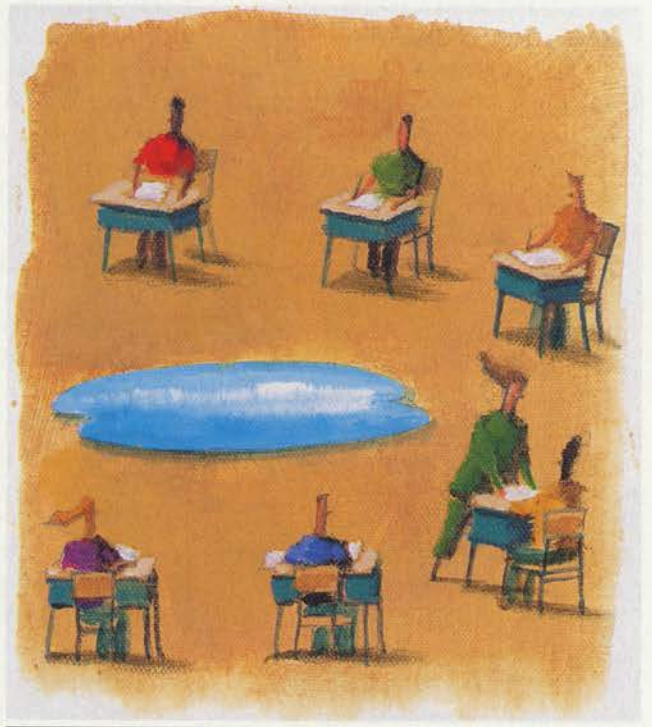
## IV. Effective Programs for Preventing Antisocial Behavior

In spite of huge advances in our knowledge of how to prevent and treat antisocial behavior in the past decade, the Surgeon General's Report on Youth Violence indicates that less than 10 percent of services delivered in schools and communities targeting antisocial behavior patterns are evidence-based (see Satcher, 2001). As these children move through schools without effective intervention services and supports, their problems are likely to become more intractable and ever more resistant to change. This is simply not necessary. Effective, manageable programs exist.

We highlight three promising interventions—Second Step, First Step to Success, and Multisystemic Therapy—as examples of, respectively, universal, selected, and indicated interventions. The coordinated implementation of these or similar programs can make a remarkable difference in the orderliness of schools and classrooms and in the lives of antisocial youth (not to mention the victims of their aggression).

Second Step, a social skills training program for K-9 students, is described in detail on page 16. It was recently rated as the number one program for ensuring school safety by a blue ribbon panel of the U.S. Department of Education.

Evaluations of Second Step have found results ranging from decreases in aggression and disruption among 109 preschool and kindergarten children from low-income, urban homes (McMahon, 2000) to less hostility and need for adult supervision among over 1,000 second- to fifth-grade students (Frey, Nolen, Van Schoiack-Edstrom, and Hirschstein, 2001).

First Step, described in the sidebar on page 18, is an intensive intervention for highly aggressive K-3 students. Experimental studies with kindergartners have found great improvments in their overall classroom behavior and academic engagement, and substantial reductions in their aggression during implementation and over many years following the end of intervention (see Walker, Kavanagh, Stiller, Golly, Severson, and Feil, 1998; Epstein and Walker, 2002). Similarly, studies involving two sets of identical twins enrolled in regular kindergarten programs found that exposure to the program produced powerful behavior changes upon introduction of the intervention that were maintained throughout the program's implementation (Golly, Sprague, Walker, Beard, and Gorham, 2000). These types of positive effects have also been replicated by other investigators. The First Step program has been included in six national reviews of effective early interventions for addressing oppositional and/or aggressive behavior in school.

Multisystemic Therapy (MST) is a family-focused intervention conducted by a trained therapist. It is aimed at the most severely at-risk youth, those who have been or are about to be incarcerated, often for violent offenses. Very often, the student has already been assigned to an alternative education setting. The therapist teaches parents the skills they need to assist their antisocial child to function more effectively across a range of social contexts. Daily contact between the student and therapist is common in the early stages of MST and reduces to several times per week as the intervention progresses. Therapists periodically talk to teachers to find out about the children's behavior, attendance, and work habits. Most importantly, teachers need to let therapists know when they perceive incremental improvements in the children's behavior—the therapists use this information to guide their work with the families. According to the Blueprints for Violence Prevention Project, MST has been found to reduce long-term rates of being re-arrested by 25 to 70 percent, to greatly improve family functioning, and to lessen mental health problems (Blueprints, 2003). (To find out if MST is available in your area, visit **www.mstservices.com**.)

# Resources for Finding Effective Programs

**What Works: Five Promising Discipline and Violence Prevention Programs**
This brief report by the American Federation of Teachers offers easy to use descriptions of five effective programs for preventing antisocial behavior. Each starts with a chart of targeted grades, materials, instructional support, roles for paraprofessionals, costs, and results. Details are covered in program summaries and a case study adds depth to the description. The programs included range from bullying prevention to social problem-solving strategies. The report is available online for free at **www.aft.org/edissues/downloads/wwdiscipline.pdf**.

**Safe and Sound: An Education Leader's Guide to Evidence-Based Social and Emotional Learning Programs**
This is the most complete guide available on multi-year social skills programs for students in general education classrooms. Developed by CASEL (the Collaborative for Academic, Social, and Emotional Learning), it provides a review of the research on the benefits of social skills training, guidelines for program selection and implementation, and descriptions of 80 programs. This is a great resource for checking up on all those programs you've heard of, but don't know much about. Or to save time, you can go directly to the 22 most effective programs, which are designated "CASEL Select." The guide is online at **www.casel.org/safeandsound.htm**.

**Safe, Supportive, and Successful Schools: Step by Step**
This comprehensive guide by David Osher, Kevin Dwyer, and Stephanie Jackson, three nationally recognized experts in preventing antisocial behavior, walks educators through the process of planning for, funding, and implementing interventions. It also briefly describes 28 programs that range from schoolwide social skills training to individualized, family-focused therapy. The guide is available from Sopris West for $49; order online at **www.sopriswest.com/swstore/product.asp?sku=872**.

**Antisocial Behavior in School: Evidence-Based Practices**
This new book by Hill Walker, Elizabeth Ramsey, and Frank Gresham is the basis for this article; it provides a thorough examination of what research shows schools can do to improve children's behavior. From December 2003 through April 2004, the price for AFT members is $57.75 (a $20 discount). Order by calling 800-842-3636; give promotional code AFT0304 and the ISBN 0-534-25884-0.

**The Acting-Out Child: Coping With Classroom Disruption**
This well-respected work by Hill Walker was originally published in 1995, but it is still an excellent resource for better understanding antisocial behavior and the research behind the intervention techniques described in this article. In addition, it addresses the appropriate use of alternative education settings, as well as when and how to bring children from alternate settings back into the regular classroom. Copies are available from **www.amazon.com** starting at $8 for used books and $22 for new books.

# How Disruptive Students Escalate Hostility and Disorder— and How Teachers Can Avoid It

*Managing unruly behavior is one of the most difficult, frustrating, and even frightening parts of being a teacher. Intervening when children are young with evidence-based programs is the "Gold Standard" for preventing, or at least greatly reducing, disruptive behavior. Ideally, chronically disruptive students should be placed in high-quality alternative education settings where they can receive long-term, intensive interventions. Meanwhile, the reality is that teachers face such behavior regularly, especially from older students, and they need strategies they can start using today. In this article, our authors look closely at the moments before a volatile student becomes totally unmanageable and suggest how to defuse the situation.*

*With these high-need students, no behavior management strategy is going to work all of the time—but some are more effective than others. None of these strategies will turn an antisocial student into an angel, but they will give you a much better chance of completing your day's lessons.*

*—Editors*

## By Hill M. Walker, Elizabeth Ramsey, and Frank M. Gresham

A teacher, Ms. Smith, instructs her class to take out their reading books and begin writing definitions of key words for the story on pages 25-33. The class begins organizing for the assignment—except Mike, who sits sulking at his desk. Ms. Smith approaches Mike and the following exchange occurs:

**Ms. Smith:** "Mike, I told the class to get ready for the assignment, but you aren't. Is there something the matter?" (Mike ignores Ms. Smith's question and avoids eye contact with her.)

**Ms. Smith:** "Mike, I asked you a question, Now *what's* the problem here?"

**Mike:** "There ain't no problem here, except you! I don't want to do this dumb work. Leave me alone."

**Ms. Smith** (now angry): "If you're going to be in my class, you will have to do your work like everyone else. Also, when I speak to you, I expect an answer. I don't like your attitude and I will not tolerate it in my classroom. You better watch yourself or you'll be in the office." (This is not the first exchange of this type between Mike and Ms. Smith. Both carry residual anger from these prior episodes.)

**Mike** (laughs sarcastically): "Get off my case! I don't give a damn about you or this stupid class. Go ahead and write me up!"

Ms. Smith tells Mike to leave the room and report to the vice principal. Mike goes ballistic, calls the teacher an obscene name, and pounds the wall as he strides out of the room. He continues to curse loudly as he leaves the classroom. Ms. Smith writes up the incident as insubordination and submits her report to the principal's office.

\* \* \*

Teachers, as well as parents and peers, are often inadvertently trapped in escalating, negative social interactions like the one above. These interactions are extremely disruptive to the learning environment and damaging to interpersonal relationships. Such behavior, if not brought under control, can also trigger a broader group of students to behave in disruptive ways.

Defiant, aggressive students like Mike (who are generally referred to with the clinical term "antisocial") are often highly agitated and bring to school a history of noncompliance with parents' instructions and commands (Walker, Colvin, and Ramsey, 1995). Their pattern of oppositional behavior (more fully described in the previous article) can be triggered by seemingly innocuous requests and instructions

given by teachers throughout the school day (Colvin and Sugai, 1989). At school, these students are perceived as touchy; often they "train" the social environment to handle them with kid gloves. This posturing behavior pattern allows them to escape or avoid many reasonable requests made by teachers, peers, and parents.

Inevitably, even the kid gloves fail to keep antisocial students calm and engaged in their schoolwork. What to do? In this article we review some of what are known to be the most—and least—effective teacher responses to these students' provocative behavior.

## I. Ineffective Reactions to Bad Behavior

Having rarely been taught the best strategies for dealing with antisocial students, teachers typically try a number of techniques in a desperate attempt to control the students' behavior. Most of these techniques, unfortunately, are of limited effectiveness—some may even fuel the bad behaviors of concern. Examples of teacher strategies that can fuel and strengthen problem behaviors are reprimanding, arguing, escalating hostile interactions, and attempting to force compliance. These approaches are fruitless in dealing with antisocial students because they come to school well versed in the "science" of coercion, having had extensive practice at home. When teachers issue an instruction with which these students do not want to comply, they escalate their noncompliance to higher and higher intensity levels until the instruction is withdrawn. This is called the behavior escalation game and it is a game teachers cannot win and should not play (Walker, 1995).

Take a second look at the interaction between Ms. Smith and Mike, as it characterizes the behavior escalation game. This aversive process between the teacher and student occurs in thousands of classrooms daily, disrupting the classroom ecology and damaging teacher-student relationships. Teachers who respond "normally" to such situations (i.e., by engaging in the escalation), usually end up on the losing side of the confrontation. Walker (1995) has noted that this sort of escalating interaction progresses as follows:

1. The student is sitting in class in a highly agitated state, which may or may not be noticeable.
2. The teacher assigns a task or gives a direction to the student, either individually or to a group of which the student is a member.
3. The student refuses to engage in the requested task.
4. The teacher confronts the student about his or her refusal.
5. The student questions, argues with, and/or defies the teacher.
6. The teacher reprimands the student and demands compliance.
7. The student explodes and confronts the teacher, and the situation escalates out of control.

