

Teaching students who have ADHD

Some General Advice

A positive student-teacher relationship is essential. Dr. Robert Marzano reports a 31 percent reduction in discipline problems in classrooms where a strong positive relationship exists between the student and teacher.

Simple interventions are usually best! Don't give more accommodations than are necessary to help the student become successful academically.

Seek student input and approval. As accommodations are developed for individual students, remember to involve them in making decisions. Student buy-in is a critical part of this process. You may develop the most extraordinary plan, but if the student is too embarrassed or overwhelmed to use it, the plan won't work. So, give the student some choices. For example, you might say something like this:

"Students with ADD often have difficulty with math. I think there are a few things we could do to help you in class. Here are two or three choices...Would you like to try one of these options?" If you want to be more direct: "Which one would you like to try?" If you feel strongly that one particular accommodation would be helpful then say just that: "Many students with ADD find it helpful to...do every third problem. Why don't you try that?"

Remember the most common problem areas. Although each student's problem areas will vary, often the greatest challenges occur in written expression, complex, multi-step math, memorization, spelling, punctuation, or foreign languages.

Use teaching strategies that actively engage students in learning. Dr. Martha Denckla, noted neuroscientist, offers this metaphor to describe the primary attentional deficits these students face in a classroom: *Students with ADHD use an overactive "radar beam" that sweeps over the surroundings. These students are weak in "spotlighting" and processing information that requires narrow, linear, steady, sequential, or intensive thinking...unless the topic is intrinsically interesting or rewarding. In other words, students address class work in a superficial manner.*

Use new brain research to guide teaching strategies. As we learn more about how the brain learns best, the importance of movement and brain rest times cannot be emphasized too much. Research by Eric Jensen, David Sousa, and others has demonstrated that the brain's ability to retain newly learned information, and subsequently transfer that information into long-term memory, is enhanced when teaching is carried out in episodes of 10 to 20 minutes (even in adults!). Between episodes, teachers should lead students in paradoxically named "downtime" activities consisting of anything from quiet reflection and paired discussions to jumping jacks and classroom exercises. The important thing is that the learner's brain be given a chance to "reset" and reenergize to get ready for more learning.

The Importance of Fidgeting: Dr. Mark D. Rapport's research indicates that children with ADHD need to move more to maintain the required level of alertness while performing tasks that challenge their working memory. In other words, fidgeting can be beneficial for students with ADHD. Dr. Rapport suggests that *"When they are doing homework, let them fidget, stand up or chew gum. Unless their behavior is destructive, severely limiting their activity could be counterproductive."* In short, it's important to remember that the hands-on and experiential strategies that are successful in elementary school are also effective in the middle and high school setting.

Provide More Visual Cues and Reminders: Since students with ADD or ADHD frequently have multiple learning problems, they may benefit from teaching styles that use a multisensory approach. In other words, they remember more if they hear the teacher say something while seeing her demonstrate the skill. Later they may see pictures of the skill or words in their minds. Obviously, students are more likely to remember material that is related to their personal experience.

Lots of Specific Ideas for Students

Model skills for students. Since students with attention deficits are often visual learners, modeling by the teacher can be extremely effective. Overhead projectors and interactive boards such as Smart Boards or Promethean Boards are especially helpful for this purpose. In addition, teachers can face the class when they write on the overhead or interactive board rather than having their backs to students. One teacher writes in different colors to denote important information to remember.

Post Key Points on the Board. Leave key points being taught on the overhead or on the board for the whole class. For example, leave rules for grammar or conjugation of foreign language verbs. Preferably leave information in the same location on the board so students know where to look for it. Number steps rather than use letters of the alphabet.

Post New Concepts around the Room. Place key concepts/phrases from the lecture around the room and point to them when discussed. Ron Walker, an educational consultant in Georgia, developed this creative strategy, known as visual posting. The teacher writes key words on strips of bright poster board and places them around the room in easy sight---for example, on the wall, board, or filing cabinet. The strips may also be placed in areas where students tend to focus when they tune out, such as near the window. Then as the teacher lectures, he points to each key fact as he discusses it.

Pre-test before instruction. The students are tested on key information before the lesson is presented. The teacher states in advance what the key facts are that she wants students to learn.

Quiz briefly after the lecture. After the lecture is completed, the teacher does a brief oral quiz. "Who sailed across the ocean and discovered America?" Point to the correct strip on the wall and the whole class repeats the answer.

