Teaching Children With Attention Deficit Hyperactivity Disorder: Instructional Strategies and Practices  
  
How to Implement the Strategy: Academic Instruction

How to Implement the Strategy: Three Components of Successful Programs for Children With ADHD

Successful programs for children with ADHD integrate the following three components:

* Academic Instruction;
* Behavioral Interventions; and
* Classroom Accommodations.

The remainder of this document describes how to integrate a program using these three components and provides suggestions for practices that can help children with ADHD in a classroom setting. It should be emphasized that many of the techniques suggested have the additional benefit of enhancing the learning of other children in the classroom who *do not have* ADHD. In addition, while they have been used most widely with children at the elementary level, the following practices are useful for older students as well.

Academic Instruction

The first major component of the most effective instruction for children with ADHD is effective academic instruction. Teachers can help prepare their students with ADHD to achieve by applying the principles of effective teaching when they introduce, conduct, and conclude each lesson. The discussion and techniques that follow pertain to the instructional process in general (across subject areas); strategies for specific subject areas appear in the subsequent subsection "Individualizing Instructional Practices."

Introducing Lessons

Students with ADHD learn best with a carefully structured academic lesson-one where the teacher explains what he or she wants children to learn in the current lesson and places these skills and knowledge in the context of previous lessons. Effective teachers preview their expectations about what students will learn and how they should behave during the lesson. A number of teaching-related practices have been found especially useful in facilitating this process:

* **Provide an advance organizer.**Prepare students for the day's lesson by quickly summarizing the order of various activities planned. Explain, for example, that a review of the previous lesson will be followed by new information and that both group and independent work will be expected.
* **Review previous lessons.**Review information about previous lessons on this topic. For example, remind children that yesterday's lesson focused on learning how to regroup in subtraction. Review several problems before describing the current lesson.
* **Set learning expectations.**State what students are expected to learn during the lesson. For example, explain to students that a language arts lesson will involve reading a story about Paul Bunyan and identifying new vocabulary words in the story.
* **Set behavioral expectations.**Describe how students are expected to behave during the lesson. For example, tell children that they may talk quietly to their neighbors as they do their seatwork or they may raise their hands to get your attention.
* **State needed materials.**Identify all materials that the children will need during the lesson, rather than leaving them to figure out on their own the materials required. For example, specify that children need their journals and pencils for journal writing or their crayons, scissors, and colored paper for an art project.
* **Explain additional resources.**Tell students how to obtain help in mastering the lesson. For example, refer children to a particular page in the textbook for guidance on completing a worksheet.
* **Simplify instructions, choices, and scheduling.**The simpler the expectations communicated to an ADHD student, the more likely it is that he or she will comprehend and complete them in a timely and productive manner.

Conducting Lessons

In order to conduct the most productive lessons for children with ADHD, effective teachers periodically question children's understanding of the material, probe for correct answers before calling on other students, and identify which students need additional assistance. Teachers should keep in mind that transitions from one lesson or class to another are particularly difficult for students with ADHD. When they are prepared for transitions, these children are more likely to respond and to stay on task. The following set of strategies may assist teachers in conducting effective lessons:

* **Be predictable.**Structure and consistency are very important for children with ADHD; many do not deal well with change. Minimal rules and minimal choices are best for these children. They need to understand clearly what is expected of them, as well as the consequences for not adhering to expectations.
* **Support the student's participation in the classroom.**Provide students with ADHD with private, discreet cues to stay on task and advance warning that they will be called upon shortly. Avoid bringing attention to differences between ADHD students and their classmates. At all times, avoid the use of sarcasm and criticism.
* **Use audiovisual materials.**Use a variety of audiovisual materials to present academic lessons. For example, use an overhead projector to demonstrate how to solve an addition problem requiring regrouping. The students can work on the problem at their desks while you manipulate counters on the projector screen.
* **Check student performance.**Question individual students to assess their mastery of the lesson. For example, you can ask students doing seatwork (i.e., lessons completed by students at their desks in the classroom) to demonstrate how they arrived at the answer to a problem, or you can ask individual students to state, in their own words, how the main character felt at the end of the story.
* **Ask probing questions.**Probe for the correct answer after allowing a child sufficient time to work out the answer to a question. Count at least 15 seconds before giving the answer or calling on another student. Ask followup questions that give children an opportunity to demonstrate what they know.
* **Perform ongoing student evaluation.**Identify students who need additional assistance. Watch for signs of lack of comprehension, such as daydreaming or visual or verbal indications of frustration. Provide these children with extra explanations, or ask another student to serve as a peer tutor for the lesson.
* **Help students correct their own mistakes.**Describe how students can identify and correct their own mistakes. For example, remind students that they should check their calculations in math problems and reiterate how they can check their calculations; remind students of particularly difficult spelling rules and how students can watch out for easy-to-make errors.
* **Help students focus.**Remind students to keep working and to focus on their assigned task. For example, you can provide follow-up directions or assign learning partners. These practices can be directed at individual children or at the entire class.
* **Follow-up directions.**Effective teachers of children with ADHD also guide them with follow-up directions:   
    