This scenario is played out in front of roughly 30 or more very interested observers (i.e., classmates). If the student "wins" the escalation game and forces the teacher to concede, then the teacher's ability to manage the classroom may be severely damaged. Other students may lose respect for the

> Ironically, the teacher's direct effort to stop the student from engaging in acting-out behavior is the very thing that strengthens and maintains it.
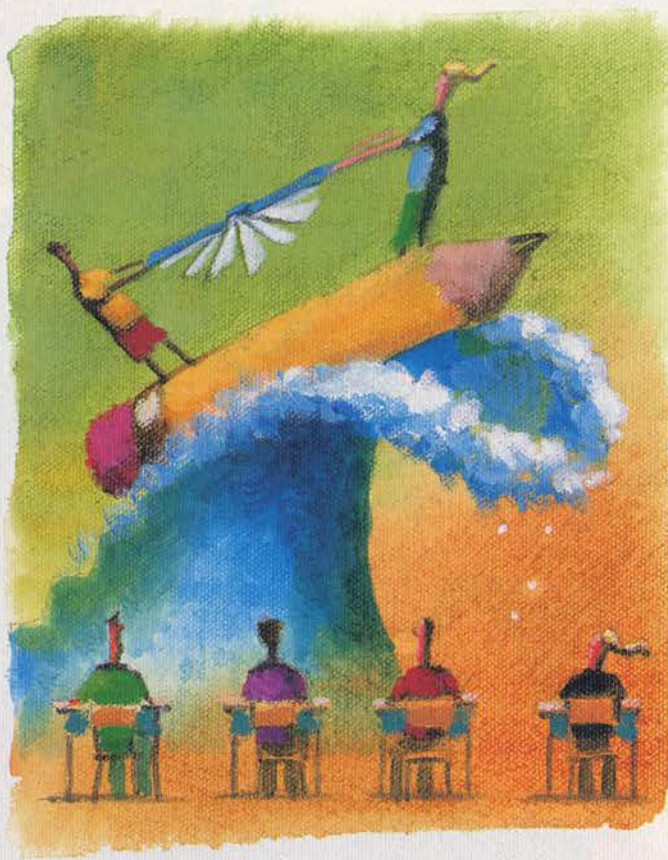


teacher and may resent the fact that a single student, rather than the teacher, can essentially control the classroom. In contrast, if the teacher "wins" and is successful in establish-

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ing his or her authority over the student, this victory is likely to be short-lived and prove to be very costly in the long run. The student may feel humiliated in front of his or her peers and will likely harbor feelings of long-term resentment toward the teacher. Typically, these students find ways to "get even" with the teacher. Thus, the teacher may "win the battle," but end up "losing the war."

To better understand why teachers' normal reactions to aggressive and defiant behavior are not highly effective, we'll begin by looking at three of the most common reactions: giving attention to the misbehavior, ignoring it, and escalating commands to the offender. Next, we'll offer strategies that teachers can use to avoid and escape hostile interactions with students. And lastly, we'll discuss the best way to deliver directions to antisocial students.

### Giving Attention

Generally, teachers are very alike in their approaches to managing antisocial behavior. Most often, they respond in ways designed to persuade or encourage the acting-out child to stop disrupting the class and to behave more appropriately. But in fact, both the positive social attention from peers (e.g., laughing at the jokes that interrupt a lesson) and the negative social attention from teachers (e.g., telling the student to be quiet) function to fuel the inappropriate behavior—making it much more likely in the future. Ironically, the teacher's direct effort to stop the student from engaging in acting-out behavior is the very thing that strengthens and maintains it.

Teachers typically respond rapidly to an antisocial student's inappropriate behavior because it disrupts the classroom ecology and is highly aversive. Teachers' efforts to manage problem behaviors are almost always directed toward making the student stop the inappropriate behavior as soon as possible. But their success in accomplishing this goal varies considerably (see Walker, 1995).

The antisocial student learns that it is much easier and more efficient to obtain peer and teacher attention by engaging in disruptive, noncompliant behavior than by completing work, following classroom rules, and/or developing friendships with peers. The antisocial student acquires a repertoire of disruptive behaviors and adopts tactics that force teachers and peers to respond to these highly aversive behaviors, often in a negative way. Even though the teacher's social attention is often negative, critical, and disapproving, it still functions to maintain the problem behavior. Many acting-out students appear to thrive on the hostile confrontations they have with teachers; their ability to confront, irritate, and otherwise make life miserable for their teachers is rewarding.

### Ignoring

Sometimes, teachers attempt to control the acting-out, disruptive behaviors of students by simply ignoring them. This strategy is based on the mistaken notion that the inappropriate behavior is maintained *exclusively* by teacher attention. This response is typically ineffective for at least three reasons. First, the attention students receive from peers (positive or negative) provides a huge amount of reinforcement

for the student's bad behavior. So teachers who ignore behavior that is maintained primarily by peer social attention will have no impact.

Second, teachers understandably find it almost impossible to ignore seriously disruptive behavior for any length of time because antisocial students escalate their demands for attention. Theoretically, if all reinforcement (by teachers and peers) is continually withheld, then the behavior will eventually stop, but total extinction can take a very long time. In reality, teachers will eventually have to respond to highly escalating behaviors, which then reinforces and strengthens the escalation.

Third, in some cases the student does not use his behavior

## General Rules for Avoiding Escalation

Walker and Walker (1991) provided three general rules that will help teachers avoid becoming engaged in hostile interactions with students:

- *Do not initiate contact with a student when he or she appears to be agitated.* The teacher should wait until the student's agitated mood passes before initiating an interaction that involves an instruction. When a student is agitated, a teacher's directive is likely to be perceived as an aversive, provocative event, especially when it is delivered in the presence of other students. In certain situations, the teacher can inquire about the student's problem, but she should not pair the inquiry with a command at that time if at all possible.

- *Do not allow yourself to become "engaged" through a series of questions and answers initiated by an agitated student.* Once the teacher realizes that the student is asking questions just to be provocative or to delay working, the teacher should not respond to the student's questions or comments about the situation and, especially, should not argue with the student. If the student asks a question, the teacher should ignore it or simply restate what the student needs to do. The teacher should indicate that the question will be answered after the student does as instructed. If the student refuses, the teacher should leave him or her alone until the agitated state passes.

- *Do not attempt to force the student's hand.* If the student chooses not to comply, the teacher should not try to coerce him or her through such tactics as hovering and waiting, using social punishment (e.g., glaring, verbal reprimands, or social intimidation), or threatening future sanctions. The teacher should never touch, grab, or shake a student in any way—in this or other situations. If the situation calls for a consequence such as losing recess or taking a trip to the principal's office, the consequence should be applied promptly and with a minimum of verbalization. If the situation does not call for such action, the teacher should leave the student's presence and terminate the interaction.

to gain attention, but to avoid academic tasks in the classroom. If the student's escalation is serving this function, then simply ignoring the problem behavior will not be effective response.

## Escalating Commands

One of the most common mistakes that teachers make in trying to control the inappropriate behavior of antisocial children is the use of escalating commands or reprimands. Examples include statements such as: "You will do what I say," "You won't talk to me that way," or "I told you to begin work now!" Sometimes, these techniques will result in a temporary reduction in inappropriate behavior; other times, they will produce no noticeable effect on behavior.

Studies of classroom interactions have shown that teachers tend to fall into a pattern of paying extra attention to chronically disruptive children's bad behavior and very little attention to their good behavior (even though teachers do pay attention to the good behavior of nondisruptive children). Specifically, researchers have found that (1) interactions with generally disruptive students are more likely to be negative than positive; (2) the teacher is much more likely to reprimand the disruptive children's inappropriate behavior than to praise their appropriate behavior; and (3) disruptive children tend to monopolize the teacher's time (Mayer & Sulzer-Azaroff, 2002). Falling into a negative pattern of interacting is understandable given the children's aversive behavior. But it means that many opportunities to reinforce good behavior are lost. And, over time, disruptive children perceive that they are treated in a more critical way than others.

Clearly, hostile teacher-student interactions are frustrating for teachers who have to deal with antisocial students. Frequently, the harder the teacher tries to control the student's behavior, the less effective these efforts are. This process can be physically and emotionally draining. In the next section, we illustrate principles and procedures for managing student agitation. This information provides extremely valuable ammunition to teachers in avoiding, escaping from, and terminating angry interactions that often damage teacher-student relationships, waste teaching time, and threaten the teacher's ability to control the classroom.

## II. Managing Hostile Interactions

What should teachers do to keep agitated students from erupting? The key strategy is for teachers to get out of these escalating interactions as quickly as possible. Of course, it is not always clear when students are in the agitated state that is a precursor to behavior escalation—teachers can get drawn into the early stages of behavioral escalation before they realize what is happening. But as soon as they realize that the student is agitated, teachers can use the following *avoidance* and *escape* strategies.

## Avoidance

An important concept in dealing with escalating behavior cycles is to "pick your battles" and to know when to leave students alone. If an antisocial student does not immediately engage in an assignment, it is often best to wait and give

him or her leeway (i.e., the benefit of the doubt). These students quite often engage in delaying tactics as a way of (1) provoking teachers (and parents), (2) engaging them in negative interactions, and (3) asserting their control and independence in certain situations.

The teacher who forces compliance with a direction in a rigid, prescribed timeframe will find that this strategy seldom produces a good result with antisocial students. Waiting for a reasonable period of time (and ignoring the student's passive noncompliance) is often a reasonable alternative to direct confrontation. Many times, the students will engage in the assigned task if left alone and given sufficient time. It is vital, however, that the teacher not reinforce students' delaying tactics by either reprimanding them or showing signs of irritation and disapproval. Such teacher behavior will fuel rather than deflate the students' bad behaviors; students often are reinforced by "getting a rise" out of the teacher.

If it is obvious that a student is not going to engage in the assigned task and seeks to wait the teacher out, the teacher will have to address the situation. In so doing, the teacher obviously does not want to communicate that the antisocial student does not have to play by the same rules as the rest of the class. In these cases, the teacher should approach the student quietly and inquire as to why he or she is not engaging in the assigned task. The teacher should speak in a low voice, remain calm, and try to keep the situation as private as possible. If the student begins to escalate by arguing or questioning, the teacher should *immediately* disengage and state something like the following: "If you need some time to yourself, go ahead and take it. You can sit quietly as long as you do not bother other students. Let me know if you need some help with the assignment or have questions."

The teacher should leave the student alone and allow him or her to deal with the situation without further assistance. In this way, it becomes the student's responsibility to cope with the situation. But the teacher should also make it abundantly clear that the student must complete the assigned task (either now or later) and that lost time will have to be made up. Neither the student nor his or her classmates should be left with the impression that delaying tactics will result in a reduction of assigned work. Walker (1995) suggests that teachers using this strategy ought to communicate the following to the student:

- The student can't take control of the situation by arguing with the teacher or asking provocative questions. As long as the teacher is willing to answer such questions or argue, the student, not the teacher, is in control of the situation. This is a trap that must be avoided *at all costs*. In most cases, it leads to a worsening situation.
- When the student is ready to work, the teacher will be there to provide any assistance and support required.
- The student will not be able to reduce the assigned work by showing signs of agitation, sulking, or using delaying tactics.
- The student will not be able to provoke or anger the teacher through verbal or physical means (e.g., being unresponsive, sulking, or arguing).

> By calibrating the nature and timing of directions, teachers can reduce the chances that the directions will be seen as provocative.
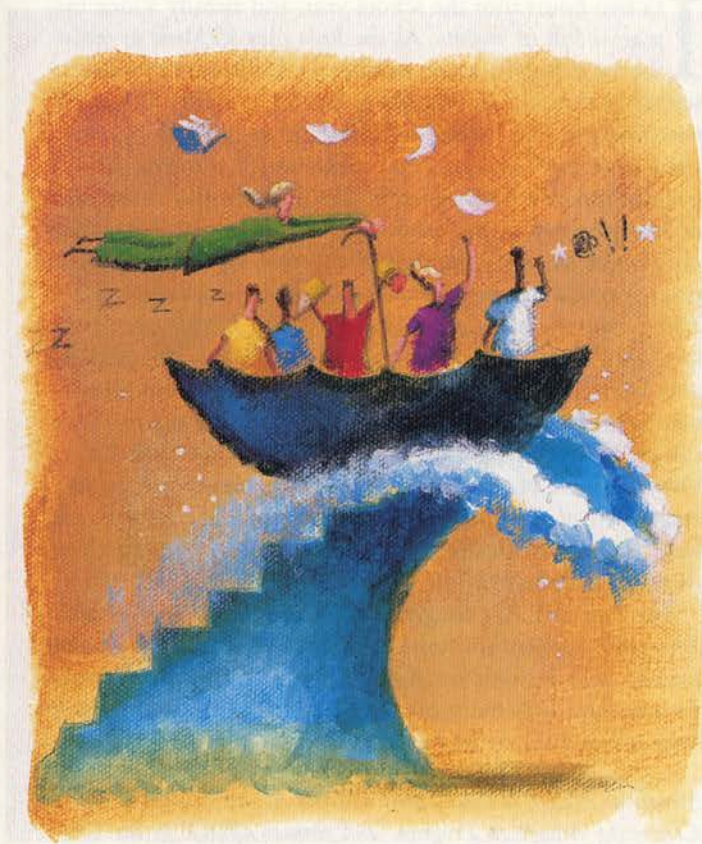


## Escape

Inadvertently, teachers often find themselves in an escalating situation by simply answering questions, providing assistance, or clarifying instructions. As soon as a teacher realizes what the student is doing, she should escape the interaction and disengage with the student. A typical example of escaping is as follows:

**Ms. Smith:** "Mike, you had a question about the assignment?"

**Mike:** "I don't have a clue what you want me to do." (Ms.

Smith repeats the directions given to the class for the assignment.)

