Building on the Best, Learning from

What Works

Five Promising Discipline and Violence Prevention Programs

aft American Federation of Teachers

Five Promising Discipline and Violence Prevention Programs

Raising student achievement in the nation's lowest performing schools is one of the AFT's highest priorities. Recent efforts to raise academic standards—and to make students, schools, and staff more accountable for their performance against those standards—make it a priority of growing urgency.

This *What Works* series, which grew out of the work of the AFT Task Force on Redesigning Low-Performing Schools, is an attempt to advance these reform efforts. It is designed to provide members with detailed background information about the research-based programs that, when properly implemented, show promise for helping to improve student performance significantly—for this issue, on measures of behavior.

According to research, many low-performing schools suffer from the lack of a safe and orderly learning environment. Clearly, teaching and learning are almost impossible to achieve in an environment of disorder, disrespect, and fear. No one has ever learned in a classroom where one or two kids take up to 90 percent of the time through disruption, violence, or threats of violence. That's why, in poll after poll, educators rank discipline and safety high on their list of educational concerns. So do students, parents, and the general public. Although school staff cannot entirely reverse the deep-seated social and emotional problems of some students, there are many things that can be done to help schools become safe havens for learning:

- Ensure that all members of the school staff—including teachers, administrators, paraprofessionals, bus drivers, nurses, cafeteria workers, and other school-related personnel—have access to professional development in effective classroom and behavior management.
- Enact a strong, fair discipline code in which the rules of student behavior—as well as the consequences for particular violations—are clearly stated. To be most effective, the code should be developed with parent and community input, and must be widely disseminated among all school staff, students, parents, and the public.
- Take steps to ensure that the code is fairly and consistently enforced. These include authorizing all school staff—not just administrators—to enforce discipline; issuing regular, honest public reports on implementation of the code; and creating a discipline oversight committee, composed of parents, teachers, citizens, and (in the case of secondary schools) students, to help monitor and guide enforcement.
- Implement policies and programs to help improve student behavior. These can take many forms, depending on the needs and circumstances of individual students and schools—including adopting the kinds of externally developed programs described in this publication; providing access to behavior specialists who can work directly with students and teachers to develop early, individualized intervention plans; and organizing schools into personal communities (through concerted parental and community outreach, smaller classes, smaller schools, "looping" classes so that students retain the same teachers for more than one year, etc.).
- Establish a continuum of quality short-, medium-, and long-term alternative settings in which chronically disruptive or violent students can be placed. Because persistent misbehavior is often a sign of aca-

demic distress, it is imperative that students assigned to these facilities be provided with adequate academic, as well as social and emotional, intervention services.

How To Use This Publication

The programs in this publication were the only ones that met our criteria for effectiveness and replicability. (See "Note on Program Selection Methods" on the back cover to learn more about the criteria and the search process.) As such, these programs represent a very diverse group. While two of the five can be used at either the elementary or secondary levels, three are only for the elementary grades. In essence, one (the Good Behavior Game) is a classroom management strategy for the primary grades. One (Consistency Management® & Cooperative Discipline) is a schoolwide discipline and violence prevention program with fairly strong evidence of a positive spillover effect into the academic arena. Another (the Bullying Prevention Program) targets school resources on one troubling—and potentially very dangerous—aspect of student misbehavior. And two (I Can Problem Solve and Promoting Alternative Thinking Strategies) are extensive socialization and behavior modification programs for the elementary grades that are taught through classroom lessons as an addition to the regular academic curriculum.

Before deciding whether to adopt one of these programs, we recommend that schools conduct a careful audit (self-study) to gain a better understanding of what is working and what needs to be improved. For the vast majority of students and schools, attention to the basic steps described above—effective classroom management, a strong, clear discipline policy, consistent enforcement of the policy, targeted interventions for troubled students, and the ability to remove the few violent and chronically disruptive students from the classroom—will be enough to restore order.

Schools and classrooms with persistent problems and/or in which a high proportion of students need behavioral support should consider their options carefully—particularly the trade-offs involved in adopting an extensive intervention program. Is the percentage of students with behavior problems high enough to warrant using the class time of all students to teach social and behavioral skills? Would the school's time and resources be better spent in improving the quality of the targeted interventions provided to individual students? Could this be a sign of widespread academic difficulties, signaling the need for more remedial services and a revamped academic program?

In deciding which additional steps must be taken, school staffs are encouraged to ask themselves these and several similar questions:

- Will this help address the school's most urgent needs, as identified by the audit?
- Will this help us spot and respond to problems earlier and more effectively?
- Will this help prevent problems from occurring (or recurring)?
- Do we have adequate resources and staff/administrative support to implement this well?
- Is this likely to help us use existing personnel and resources more effectively?
- Is this a good fit with the school's goals and academic program?
- Is this likely to result in more class time to spend on teaching and learning, or less?

Bullying Prevention Program

Targeted Grades	Elementary and secondary.
Materials	Mandatory materials include two books, *Bullying at School: What We Know and What We Can Do* and *How To Deal With Bullying at School: A Teacher's Handbook*, which provide an overview of the problem of bullying and describe the program's key elements and how to implement them. Also required are a victim questionnaire for grades 3 to 8, a computer program for evaluating questionnaire results, a video called *Bullying* (with an accompanying teacher's guide), and an informational pamphlet for parents. Optional materials include a booklet with supplemental lesson plans. The video and lesson plans are appropriate for use with upper elementary and middle school students.
Instructional Support/ Professional Development	A coordinating committee to oversee the program is established at the school or district level, including a school administrator, teacher representatives from each grade, a guidance counselor, school-based mental health/social service professional, and parent and student representatives. A part-time on-site program coordinator is also recommended, especially in districts where more than one school is implementing the program and personnel costs can be shared. Committee members and program coordinators receive at least one to two days of professional development from expert consultants prior to implementation. In turn, these personnel and program consultants lead a half- to one-day in-service training for all school staff—including teachers, administrators, classroom paraprofessionals, cafeteria workers, bus drivers, and lunchtime/break time supervisors. During the first year of implementation, classroom teachers participate in 12 to 16 discussion groups, each lasting 90 minutes. Yearly "booster" professional development sessions are also provided to all staff members.
Role of Paraprofessionals	Classroom paraprofessionals and other school-related personnel are fully integrated into the program.
Cost of Implementation	In addition to the costs of funding an on-site coordinator (part- or full-time), program costs include release time for professional development, approximately $130 per school for the questionnaire and computer program to assess bullying at the school, and about $60 per teacher for classroom materials.
Results	Evaluations in the U.S., Norway, Germany, and England show significant declines in reports of bullying behavior among students.

The Bullying Prevention Program, developed in 1983 in Bergen, Norway, is a schoolwide violence prevention program that seeks to reduce the incidence of bully/victim problems among primary and secondary school children. The program's developer, Dan Olweus, designed it

to increase awareness and knowledge about bullying behavior in the school community; to promote the active involvement of parents, teachers and other responsible adults; to help establish clear rules against bullying; and to provide support and protection for victims.

Teachers and other school staff are largely responsible for implementing the program, with efforts directed toward improving peer relations among students, eliminating the opportunities and incentives for bullying behavior, and creating a safe and positive school atmosphere. In Bergen, Norway, for example, two years of implementation led to a 50 percent decline in the frequency of bully/victim problems. These results applied both to male and to female students across all the grades studied. In addition, researchers documented an improvement in overall school climate and a reduction in other antisocial behaviors among students, such as theft, vandalism, and truancy.[1]

Main Features

Before program implementation, schools must administer the "Olweus Bully/Victim Questionnaire" to students. Results are used to assess the severity of the school's bullying problem by age and gender, to focus the attention of adults on the need to address the problem, and to pinpoint the physical locations where bullying incidents are most likely to occur. The data also provide a baseline against which improvement can be measured.

Once this information has been gathered, the program provides a framework for intervention at the school, class, and individual levels.

