

skills rating system. Circle Pines, MN: American Guidance Service.

Gureasko-Moore, S., DuPaul, G.J., & White, G.P. (2006). The effects of self-management in general education classrooms on the organizational skills of adolescents with ADHD. *Behavior Modification, 30*, 159–183.

Hoagwood, K.E., Jensen, P.S., Arnold, L.E., Roper, M., Sever, J., et al. (2004). Reliability of the Services for Children and Adolescents-Parent Interview. *Journal of the American Academy of Child and Adolescent Psychiatry, 43* (11), 1345–1363.

Lahey, B.B., Applegate, B., McBurnett, K., Biederman, J., Greenhill, L., Hynd, G.W., et al. (1994). DSM-IV field trials for attention deficit hyperactivity disorder in children and adolescents. *American Journal of Psychiatry, 151*, 1673–1685.

Langberg, J.M., Smith, B.H., Bogle, K.E., Schmidt, J.D., Cole, W.R., & Pender, C. (2006). A pilot evaluation of small group Challenging Horizons Program: A randomized trial. *Journal of Applied School Psychology, 23*(1), 31–58.

Molina, B.S.G., Pelham, W.E., Blumenthal, J., & Galiszewski, E. (1998). Agreement among teachers' behavior ratings of adolescents with a childhood history of attention deficit hyperactivity disorder. *Journal of Clinical Child Psychology, 27*, 330–339.

Pelham, W.E., Evans, S.W., Gnagy, E.M., & Greenslade, K.E. (1992). Teacher ratings of DSM-III-R symptoms for the disruptive behavior disorders: Prevalence, factor analyses, and conditional probabilities in a special education sample. *School Psychology Review, 21*, 285–299.

Pelham, W.E., Gnagy, E.M., Greiner, A.R., Hoza, B., Hinshaw, S.P., Swanson, J.M., et al. (2000). Behavioral versus behavioral and pharmacological treatment in ADHD children attending a summer treatment program. *Journal of Abnormal Child Psychology, 28*(6), 507–525.

Pliszka, S.R., Greenhill, L.L., Crismon, M.L., Sedillo, A., Carlson, C., Conners, C.K., et al. (2000). The Texas Children's Medication Algorithm Project. *Journal of the American Academy of Child and Adolescent Psychiatry, 39*(7), 920–927.

Raggi, V. L., & Chronis, A. M. (2006). Interventions to address the academic impairment of children and adolescents with ADHD. *Clinical Child and Family Psychology Review, 9*, 85–111.

Reynolds, C.R., & Kamphaus, R.W. (1993). *Behavior assessment system for children*. Circle Pines, MN: American Guidance Service.

Schultz, B.K., Evans, S.W., & Serpell, Z.N. (2008). *Preventing failure among middle school students with ADHD: A survival analysis*. Manuscript under review for publication.

Shapiro, E.S., DuPaul, G.J., Bradley, K.L., & Bailey, L.T. (1995). *A school-based consultation program for service delivery to middle school students with ADD* (manual and videotape). Austin, TX: Pro-Ed.

The MTA Cooperative Group. (1999). 14-month randomized clinical trial of treatment strategies for attention deficit hyperactivity disorder. *Archives of General Psychiatry, 56*, 1073–1086.

The MTA Cooperative Group. (2004). National Institute of Mental Health Multimodal Treatment Study of ADHD follow-up: 24-month outcomes of treatment strategies for attention-deficit/hyperactivity disorder. *Pediatrics, 113*, 754–761.

Thiruchelvam, D., Charach, A., & Schachar, R. J. (2001). Moderators and mediators of long-term adherence to stimulant treatment in children with ADHD. *Journal of the American Academy of Child and Adolescent Psychiatry, 40*, 922–928.

Wolraich, M.L., Wibbelsman, C.J., Brown, T.E., Evans, S.W., Gotlieb, E.M., Knight, J.R., et al. (2005). Attention deficit hyperactivity disorder in adolescents: A review of the diagnosis, treatment and clinical implications. *Pediatrics, 115*(6), 1734–1746.

Classroom Accommodations for Children with ADHD

Russell A. Barkley, Ph.D.

During my workshops on ADHD, I share with educators a long list of recommendations, most from research, that they can use to help manage students with ADHD in school settings apart from, or in addition to, their ADHD medications. Underlying these recommendations are nine principles that need to be considered for the planning and management of programs for

children and teens with ADHD (Piffner, Barkley, & DuPaul, 2006). Here are those nine principles followed by my management recommendations.

1. Rules and instructions provided to children with ADHD must be clear, brief, and often delivered through more visible and external modes of presentation

than are required for the management of children without ADHD.

Stating directions clearly, having the child repeat them out loud, having the child utter them softly to themselves while following through on the instruction, and displaying sets of rules or rule-prompts (e.g., stop signs; big eyes, big ears for “stop, look, and listen” reminders) prominently throughout the

classroom are essential to proper management of ADHD children. Relying on the child's recollection of the rules as well as upon purely verbal reminders is often ineffective.