**Ms. Smith:** "Does that help? Do you understand what I want you to do now?"

**Mike:** "I guess, but I'm not going to do it because it's too hard for me. You know I hate math!"

**Ms. Smith** (realizing she's about to get trapped): "Mike, I have explained the assignment to you. You know what you have to do and your job is to do it. If you want help, I'll give it to you. You have 15 minutes left to complete the assignment." (Ms. Smith disengages and walks away from Mike's desk. Mike sulks for a while and gradually becomes more and more agitated. He raises his hand and the Ms. Smith approaches the desk.)

**Ms. Smith:** "Yes, Mike?"

Mike begins to hassle the Ms. Smith about the assignment and how his parents think it is unreasonable. Ms. Smith says nothing to Mike in response and simply walks away. Mike goes ballistic, throws his math book across the room, and curses. Ms. Smith sends Mike to the principal's office on a discipline referral.

An interaction that ends with sending a student to the front office may not seem like a success. But escaping, no matter how the student reacts, is always a better bet than arguing with or reprimanding the student in an attempt to force compliance. Arguing or reasoning with Mike in his current emotional state would have gained nothing. In fact, it would have made the situation much worse. It is likely that Mike would have become extremely aggressive with the teacher had she issued escalating prompts and attempted to force Mike to comply. Escaping terminates the hostile interaction as quickly as possible, thereby doing minimal damage to the relationship between the teacher and the student and preserving teaching time.

Escaping is also a safe strategy. It is never a good idea to allow teacher-student interactions to escalate out of control, particularly when students are older, more mature, and physically stronger than many teachers. Juvenile courts frequently place adjudicated youth in schools without informing teachers and administrators of their backgrounds. These students often have histories of assault and have committed other serious crimes. As such, escalating social interactions with these students often carry considerable risks to teachers and peers.

Angry, escalating episodes that teachers must avoid or escape are almost always precipitated by teachers delivering directions. Antisocial children tend to perceive adult directives as provocations rather than reasonable requests and are masterful at resisting them. Note, however, that by calibrating the nature and timing of directions, teachers can reduce the chances that the directions will be seen as provocative. The following section reviews some critical issues related to teacher directives and provides guidelines for the delivery and use of this important technique for

A Title I for Teacher Pay Act?

# Teaching Poor Students: How To Make it a Prestigious Desirable Career

*School A is in a middle-class neighborhood—with all that implies. School B is in a poor one, with crime, gangs, overwhelmed parents, many children with behavior and academic problems, broken buildings, bureaucratic demands—and salaries that are lower than at School A.*

*Common sense and abundant evidence says that teachers with choices (mainly those with substantial experience and good performance records) will disproportionately choose to teach in schools like School A. The sad result: Many of our poorest, most vulnerable students are taught by the least experienced teachers. How can we change this? (Drafting senior teachers unwillingly, as some have proposed, will simply lead many to leave teaching—and exacerbate the teacher shortage.) And, as older teachers retire in large numbers, how can we attract to the teaching profession and to these impoverished schools a much larger share of the nation's top college graduates?*

*The author, a former Clinton administration budget official, argues for increasing salaries of teachers in the poorest schools by 50 percent immediately—and by another 50 percent for the most effective teachers (and those in shortage areas) in these schools, bringing top pay in poor schools to well over $100,000. To assure that these teachers who teach in these poorest of schools—and who are hired at these much higher salaries—are excellent, he proposes to restructure teaching to include a performance-based career ladder and job security provisions that more nearly match those in other careers.*

*The author has shopped this proposal around with educational leaders, including union leaders, politicians, and education critics. His conversations show the contours of public opinion that exist around teacher pay, teacher quality, and the conditions of teaching—and how a proposal could be shaped to reflect them. Whatever one thinks about Miller's particulars, his discussion captures the contours and tone of the current, accelerating discussion about if, and on what basis, the most effective teachers should be paid more—and under what arrangements there might be wide public support for drastically increased teacher pay.*

*—EDITOR*

## By Matthew Miller

It's two hours into the school year, and already Vince Eisman is full of regrets. As the kids play kickball at recess, the new fourth-grade teacher at Coliseum elementary school in central Los Angeles is kicking himself. Where did the time go? The "What was the most exciting thing about your summer?" exercise had taken much longer than expected, and he'd barely gotten started on his classroom rules of behavior before the break came. Still, Eisman—instantly christened Mr. "Ice-man" (a name that will stick) by one nine-year-old—is hopeful. Though they score around the 16th percentile on state achievement tests, his 20 students—nearly all Black and Latino—seem eager, with hands raised and faces bright. He'd heard horror stories about disconnected or drugged-out parents, but several introduced themselves this morning and urged him to "work 'em hard." Over the buzz of playground chatter, Eisman, 30, is excited, overwhelmed, and self-critical all at once. "Maybe I should have done the rules first," he says. "I didn't get anything done like I'd planned."

For one of L.A.'s toughest schools, Eisman was a catch. Few new teachers are finishing a master's degree in Roman history with a thesis on Augustan poetry and propaganda. Eisman had originally planned to teach college. His wife kept telling him he was great with young kids, but Eisman

*Matthew Miller, a syndicated columnist, senior fellow at the Center for American Progress, and former official in the Clinton administration's budget office, is author of* The 2% Solution: Fixing America's Problems in Ways Liberals and Conservatives Can Love, *(PublicAffairs) from which this article is adapted with permission. In the book, he argues for redirecting 2% of the U.S. gross domestic product to imaginatively solve the nation's greatest problems. In addition to the proposal described in this article for spending nearly $30 billion on a Title I for Teacher Pay Act, he offers proposals on universal health care, a living wage for low-paid workers, and campaign finance reform. With the "change" left from these and other proposals, he recommends paying for universal preschool and repairing the nation's school buildings.*

ILLUSTRATED BY NENAD JAKESEVIC

feared they wouldn't be stimulating enough. To test the waters, he spent a year subbing in K-12 classes while teaching two night courses in Greco-Roman history at community college. The college students seemed burned-out and flaky. The kids were a blast, and working with them stretched him like nothing he'd done before. Eisman got accepted by a "district intern program" that crash-trains uncertified newcomers in L.A., faxed his resume to schools, and was hired within days. He packed up his wife and baby and set off for pricey Tinseltown to live, somehow, on $32,000 a year.

Eisman's classroom is in a portable, prefab "bungalow," a monument to the district's failure to plan for rising enrollments. It smells of disinfectant. He and his wife spent days scrubbing off mold left by the previous occupant. Posters of Martin Luther King, Jr., Willie Mays, and Sidney Poitier dot the walls. Another poster reminds students to report any weapon they see. His kids work in groups, "interviewing" each other about their vacations.

"Are you gonna stay here?" a boy named Mikhel suddenly asks. They've been abandoned by so many teachers, Eisman explains later. Not to mention family members. "Yes," Eisman tells Mikhel, "I'm here for good."

Urban America better hope so. No one should need much convincing that schools in the nation's poor neighborhoods are in crisis. Students attending them are a full three grade levels behind students in higher-income areas, according to a recent Department of Education study. "The numbers tell a sad and alarming story," concluded *Education Week* in a special report a few years ago. "Most fourth-graders who live in U.S. cities can't read and understand a simple children's book, and most eighth-graders can't use arithmetic to solve a practical problem."

## Teacher Quality:
## The Next Frontier for Social Justice

There are probably a hundred things we need to do for these schools, and 10 big things that could make a difference, but if you could focus on only one thing, the most important would be teacher quality. The teacher question is so vital that the Hart-Rudman Commission, the same group whose report presciently stressed America's vulnerability to major terror attacks, defined teacher quality as an issue of *national security*. Two million new teachers must be recruited in the next decade—700,000 of them in urban districts—thanks to a coming wave of retirements and rising enrollments. That means that fully two-thirds of today's teacher corps will turn over. Replacing them with top talent and not simply warm bodies is a tall order, especially in urban districts, where half the new teachers quit within three years. With research showing that half the achievement gap facing poor and minority students is due not to poverty or family conditions, but to systematic differences in teacher quality, the question of teacher recruitment in poor schools is more than just the biggest issue in education. It's the next great frontier for social justice.

To focus on teacher quality is not to be a "teacher basher," or to denigrate the thousands of talented and dedicated teachers who have been working their hearts out for years under awful conditions to make a difference for poor children. But as good teachers in these schools have told me with passion, the scale of the need is immense. The incompetence of many of their colleagues is appalling. And the obstacles to solving the problem are deep.

These obstacles start with the nation's schools of education, our major supplier of teachers. One study found that of every 600 people who enter a four-year teaching program, 180 finish, 72 become teachers, and only 40 are still in the classroom several years later. The education schools typically feature self-contained curricula and extra requirements for education courses, partly to avoid losing revenue to other parts of the university. One result: Half of middle school teachers and a third of high school teachers majored only in education, not in the subject matter they need to impart.

"Out-of-field" teaching is widespread, and disproportionately affects poor children. The numbers are staggering. One federal study of grades 7 to 12 estimated conservatively that 18 million children were being taught core academic courses by teachers who lacked even a minor in the subject—including one-in-four math students, four-in-ten life sciences students, more than half of history students, and six-in-ten physical science students. Only 41 percent of U.S. students are taught math by teachers who majored in math, versus 71 percent internationally. Guess which kids in America don't get taught by the math majors?

Moreover, the state competency requirements that graduates of such programs must meet are a mockery. Only 29 states require candidates to take a test in the area they plan to teach. Nearly all are so easy to pass that they keep only "illiterates" out of teaching, as the late Albert Shanker, the legendary president of the American Federation of Teachers, once said. Yet even these minimal standards are routinely waived to allow the issuance of "emergency credentials," so that in our biggest cities many teachers aren't properly trained or credentialed. In Los Angeles, for example, 16.7 percent of teachers had emergency credentials (in 2001-02), compared to 9.8 percent statewide. In New York state, 11.7 percent of teachers in high poverty schools are on emergency credentials; in other schools only 0.1 percent of teachers are on emergency credentials. The most severe shortages exist in specialties like math, science, and bilingual and special education, where people trained as teachers find their skills command a premium outside the classroom. "Why is it that there are still incompetent people in classrooms?" asked Sandra Feldman, the president of the American Federation of Teachers. "Because there's a tremendous shortage, and because people who are not competent in the first instance are hired to babysit. It's tragic."

Other inanities make matters worse. Fifty state bureaucracies certify teachers, a patchwork scheme that often forces even previously licensed arrivals to jump through crazy hoops, like pricey night courses. Districts often won't pay such incoming teachers commensurate with their seniority. As a result, many women (who still make up 70 percent of the teacher corps) leave the field if their husbands relocate. The situation is so bad that big

> If we were serious as a country, we would seize this moment, at the cusp of a dramatic generational turnover, to lure top-caliber college graduates to our toughest classrooms.



cities routinely recruit overseas. New York has recruited in Canada, Austria, and the Carribean; Philadelphia in India and Spain; Los Angeles in the Phillipines; Houston in Russia. Chicago in recent years has interviewed in 25 countries, many less developed than the United States.

Add to the mix the fact that teachers with seniority and talent often leave troubled city schools for the more attractive working conditions and professional environments available in nearby suburbs, and the grim bottom line emerges: The neediest children in America could easily go from kindergarten to sixth grade and beyond with a brand new, untrained rookie or "emergency" teacher "teaching" them each year. What could be more unjust?

Yet if it's possible, things will soon get worse because many of the best teachers in the system will shortly retire. Until the 1960s and 1970s, schools got a huge hidden subsidy because many careers weren't open to women and minorities. Now, people who might once have taught science and social studies become doctors, lawyers, and engineers. Urban teaching salaries that start, on average, at $31,567 and rise to $53,248 simply don't cut it.* Though many of today's talented teachers chose their work for love rather

than money, it stands to reason that in terms of sheer brainpower, the current teacher corps can't match one inadvertently subsidized by bias.