School Level. A bullying prevention coordinating committee is established to oversee all aspects of the school's violence prevention efforts. Members should include a school administrator (e.g., principal or assistant principal), a teacher representative from each grade, a guidance counselor, school-based mental health/social service professional (e.g., school psychologist), and parent and student representatives. Periodic meetings are recommended, beginning with an initial planning meeting to discuss and disseminate initial questionnaire findings. This information is used to create a school plan, coordinate counseling and other social services, and prevent problems by ensuring adequate adult supervision during lunchtime, break periods, and other non-classroom time. Community outreach—e.g., PTA meetings or informal telephone contacts—are also recommended as an important way to achieve home-school cooperation and to provide parents with information about bully/victim problems and proposed solutions.

Classroom Level. As an aid to preventing bullying and improving the school climate, teachers and students agree on a few simple rules. Although there may be overlap with existing school, district, and/or statewide discipline policies, teachers are expected to highlight or develop specific rules about bullying and to lead classroom discussions about them. For example, the following three rules, which are typical for the Bullying Prevention Program, target both direct (open attacks) and indirect bullying (intentional exclusion from the peer group, targeting with malicious rumors, etc.):

1. We will not bully other students.
2. We will try to help students who are bullied.
3. We will make it a point to include all students who are easily left out.

In addition, the program helps teachers develop appropriate positive and negative incentives for students to abide by the rules. Regular classroom meetings are encouraged, preferably once a week, during which the week's events can be reviewed and discussed, rules and consequences can be clarified, and a positive classroom environment can be cultivated. The *Teacher's Guide* that accompanies the video (see "Materials" in table) provides specific suggestions on how to lead discussions and engage students. Classroom and individual meetings with parents are also encouraged, and various informational materials are available to help with presentations and discussions.

Individual Level. When a staff member knows or strongly suspects there is a bullying problem, immediate intervention is warranted. Ideally, each student should be dealt with separately, even in cases where more than one student participated in the bullying (the most common situation). The primary aim in dealing with bullies is to stop the behavior. In a majority of cases, the parents of the bullies and the victims are also contacted to discuss

the situation and its proposed solutions. Program materials and training offer suggestions about how to approach students and parents, as well as how to elicit their cooperation and support. With the help of administrators, the on-site coordinator and committee members, counseling and other services can also be obtained for bullies, victims and families, as needed.

Results

The first evaluation of the Bullying Prevention Program was conducted in Norway, the program's nation of origin.[2] Data gathered from schools in Bergen, Norway, between 1983 and 1985 show substantial reductions (by 50 percent or more in most comparisons) in student reports of bullying and victimization. A marked reduction in general antisocial behaviors, such as vandalism, fighting, theft, alcohol use, and truancy, was also noted. Significant improvement were also observed with respect to school climate—as reflected in reports by students of improved order and discipline, more positive social relationships, and a more positive attitude toward schoolwork and school. At the same time, there was an increase in student satisfaction with school life. It should also be noted that, for some of the variables studied, the effects of the program appeared to strengthen over time.

Also noteworthy: The program helped ameliorate existing bully/victim problems, as well as helping to reduce the number and percentage of new victimization incidents. In other words, the program was effective as both an intervention and a prevention strategy.[3]

Preliminary data from a recent large-scale replication involving 3,200 Bergen students in grades 5-7 were also encouraging.[4] While students in the control schools reported little change in the incidence of being bullied and a 35 percent increase in their tendency to bully others, students in the program school reported a 20 percent to 35 percent decrease in both behaviors after only six months of implementation. Several different investigators, looking at data from replications involving diverse populations in several countries, including the U.S., England and Germany, have reported similar positive results.[5]

Case Study

United States (South Carolina)—The Institute of Families in Society at the University of South Carolina began a replication of the Bergen study in 1995, working for two years with approximately 6,400 middle school students in 39 schools from six different non-urban school districts statewide. The program was slightly modified to meet the needs of participating schools, including the development of schoolwide (as opposed to classroom) rules against bullying behavior and the involvement of community members in anti-bullying efforts. All program materials were translated into American English and additional materials for teachers and other staff were developed. After seven months of implementation, students in the program schools reported a 25 percent decrease in their frequency of bullying other children, while students in control schools reported a corresponding increase. As expected, self-reports from control students showed an increase in the frequency of antisocial behaviors over time, while program students reported either no change or a slow rate of increase with regard to delinquency, vandalism, and other school-related misbehaviors.[6]

Considerations

Although the Bullying Prevention Program is up and running at several U.S. sites, the program's current ability to provide technical assistance to start-up sites is very limited. Plans to expand capacity are under discussion. However, to ensure availability, schools that are considering adopting of a discipline/violence prevention program are advised to make inquiries early in the program selection process.

The Bullying Prevention Program has demonstrated its effectiveness in helping both elementary and secondary schools reduce bullying and other antisocial behaviors among students. It has been implemented successfully in a wide array of sites in a number of countries, including urban, suburban, and rural schools serving diverse student populations from a variety of racial, ethnic, and socioeconomic backgrounds. As a schoolwide program, it can offer assistance to students without singling

them out, and thus avoids stigmatizing them.

There are several implementation challenges that schools should consider carefully. First, ease of implementation may be significantly affected by school type. Implementation may be simpler at the elementary level, where students don't change classes throughout the day and classroom teachers have more opportunity to interact with students and monitor their behavior. At the secondary level, teachers must make a greater effort to ensure that students don't slip through the cracks by coordinating efforts and communicating with each other regularly about students and their behavior. Second, support from staff and key administrators is crucial to success. Schools are advised to involve staff in the program selection process and to secure funds to pay for a local program coordinator to help oversee all aspects of the school's efforts. In addition, schools may want to consider providing stipends or other forms of compensation to members of the bullying prevention coordinating committee who are required to commit significant time to the project. Third, the availability of orientation and training is crucial for all staff, especially for teachers who must feel comfortable conducting classroom meetings and individual interventions. Periodic discussion groups, held under the leadership of trained and experienced teachers, are an effective way to sustain motivation and ensure that new hires have access to ongoing professional development in the program. Finally, efforts should be made to involve paraprofessionals and other school-related personnel and ensure that they also have access to ongoing training.

Publications/Resources

Olweus, D., Limber, S. P., & Mihalic, S. F. (1999). *Blueprints for Violence Prevention, Book Nine: Bullying Prevention Program.* Boulder, Colo.: The Center for the Study and Prevention of Violence.

Olweus, D. (1993). *Bullying at School: What We Know and What We Can Do.* Cambridge: Blackwell.

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[1] Note: the information in this program description was largely drawn from the following publication.

Olweus, D., Limber, S. P., & Mihalic, S. F. (1999). *Blueprints for Violence Prevention, Book Nine: Bullying Prevention Program.* Boulder, CO: Center for the Study and Prevention of Violence.

[2] Hawkins, J. D., Von Cleve, E., & Catalano, R. F. (1991). Reducing early childhood aggression: Results of a primary prevention program. *Journal American Academy Child Adolescent* Psychiatry, 30, 208-217.

Hawkins, J. D., Catalano, R. F., Morrison, D., O'Donnell, J., Abbott, R., & Day, L. E. (1992). The Seattle Social Development Project: Effects of the first four years on protective factors and problem behaviors. In Joan McCord, & Richard E. Tremblay (Eds.), *Preventing Antisocial Behavior: Interventions from Birth through Adolescence.* New York: The Guilford Press.

O'Donnell, J., Hawkins, J. D., Catalano, R. F., Abbott, R. D., & Day, E. (1995). Preventing school failure, drug use, and delinquency among low-income children: Long-term intervention in elementary schools. *American Journal of Orthopsychiatry,* 65, 87-100.

[3] Largely parallel results were obtained regarding the level of bully/victim problems using the two peer rating variables and teacher ratings at the classroom level; however the teacher data produced somewhat weaker effects.

[4] Olweus, D. (1999). Bullying: First results from a new large-scale intervention project. Preliminary report (in Norwegian). Unpublished material. Bergen, Norway: Research Center for Health Promotion (HEMIL), Christies gate 13, 5015 Bergen, Norway.