2. *Consequences used to manage the behavior of ADHD children must be delivered swiftly and more immediately than is needed for children without ADHD.*

Delays in consequences greatly degrade their efficacy for ADHD children. The timing and strategic application of consequences with children with ADHD must be more systematic and is far more crucial to their management than in normal children. This is not just true for rewards, but is especially so for punishment, which can be kept mild and still effective by delivering it as quickly after the misbehavior as possible—Swift, not harsh, justice is the essence of effective punishment.

3. *Consequences must be delivered more frequently, not just more immediately, to children with ADHD in view of their motivational deficits.*

Behavioral tracking, or the ongoing adherence to rules after the rule has been stated and compliance initiated, appears to be problematic for children with ADHD. Frequent feedback or consequences for rule adherence seem helpful in maintaining appropriate degrees of tracking to rules over time.

4. *The type of consequences used with children with ADHD must often be of a higher magnitude, or more powerful, than that needed to manage the behavior of other children.*

The relative insensitivity of them to response consequences dictates that those chosen for inclusion in a behavior management program must have sufficient reinforcement value or magnitude to motivate children with ADHD to perform the desired behaviors. Suffice to say, then, that mere occasional praise or reprimands are simply not enough to effectively manage children with ADHD.

5. *An appropriate and often richer degree of incentives must be provided within a setting or task to reinforce appropriate behavior before punishment can be implemented.*

This means that punishment must remain within a relative balance with rewards or it is unlikely to succeed. It is therefore imperative that powerful reinforcement programs be established first and instituted over 1 to 2 weeks before implementing punishment in order for the punishment, sparingly used, to be maximally effective. Often children with ADHD will not improve with the use of response cost or time out if the availability of reinforcement is low in the classroom, and hence removal from it is unlikely to be punitive. "Positives before negatives" is the order of the day for children with ADHD. When punishment fails, this is the first area which clinicians, consultants, or educators should explore for problems before instituting higher magnitude or more frequent punishment programs.

6. *Those reinforcers or particular rewards that are employed must be changed or rotated more frequently for ADHD children than for those without ADHD, given the penchant of the former for more rapid habituation or satiation to response consequences, apparently rewards in particular.*

This means that even though a particular reinforcer seems to be effective for the moment in motivating child compliance, it is likely that it will lose its reinforcement value more rapidly than normal over time. Reward menus in classes, such as those used to back up token systems, must therefore be changed periodically, say every 2 to 3 weeks, to maintain the power or efficacy of the program in motivating appropriate child behavior. Failure to do so is likely to result in the loss of power of the reward program and the premature abandonment of token technologies based on the false assumption that they simply will not work any longer. Token systems can be maintained over an entire school year with minimal loss of

power in the program provided that the reinforcers are changed frequently to accommodate to this problem of habituation. Such rewards can be returned later to the program once they have been set aside for awhile, often with the result that their reinforcement value appears to have been improved by their absence or unavailability.

7. *Anticipation is the key with ADHD children.*

This means that teachers must be more mindful of planning ahead in managing children with this disorder, particularly during phases of transition across activities or classes, to insure that the children are cognizant of the shift in rules (and consequences) that is about to occur. It is useful for teachers to take a moment to prompt a child to recall the rules of conduct in the upcoming situation, repeat them orally, and recall what the rewards and punishments will be in the impending situation *before* entering that activity or situation. *Think aloud, think ahead* is the important message to educators here. As noted later, by themselves such cognitive self-instructions are unlikely to be of lasting benefit, but when combined with contingency management procedures, they can be of considerable aid to the classroom management of ADHD children.

8. *Children with ADHD must be held more publicly accountable for their behavior and goal attainment than other children.*

The weaknesses in executive functioning associated with ADHD result in a child whose behavior is less regulated by internal information (mental representations) and less monitored via self-awareness than is the case in normal children. Addressing such weaknesses requires that the ADHD child be provided with more external cues about performance demands at key "points of performance" in school, be monitored more closely by teachers, and be provided with consequences more often across the school day for behavioral control and goal attainment

than would be the case with other children.

9. *Behavioral interventions, while successful, only work while they are being implemented and, even then, require continued monitoring and modification over time for maximal effectiveness.*

One common scenario is that a student responds initially to a well-tailored program, but then over time, the response deteriorates; in other cases, a behavioral program may fail to modify the behavior at all. This does not mean behavioral programs do not work. Instead, such difficulties signal that the

program needs to be modified. It is likely that one of a number of common problems (e.g., rewards lost their value, program not implemented consistently, program not based on a functional analysis of the factors related to the problem behavior) occurred.

CLASSROOM MANAGEMENT: INCREASING INCENTIVES

- Increase praise, approval, and appreciation of student's good behavior and work performance
- Be a one-minute manager with lots of short praises throughout the day
- Use a token or point system to organize privileges and their prices
- Get parents to send in old games/toys to upgrade class supply of fun activities
- Obtain a donated video game for use during free time, and make it

one of the privileges to be earned through the class point system.

- Try team-based (group) rewards (4–5 students per team, with members of teams working together to compete against other teams in getting work done)
- Try a tone-tape with self-rewards (see addwarehouse.com to purchase). Create an audiotape with a variable, interval-frequent schedule of tones. Tell class that when tone sounds, they are to self-evaluate and then self-reward a point

if they were *working* when tone sounded. If they were off task, they are to deduct a point from their score card instead.