## Crisis or Opportunity?

If we were serious as a country, we would seize this moment, at the cusp of a dramatic generational turnover in the teaching ranks, to lure top-caliber college graduates to our toughest classrooms.

Money will need to be part of this, and we'll get to that. But let's stipulate first that pay isn't everything. Teachers are the only people I've ever met who routinely say, without irony, things similar to what one new teacher confided about her work: "It's so fulfilling, it's awesome!" For many, job security, good health and pension benefits, and summers off each year are worth the income trade-off.

In addition, getting serious about teacher quality will require a host of non-financial reforms. For starters, the human resource departments in big districts tend to be so poorly managed that top candidates flee. Then there's the lack of prestige. Tell them you're a teacher at a party, said Jene Galvin, a 30-year veteran of Cincinnati's public schools, "and you can see the look on their faces—like this guy couldn't do anything else or the only thing he could do was teach and the only place he could get a job was in Cincinnati's inner city. That is reality."

In the inner cities, it's often working conditions that scare people off. When a district's de facto recruiting pitch is, "Join us and you'll have the chance to work in dilapidated schools in unsafe neighborhoods under incompetent supervisors," it's hardly surprising when talented people look elsewhere. Harold Levy, chancellor of New York City schools from 1999 to 2002, told me that when the city did a study asking teachers why they had left, the item mentioned most often was, "I don't like bringing my car into that neighborhood where I have to work." Discipline is a huge problem, and teachers have few ways to get the most disruptive kids, who ruin the learning environment for everyone, out of class. Then there's sheer volume: A high school social studies or English teacher commonly teaches nearly 200 kids a day, in five or six classes that can each exceed 35 students. "Those numbers after a while wear you down, and so many of them are high-need," said Steve Steinberg, a 15-year veteran in L.A. "That's why the best teachers end up at the best suburban schools."

Pockets of improvement exist. Connecticut, for example, has made a systematic effort over 20 years to raise pay and professional standards at the same time, and urban children there score better than in most other states. Under former New York City Superintendent Rudy Crew, and then his successor, Harold Levy, a "Chancellor's District" of low performing schools in New York City received special attention, and teachers were offered a 15 percent pay hike to take on

*These data are from the 2002 AFT salary survey. On average in the 100 largest cities, teachers with a bachelor's degree start at $31,567 and those with a master's degree can earn up to $53,248. A small percentage of teachers, those with doctoral degrees, earn more. AFT's salary survey is online at **www.aft.org/research/survey02/Salary Survey02.pdf**.

the challenge (including a longer work week). Though Levy told me in retrospect that 15 percent wasn't enough to staff these schools properly, the schools showed twice the rate of gain of other low performing schools in New York City in reading and math.* The New Teacher Project, started by Michele Rhee and Wendy Kopp of Teach for America, has worked with a number of cities to attract mid-career professionals to the classroom; in New York City, these "teaching fellows" accounted for one in four new hires in 2002, a remarkable achievement.

But here's the point: If we're honest, none of these developments, promising as they seem, can be brought to the scale of today's need. In other words, just as it is true that salary isn't all that matters, it is equally true that non-salary measures alone will never suffice to attract and retain hundreds of thousands of talented new teachers for poor districts. When it comes to the shortage specialties, and the nation's toughest schools, there's no avoiding this reality: If we're serious, we need to talk about money.

This shouldn't come as news. In 1970 in New York City, a starting lawyer going into a prestigious firm and a starting teacher going into public education had a differential in their entry salary of about $2,000, said Harold Levy. Today, between salary and bonus, that starting lawyer makes $145,000, while the starting teacher in New York City earns roughly $40,000. "Why would we think the laws of supply and demand have been repealed with respect to public education and with respect to the labor market here," Levy told me. "We have teachers who have to supplement their income by being waiters and waitresses. That's obscene."

Conservatives I've talked with agree that poor children deserve better; they also appreciate that market forces largely determine where the top talent goes. Look at the table (opposite). When the suburbs (1) pay more, (2) have better working conditions, and (3) serve easier-to-teach kids who bring fewer problems to school, we're essentially relying on missionaries to bring quality instruction to urban America. How many more years need to pass before we admit that the missionary "plan" isn't working?

Yet conservatives rightly worry that pouring more money into today's system subsidizes mediocrity rather than luring and retaining talent, especially when a toxic combination of inefficient state tenure laws, union rules, and inadequate funding of teacher evaluation make it next to impossible to fire bad teachers. While national data are not available, in a recent five-year period, only 62 of California's 220,000 tenured teachers were dismissed. Partly that's because performance evaluation is a charade, with only a handful of teachers receiving "unsatisfactory" ratings each year. To be fair, unions say that it's not always their fault. In many cities, teachers are on probation for the first few years, meaning they can be fired with few hassles. When poor performers

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*This very effective and nationally recognized program was profiled in *American Educator,* Winter 2002. Unfortunately, the school district has since dismantled and eliminated it. This article is online at **www.aft.org/american_educator/winter2002/UsingTeachers.html**.

## Teacher Salaries
## Urban vs. Nearby Suburban Districts
### 2002-2003 Contract Year

| District | Starting Salary | Maximum Salary |
|---|---|---|
| New York, N.Y. | $39,000 | $ 81,232 |
| Scarsdale, N.Y. | $41,488 | $106,305 |
| Chicago, Ill. | $34,538 | $ 63,276 |
| New Trier Township, Ill. | $39,608 | $ 94,545 |
| Philadelphia, Penn. | $33,249 | $ 69,056 |
| Upper Merion, Penn. | $35,025 | $ 84,605 |
| Washington, D.C. | $31,892 | $ 62,175 |
| Montgomery County, Md. | $36,841 | $ 82,263 |
| Cleveland, Ohio | $32,684 | $ 69,325 |
| Shaker Heights, Ohio | $34,521 | $ 79,595 |
| Boston, Mass. | $38,934 | $ 78,934 |
| Newton, Mass. | $36,866 | $ 77,077 |
| Los Angeles, Calif. | $39,974 | $ 70,145 |
| Santa Monica/Malibu, Calif. | $39,021 | $ 78,442 |

Source: District personnel and human resources offices; local union contracts.

Note: Starting salary is for a certified teacher with a bachelor's degree. Maximum salary is the highest possible based on a ten-month, normal length day contract. To be eligible for this maximum, a teacher typically will have a doctorate degree and at least fifteen years of experience. The maximum may also include bonuses for longetivity or merit.

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aren't dismissed, it's because districts are desperate. "They're holding their breath up to a mirror to see if it's there," said Sandra Feldman. "They're putting warm bodies in classrooms and then beating up on the unions because the [dismissal] process takes too long."

The right conclusion is that there is no way to get top talent without paying up. But that doesn't mean simply throwing money at the problem—we need money wedded to (and, in effect, helping to buy) sensible reforms. The obvious "grand bargain" here would be to make more cash available for teachers in exchange for flexibility in how the money is doled out. That means scrapping the standard "lockstep" teacher pay scale, under which a teacher with a physics degree has to be paid the same as a P.E. teacher if both have the same years of service and number of graduate credits, even though the science grad has lucrative options outside teaching. It also means making it much easier to dismiss low-performers that even union leaders agree are blighting the lives of up to 10 percent of urban children.

When I first posed this deal to Sandra Feldman a few years ago, she told me that teachers were so underpaid that you'd first need to hike salaries across-the-board by 30 percent—then she'd be willing to discuss serious pay differentials. At the time, I thought, at least that's an offer. You can

put a number on it and start a negotiation. Some educators I talked with felt that Feldman was shooting for the moon. But after reflection, and conversations with more urban school officials, teachers, and analysts, I've concluded that Feldman wasn't aiming high enough.

So what if we were serious? What if we owned up to the reality that when Los Angeles raised its starting salaries, as it did recently, from $37,000 to nearly $40,000, or when New York raised them, as it did, from $33,000 to $39,000, and when both cities' salaries top out at $70,000 to $80,000 after more than 20 years in the classroom, this has not and will not have much affect on the career choices of college graduates looking at teaching, and therefore cannot begin to dent the injustice we're perpetuating in poor schools? What would it sound like if we were serious? It might sound something like this:

The goal would be to make teaching poor children the career of choice for talented young Americans who want to make a difference with their lives and make a good living while doing so. Today we have something called Title I through which the federal government provides supplementary funds to poor schools. A serious plan would launch a new program that we could think of as "Title I for Teachers." The federal government would raise salaries for every teacher in poor schools in America by *50 percent*. But this offer would be conditioned on two fundamental reforms. First, teachers and their unions would have to agree to raise the pay of the top half of performers in the teacher corps (and those in shortage specialities) *another 50 percent on average*. Second, the unions would have to streamline the dismissal process for poor performing teachers to a fair, swift, four-to-six- month period.

This would mean that in a city like Los Angeles—where starting teachers earn nearly $40,000, and top out, after 25 years and a Ph.D., at $70,000—there would be a new deal. Starting teachers would earn $60,000. The *top performing half* of teachers, and those in shortage specialities, would make $85,000-$90,000 a year on average. The best teachers at the top of the salary schedule—not all, mind you, but the best—would earn $130,000, $140,000, even $150,000 a year. The aim would be to have the nation commit to making America's best teachers of poor children *millionaires* over their careers—that is, able to put aside enough in savings at those wages to put $1 million in the bank by the time they retire. We need nothing less if we're to change the way this career is viewed by our brightest college graduates. Some people may say this is crazy. But what is really crazy is that we've waited this long. After all, we've long paid market rates for talent the nation needs when it comes to researchers at the National Institutes of Health or economists at the Federal Reserve—and "combat pay" is a time-honored practice when we ask Americans to take on the toughest assignments.

Rather than be embarrassed to say what they do for a living, teachers of poor children would be held in awe—both for the commitment they've made to one of the nation's most important professions, and for the prestige and rewards their nation has decided this calling merits. We would honor our great teachers the way we honor our great entrepreneurs, our great scientists, our great lawyers.

This new deal for teachers of poor children would require many changes to make it happen. Teachers and their representatives would need to embrace a new bargain under which the profession becomes a true profession—with the rewards it deserves—in exchange for the kind of accountability and performance assessment that almost never takes place today. And money alone isn't the answer. We would also need an array of reforms to support good teaching in the classroom, including safe schools in good repair, career paths that let top teachers take on more responsibility, and new freedom to discipline the few children who spoil everyone's chance to learn.

Critics are sure to raise plenty of questions about such a plan—why this district and not that; how can we assess teachers fairly—and it will be important to discuss the details of how we get from here to there. But the "there" must be non-negotiable.

This plan to make teaching poor children the most exciting career in America will cost roughly $30 billion a year—a seven percent increase in the nation's K-12 spending that would buy a 1,000 percent revolution in the way teaching is viewed. It would lift the federal share of K-12 spending from seven percent to 14 percent—which is only right, since poor districts can't foot the bill themselves. When we're failing 10 million poor children, the problem is *national*. And a national problem like this will take national resources to solve it.

There's the plan. We'll also toss in a 50 percent pay hike for principals, taking them from $80,000 to $120,000 on average (with the nation's best getting upwards of $200,000), because there's a terrible shortage of quality principals, as well (this costs only a few billion, since there are far fewer principals than teachers, and I've included it in the $30 billion).

Now, before we get into what it would take to implement this vision, let's stop for a moment and see how it stacks up against other teacher quality "plans." President Bush offers small tax breaks for classroom supplies, nice but symbolic plans to inch up "Troops to Teachers," and an unfunded mandate ordering states to have a qualified teacher in every classroom by 2006. Senator John Edwards of North Carolina, who's made education a major theme of his presidential campaign, offers rhetoric that honors the spirit of the idea I've outlined while offering $3 billion a year, as opposed to $30 billion, toward this purpose—a resource gap typical of other Democratic proposals. Compare this proposal also to the handful of struggling experiments around the country that purport to test the impact of "pay differentials," but that involve amounts far too marginal (usually bonuses of $1,000 or $2,000) to give teachers and their unions any incentive to make it work.