[5] For the U.S. study, see below. For German results, see Hanewinkel, R., & Knaack, R. (1997). *Mobbing: Gewaltprävention in Schule in Schleswig-Holstein.* Report. Landesinstitue Schleswig-Holstein für Praxis und Theorie der Schule.

For English results, see Whitney, I., Rivers, I., Smith, P., & Sharp. S. (1994). The Sheffield project: Methodology and findings. In P. Smith & S. Sharp (Eds.), *School Bullying: Insights and Perspectives* (pp. 20-56). London: Routledge.

[6] Melton, G. B., Limber, S. P., Cunningham, P., Osgood, D. W., Chambers, J., Flerx, V., Henggeler, S., & Nation, M. (1998). *Violence among rural youth.* Final report to the Office of Juvenile Justice and Delinquency Prevention.

Consistency Management® & Cooperative Discipline (CMCD)

Targeted Grades	Available to schools in geographic feeder patterns preK-12, moving with students at each level over a three-year period, starting with the elementary schools, then middle, and finally the high school.
Materials	Materials focus on building self-discipline in students, but also cover several other topics, such as writing, conflict resolution, time management, and job training skills (including resume writing, interviews, and team building). Teachers receive three gift certificates (totaling $150) to purchase supplemental classroom materials of their choice.
Instructional Support/ Professional Development	CMCD includes four phases of professional development: awareness, implementation, follow-up, and sustaining support. The implementation phase typically consists of two on-site training sessions led by CMCD staff during the spring prior to implementation. These are followed by a two-day academy that is held before the next academic year. During the follow-up phase—which lasts for the initial year of implementation—CMCD holds a series of workshops (usually six), held on site or at a neighboring school. Sustaining support is provided in years two and three, during which an orientation training session and occasional workshops are provided for new teachers. During this phase, veteran teachers from the school are also selected to become program facilitators, providing additional training and support to new staff. CMCD staff members are also available to conduct additional schoolwide training, if needed. This program depends upon the commitment, collaboration, and support of school staff. Thus, CMCD hosts awareness workshops for schools and districts, then requires that 70 percent of the school staff vote to approve the program's adoption. In addition, the program requires one full-time facilitator for every three CMCD elementary schools and one facilitator for every CMCD secondary school in the district.
Role of Paraprofessionals	The school's entire staff is seen as integral to the program. That is, all staff members who work with children—including administrators, teachers, specialists, aides, cafeteria workers, and bus drivers—participate in administering the program.
Cost of Implementation	The price varies depending upon the size of the school. Costs for initial implementation are estimated at 2 percent to 3 percent of the total school budget. Costs for subsequent years are roughly 3 percent to 4 percent. For a school of about 500 students, this translates into costs of roughly $25,000 for startup and $49,000 or more for year one.[1]
Results	Evaluations indicate that CMCD schools have from 72 percent to 78 percent fewer discipline referrals to the principal's office. Research also indicates increases in student attendance, teacher attendance, and student achievement, as well as improvements in classroom climate reported by students, teachers, and principals. In addition, research suggests that the program can help to increase instructional time—that is, time *not* lost to handling discipline problems.

The Consistency Management® & Cooperative Discipline (CMCD) program, developed by Jerome Freiberg at the University of Houston, is a comprehensive school-based program designed to help students prepare for success, achieve self-discipline, and develop responsibility. The program focuses on prevention, as opposed to intervention, and specifically targets shared responsibility between teacher and student, value-based discipline, increased communication with parents, and effective instruction. CMCD has been implemented in more than 120 schools in Chicago, Columbus, Houston, Los Angeles, Nashville, Newark, Norfolk, and Santa Anna, in addition to schools throughout Northern Italy and the Netherlands.

Main Features

As the program's name suggests, CMCD has two main components.

Consistency Management® focuses on classroom and instructional organization and planning by the teacher and other school staff. The teacher, as the instructional leader, is taught to organize all classroom activities—from planning seating arrangements to passing out papers, sharpening pencils, taking attendance, using time, and providing equal opportunity to participate in class—to create an orderly and supportive environment in which all students can participate and learn.

Cooperative Discipline provides the opportunity for all students to become responsible classroom leaders. Students are trained to share in the classroom management role of teachers and paraprofessionals. As students progress through school, they assume responsibility for classroom management functions, ranging from passing out papers to assisting substitute teachers. These jobs are posted in the classroom, and students submit applications based on interest. Positions are rotated every four to six weeks. Students are allowed to assume increasing responsibility for resolving disputes, solving problems, and making decisions. Given multiple chances for leadership in large and small ways, students gain the experience necessary to become self-disciplined and act as responsible citizens of the school community.

The program's primary objectives are:

Prevention. Teachers prevent or minimize future discipline problems by providing students with the opportunity to behave appropriately in the classroom. For example, at the beginning of the school year, teachers and students work together to create classroom constitutions, and all parties agree to abide by them.

Caring. CMCD teachers must show students that they genuinely care about students' academic and personal achievement. Thus, instructors strive to listen to, reflect upon, trust, and respect students. For example, teachers might periodically tape classroom sessions and discuss with students whether the tape demonstrates that classroom participants (including teachers) are showing proper concern for each other.

Cooperation. Cooperation in the classroom involves sharing, participating, planning, working together, and above all else, trusting each other. Teachers allow students to take on added responsibilities, such as taking attendance or reviewing homework, as well as initiating activities—with the goal of helping students become more involved in the classroom and more self-disciplined.

Organization. Student participation and self-discipline are also fostered through shared teacher and student organization of the classroom. Students apply for posted "jobs." "Manager" positions are open to all students and positions are rotated so that all take part. For example, the substitute manager assists substitute teachers by passing out papers, taking attendance, etc. Similarly, the absence packet manager prepares a packet for students who are absent.

Community. The program seeks to increase parent and community participation in the life of the school. Teachers are encouraged to contact parents about students' progress and activities. Parents are encouraged to take part in classroom rule making and are invited to the school for lunches and asked to host field trips. Adults from the community visit classrooms to describe job and educational opportunities and to serve as positive role models. Workshops that teach parents how to use Consistency Management® at home are also provided.

Results

The available research on CMCD consistently indicates improvement in school climate, time-on-task, and reductions in disciplinary referrals. Though most of these studies use a pretest-posttest design (as opposed to the experimental and quasi-experimental designs used in several studies that indicate the program may help to boost student achievement),[2] the studies are numerous, with some large samples, and the results are consistent from city to city.

One quasi-experimental study of pilot sites in Houston compared five elementary schools using CMCD with five similar control schools.[3] After two years, students in CMCD schools were found to have made significant academic gains, while interviews with principals indicated a decrease in discipline referrals. A smaller study with a follow-up looked at one CMCD elementary school and one control school over a four-year period. Both student achievement and attitudes toward school were examined. CMCD students were shown to have made significant gains on test scores, while survey results indicated a more positive attitude toward school. Specifically, intervention students had significantly more positive perceptions of their learning environment, and rated pacing, feedback, teacher expectations, and student expectations higher than did control students. In addition, CMCD students reported higher motivation and demonstrated higher academic motivation and self-concept than did comparison students. Finally, those receiving the program rated the classroom environment more positively; and their mean scores for involvement, task orientation, class order, and class rules were significantly higher than were the mean scores of comparison students.[4]

In a spring 1998 survey of teachers at one Houston elementary school, an external evaluator found that, on average, the teachers saved 37 minutes daily which, prior to the adoption of CMCD, would have been used for disciplinary management.[5] Based on the number of days in the school year, the researcher estimated that the instructional time saved was equivalent to 18.5 extra school days. Teachers surveyed at a high school and middle school indicated, respectively, that an average of 14 minutes per day and 31 minutes per day had been saved. In effect, the high school teachers (in the second year of CMCD) had increased the school year by approximately seven days, while the middle school teachers (in the third year of CMCD) had increased the school year by approximately 15.5 days. These data suggest that time-on-task may increase incrementally with increased exposure to CMCD.