  + *Oral directions.*After giving directions to the class as a whole, provide additional oral directions for a child with ADHD. For example, ask the child if he or she under-stood the directions and repeat the directions together.
  + *Written directions.*Provide follow-up directions in writing. For example, write the page number for an assignment on the chalkboard and remind the child to look at the chalkboard if he or she forgets the assignment.
* **Lower noise level.**Monitor the noise level in the classroom, and provide corrective feedback, as needed. If the noise level exceeds the level appropriate for the type of lesson, remind all students-or individual students-about the behavioral rules stated at the beginning of the lesson.
* **Divide work into smaller units.**Break down assignments into smaller, less complex tasks. For example, allow students to complete five math problems before presenting them with the remaining five problems.
* **Highlight key points.**Highlight key words in the instructions on worksheets to help the child with ADHD focus on the directions. Prepare the worksheet before the lesson begins, or underline key words as you and the child read the directions together. When reading, show children how to identify and highlight a key sentence, or have them write it on a separate piece of paper, before asking for a summary of the entire book. In math, show children how to underline the important facts and operations; in "Mary has two apples, and John has three," underline "two," "and," and "three."
* **Eliminate or reduce frequency of timed tests.**Tests that are timed may not allow children with ADHD to demonstrate what they truly know due to their potential preoccupation with elapsed time. Allow students with ADHD more time to complete quizzes and tests in order to eliminate "test anxiety," and provide them with other opportunities, methods, or test formats to demonstrate their knowledge.
* **Use cooperative learning strategies.**Have students work together in small groups to maximize their own and each other's learning. Use strategies such as Think-Pair-Share where teachers ask students to think about a topic, pair with a partner to discuss it, and share ideas with the group. (Slavin, 2002).
* **Use assistive technology.**All students, and those with ADHD in particular, can benefit from the use of technology (such as computers and projector screens), which makes instruction more visual and allows students to participate actively.

Concluding Lessons

Effective teachers conclude their lessons by providing advance warning that the lesson is about to end, checking the completed assignments of at least some of the students with ADHD, and instructing students how to begin preparing for the next activity.

* **Provide advance warnings.**Provide advance warning that a lesson is about to end. Announce 5 or 10 minutes before the end of the lesson (particularly for seatwork and group projects) how much time remains. You may also want to tell students at the beginning of the lesson how much time they will have to complete it.
* **Check assignments.**Check completed assignments for at least some students. Review what they have learned during the lesson to get a sense of how ready the class was for the lesson and how to plan the next lesson.
* **Preview the next lesson.**Instruct students on how to begin preparing for the next lesson. For example, inform children that they need to put away their textbooks and come to the front of the room for a large-group spelling lesson.

Individualizing Instructional Practices

In addition to the general strategies listed above for introducing, conducting, and concluding their lessons, effective teachers of students with ADHD also individualize their instructional practices in accordance with different academic subjects and the needs of their students within each area. This is because children with ADHD have different ways of learning and retaining information, not all of which involve traditional reading and listening. Effective teachers first identify areas in which each child requires extra assistance and then use special strategies to provide structured opportunities for the child to review and master an academic lesson that was previously presented to the entire class. Strategies that may help facilitate this goal include the following (grouped by subject area):

**Language Arts and Reading Comprehension**

To help children with ADHD who are poor readers improve their reading comprehension skills, try the following instructional practices:

* **Silent reading time.**Establish a fixed time each day for silent reading (e.g., D.E.A.R.: Drop Everything and Read and Sustained Silent Reading [Manzo & Zehr, 1998 and Holt & O'Tuel, 1989]).
* **Follow-along reading.**Ask the child to read a story silently while listening to other students or the teacher read the story aloud to the entire class.
* **Partner reading activities.**Pair the child with ADHD with another student partner who is a strong reader. The partners take turns reading orally and listening to each other.
* **Storyboards.**Ask the child to make storyboards that illustrate the sequence of main events in a story.
* **Storytelling.**Schedule storytelling sessions where the child can retell a story that he or she has read recently.
* **Playacting.**Schedule playacting sessions where the child can role-play different characters in a favorite story.
* **Word bank.**Keep a word bank or dictionary of new or "hard-to-read" sight-vocabulary words.
* **Board games for reading comprehension.**Play board games that provide practice with target reading-comprehension skills or sight-vocabulary words.
* **Computer games for reading comprehension.**Schedule computer time for the child to have drill-and-practice with sight vocabulary words.
* **Recorded books.**These materials, available from many libraries, can stimulate interest in traditional reading and can be used to reinforce and complement reading lessons.
* **"Backup" materials for home use.**Make available to students a second set of books and materials that they can use at home.
* **Summary materials.**Allow and encourage students to use published book summaries, synopses, and digests of major reading assignments to review (not replace) reading assignments.