## Building a Consensus

We know for a start, then, that we're operating at a level that's serious. What do those on the front lines think? To find out, I shopped the idea in conversations with superin-

tendents who either today or recently have been responsible for 2.6 million urban schoolchildren, union leaders who have represented more than 1 million teachers, and assorted education experts and teachers. The response was overwhelmingly positive.

"I'd endorse something like that in a hot minute," said Day Higuchi, who was president of Los Angeles' teachers union from 1996 to 2002. Higuchi thought the impact would be substantial:

> Right now L.A. Unified is the employer of last resort. People who can't get jobs elsewhere come here. If we did this, we'd become the employer of first resort and the percentage of credentialed teachers that you can hire initially—teachers in other districts who have a good record they bring with them and a credential—and your more high-powered college students will be taking the job. The flush-out rate is tremendous. At least a quarter of the teachers who try to become teachers in L.A. Unified don't make it through the first year. Half of them are gone by the third year. So if you had an influx of new talent, they would stick.

A similar reaction came from Arne Duncan, CEO of the Chicago Public Schools. "There's very little incentive outside of pure altruism" to go into teaching, Duncan explained. "It would dramatically change the face of the teacher profession."

Rod Paige, secretary of education in the Bush administration and the longtime superintendent in Houston before that, was also impressed with the concept. Although Paige didn't like the idea of it being a federal plan funded with new money, preferring the funds to be shifted from current spending, he went on to say that the federal government obviously has a role; that famous 1983 report, he said, was called *A Nation At Risk,* not *50 States At Risk.* In the end, Paige said, maybe if the plan redirected part of today's seven percent federal contribution toward something like this, and then added some more to sweeten the pot, it might be a promising way to go. But Paige felt strongly that state and local governments needed to have some "skin in the game" or else it would be a "gravy train."

These reactions suggest that we have the makings of something constructive. My talks with educators on the challenges they see suggest the contours of the conversation we'd need and the sense that a deal is doable. The biggest concerns revolved around two questions: *How* do we decide which teachers are better performers—and *who* decides?

As a threshold matter, the fact that union leaders felt it made sense to move toward serious pay differentials for teachers was important. When I talked to teachers, superintendents, and even secretaries of education, I said to Sandra Feldman, they said that when they go into the faculty lounge at a school and ask, who are the best teachers in the school, everybody knows, and there's a consensus. Do you feel that's true? I asked her.

"Absolutely true," Feldman said.

"So people know there are differences in quality or impact?"

"Absolutely right." Feldman also agreed that in a sense it was unfair that these better teachers weren't getting rewarded via higher pay now. But you still have to find a way of doing it that people can buy into, she said, and that doesn't seem like cronyism. To Feldman, part of the answer is to raise pay substantially for designated shortage specialties, like math, science, and bilingual education and for teachers in the most challenging, impoverished schools. The other promising path was differentiated roles. A talented classroom teacher might spend part of her time developing curriculum, she said. A great math teacher, where there's a tremendous need, could become a special coach or resource person for the subject at her site. Others might earn designation as mentors.

Ted Mitchell, president of Occidental College and former dean of the UCLA School of Education, said we might reach consensus more easily by not trying to nail down every gradation. "There's a virtue in identifying these teachers by working from the ends to the middle, but not trying to get to a line between 'good' teachers and 'bad' teachers," Mitchell said.

> Everybody agrees that there are some groups of bad teachers. Everybody agrees that there is some group of super-star teachers. So let's work at identifying those and let's just acknowledge that in the middle it's probably too hard to make fine-grained distinctions in teacher performance. So we're not talking about merit pay for every teacher at the school site and having to make determinations about whether Sally Smith teaching seventh-grade social studies deserves a better raise than Paul Jones teaching eighth-grade algebra. But if one of them can be acknowledged as a super-star teacher then they go in this other category, and if one of them is regarded as substandard by their peers then we get rid of them.

To gauge conservative reaction I spoke with Chester E. "Checker" Finn, a leading school reformer on the right. Finn is president of the Thomas Fordham Foundation and served as assistant secretary of education in the Reagan Administration. "The bad part is a 50 percent boost for just showing up for work," Finn said, "without any reference to whether anybody you teach learns a damned thing. That's the big problem here."

I told Finn this was essentially the incentive I was offering—making the offer so compelling, the ante so rich, that it was a clear "win" for a union to bring it back to their members, in exchange for real reform in pay and dismissal practices. To be sure, I told him, I had worried at first, too, about wastefully paying up for mediocrity. But most observers told me the turnover in big districts is so high that within five years you'd have flushed out many of the bad teachers anyway. To the extent that this plan's higher pay lowered turnover, the ability to dismiss poor performers more easily still gave us the chance to lure a new corps of talent under this proposal and start anew.

Finn wasn't done venting. "A lot of them are inept and ineffective and unmotivated and could care less," Finn said of today's teachers. Many Americans, he said, see teachers working five hours a day, 180 days a year, with little to show for it in terms of what children are learning. "I don't think you're going to get a real good reception for just paying a whole bunch for showing up without any connection to kids learning or working longer or doing more of something."

"If you wanted to make it really interesting," Finn added,

> The biggest concerns revolved around two questions: *How* do we decide which teachers are better performers—and *who* decides?



"you'd surrender job security and tenure in return for this raise."

The swap here ought to be you take a risk with your employment and you don't have to be retained if you're not good at what you do. If you are and you get retained, you get paid a whole bunch more money. My version of this has always been that if it's too heavy-duty for current teachers to swallow that trade-off, make this a whole parallel-personnel system for new ones coming in and for the existing ones that want to do it.

How might that work in practice? I asked.

"Any current teacher is free to join this new system on its terms," Finn said, "or stick with the old arrangements in which they have high security and low pay. That's just a political accommodation to an existing workforce for whom this might be too abrupt a shift. Obviously, everybody would opt into the higher pay part if that were the only part. If you're into a mix of higher pay and reduced job secu-

rity and higher performance expectations, then you have to go through a calculus. Over time you'll get a very different kind of person into teaching under that system."

"It sounds tempting from a union point of view," said Sandra Feldman of a two-track approach. "The more volunteerism you can get in a system like this, the easier it is to sell. But I worry about people working together at a school level. I worry that something like that could create resentment between the people in the different tracks."

Roy Romer, current superintendent of Los Angeles schools and also the former governor of Colorado and chairman of the Democratic National Committee, was also drawn to a two-track approach. "If you've got to pay this to the existing people with the existing work rules and the existing contract, it's wasted," Romer said.

You've got to say, we're going to divide it. Here's the pasture over here. For those of you who want to stay, fine. This is a new pasture and here's what you've got to do to join this pasture and here's the reward for it. First of all, you've got to demonstrate that you have content knowledge. If you don't have it, you don't get paid for it. Secondly, you've got to accept the fact that this is not a six-hour work day and that there is a commitment to a different hourly schedule and an 11-month year and 30 days for vacation. It's a new annual contract. Third, you have got to assume responsibility for a personal relationship to the students. They have to have access to you and you have to have concern for them. There is absolute research-based evidence that many kids don't learn because nobody gives them a feeling that they're worthwhile and the safety of an adult who cares for them. I simply say you don't get into this [new high-paying system] unless you commit to it [time-wise] in certain fundamental ways.

Both Sandra Feldman and Harold Levy spoke about the need for poor students to have more time with teachers, a proposition teachers are perfectly open to, Feldman said, so long as they get paid for it, as this plan would assure. Research shows, for example, that disadvantaged kids lose lots of learning in the summer. Good summer schools, Saturday morning and after-school programs, and even Romer-style commitments to individual students might all be aspects of a big new bargain. Both union and district leaders told me they thought virtually every new hire would opt into the new track if it were voluntary, along with perhaps a quarter of the existing senior teachers, meaning that you'd have the bulk of the teacher corps on the new regime within five years.

The role of test scores in teacher ratings spurred predictable debate. Superintendents, along with conservative reformers, wanted test scores given serious weight. At the same time, they recognized current limits to so-called "value added analysis"—the effort, pioneered by Tennessee researcher William Sanders, to track the impact of an individual teacher on her students each year. In theory, this is the holy grail of "accountability," and thus the dream basis for performance pay. "There's just no reliable way of doing that right now," Sandra Feldman told me. This wasn't only a union view. Joseph Olchefske, until recently the superintendent in Seattle, has studied the issue, and he felt it would be hard to bring this measure down to the level of the individual teacher. Others think individual value-added

measures may soon be practical. Day Higuchi, the longtime L.A. union leader, argued that in elementary school, where children basically have only one teacher, we could constructively measure that teacher's impact if we got the testing right.

Finn and others suggested a blended approach to teacher assessment. "You could have a mixture of value-added analysis at the school level, which is clearly going to be done," said Finn, "combined with some other kind of performance reviews of the individuals within the school." There seemed to be ways to reach common ground here. "It would be a fatal mistake not to include student learning outcomes as the ultimate test of this," said Adam Urbanski, president of the Rochester Teacher's Union, who has spearheaded union reform efforts for two decades. "It would be equally fatal to use only test scores because you would have a huge invitation to cheating and manipulation—and nobody is better at creative insubordination than school people."

Urbanski, with others, said we need to depolarize the testing argument. Test scores should be part of the teacher assessment, but so should other indicators that educators and the public consider germane—such as dropout rates, graduation rates, peer review, classroom practice, and student work. Linda Darling Hammond, professor of education at Stanford University, suggested a process of peer review like that done for teachers granted the elite National Board Certification. It's a process many teachers respect, because other teachers are conducting the assessment. But Romer, along with other superintendents, didn't think anything modeled on the National Board system could suffice because it doesn't include student outcomes. "That's what's happened here time and time again," said San Diego's superintendent Alan Bersin. "You start out with a good idea, but it reduces itself to who controls the determination—it becomes a power issue and student issues fall off the agenda. You've got to make this outcome-driven."

"Blended systems are fine," concluded Arthur Levine of Columbia University's Teachers College. "But don't give away the store. If student achievement is the most important thing we care about, that's got to be a major part of the reason for the improvement in salaries."

One promising model that honors the contours of this discussion has been developed by the Milken Family Foundation, under the leadership of Lowell Milken (brother of former financier Michael), and Lewis Solmon, a Milken foundation executive and former dean of UCLA's School of Education. Called the "Teacher Advancement Program" (TAP), it features career paths, intensive professional development, ongoing evaluation, and differential compensation. In the 2003-2004 school year, TAP was being piloted in 54 schools in Arizona, South Carolina, Arkansas, Colorado, Indiana, Louisiana, and Florida, with 14 more schools slated to begin the program in the 2004-2005 school year (including several in an additional state, Minnesota). Seventy-five percent of the teachers have to vote in favor of the program before TAP will come in to a school. In the first year, teachers are trained in the concept, modify the evaluation criteria to suit their school's needs, and select

All this suggests what the contours of negotiation would sound like, with enough positive noises to think progress is possible.



mentor and master teachers. The second year, TAP starts conducting and honing the teacher evaluations, which occur six to 10 times a year; in year three, it phases in performance pay. "We do it slowly," Solmon told me. "From the bottom up rather than the top down."

Under the plan, 50 percent of a teacher's bonus goes for the teacher's skills and knowledge, as reflected in the evaluations, including extensive classroom observation. The other 50 percent is for student "value-added" (30 percent for school-wide measures, 20 percent for the individual teacher). Mentor and master teachers work with junior colleagues to improve areas of weakness. For professional development, TAP alters the schedule so that every week there are two to five hours where teachers are out of their classrooms, meeting in cluster groups with mentor or master teachers to solve problems they're having. It's too soon to gauge TAP's impact, of course, and local financial constraints mean its pay scales and bonuses (up to $20,000) offer far less upside

than the magnitudes we're discussing. But early signs are promising. In one district in Arizona, for example, the reform has prompted some experienced teachers who appreciate TAP's emphasis on both professional development and on being rewarded for their effectiveness to move from wealthier schools without TAP to poorer schools with TAP, reversing the usual flow.

Moving from the question of "how" to "who," the superintendents all told me that principals need to be the final arbiter of teacher performance—a sticking point with the unions. The problem with giving principals exclusive control, said Sandra Feldman, is that many teachers feel they are bozos who don't know the first thing about good teaching. Jene Galvin, the 35-year Cincinnati schools veteran, thought the millionaire teacher plan was a "home run idea," but said he was with Feldman on principals. "We don't look at the principals and really believe that they are the experts on pedagogy or classroom teaching or classroom management," Galvin told me. "The reason is they just didn't do it very long." An obvious answer here is to have peer evaluators play a serious role in teacher ratings. In the Milken program, for example, mentor and master teachers do the evaluations along with principals. "I'm sick of this argument that the principals are bozos," Finn said, when I played back these critiques. But this comment notwithstanding, Finn felt, along with other leaders in the education community I spoke with, that these implementation challenges seemed surmountable. So I asked Finn if this entire new compensation deal were done along the lines we'd discussed, as a parallel track, is it right to say it's an approach he would not feel uncomfortable with?