Case Studies

Chicago, Ill.—Results from a CMCD implementation at one Chicago high school indicate that teacher and student expectations, teacher feedback, and pacing, as well as student motivation and academic self-concept had improved significantly from baseline. Further, the school reported significant improvement from baseline in class rules, teacher support, and task orientation. Additionally, three K-8 CMCD schools reported a drop in discipline referrals of 47 percent from 1998 to 1999 as well as a notable increase in student achievement.

Houston, Texas—"Madison Elementary"[6] is one of more than a dozen Houston schools that use CMCD. When the program was first implemented, staff morale was low and discipline referrals were high. In interviews conducted over a two-year period of program implementation, teachers reported that they had seen a decrease in discipline referrals, an increase in instructional time, higher student motivation, and a more positive learning environment. Test data confirmed these impressions. In a comparison of student scores over three years, students at Madison showed greater achievement gains on two standardized assessments than students at a control school. Effect size advantages ranged from +.43 after one year to +.78 after three years.[7]

Considerations

The success of CMCD is highly dependent upon the commitment and cooperation of all school staff. School schedules may need to be adjusted to incorporate this feature of collaboration, which includes teachers observing each other and shared planning time. Where this sort of commitment has been obtained, the research indicates that CMCD

can help to improve the school climate, and that the need to spend time disciplining negative behaviors may decrease. With this decrease in negative behaviors comes an increase in instructional time, with a corresponding beneficial effect on student achievement. Thus, in cases where discipline problems are identified as a major contributing factor to low student achievement, schools may want to consider CMCD or another discipline program as a front-line intervention. Indeed, case studies of a few CMCD schools show that the program has been used successfully as the initial component of a comprehensive reform plan—with new reading and mathematics curricula phased in only after a sense of order has been restored.

Administrators, as well as school staff, must be prepared to balance the need to share responsibility for creating order and discipline at the same time that authority is maintained. As discussed above, the collaborative nature of the program is crucial in terms of school administration as well as shared expectations among students and staff. That is, staff members in CMCD schools need to share responsibility for decision-making so that they feel confident their decisions to enforce discipline will not be second-guessed. Thus, school staff must work together to establish clear, shared expectations; a structured and organized environment; and a system for consistent enforcement of the rules.

Resources

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[1] Based on NCES's estimate of $4,900 in average national per-pupil annual school expenditures.

[2] For a summary of research on CMCD's achievement effects, see: AFT (1998). *What Works: Six Promising Schoolwide Reform Programs.* Washington, D.C. (Or http://www.aft.org/edissues/whatworks/six/index.htm.)

[3] Freiberg, H. J., Prokosch, N., Treister, E. S., & Stein, T. (1990). "Turning around five at-risk elementary schools." *School Effectiveness and School Improvement,* 1, 5-25. Also, Freiberg, H. J., Stein, T. A., & Huang, S. (1995). Effects of a classroom management intervention on student achievement in inner-city elementary schools. *Educational Research and Evaluation, 1,* 36-66.

[4] See footnote 2.

[5] Opuni, K. A. (1998). *Project GRAD Evaluation.* Houston: Houston Independent School District.

[6] Madison is a pseudonym for a Houston school.

[7] An effect size is a standard means of expressing achievement gains and losses across studies, showing differences between experimental and control groups in terms of standard deviation. In general, an effect size of +.25 or more is considered educationally significant.

The Good Behavior Game (GBG)

Targeted Grades	Grades 1 and 2.
Materials	A detailed manual (available on the Internet at http://www.bpp.jhu.edu) provides an overview of the program, an explanation of the theoretical basis for the design, instructions for putting the game into effect, and evaluation forms to use during and after implementation.
Instructional Support/ Professional Development	GBG is a simple behavior management tool, requiring little or no technical assistance for implementation. At present, the primary means disseminating the game is through the manual (see above). Interested schools are advised to look at the manual, then consider what (if any) additional implementation support may be necessary. Contact the Prevention Research Center at Johns Hopkins University to explore the possibilities for consultations, implementation support, and advice.
Role of Paraprofessionals	Although the teacher is the only staff member needed to play the game, classroom paraprofessionals and other school-related personnel can be used to help in the implementation.
Cost of Implementation	All materials are available for free on the Internet. The only possible implementation costs would be the optional purchase of technical assistance from the Prevention Research Center or another provider, and the minor cost of purchasing small gifts to use as rewards.
Results	After one year of implementation, teachers reported a reduction in first-grade students' shy and aggressive behaviors, with the most significant effects observed in students initially considered most aggressive. These effects also appeared to be sustained, with boys considered to be the most aggressive in first grade showing reduced aggression at the end of sixth grade.

The Good Behavior Game, originally developed in the late 1960s by Barrish and Saunders, is a class-wide strategy to increase time on task and decrease disruptive behaviors among students. GBG, which is based on behavior modification techniques, was adapted by Dr. Sheppard Kellam and his colleagues at the Johns Hopkins School of Public Health for use in several intervention studies. It is this version that has the strongest evidence of positive effects.

GBG uses a team-based approach to manage student behavior. Students are divided into groups, monitored, and then rewarded if all members of the team avoid prohibited behaviors. As such, the program uses both positive reinforcement and peer pressure to enforce classroom rules and enhance the teacher's authority.

Main Features

The Good Behavior Game is appropriate for use with young children. Although originally implemented among fourth- and fifth-graders, this class-wide intervention strategy is most often used in the primary grades.

Children are assigned to one of several (usually three) heterogeneous groups in each classroom. Each team is given points for precisely defined good behavior or has them taken away for misbe-

havior by any of its members. The points are then exchanged for a variety of tangible rewards—play time, stickers, erasers, etc. Social reinforcers always accompany tangible reinforcers, with the material rewards gradually phased out over the school year eventually to be replaced with only social rewards.

Team Building. GBG teachers are responsible for rewarding teams of children who display appropriate behavior and refrain from aggressive, disruptive and other problem behaviors. Children are divided into teams, with each group composed of a roughly equal number of shy, aggressive and/or disruptive students. The teacher also chooses a team leader, usually a shy/withdrawn child, to help distribute prizes. The rules of the game are explained to students, including a clear definition of the prohibited behaviors that will be scored—e.g., out-of-seat without permission, verbal or physical disruption, noncompliance.

Use of Rewards. Whenever a student displays a prohibited behavior during the game, the teacher will make a checkmark on the blackboard next to the student's team name. At the end of the game period, teams that have not exceeded four marks are declared to be winners. (It should be noted that the goal is for all teams to "win" by exhibiting good behavior.) Initially, teams win tangible rewards such as stickers or erasers, and later they engage in a rewarding activity such as an extra recess period. In addition, the team winning the most sessions at the end of the week is given a special reward.

Length of the Game. The Good Behavior Game initially is played three times per week for periods of 10 minutes, with teachers announcing each session and rewarding teams following the period. The duration of the game is increased by about 10 minutes each session every three weeks up to three hours per session—with the number of checkmarks remaining at four. As the game progresses, teachers also begin to initiate the game without notice and to save rewards until the end of the school week. Eventually, the game is played at any time of day, during any activity, and in any location.

Results

The original version of the Good Behavior Game was implemented and analyzed in a fourth-grade classroom of 24 students. The game was introduced during math class. Later, it was switched to reading class. Still later, it was played during the reading as well as the math periods.