- Allow access to rewards often (daily or more frequently) and not just at the end of the school week
- Keep reward-to-punishment ratio 2:1 or greater so class remains rewarding, not punitive
- Use a daily behavior report card (see Figure 1)

SELF-AWARENESS TRAINING

- Child records work productivity on a daily chart or graph on public display so they can see how well they are performing in class over time
- Child rates him- or herself on a daily conduct card (see Figure 1) and teacher checks to see if he/she agree with child's self-evaluation
- Teacher cues a young child to self-monitor by saying "Turtle" or "Chill" at which time:

—Child stops what he/she is doing, pulling hands and legs close together

—Child slowly looks around the classroom

—Child asks him/herself, "What was I told to do?"

—Child returns to assigned task

- Child wears a tactile cueing device—the Motivaider—a small box, with built-in digital timer, that vibrates at random, frequent inter-

vals. Timer is set to periodically cue the child to pay attention. Available at addwarehouse.com

- Teacher can use nonverbal, confidential cues for teens, for example, explaining that when a paper clip is dropped near their desk, it's a cue to pay attention
- In severe cases, teacher can consider videotaping child in class for weekly feedback sessions with school psychologist

Subjects	1	2	3	4	5	6	7
Class participation							
Performs assigned classwork							
Follows class rules							
Gets along well with others							
Completes home-work assignments							
Teacher's Initials							

FIGURE 1. Sample Daily School Behavior Report Card.

A new card is taken to school every day or is given to the child or teen by their first period or home room teacher. The child is to be rated at the end of each class period using the numbered columns below (one per class) as to how they did in the five areas of school performance listed in the far left-hand column. Teachers are to use ratings of 1 (excellent), 2 (good), 3 (fair), 4 (poor), 5 (terrible). Each teacher initials the bottom box below their column to protect against forgery. The card can be reviewed with the teen by a school staff member and points can be assigned to each rating for use in buying extra privileges at school. Or, the card can be reviewed by parents at home and the ratings converted to points to be used in purchasing home privileges. Wherever the points are to be awarded (home or school), a menu of possible rewards should be created.

MAKE RULES AND TIME OBVIOUS AND IN PHYSICAL FORM

- Post rules on posters for each work period or
- Create a three-sided stop sign with class rules for young kids: red = lecture, yellow = desk work, green = free play
- Place laminated, color-coded card sets on desks with a set of rules for each subject or class activity
- Have child restate rules at start of each activity
- Have child use soft, vocal self-instruction during work
- Create “nag tapes”—taped encouragement from dad or mom with reminders of rules for on-task behavior—child can listen to during school work using headphones
- Use timers, watches, taped time signals, and so forth, to show how much time students have left to do an assignment

POSSIBLE PUNISHMENT METHODS (check with school principal on district policies)

- Mild, private, direct reprimand—personalize it (go to child, touch on arm or shoulder, make brief corrective statement)
- Swift justice! Immediacy is the key to discipline. What makes punishment work is the speed with which it is implemented following misbehavior
- Try the “Do a Task” procedure in place of standard time out:
 - Place a desk at back of classroom with worksheets stacked on it
 - When a child misbehaves, tell them what they did wrong and give them a number
 - Send child to the desk to complete that number of worksheets
 - When work is done, have child place it on teacher’s desk and return to normal seat
- Response cost (loss of tokens or privilege contingent on misbehavior)
- Moral essay—Have child write “Why I should not have . . . [e.g. hit other children] and what I should have done instead”
- Establish a quiet “chill out” location where child can be sent for regaining emotional control when he/she is upset
- Use formal time-outs in classroom or private room (hallway time-outs don’t work)
- Use in-school suspensions or trip to BD/ED class for severe cases

REFERENCES

- Cooper, H., Robinson, J. C., & Patall, E. A. (2006). Does homework improve academic achievement? A synthesis of research, 1987–2003. *Review of Educational Research*, 76, 1–62.
- DuPaul, G. J., & Stoner, G. (2003). *ADHD in the schools (2nd ed.)*. New York: Guilford.
- Meyer, K. (2007). Improving homework in adolescents with attention-deficit/hyperactivity disorder: Self vs. parent monitoring of homework behavior and study skills. *Child and Family Behavior Therapy*, 29, 25–42.
- Pagani, L., Tremblay, R., Vitaro, F., Boulerice, B., & McDuff, P. (2001). Effects of grade retention on academic performance and behavioral development. *Development and Psychopathology*, 13, 297–315.
- Pfiffner, L., Barkley, R. A., & DuPaul, G. J. (2006). Treatment of ADHD in school settings. In R. A. Barkley (Ed.) *Attention deficit hyperactivity disorder: A handbook for diagnosis and treatment (3rd edition)*. New York: Guilford.
- Spencer, V. G. (2006). Peer tutoring and students with emotional or behavioral disorders: A review of the literature. *Behavioral Disorders*, 31, 204–222.

*Back issues of The ADHD Report available at
www.guilford.com/journals*