"No," Finn said, "I wouldn't feel uncomfortable with it, provided it included the ability for managers of schools to have a whole lot of control over who is working in their school."

All this suggests what the contours of negotiation would sound like, with enough positive noises to think progress is possible. As Chicago schools chief Arne Duncan summed it up, "If people couldn't figure that out, shame on us."

My instinct would be to roll out this agenda via a federal challenge. A real "education president" would say, "We're putting this pot of money on the table for those communities that can come together around a plan to meet its conditions and make it work." This could reverse the ordinary political dynamics in which unions and district managers play an inside game without broad public awareness or pressure. Now, instead, parents, local media, and business leaders could ask their superintendent, school board, and union leaders why they weren't figuring out a way to make use of these billions of dollars to improve local schools. Rank-and-file teachers would have a huge stake in the plan's adoption, since they'd stand to lose the chance to earn an extra $20,000 to $50,000 a year or more. This constituency might help change internal union politics, creating incentives for union leaders to find ways to speedily dismiss poor performers.

There are other benefits. This plan could lure some talent from the suburbs toward higher paying jobs in the city,

which would be a reversal from current norms. It could draw a critical mass of America's best young talent to its toughest neighborhoods, where they would doubtless apply their energies to problems that go beyond the confines of the schools. "The inadequate development of the human resources of the children of poor families," said economist Arthur Okun in 1974, "is one of the most serious inefficiencies of the American economy." Thirty years later nothing has changed. Corporate America spends $80 billion a year retraining high school graduates to work in modern industry. Thirty billion dollars to attract and retain great teachers for poor kids may be the best long-term economic investment we'll ever make. "It's not like there's a constitutional requirement that we only provide 7 or 8 percent of the funding for public education," Senator John Edwards told me. "It's a mindset."

Columbia's Arthur Levine predicts that teacher unions will be receptive to this kind of proposal:

> There are real questions about their future and they're not dumb. My guess is that they're going to be more flexible in all kinds of issues, particularly if they bring a benefit to their members. The harder part of what you're talking about is getting government to put up the money, not getting unions to compromise. Who's getting bad teachers in the United States? Poor people. They don't vote. The reality is we talk about it a lot but we don't care. So why would we pay for them to get good teachers if they're satisfied the way things are?

* * *

I recently caught up with Vince Eisman, the teacher I met on his first day as a teacher in 1999. Now he was 34, starting his fourth year, and he was considered a star. His principal hailed him. He had won local accolades. His colleagues regarded him as a leader. He also told me he was planning to leave the Los Angeles school system at the end of the year.

It was a hundred things, really. "I love teaching in the inner city," Eisman told me. "I've loved teaching these kids." But he's tired. Tired of the lack of parental support. Tired of running out of paper in February and of not having pencils for his class. Fresh budget cuts were making it worse. Eisman had hoped to buy a house, but on his salary it was out of the question. The federal government had a small program that gave teachers dibs on repossessed homes, but they were in such unsafe neighborhoods, the idea was laughable. Eisman's mentor had urged him not to give up on teaching entirely, to at least try it where the whole package wasn't so hard. Eisman planned to move to a rural district upstate, where the quality of life was better, the children less troubled, the houses actually affordable.

I asked Eisman what he was earning. He'd come in at $32,000, I recalled. Now, he said, he was at $47,000. I thought about the plan we've been discussing. What if he'd come in at $60,000, I asked, and was up a similar $15,000 from that? "Would it be different if you were now earning $75,000?" I asked. His tone changed instantly.

"Totally different, completely different," Eisman said. "I would stay teaching in L.A. I love what I'm doing. $75,000 would make my humble little family very content. All those moments when I'm asking myself is this really worth it would be gone." ☐

# HOW WE LEARN

# ASK THE COGNITIVE SCIENTIST
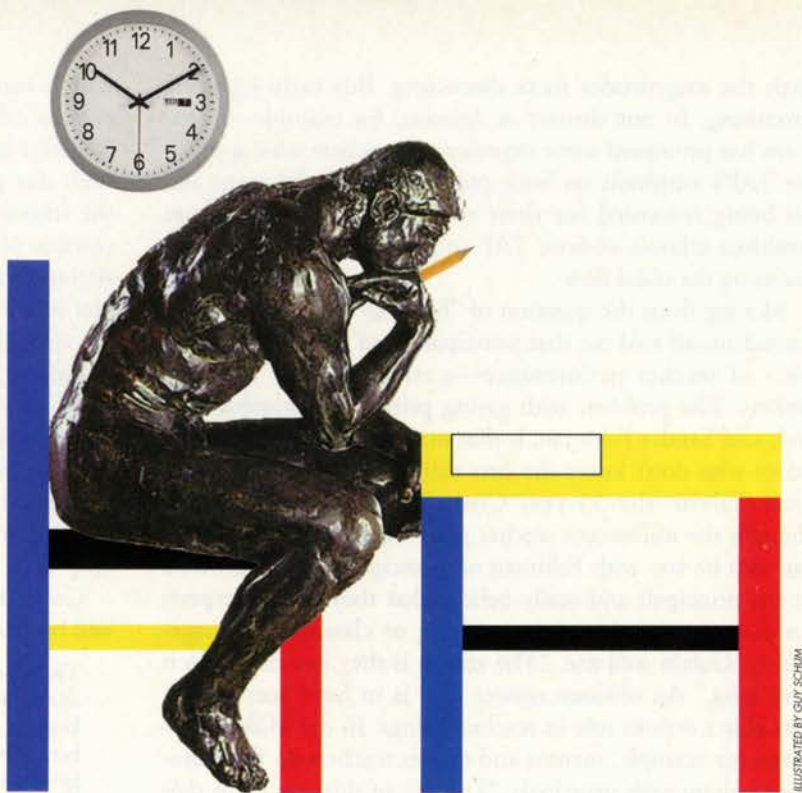


ILLUSTRATED BY GUY SCHUM

## Why Students Think They Understand— When They Don't

*How does the mind work—and especially how does it learn? Teachers make assumptions all day long about how students best comprehend, remember, and create. These assumptions—and the teaching decisions that result—are based on a mix of theories learned in teacher education, trial and error, craft knowledge, and gut instinct. Such gut knowledge often serves us well, but is there anything sturdier to rely on?*

*Cognitive science is an interdisciplinary field of researchers from psychology, neuroscience, linguistics, philosophy, computer science, and anthropology who seek to understand the mind. In this regular* American Educator *column, we will consider findings from this field that are strong and clear enough to merit classroom application.*

## By Daniel T. Willingham

**Question:** Very often, students will think they understand a body of material. Believing that they know it, they stop trying to learn more. But, come test time, it turns out they really don't know the material. Can cognitive science tell us anything about why students are commonly mistaken about what they know and don't know? Are there any strategies

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teachers can use to help students better estimate what they know?

**Answer:** There are multiple cues by which each of us assess what we know and don't know. But these cues are fallible, which explains why students sometimes think that they know material better than their classroom performance indicates.

\* \* \*

How do we know that we know something? If I said to you, "Could you name the first President of the United States?" you would say, "Yes, I could tell you that." On the other hand, if I said, "Could you tell me the names of the two series of novels written by Anthony Trollope?" you might say, "No." What processes go into your judgment of what you know? The answer may at first seem obvious: You look in your memory and see what's there. For the first question, you determine that your memory contains the fact that George Washington was the first U.S. President, so you answer "yes." For the second question, if you determine that your memory contains little information about Trollope (and doesn't include the novel series named *Barchester* and *Palliser*), you would answer "no."

But, if the mechanism were really so simple, we would seldom—if ever—make mistakes about what we know. In fact, we do make such mistakes. For example, we have all confidently thought that we knew how to get to a destina-

tion, but then when put to the test by actually having to drive there, we realize that we don't know. The route may seem familiar, but that's a far cry from recalling every turn and street name.

The feeling of knowing has an important role in school settings because it is a key determinant of student studying (e.g., Mazzoni & Cornoldi, 1993). Suppose a third-grader has been studying the Vikings with the goal of understanding where they were from and what they did. At what point does the third-grader say to him or herself: "I understand this. If the teacher asks me, 'Who were the Vikings?' I could give a good answer."

Every teacher has seen that students' assessments of their own knowledge are not always accurate. Indeed, this inaccuracy can be a source of significant frustration for students on examinations. The student is certain that he or she has mastered some material, yet performs poorly on a test, and may, therefore, conclude that the test was not fair. The student has assessed his or her knowledge and concluded that it is solid, yet the examination indicates that it is not. What happened? What cues do students use to decide that they *know* something?

Cognitive science research has shown that two cues are especially important in guiding our judgments of what we know: (1) our "familiarity" with a given body of information and (2) our "partial access" to that information. In this column, I'll discuss how these two cues can lead students to believe that they know material when they don't. And, in the box on page 41, I suggest ways that teachers can help students develop more realistic self-assessments of their knowledge.

## "Familiarity" Fools Our Mind into Thinking We Know More than We Do

The idea of familiarity is, well, familiar to all of us. We have all had the experience of seeing someone and sensing that her face is familiar but being unable to remember who that person is or how we know her.

Psychologists distinguish between *familiarity* and *recollection*. Familiarity is the knowledge of having seen or otherwise experienced some stimulus before, but having little information associated with it in your memory. Recollection, on the other hand, is characterized by richer associations. For example, a young student might be familiar with George Washington (he knows he was a President and maybe that there's a holiday named after him), whereas an older student could probably recollect a substantial narrative about him. (See Yonelinas, 2002, for an extended review of the differences between recollection and familiarity.)

Although familiarity and recollection are different, an insidious effect of familiarity is that it can give you the feeling that you know something when you really don't. For example, it has been shown that if some key words of a question are familiar, you are more likely to think that you know the answer to the question. In one experiment demonstrating this effect (Reder, 1987), subjects were exposed to a variety of word pairs (e.g. "golf" and "par") and then asked to complete a short task that required them to think at least for a

moment about the words. Next, subjects saw a set of trivia questions, some of which used words that the subjects had just been exposed to in the previous task. Subjects were asked to make a rapid judgment as to whether or not they knew the answer to the question—and then they were to provide the answer.

If the trivia question contained key words from the previous task (e.g., "What term in golf refers to a score of one under par on a particular hole?"), those words should have seemed familiar, and may have led to a feeling of knowing. Indeed, Reder found that subjects were likely to say that they knew the answer to a question containing familiar words, irrespective of whether they could actually answer the question. For questions in which words had *not* been rendered familiar, subjects were fairly accurate in rapidly assessing their knowledge.

A similar effect was observed in an experiment using arithmetic problems (Reder & Ritter, 1992). On each trial of this experiment, subjects saw an addition or multiplication problem (e.g., 81 + 35) and they had to rapidly decide whether they would calculate the answer or answer from memory. If they chose to calculate, they had 20 seconds to do so; if they chose to answer from memory, they had just 1.4 seconds. Sometimes problems repeated, so subjects might have had the answer to a complex problem in memory. Subjects were paid depending on their speed and accuracy, so the decision about whether or not to calculate was important. As in the trivia question experiment, subjects were accurate in knowing when they could retrieve an answer from memory and when they needed to calculate it—except in one situation, when the experimenters repeated a two-digit problem but changed the operation (e.g., addition to multiplication). In that case, subjects were just as likely to try to retrieve an answer from memory for a problem they had actually just seen (e.g., 81 + 35) as they were for a problem they had *not* just seen but which used familiar operands (e.g., 81 − 35). The experimenters argued that subjects made their judgment about whether to calculate based on the familiarity of the problem components, not on the whether the answer was in memory.

## "Partial Access": Our Mind Is Fooled When We Know Part of the Material or Related Material

A second basis for the feeling of knowing is "partial access," which refers to the knowledge that an individual has of either a component of the target material or information closely related to the target material. Suppose I ask you a question and the answer doesn't immediately come to mind, but some related information does. For example, when I ask for the names of the two series of Trollope novels, you readily recall *Barchester* and you know I mentioned the other series earlier; you even remember that it started with the letter *P*, and you believe it had two or three syllables. Your quick retrieval of this partial information will lead to a feeling of knowing the relevant information—even if *Palliser* is not actually in your memory.