The teacher began the game by dividing the class into two teams, then describing the rules of the game. Neutral observers in the classroom recorded instances of disruptive behavior both before and during GBG. Results indicated that the game had a reliable, positive effect on curtailing disruptive behavior, especially in regard to out-of-seat and talking-out activity. Baseline scores indicated a median of 96 percent of the one-minute intervals scored by the observer contained talking-out behaviors and 82 percent contained out-of-seat behaviors. During the GBG math period, these scores declined to 19 percent and 9 percent, respectively, while behavior remaining unchanged during the non-GBG reading period. When the game switched periods (from math to reading), there was a rebound in disruptive behavior during math and a corresponding decline during reading. When the game was played during both math and reading, disruptive behaviors remained low for both classes. Both teams almost always won.[1]

The original version of GBG was replicated and evaluated in more than a dozen studies, but only one employed a quasi-experimental or experimental design. In this case,[2] researchers looked at 28 fifth-graders who displayed virtually uncontrollable behavior during reading class. The class was divided into two groups, and the teacher defined the targeted behaviors—with a focus on reducing out-of-seat behavior, talking-out without permission, and disruptive behavior (i.e., kicking or hitting, clapping, etc.). Observers recorded student behaviors prior to implementation, during an initial implementation, after the game had been ended, and after it was reintroduced. According to the data, the game reduced the problem behavior of Group 1 by 99 percent and Group 2 by 97 percent. As in the pilot study, problem behaviors increased after the game ended (but did not rebound to prior levels, with Group 1 returning to

only 33 percent and Group 2 to 82 percent of their original scores.) Once the game was reintroduced, these scores again declined.

In the late 1980s, Dr. Kellam and his colleagues elaborated on the program, developed the implementation manual, and began a careful long-term evaluation.[3] Initial results were reported for students in five different urban areas who played the game in first grade, compared to a control group of students who did not receive the intervention. Teachers reported improvements in both shy and aggressive behaviors for male and female intervention students at the end of first grade, with the largest effects in the students who were initially considered most aggressive. In addition, peers rated GBG boys as less aggressive, compared to boys in the control group.[4] Long-term effects were also reported, based on a follow-up sample of 590 children who received GBG in first and second grades, compared to a control group who received no intervention. At the end of sixth grade, positive effects in regard to aggression were found to be sustained, but only for boys. Specifically, the boys who were at or above the median score for aggression in first grade displayed a decrease in aggression compared to increases in aggression for boys in the control group.[5]

Case Study

Baltimore, Md.—One trial conducted by the Prevention Research Center compared the effects of two first-grade interventions aimed at preventing the behaviors that are known to predict the development of serious achievement, behavior, or substance-abuse problems in later life.[6] The first intervention, known as the family-school partnership (FSP), was designed to strengthen home-school communication and improve parents' tutorial and behavior management practices. The second, a classroom-centered (CC) intervention, was designed to enhance teachers' behavior management and instructional skill. Teachers in the classroom intervention were trained to use mastery learning as a key instructional strategy and the Good Behavior Game as a primary behavior management tool. In each of the nine Baltimore elementary schools, three first-grade classrooms each were randomly assigned to participate in one of the two interventions, or were left unchanged as a control group. In all, 678 first-grade students and their families were served.

In general, the classroom intervention that used GBG was found to yield the greatest benefits, with the FSP intervention having a smaller beneficial effect. With respect to achievement, CC/GBG boys in high-implementation classrooms (five out of nine) were found to have a significant advantage over boys in control classrooms, as measured by reading and math tests at the end of first and second grades. Girls in these classrooms were also found to have made math gains at the level of significance in first and second grades. Boys in high-implementation FSP classrooms also made gains in first-grade reading and math, but only in math and only in first grade were the improvements significant.

With respect to behavior, the boys and girls in CC/GBG classrooms demonstrated significantly fewer problems in both first and second grade as rated by teachers (who looked at measures of acceptance of authority, social participation, concentration, and being ready for work). The main effect of the FSP intervention proved significant in second grade, according to teacher ratings. Additionally, when levels of aggression were measured by peers, CC/GBG boys had significantly fewer nominations than did boys in the control group by the end of first and second grades. FSP boys also showed benefits, with the largest effect on boys with mild to moderate elevations in pretest levels of aggression.

Considerations

The Good Behavior Game is an easy and effective classroom management strategy, not a full-fledged school discipline program, per se. Indeed, the success of the program seems to lie in its simplicity. It is not curriculum-based, so teachers do not have to learn and practice new lessons and activities. Rather, they need only describe the game structure and reward system to students, then implement the game as described above. Although there is little data on other applications, it appears that the game could easily be adapted and expanded

beyond the classroom to involve other personnel and other parts of the school day—e.g., rewarding good behavior on the part of lunchroom teams, etc. Data from Baltimore also indicate that the game can be used as one component of a comprehensive academic and behavioral intervention plan.

Although the immediate benefits of GBG in the classroom are obvious, it appears that the long-term effects are confined to the most aggressive boys in the classroom.[7] Because highly aggressive males are likely to be the most problematic students in terms of behavior management—and the target of most school discipline and violence prevention interventions—this may not be a significant consideration. (Similar results are also reported by most other successful interventions, with the greatest benefits found in those males considered most at risk.) However, schools with widespread behavior management problems or a large number of highly aggressive girls should note this limitation in long-term effects.

Resources

Dolan, L., Turkan, J., Werthamer-Larsson, L., & Kellam, S. (1989). *The Good Behavior Game Manual*. Baltimore: The Prevention Program. (Available on the Internet at http://www.bpp.jhu.edu.)

Syracuse City School District Team Consultation Project (1999). "The Good Behavior Game: A Positive Behavior Management Program for the Classroom," *Intervention "Packages" for Behavioral Concerns.* Syracuse: Syracuse City School District. (An Internet-based resource, found at http://www.scsd.k12.ny.us/sbit/dirhtml/intfile/intdrpg.htm.)

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[7] It should be noted that other analyses indicate that the program's effect on levels of tobacco use, which were beyond the scope of the current review, were not limited to the subgroup of highly aggressive males.

I Can Problem Solve (ICPS)

Targeted Grades	Pre-K through grade 6.
Materials	The program is based around a number of scripted lessons—59 for use during preschool, 83 for kindergarten and the primary grades, 77 for the intermediate elementary grades—that teachers can use to help children learn to resolve problems peacefully. The lessons consist of games, stories, and/or dialogues that last up to 20 minutes each and are implemented in small groups over a period of about three months. The lessons are contained in three separate training manuals, one for each of the age groups. (See the "Resources" section for ordering information.)
Instructional Support/ Professional Development	In addition to the formal lessons, the program helps teachers acquire an informal style of communication, called "problem solving dialoguing," which helps children learn to apply their problem-solving skills to non-classroom situations. The training manuals also provide examples of the use of ICPS dialogue techniques in real-life situations.
Role of Paraprofessionals	Although the program is administered primarily by classroom teachers, it could also be used by other school personnel.
Cost of Implementation	The three guides are available for $39.95 each. Professional development, consultations, and implementation support can also be contracted from the developer for approximately $1,000 a day, plus travel and expenses.
Results	Evaluations indicate that ICPS children demonstrate less impulsive and less inhibited classroom behavior and better problem-solving skills than do students in comparison groups. One longitudinal study followed a group of poor, inner-city students who had received ICPS in kindergarten and first grade, and found that benefits, as measured by improved classroom behavior and problem-solving skills, were sustained for as long as four years after the intervention. A study that looked at the use of the program with fifth- and sixth-graders also found that ICPS students showed more positive, pro-social behaviors, fewer negative behaviors, healthier peer relationships, and better problem-solving skills.

The I Can Problem Solve (ICPS) program was developed by psychologist Myrna Shure based on more than 20 years of research into interpersonal problem-solving strategies that she conducted along with Dr. George Spivack. ICPS is a school-based intervention that trains students to consider their actions and choices, anticipate possible consequences, and develop more successful alternative responses. To do this, children are taught to identify the thoughts, feelings, and motives that could generate problem situations. By teaching children to think, rather than what to think, the program aims to enhance social competence, discourage anti-social behaviors, and decrease impulsiveness and inhibition.

In 1999, the Office of Juvenile Justice and

Delinquency Prevention identified the parent version of ICPS as a model violence prevention program.

Main Features

Originally designed as a preschool and kindergarten intervention, ICPS has been successfully implemented with children up through sixth grade. Throughout the intervention, teachers use pictures, role playing, puppets, and group discussions to help students develop the thinking skills that the developers had identified as being highly predictive of successful socialization:

- *Consequential thinking*—the ability to think of different things that might happen in certain situations.
- *Alternative solution thinking*—the ability to name unconnected, alternative solutions to a stated problem (e.g., "He could ask her to go to a movie with him," or "He could have a party and invite the whole class to come," or "He could tell her friend that he'd like to get to know her better.").
- *Means/ends thinking*—a skill used to reach a stated interpersonal goal (e.g., planning to take the steps that will help you make new friends).
- *Weighing pros and cons*—a skill that is used to decide whether a thought or impulse should be turned into action (e.g., deciding whether to go to a party the night before an important exam).
- *Empathy*—the ability to be sensitive to one's own feelings as well as to identify and relate to them in others.

The children's own lives and problems are used as examples to demonstrate and practice these problem-solving techniques.

Lessons. Teachers work with small groups of six to 10 students in 20-minute sessions over a period of approximately three months. Each lesson plan collection-preschool; kindergarten and the primary grades; intermediate elementary grades—teach the same skills and concepts, though the content grows somewhat more sophisticated for the older children.

For preschool and the primary grades, prerequisite skills are taught during the first and second weeks (roughly in 10 to 12 lessons) and include word concepts such as "not" (e.g., acting or not acting), "some/all" (e.g., solutions may succeed with one person but not all), "or" (learning to plan alternative solutions), "if...then" (e.g., "if I do this, then he may not play with me."), etc. For students of all ages, another group of lessons focuses on the identification of, and sensitivity to, feelings about self and others. Children learn to identify people's feelings in problem situations, and cause-and-effect relationships are emphasized so that children begin to realize that they can influence others' actions and emotions. The next set of lessons emphasizes problem-solving, using role-playing, games, and group dialogues to encourage students to hypothesize about possible consequences and alternative solutions to problem situations.

Applications to Real Life. Because research by the developers suggested that the process of thinking—not the content—helps children apply their problem-solving skills to many situations, no single solution is stressed by the formal lessons. Instead, the focus is on helping students develop the habit of thinking of different ways to cope with frustration and satisfy their needs. To reinforce these strategies, teachers are trained to extend the problem-solving approach from hypothetical situations to actual problems occurring in their students' lives. Children can then learn from one another and decide for themselves whether their choices and problem-solving solutions are successful or might need to be altered in future situations. Pictures, role playing, puppets, and group interaction are all used to help develop children's skills.

Results

The initial research on ICPS involved low-income African-American children attending federally funded day care.[1] According to teacher reports, a significantly greater percentage of ICPS children (versus control-group students) showed improvements in impulsive and inhibited behaviors in both preschool and kindergarten. Students who had received two years of the intervention scored the highest in terms of generating alternative solu-

tions to problems, but it should also be noted that students who received only one year of ICPS did substantially better than the control students. The effects of the program were also found to be sustained through the duration of the study (to the end of first grade). ICPS-trained students not showing behavior problems in nursery school were also less likely to begin showing these problems a year later (at the end of kindergarten) than were the control students—suggesting that the program worked as a prevention as well as an intervention measure.

The developers also conducted a five-year longitudinal study in which they compared three groups of ICPS children—teacher-trained for two years in kindergarten and grade 1, teacher-trained in kindergarten only, and teacher-trained in kindergarten with parent-training in grade 1—to and a control group that had no intervention.[2] At the end of Year 2 (first grade), students in all three intervention groups displayed improved behavior and problem-solving skill compared to the control group, even for those who received only one year of training. In Year 3 (second grade), all of the ICPS groups maintained their edge over control students in alternative solution generation, with the two-year, teacher-implemented group having the highest scores. Gains in consequential thinking remained significantly greater in the trained groups only among boys, with the parent-trained group having the best scores. Parent-trained girls were rated the least impulsive, the least inhibited, with the fewest total behavior problems, according to independent observations; boys trained by teachers (for one or two years) showed similar changes.

In Year 4 (third grade), ICPS boys continued to score highest in solution and consequential thinking skills. In addition, independent observations of behavior revealed that the two-year, teacher-trained boys were the least impulsive and showed the fewest behavior problems, while it appeared that earlier behavior gains for girls were not maintained. In Year 5 (fourth grade), independent observers rated both boys and girls in the two-year teacher-trained group as dramatically superior in external (impulsiveness), internal (inhibition), and total problem scores. In the parent-trained group, children whose parents (primarily mothers) had implemented the program with fidelity were still maintaining their behavior gains. In summary, this study found that the intervention had its greatest immediate impact on boys trained by teachers and girls trained by parents—but those trained by teachers for two years had the greatest gains four years later.

A third study evaluated the efficacy of the program with older students, looking at whether the intervention could help fifth- and sixth-grade students avoid high-risk behaviors.[3] By the end of fifth grade, ICPS students showed significant improvement in problem-solving skill as compared to a group that received training in a "critical thinking" program. According to teacher, peer, and independent observer ratings, ICPS students also showed significant gains in pro-social behaviors and positive peer relationships. Though intervention students did not show decreases in impulsive or inhibited behaviors, children in the critical thinking group showed increases. In sixth grade, ICPS students also outscored students in the critical thinking group, with those who had received two years of ICPS training showing the greatest gains in all positive behaviors (as measured by teachers, peers, and independent observers). According to peer ratings, impulsive and bullying behaviors decreased for ICPS girls, and shy behaviors decreased for both sexes. While not definitive, data from this study also suggest that ICPS may help improve student achievement, with ICPS students (both girls and boys) significantly outscoring control students on standardized reading measures. Intervention students also outscored control students on standardized math tests, but only the boys made gains at the level of statistical significance.

A small study that trained the mothers of preschool children to use ICPS techniques with their children also reported positive results.[4]

Case Studies

Miami/Dade County, Fla.—In the 1980s, the program was implemented in 12 Miami elementary schools, with one kindergarten class from each school receiving ICPS and a corresponding number of children acting as a comparison group. The

students represented a racially, ethnically, and economically diverse population, with each group containing children who were judged to be acting out, inhibited, and well adjusted. Compared to control students, ICPS students who were initially rated as "acting out" made significant improvement in acting-out behaviors, moodiness, peer acceptance, and hyperactivity. In comparisons of students who were initially rated as inhibited, ICPS children significantly outperformed control students in initiative, concern for others, and ability to function autonomously. For students initially rated as well adjusted, the ICPS students also scored significantly better than did control group students on measures of concern for others, peer acceptance, and hyperactivity.[5]

Memphis, Tenn.—A similar evaluation in Memphis schools compared the effects of the ICPS program in eight first-grade classrooms, four of which implemented the program and four of which did not. In teacher ratings, the behavior of ICPS children was found to improve over the first year, while the behavior of control students was rated more negatively at post-test than pretest. More specifically, students in all four ICPS classrooms were found to have improved in ratings of physical and verbal aggression, emotional control, and impatience.[6]

Considerations

I Can Problem Solve is a classroom-based program, composed of a series of lessons that train elementary school students in problem-solving and thinking skills that can help prevent high-risk behaviors associated with the development of behavior, violence, and substance-abuse problems in later life. Based on two decades of research into the behavioral psychology of children and the results of several quasi-experimental evaluations, the program appears to be effective in changing the targeted behaviors.

Students who initially displayed impulsive behaviors could think of only a few solutions to a problem and were unaware of, or at best unconcerned about, the effects of their actions upon others. As ICPS taught them to consider more solutions and consequences, these children became better able to cope with frustration, more able to wait, and less overemotional and aggressive when goals could not be satisfied immediately. Schools and teachers who are considering this program should note the commitment of classroom time that is necessary for full implementation—up to 25 hours per year over a period of three months.