The effect of partial access was demonstrated in an experi-

ment (Koriat & Levy-Sadot, 2001) in which subjects were asked difficult trivia questions. If subjects couldn't answer a particular question, they were asked to judge whether they would recognize the answer if they saw it (i.e., to make a feeling-of-knowing judgment). The interesting twist: Some of the questions used categories for which lots of examples came to mind for their subjects (e.g., composers) and matching questions used categories for which few examples came to mind (e.g., choreographers)—that is, these subjects could easily think of at least a few famous composers, but couldn't think of more than one or two choreographers, if any.

The results showed that whether or not they could actually recognize the right answer, people gave higher feeling-of-knowing judgments to questions using many-example categories (e.g., "Who composed the music for the ballet *Swan Lake*?") than to questions using few-example categories (e.g., "Who choreographed the ballet *Swan Lake*?"). The experimenters argued that when people see the composer question, the answer doesn't come to mind, but the names of several composers do. This related information leads to a feeling of knowing. Informally, we could say that subjects conclude (consciously or unconsciously), "I can't retrieve the *Swan Lake* composer right now, but I certainly seem to know a lot about composers. With a little more time, the answer to the question could probably be found." On the other hand, the choreographer question brings little information to mind and, therefore, no feeling of knowing.*

These studies, and dozens of others like them, confirm two general principles of how people gauge their memories. First, people do not assess their knowledge directly by inspecting the contents of memory. Rather, they use cues such as familiarity and partial access. Second, most of the time these cues provide a reasonable assessment of knowledge, but they are fallible.

## How Students End Up with "Familiarity" and "Partial Access" to Material

If a student believes that he knows material, he will likely divert attention elsewhere; he will stop listening, reading, working, or participating. Mentally "checking out" is never a good choice for students, but all the more so when they disengage because they *think* they know material that, in fact, they do not know. The feeling of knowing becomes a problem if you have the feeling without the knowing. There are some very obvious ways in which students can reach this un-

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* Another important aspect of this phenomenon is that the accuracy of partially retrieved information is irrelevant to the feeling of knowing. In an experiment illustrating this phenomenon, Asher Koriat (1993) asked subjects to learn strings of letters. Later, subjects were asked to recall as many letters as possible and then judge whether they would successfully recognize the entire letter string from among several choices. Subjects' confidence that they would recognize the letter string increased with the number of letters that they had recalled, regardless of whether or not those letters were correct. The more they thought they were pulling out of memory, the more confident they were that they really knew the whole string and would recognize it when they saw it.

## If a student believes that he knows material, he will likely divert attention elsewhere; he will stop listening, reading, working, or participating.

fortunate situation in a school setting. Here are several common ones:

**1. Rereading.** To prepare for an examination, a student rereads her classnotes and textbook. Along the way, she encounters familiar terms ("familiar" as in she knows she's heard these terms before), and indeed they become even more familiar to her as she rereads. She thinks, "Yes, I've seen this, I know this, I understand this." But feeling that you understand material as it is presented to you is not the same as being able to recount it yourself.

As teachers know, this gap between feeling that you know and genuine recollection can cause great frustration. I have frequently had exchanges in which one of my students protests that despite a low test grade, he or she really knew the material. When I ask a general question or two, the student struggles to answer and ends up sputtering, "I can't exactly explain it, but I know it!" Invariably, a student with this problem has spent a great deal of time reading over the course material, yielding a lot of familiarity, but not the necessary and richer recollective knowledge.

**2. Shallow Processing.** A teacher may prepare an excellent lesson containing a good deal of deep meaning. But this deep meaning will only reside in a student's memory if the student has actively thought about that deep meaning (see "Students Remember...What They Think About," *American Educator*, Summer 2003, **www.aft.org/american_educator/ summer2003/cogsci.html**). Let's say, for example, that a

teacher has prepared a lesson on the European settlement of Australia and on the meaningful issue of whether that settlement should be viewed as a colonization or invasion. But, let's say that a given student did not process and retain the deep meaning intended by the lesson. He did absorb key terms like "Captain Cook" and "Aborigines." His familiarity with these key terms could mislead him into believing he was ready for a test on the subject.

**3. Recollecting Related Information.** Sometimes students know a lot of information *related* to the target topic, and that makes them feel as though they know the target information. (This is analogous to the subjects in the experiment who knew the names of many composers and so felt that they

(Continued on page 48)

# How To Help Students See When Their Knowledge Is Superficial or Incomplete

What can be done to combat spurious feelings of knowing in students? Remedies center on jostling students away from a reliance on familiarity and partial access as indices of their knowledge, and encouraging (or requiring) them to test just how much knowledge they recall and understand.

■ *Make it clear to students that the standard of "knowing" is the "ability to explain to others," not "understanding when explained by others."* I have found the following analogy helpful in explaining the difference in the two types of knowing: You and a friend are watching a movie that only you have seen before. As the plot unfolds, each event, even those meant to be surprising, seems predictable and familiar. Yet if your friend asks you, "How does it end?" you can't quite remember. To truly know about a movie (or a mathematical concept or historical event), you must be able to discuss it in your own words.

■ *Require students to articulate what they know in writing or orally, thereby making what they know and don't know explicit, and therefore easier to evaluate, and easier to build on or revise.* Suppose that you've just gone over a rather tricky point in class. You want to be sure that they've understood the lesson. As we all know, asking "Does everyone understand the main point here?" yields only silence. Calling on one student makes it clear to that student whether or not he or she understands the main point, but

brings little benefit to other students. An alternative is to have students pair off and then take turns explaining the main idea to each other. (This will work best if the teacher provides clear criteria by which students can judge each other's answers; otherwise it can be a case of the blind leading the blind.) The process of having to explain aloud to someone else makes it clear to students whether or not they understand what they are meant to understand. The process breaks the ice of silence, and if the teacher afterwards asks if there are questions, students are usually more willing to ask for help. Indeed, observing the pairs will usually make the extent of students' understanding clear to the teacher.

■ *Begin each day (or selected days) with a written self test.* The teacher may pose a few questions reviewing the material from the previous lesson. The success of this strategy depends on students writing their answers rather than having the class shout out answers or calling on students who raise their hands. Again, the question you pose will likely lead to a feeling of knowing in most students because it is material they were recently taught. If, moments after hearing the question, they hear the answer provided by another student, they will likely think, "Sure, right, I knew that" because of this feeling of knowing. To get an accurate assessment of memory, each student must see whether he or she can recollect it.

■ *Ask students to do self tests at home or in preparing for examinations.* For students who are a bit older, teachers can facilitate this process by organizing "study buddies" who agree to meet at least once before an examination, or at regular intervals, to test one another. Study buddies ask one another questions to ensure that they understand the material, and then go over whatever they don't understand. This procedure brings several benefits. It's another way to force students to actually recall information, rather than to simply recognize what is in the book. The process of generating questions for a partner is also an excellent way to encourage students to think deeply about the material; it is tantamount to asking oneself, "What is really important here? What must I know about this material?" That students pose questions for each other means that students will share their perspectives on the material—a point that one student missed or understood dimly will be supported by the other student's knowledge.

■ *Help students prepare for examinations with study guides.* All students, but especially younger students, need help identifying the core information to be tested. Teacher-developed study guides are an excellent way to be sure that students are aware of the critical questions and key elements of the answers. Whether they study alone or with a buddy, the guide assures that all students will tackle the most difficult concepts or materials being tested.

—*DW*

# Mayday at 41,000 Feet — Watch Those Units!

## By Steve Silverman

As a long-time science teacher, many times I get answers like this to mathematical problems: "Twelve." Like any well-trained dog—I mean, teacher—I automatically blurt back, "Twelve what? Are we talking about 12 eggs, 12 pencils, 12 pounds, 12 liters, or 12 pieces of metababbaboobinite? Twelve what?"

Watching for mathematical units is one of those lessons that students just never seem to want to pay attention to. Homework upon homework, test upon test, my students consistently leave the units off their work.

Now, I am sure that you are familiar with the case of NASA's Mars Climate Orbiter, which crashed into the surface of the red planet back in September 1999. Within weeks, an investigation board determined that the NASA engineers had failed to convert pounds to newtons when measuring rocket force. The monetary cost to the people of the United States and the embarrassment to NASA were hefty. Yet, no human life was ever placed in danger.

On Saturday, July 23, 1983, Air Canada Flight 143 was to suffer a somewhat similar fate. At 132 tons, the three-month-old twin-engine Boeing 767 was a behemoth. To the casual observer, its cockpit glowed like it belonged in a video arcade. Loaded with screen upon screen of state-of-the-art computerized instruments, this was a plane that could seemingly fly itself. The most sophisticated jetliner of its time, it was the pride of the Canadian fleet.

Flight 143 departed from Montreal destined for Edmonton, with a brief stopover in Ottawa. The plane was certainly in very good hands. Captain Robert Owen Pearson was a 26-year veteran with Air Canada. For years, Pearson had combined his career as a commercial pilot with work as a glider instructor and tow-plane operator. He and First Officer Maurice Quintal were among the few elite at the time who were trained to operate this incredible machine.

Along the final leg of the trip, the plane was flying at an altitude of 41,000 feet and everything seemed to be going just fine. Out of the blue, at 0109 Greenwich mean time, a warning light and one of those oh-so-annoying buzzer alarms suggested a problem with the forward pump in the left fuel tank. With two pumps in each of the plane's three fuel tanks, there was little cause for alarm. Redundancy was built into every aspect of the plane's operation. Then, suddenly, alarms went off indicating a problem with the second pump in the left-wing tank.

Uh, oh!

Without hesitation, Pearson contacted the Winnipeg Air Traffic Control Center with word of a problem. Flight 143 was immediately given clearance to land at Winnipeg, which was about 130 miles south of their location at that moment.

Things were only to get worse. Much worse.

Within five minutes of the first warning, alarms indicated that all six of the fuel pumps on the plane were failing. At nine minutes, the left engine failed. At 12 minutes, the right engine failed and the plane became powerless. The cockpit fell into total darkness and auxiliary power kicked in, only to die out shortly thereafter.

This was the worst possible scenario. Both engines had failed, the auxiliary power system had given out, and the plane was a long way from its destination. This was certainly one plane that was never designed to fly without power. While it wasn't falling out of the sky, it was pretty obvious that this plane was not going to stay up forever. The only thing that seemed to work in their favor was something called the ram air turbine, which used wind power to generate minimal hydraulic control. Clearly, Flight 143 had run out of fuel.

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ILLUSTRATED BY ROBT BARKIN

Calculations both within the cockpit and on the ground confirmed that without power, this plane was not going to make the Winnipeg airport. Instead, the decision was made to make an emergency landing at Gimli in Manitoba, an abandoned Royal Canadian Air Force base that had been equipped with twin 6,800-foot runways. Landing at Gimli did pose some additional risks, since the base lacked both a control tower and emergency equipment.

Would they make it? Could they make it? Even if they did, could the plane be controlled with enough precision to keep it from smashing into the ground or rolling over upon impact? No one knew the answers to these questions, but when you are faced with either making a very risky landing or death itself, the choice of what to do is very clear.

As the plane approached the Gimli airfield, the landing gear was released. Without any power to assist, the pilots were dependent on the force of gravity alone to lock the landing gear in place. The main landing gear fell into place without any problem. They weren't as lucky, however, with the nose gear. The onslaught of the wind beneath the plane prevented the front landing gear from locking into place. Now flying a powerless giant, the pilots were faced with the reality of landing it without all of the landing gear down.

If you thought that things couldn't get worse, just read on....

The plane was coming in too high and risked overshooting the runway. In a move that was unheard of for a large aircraft, one that he had picked up from his gliding experiences, Pearson put the plane into a maneuver known as a sideslip. Although frightening to all aboard, it caused the plane to slow down and lose altitude, and Pearson brought the plane down within 200 feet of what would be considered a perfect landing.

The plane was down, but it had not stopped. Almost immediately, two tires in the right main landing gear popped and the casing of the right engine was scraping the pavement. Without the front nose gear in place, the belly of the plane was soon doing the same. Sparks were flying, but the increased force of friction actually helped slow the plane down sooner.