Publications/Resources

Shure, M. (1992). *I Can Problem Solve (ICPS): An Interpersonal Cognitive Problem Solving Program.* Champaign, Ill.: Research Press. (ICPS training manuals, available in three volumes—for preschool, for kindergarten and the primary grades, and for the intermediate elementary grades—from Research Press: 800/519-2707 or http://www.researchpress.com.)

Shure, M. (1999). *Preventing Violence the Problem-Solving Way.* Washington, D.C.: Office of Juvenile Justice and Delinquency Prevention. (This OJJDP pamphlet is available on the Internet at http://www.ojjdp.ncjrs.org/jjbulletin/9904_1/contents.html, or call 800/638-8736 to request a free copy.)

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Promoting Alternative Thinking Strategies (PATHS)

Targeted Grades	Kindergarten through grade 5.
Materials	Materials include six volumes of PATHS lessons and an instruction manual to assist with implementation.
Instructional Support/ Professional Development	Teachers, support personnel, and administrative staff receive training, which initially includes a two- to three-day workshop, preferably given just before the beginning of the school year. Additional professional development, in the form of observation and feedback from program consultants, is ongoing, either weekly or bi-weekly.
Role of Paraprofessionals	The involvement of classroom paraprofessionals is determined at the school level.
Cost of Implementation	Estimated program costs range from $15 to $45 per student per year over a three-year period. The higher figure includes the cost of hiring an on-site coordinator. The lower figure assumes that implementation support was provided through the redeployment of current staff. Most schools have financed the program by securing additional funding from outside sources, such as private foundation grants, state demonstration funds, or federal grants. Some schools have also been able to finance the program by reallocating funds from existing sources, such as Title I and the Safe and Drug Free School Act.
Results	There have been four clinical trials of PATHS, two involving children with disabilities and two involving regular education students. In each case, the program was shown to improve positive indicators (social cognition, social and emotional competencies) and reduce behavioral risk factors (aggression and depression) across a wide variety of elementary school-aged children.

Promoting Alternative Thinking Strategies (PATHS), developed by Dr. Carol Kusché and Dr. Mark Greenberg, is a school-based intervention to develop emotional competence in children. Originally designed in the 1980s with a focus on aiding the social adjustment of deaf and hearing-impaired children, PATHS has been implemented successfully with regular education students, as well as with students who are physically and/or emotionally disabled. The program has been used in schools across the U.S., and has also been translated for use in Australia, Belgium, Canada, Great Britain, Israel, the Netherlands, New Zealand, and Norway, mostly with special student populations. A Russian translation is currently in the works.

The program is a classwide intervention that is implemented by teachers (after a three-day training workshop), for students from kindergarten through fifth grade. Program effects include improvements in ratings of hyperactivity, peer aggression, and behavior.[1]

Main Features

PATHS is taught as a series of 131 lessons that supplement the regular curriculum. The program is organized into three major units, addressing five conceptual domains (self-control, emotional understanding, positive self-esteem, relationships, and interpersonal problem-solving skills). The three units are:

Readiness and Self-Control. The first unit, also known as the "Turtle Unit," is designed for use in kindergarten and first grade or with children with developmental or communicative delays and/or serious behavior problems. It includes a series of 12 structured lessons (one volume) that focus on the development of self-control. Children are told a metaphorical story about a young turtle who has interpersonal and academic difficulties because he or she doesn't stop to think. A wise old turtle teaches the youngster to use the "turtle technique" in order to develop self-control—involving a physical movement, signifying the child going into his or her shell, and the use of three self-calming procedures. In addition to teaching students an effective method of controlling aggressive impulses, the technique also provides a signal of distress for teachers and peers. The unit takes about five to seven weeks to complete, and contains reinforcement/generalization strategies that teachers can employ, as needed, throughout the year.

Feelings and Relationships. The second unit consists of 56 lessons (three volumes) that focus on the development of emotional and interpersonal understanding. It can be taught after the turtle unit or used as the beginning of the program for students who are older or don't need a structured model for basic self-control. This unit teaches students that feelings are signals that communicate useful information. They begin with basic emotions (happy, sad, angry) and gradually move on to more complex emotional states (guilty, proud/ashamed, rejected/belonging). Students are taught to recognize the cues that can help them identify their own feelings, as well as the feelings of others, and how to use this information to make better decisions. The students also are taught that, while all feelings are okay to have, behaviors are different. Some are not okay, while others are fine in some situations, but not in others. In other words, children are taught to analyze and judge behaviors, while recognizing and respecting feelings. The unit also teaches problem-solving skills, self-monitoring techniques, how and why to consider other people's points of view, and how to be reflective about the choices one makes.

Interpersonal Cognitive Problem Solving. The problem-solving unit (one volume) contains 33 lessons. It is usually introduced in the third or fourth grade, after students have already built a solid foundation in the precursor skills. Through this and previous units, students are taught to use 11 steps to effective problem solving, including execution and evaluation of the chosen solution. This unit also provides students with extended practice in finding solutions to real-life problems as a means to internalize and generalize these strategies.

In addition to these basic units, there is also a supplementary unit (one volume) with 30 lessons that can be used to serve a variety of needs at different grades and/or developmental levels. Lessons can be used to teach and reinforce informal problem solving, to focus on issues related to friendship, to address the problem of teasing, to extend the learning of self-control, to review formal problem solving, and to teach the concepts of fairness and elementary moral development.

Results

Several clinical trials have compared PATHS students to matched control groups, demonstrating that the intervention can significantly increase children's ability to: recognize and understand emotions, understand social problems, develop effective alternative solutions, and decrease the percentage of aggressive/violent solutions. In one study, for example, researchers examined the programs' effects on 200 regular education students after one year of the intervention, with follow-up monitoring over two years.[2] Post-intervention results indicated that, as compared to control students, PATHS students had made significant improvement on measures of social problem solving and emotional understanding. Intervention students were significantly less likely to use aggres-

sive solutions and more likely to use pro-social solutions to address interpersonal conflicts and dilemmas. In addition, intervention children showed significant improvement on two tests of cognitive ability. At the one-year follow-up, significant effects were sustained on aspects of emotional understanding and interpersonal problem solving. In contrast to control students, children who had received the intervention continued to show less aggressive and less passive solutions to problems and more non-confrontational (self-control) and pro-social behaviors. Significant differences were also found in a task of social planning. At the second follow-up (but not the first), intervention children also enjoyed a significant advantage in measures of externalizing behavior problems and adaptive functioning. PATHS students also reported lower rates of behavior problems and a somewhat lower incidence of depression and anxiety.

Similar results were reported in a study of 108 behaviorally at-risk children (in grades 1 to 3 at time of pretest), which also included a two-year follow-up.[3] A study of the program's use in self-contained classrooms of hearing-impaired students in the Seattle area (grades 1 through 6) also indicated significant improvements in students' social and problem-solving skills, as well as in teacher ratings of behavior, social competence, and tolerance of frustration.[4] Recent adaptations of the intervention for use in preschool[5] and after-school[6] programs have also shown encouraging results, as has an interesting program (the Fast Track) that incorporates the PATHS curriculum into a larger, more comprehensive intervention effort.[7]

Case Studies

Fast Track—Some 5,000 students in 50 elementary schools across four states—specifically, Durham, N.C., Nashville, Tenn., Seattle, Wash., and rural Pennsylvania—are currently involved in a randomized trial of PATHS as a part of a comprehensive schoolwide violence prevention program, called Fast Track. The intervention also includes various family, academic, peer group, and community-based social service components, most targeted at students identified as having behavior problems during kindergarten. First-grade Fast Track teachers teach an abbreviated, 57-lesson version of the PATHS curriculum to all students. Although data are still preliminary, initial findings are encouraging. Teachers, students, and independent observers reported significant effects (as compared to control classrooms) on various measures, such as fewer class disruptions, lower rates of aggression against peers, and an improved classroom atmosphere, with full implementation sites reporting the best results.[8]

Great Britain—This project involved eight primary schools for children who are deaf or hard of hearing and self-contained primary classrooms for the hearing impaired in the South of England. After one year, results comparing PATHS students with control group students indicated that the intervention students enjoyed a significant advantage in measures of emotional understanding and behavior. Teachers also gave PATHS students significantly higher scores on measures of self-image and emotional adjustment. There were no significant differences on cognitive outcomes.[9]

Considerations

PATHS is a curriculum-based program with evidence of success in assisting in the social and behavioral development of diverse groups of elementary school children. Originally designed for use with students who are deaf or hard of hearing, the program was subsequently adapted to be taught in regular education classrooms. It has also shown some success as a preschool and after-school intervention. Findings have also indicated that PATHS is effective both as a prevention and an intervention program—that is, it can help to minimize the possibility that acting-out behaviors will occur, as well as providing assistance to students who already exhibit maladaptive behaviors. These multiple functions are especially useful to educators, since today's classrooms generally include a mix of children, including those who are in need of intervention and attention as well as those who would benefit from a program designed to reinforce healthy functioning.