There was also another unexpected problem. There were people in the middle of the runway! Unbeknownst to the pilots, the former runway was now the final straightaway of the two-kilometer Winnipeg Sports Car Club racecourse. Yes, you read it correctly. They had chosen to land on an active racetrack. People were scrambling for their lives.

All of a sudden, Pearson noticed a metal guardrail, which had been put in place for drag races, running right down the middle of the runway. He tried to veer the plane to the right side, but had no luck. The left side of the plane's nose sheared the posts of the guardrail right off at their base. The plane finally came to a stop in a huge cloud of smoke. Amazingly, injuries from this near disaster were minimal and mostly caused during the evacuation of the plane.

So how did the plane run out of fuel?

Just like with my students, the error was basically in the math. Prior to the flight, the plane had experienced prob-

# There was also another unexpected problem. There were people in the middle of the runway!

lems with its Fuel Quantity Indicating System, which basically controls the entire fueling process and all of its onboard fuel gauges. Generally, all the ground crew needs to do is to hook up the hoses and dial in how much fuel is needed. The computer does the rest. Since the plane was new, no spare parts were available to replace the faulty Fuel Quantity Processing Unit. The ground crew had to resort to calculating the fuel load by hand. They used the tried-and-true fuel-drip procedure, which is very similar to the dipstick that you have in your car to measure the amount of oil in the crankcase.

This manual accounting of the fuel led to another problem. The flight plan called for 22,300 kilograms of fuel, but the fuel trucks measured their fuel in liters. A multiplier of 1.77 was used to convert between the two units, but it was later learned that this was the wrong conversion factor. Instead of converting the liters to kilograms, they had calculated the number of imperial pounds. Since these were the first planes in the entire Air Canada fleet to use metric measurements, not a single person involved realized that the wrong multiplier was being used. Even though the drip test was repeated several times by different people, the conversion factor was so familiar that no one questioned its value. It was a number that they had all used over and over again in their calculations. This error, which was compounded by poor communication and training, allowed the plane to fly off with approximately half of the fuel that it actually needed to make its destination, and it almost proved deadly.

They say that history has a way of repeating itself, and this story is no exception. Eleven months later to the day, on June 23, 1984, Captain Pearson and First Officer Quintal were once again behind the controls of the same exact plane on its way from Ottawa to Montreal. During takeoff, the same sequence of lights and buzzers indicated problems with the fuel pumps. When they leveled off, everything returned to normal. This time they were not taking any chances and immediately returned to the ground. It was later determined that they were in no danger. This time the plane had not run out of fuel. Instead, a false alarm had been generated by the plane's rapid ascent. (We can be sure that these guys were not happy campers....)

The moral of this story? Watch those units! Failure to do so could have devastating consequences. □

# EARLY INTERVENTION

As the research clearly shows, these three programs have the potential to prevent countless acts of aggression and positively influence both school and family functioning.

Disruptive student behavior will decrease and teaching time will increase, allowing all children to learn more. Office discipline referrals will decrease, freeing up school staff to address other school needs like supporting instruction. Effective programs do require an upfront investment of time and energy, but over the school year, and certainly over the school career, they more than "pay for themselves" in terms of teaching time won back.

An obvious subtext in the article has been that elementary schools—and especially K-3 teachers—must bear the burden of preventing antisocial behavior. This may come as a surprise since behavior problems seem so much more severe as children age. But if there's one uncontestable finding from the past 40 years of research on antisocial children, it's this: The longer students are allowed to be aggressive, defiant, and destructive, the more difficult it is to turn them around. While high schools can, and should, do what they can to help antisocial students control themselves, elementary schools can, and should, actually help antisocial children to become socially competent. □

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# LETTERS

*(Continued from page 2)*

respect for human rights? Ravitch ought to keep in mind her own admonition that "good history teaching demands honesty and accuracy...."

Ravitch even complains when a textbook "balances the good works of Castro (a literacy rate that was[is] the 'highest in Latin America') against censorship and the repression of dissent." Apparently, if a book does not give students her simplistic view of a complex country like Cuba, it is inadequate. Oddly for an educator, Ravitch dismisses Cuba's educational system, and by extension, the many thousands of our brother and sister Cuban teachers that have made Cuba the educational Mecca of the third world, with by far the highest number of doctors and nurses per capita of any country in Latin America.

—CLIFF OLIN
*El Marino Language School, Alhambra, CA*

I read your recent article on "Leaving Reality Out." I am not a history teacher, but I am a Muslim; and, from what I can gather, the textbooks wish to perpetuate the current anti-Islamic bias created and fanned by the media. The ignorance of the media is evident when it attaches the label "Muslim" to all the practices done by a couple of Middle-Eastern countries. The history of Islam and the practices of Muslims in many Muslim countries are very different from certain practices adopted by select countries. The irony, of course, is that Western civilization has many roots in works of Islamic scholars of the 10th century, but the educated West never taught that to its students. By creating more anti-Muslim bias through the curriculum, you will keep ignorance and bigotry alive.

—KHAIRUNESSA DOSSANI
*De Anza College, Cupertino, CA*

**The author responds:**

I thank the writers who responded to the article. The article, I must remind readers, was about the textbooks' inability to discuss tyranny honestly, about their skirting controversy or condensing their accounts so drastically that students cannot understand what it means to live in a totalitarian society where tyranny is customary. In their effort to "cover" everything, textbooks skim over some of history's worst experiences without giving them the sense of reality that would awaken students' curiosity to learn more.

Contrary to Mr. Olin, I did indeed write about Latin American tyrannies that were allies of the U.S. government; I specifically condemned the texts for typically treating these tyrannies "in the context of one or two sentences and rarely with the facts, faces, or numbers that make the harsh words meaningful." I also referred critically to the United Nations' failure to stop the genocide in Rwanda—and I referred readers to another article in the magazine (by Philip Gourevitch) that specifically indicted the United States for its failure to acknowledge or do anything about the genocide there.

While Mr. Olin considers my criticism of Cuba's tyranny to be "simplistic," I would invite him to pay heed to the regime's inhumane treatment and long-term incarceration of intellectuals, human rights activists, and teacher unionists who disagreed with its policies. As I wrote in the article, we remember Hitler not for any social or economic achievements of his regime, but for his crimes against humanity. The same, I predict, will be true of Castro's place in history.

In response to Ms. Dossani, be assured that I would not want any textbook or teacher to teach bias against Islam or any other religion. But I draw attention to a problem: Our world history textbooks studiously avoid honest descriptions of the restrictions placed on women in most Islamic societies and on the deleterious effects of this discrimination on those societies. Students should be able to ponder the same set of facts laid out in the United Nations' Human Development reports written in 2002 and 2003 by leading Arab intellectuals who attributed the economic and social underdevelopment of Arab nations to their denial of women's equality. If Ms. Dossani wishes to defend the idea that women are in some way better off by not being educated and by not having equal rights or that Arab societies are not injured by these conditions, then we disagree.

—DIANE RAVITCH

teaching and managing groups of students in the classroom and other settings.

## III. Delivering Directions

Researchers have classified two major types of directions that adults give to children: alpha commands and beta commands (Williams and Forehand, 1984). Alpha commands involve clear, direct, and specific instructions to students without additional verbalizations, and they allow a reasonable period of time for a response. In contrast, beta commands are vague and/or contain multiple directives; either way, they do not provide a clear criterion for compliance or sufficient opportunity to comply. Beta commands also include excess verbalizations from the person issuing the command. As a result, the student receiving the beta command has no opportunity to comply and is often confused. From preschool through grade 12, alpha commands are associated with higher levels of compliance than beta commands. Beta commands should be avoided whenever possible.

The use of alpha commands has a long history in the military. Training in military leadership strongly emphasizes the use of clear, specific, and forceful commands to prevent misunderstanding and to increase compliance. The following are some examples of alpha commands:

"Matt, I want you to pick up your room as soon as you finish dinner."

"Luke, tell me what time you have to be at baseball practice today."

"Merilee, go see the vice principal right now about yesterday's absence."

The following are some examples of beta commands:

"Matt, your room is always such a mess! Why don't you clean it up instead of waiting for me to do it for you? I get so tired of always picking up after you!"

"Lisa, stop talking to Laura unless you are discussing today's assignment. Besides, you are only supposed to be talking if you've finished all your work!"

"Mike, it's time for you to get to work. So get to it and don't let me catch you loafing again or you'll have to stay in for recess!"

When students do not comply with commands (alpha or beta), it's natural for teachers to then make demands in an attempt to force compliance. But with antisocial students, demands have a good chance of resulting in defiance. Defiance can be explosive, sometimes violent, and, as has been noted, often highly damaging to the teacher-student relationship. Instead of giving in to the temptation to make demands, teachers should consider the following guidelines in giving commands to maximize their effectiveness and to manage the classroom more efficiently (Walker, 1995). The teacher should:

- Use only as many commands as needed in order to teach and manage the classroom effectively. Research has shown that rates of noncompliance increase as the number of commands increases (Walker, 1995).
- Try to limit the number of *terminating* commands given in favor of *initiating* commands. Terminating commands direct the student to stop doing something inappropriate (e.g., "Don, stop talking to Frank right now!"). Initiating commands direct the student to start doing something positive or productive (e.g., "Mike, read this passage out of your book aloud to the class").
- Give only one command at a time. If a series of separate tasks is involved, give distinct commands for each task.
- Be specific and direct. Get the student's attention, establish eye contact, and describe what is wanted in a firm voice using alpha command language that is easily understood.
- Allow a reasonable time (at least 10 seconds) for the student to respond.
- Do not repeat the command more than once if the student does not comply. Instead, use some other consequence or action (like in-class time-out for younger students or being sent to the principal's office for older students) to deal with the noncompliance in this situation.
- Give commands while standing next to the student instead of from a distance. This is particularly important with antisocial students.

Compliance with teacher instructions is typically a major problem with antisocial students and, on occasion, a problem with many students. It is a key source of conflict between teachers and students. The skilled use of avoidance, escape, and alpha commands will prevent many conflicts in the classroom, foster better relationships with antisocial students, and save a great deal of teaching time. □

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## ASK THE COGNITIVE SCIENTIST

knew who composed *Swan Lake*.) Suppose that a fifth-grade class spent three weeks studying weather systems, including studying weather maps, collecting local data, keeping a weather journal, learning about catastrophic weather events like hurricanes, and so on. In preparation for a test, the teacher says that there will be a question on how meteorologists use weather maps to predict hurricanes. When the student hears "weather map," she might recall such superficial information as that they are color coded, that they include temperature information, and so on; she feels she knows about weather maps and doesn't study further. In fact, she hasn't yet come to understand the core issue—how weather maps are used to predict weather. But her general familiarity with the maps has tricked her into believing she had the necessary knowledge when she didn't. (Ironically, the problem of recollecting related information is most likely to occur when a student has mastered a good deal of material on the general topic; that is, he's mastered *related* material, but not the target material. It's the knowledge of the related material that creates the feeling of knowing.)

Cognitive science research confirms teachers' impressions that students do not always know what they think they know. It also shows where this false sense of knowledge comes from and helps us imagine the kinds of teaching and learning activities that could minimize this problem. In particular, teachers can help students test their own knowledge in ways that provide more accurate assessments of what they really know—which enables students to better judge when they have mastered material and when (and where) more work is required. □

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*Readers can pose specific questions to "Ask the Cognitive Scientist," American Educator, 555 New Jersey Ave. N.W., Washington, DC 20001 or to* **amered@aft. org.** *Future columns will try to address readers' questions.*

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# Building the Home-School Connection and Parents' Knowledge and Know-How
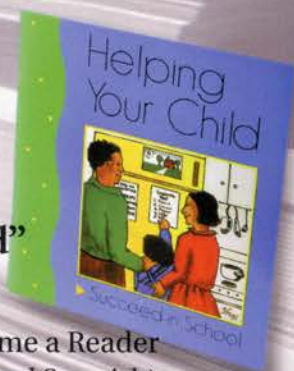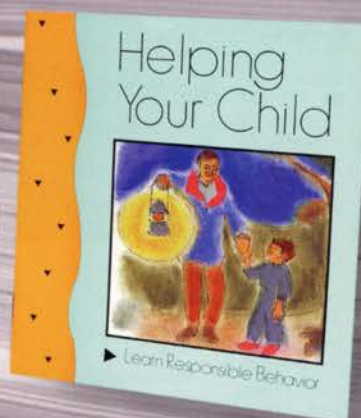
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