The success of the program hinges on sustaining the quality and integrity of implementation. This was found to be ensured in the following

ways: (1) initial training for school staff, (2) ongoing consultation, (3) mid-year group teacher meetings, (4) second-year booster training, and (5) regular contact with building principals. This means that schools and school staff must make a commitment to find and maintain the class time necessary to complete the curriculum. Although teachers have some latitude in making implementation decisions, the program stresses the importance of following the curriculum with fidelity in order to be certain that crucial areas are adequately covered and ensure that the intervention is effective. A strong working relationship with program consultants also has proven to be important, especially in providing emotional support for teachers. Regular contact with building principals and support staff is also critical in maintaining implementation quality.

Resources

Greenberg, M. T., Kusch, C., & Mihalic, S. F. (1988). *Blueprints for Violence Prevention, Book Ten: Promoting Alternative Thinking Strategies* (PATHS). Boulder, Colo.: The Center for the Study and Prevention of Violence.

For More Information

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Developmental Research and Programs
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Phone: 800/736-2630 E-mail: sales@drp.org
Internet: http://www.drp.org

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[1] Note: the information in this program description is largely based on the following publication.

Greenberg, M., Kusché, C., & Mihalic, S. (1988). *Blueprints for Violence Prevention, Book Ten: Promoting Alternative Thinking Strategies (PATHS).* Boulder, Colo.: The Center for the Study and Prevention of Violence.

[2] Greenberg, M. T., & Kusché, C. A. (1996). The PATHS Project: Preventive intervention for children. Final Report to the National Institute of Mental Health, Grant No. R01MH42131. Greenberg, M. T., & Kusché, C. A. (1997, April). *Improving children's emotion regulation and social competence: The effects of the PATHS Curriculum.* Paper presented at the biennial meetings of the Society for Research in Child Development, Washington, D.C. Also, Greenberg, M. T., & Kusché, C. A. (1998b). *Promoting social competence and preventing maladjustment in school-aged children: The effects of the PATHS Curriculum.* Manuscript submitted for publication.

[3] See footnote 2.

[4] Greenberg, M. T., & Kusché, C. A. (1993). *Promoting social and emotional development in deaf children: The PATHS project.* Seattle: University of Washington Press. Greenberg, M. T., & Kusché, C. A. (1998a). "Preventive intervention for school-aged deaf children: The PATHS Curriculum." *Journal of Deaf Studies and Deaf Education, 3, 49-63. Also, Kusché, C. A. (1984). The understanding of emotion concepts by deaf children: An assessment of an affective education curriculum.* Unpublished doctoral dissertation, University of Washington.

[5] Denham, S., & Burton, R. (1996). "A socio-emotional intervention program for at risk four-year-olds." *Journal of School Psychology, 34,* 225-245.

[6] See footnote 1.

[7] Conduct Problems Prevention Research Group (1992). "A developmental and clinical model for the prevention of conduct disorders: The FAST Track Program." *Development and Psychopathology, 4,* 509-527.

Conduct Problems Prevention Research Group (1999). "Initial impact of the Fast Track Prevention trial for conduct problems: II. Classroom Effects." *Journal of Consulting and Clinical Psychology, 67,* 648-657.

[8] Greenberg, M., Domitrovich, C. & Bumbarger, B. (July 1999). *Preventing Mental Disorders in School-Age Children: A Review of the Effectiveness of Prevention Programs.* Paper presented to the Center for Mental Health Services, Substance Abuse Mental Health Services Administration, U.S. Department of Health and Human Services.

[9] Hindley, P., Reed, R., Jeffs, J., & McSweeney, M. (1988). *An evaluation of a social and emotional intervention for deaf children.* Unpublished manuscript, St. Georges Hospital: London.

Note on Program Selection Methods

The American Federation of Teachers has produced this series of program profiles to provide background information about research-based programs that, when properly implemented, show promise for improving student performance significantly—in this instance, on measures of behavior.

For this issue, we enlisted the expertise of the Center for the Study and Prevention of Violence (CSPV) at the Institute of Behavioral Science, University of Colorado at Boulder, led by Dr. Delbert Elliott. Jennifer K. Grotpeter, Ph.D., acted as principal investigator for the project.

She began by conducting a search of the field to identify effective school discipline and school-based violence prevention programs, including: obtaining data about well-known programs; examining previously published program reviews (including those by CSPV); launching an extensive search of electronic databases (ERIC, PsychINFO, Sociofile, SocAbstracts, Yahoo!, Hotbot); and soliciting recommendations for additional candidates. Through this process, a total of 116 programs were identified that had the potential of meeting the criteria for this review.

Dr. Grotpeter then attempted to obtain descriptive information and copies of all published evaluations—including study designs, field test data, and replication histories—for all of the programs, thus identified.

All available material was then reviewed against the following criteria, which are a blend of the AFT's What Works criteria and CSPV's standards for its Blueprints for Violence Prevention:

- There are multiple (at least three) quantitative evaluations showing positive outcomes, including data from strong experimental or quasi-experimental (with control group) studies. Although there was a strong preference for research that had been published in peer-refereed journals, a few unpublished papers were also considered if enough data were reported to determine the strength of the study design and its findings.
- Quantitative effects were at statistically significant levels. Acceptable outcomes were decreases in aggressive and disruptive behavior in school as rated by teachers, peers or researchers; increases in ratings of social skills and prosocial behavior in school; time spent on or off task; discipline referrals; suspensions and expulsions. It was also preferred if the program's quantitative evaluation was complemented by an appropriate qualitative evaluation, which would demonstrate not only statistical significance but also provide educators with the kind of practical information they need for successful replication.
- The research includes evaluations by independent third-party researchers, not only by program developers.
- The program has been effectively implemented in multiple sites beyond the original pilot school(s). Replication helps to establish the robustness of the program and its prevention effects, as well as its exportability to new sites.
- Adequate support (e.g., professional development, materials and/or ongoing technical assistance) is available for new replications of the program.
- There are indications of sustained effects. Where evidence of long-term effects exist (at least one year beyond the duration of the treatment), it is reported, although programs that have yet to demonstrate their long-term effects (i.e., there is no evidence that contradicts earlier positive effects) may remain in the promising category. Programs that have failed to produce a sustained effect were excluded from the review.

Although not specified in the criteria, several additional evaluation outcomes were considered, including academic outcomes and efficacy in regard to special student populations (and specifically students who qualify for services under Individuals with Disabilities Education Act). Where such data exist, these are also reported.

For each category of program in the What Works series—in this case, school discipline and violence prevention programs—profiles are prepared only for those that came closest to meeting the above criteria. It should be noted, however, that there might be additional programs that qualify for inclusion but for which we were unable to locate adequate data; we hope to be able to include additional profiles for any such programs in future editions. It should also be noted that in an effort to present a broader selection of programs, a few were included that did not quite meet the above criteria. Where this is the case, the preliminary nature of the data has been noted in the profile text.

Finally, both as a courtesy and as a check for accuracy, a draft of each program profile was sent to the appropriate publisher or developer for review. Any new information provided to us during this review process has been incorporated.

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