Give brief review; test with strips in place. The students are given the test with all the information still on the wall in plain sight.

Give the final test. Take all the material down from the walls and give the final test on the material. Students can see the information in their minds and will look at the wall where the answer was posted.

Use color to highlight important facts. If a student continually makes the same spelling or grammar error, highlight the corrected word or letters within the word that she usually misses. Dr. Sydney Zentall found that color helps students remember things better; hot pink or neon orange may be the most memorable of colors.

Give guided lecture notes daily to all students (also known as guided practice). Give students copies of the teacher's daily lecture notes in outline form with the points marked. Use skeletal outlines that allow space between sentences for the student to write notes. Guided practice is extremely valuable because it provides detailed or outline structured guidance to help students complete assignments. This guidance provides compensation for their impaired memory.

Show sample finished projects. Researchers report that the quality of long-term projects improves greatly when students are shown completed sample projects. Indicate the grade earned for each one; in other words, this is what you have to do to earn an A, B, C, or D.

Use Desktop Helpers. Desktop Helpers (3 x 12) provide a handy reference to aid memory deficits and are available on a variety of topics (common math facts, fractions, punctuation rules, and state capitals). "Helpers" can be inserted in clear sleeves that adhere to the desktop. *They are available from www.reallygoodstuff.com.*

Use informative posters in the classroom. Posters may provide visual reminders of important historical events, grammar rules, or math concepts. "Wild and wacky" illustrations will help student commit these facts to memory more easily. Students may be able to picture the poster in their minds during the test.

Use graphic organizers. Numerous books of graphic organizers are commercially available at school supply stores. Graphic organizers are often helpful because they: 1) make abstract concepts concrete, 2) help students visually organize material, and 3) assist with memory recall. These preprinted reproducible blank forms provide great visual cues for these students, increasing the likelihood of their remembering the information.

Review for exams in class. Review materials in class that will be on tests.

- **Give review summaries for exams.** Outline a summary of material being reviewed. Write each fact on an overhead projector or interactive board. By writing the outline in class, teachers slow the pace of their lecture, which makes it easier for students to keep up with taking notes.
- **Identify key points as such.** State the obvious: "This is a key point. Mark it. This will be on the test."
- **Teach review skills.** Show students how to review material – for example, look for **bold** or *italicized* print, capitalized headings for each section, captions under pictures, and summaries at the end of the chapter.

- **Record reviews for MP3s or iPods.** Dr. Billie Abney, a high school anatomy teacher records her test reviews so that students can listen to them on their iPods or MP3 players. She ends the review with an (awful) joke and then gives students extra credit on the test if they have listened to the test review and know the joke.

Give additional individualized help: If you are too busy, ask others to help. You can make your teaching even more effective by seeking other "teachers" to help you.

- **Use "paired learning."** Provide class time for students to pair off, solve a problem, and discuss (teach each other) the new concepts in an assignment. Each student creates a sample problem, works it, swaps the unsolved problem with their partner, compares answers, and then discusses any differences. This method of instruction is also referred to as class-wide peer tutoring.
- **Use peer tutors.** Ask the student with ADHD to tutor a younger student or a class mate who is learning similar concepts. Tutors usually learn more than the person receiving the tutoring does. According to the learning pyramid, students who teach others remember 90 percent of what they learn.
- **Use classroom aides.** Classroom aides may help give the student more individualized attention when working on academics or monitoring homework assignments and completion. Typically, this accommodation is available only to students who qualify for special education under federal law. Inclusion of a classroom aide must be written into the student's individualized educational program (IEP) or 504 plan.

Reduce written work: As discussed in Summary 12, many students with ADD or ADHD may have difficulties with verbal expression, complex multi-step math, slow processing speed, fine motor coordination, or other problems that make written work more challenging. As a result, these teenagers often take much longer to complete class and homework. This may explain why students with attention deficits so studiously avoid homework. It takes a lot more effort for them to complete written work than their peers. This is not to suggest that teachers should never give written class and homework to students. Rather, the length of assignments should be modified so that these students are not spending significantly more time than their peers on the same assignments.

Typically, teachers can reduce the amount of written work pretty easily without compromising the amount of academic material mastered.

Since completing written work --- especially homework --- is often the biggest academic challenge that these teenagers face, reducing written work is very important. Suggestions for the best ways to reduce written work are given below.

- **Reduce the amount of homework.** Estimate how long homework should take and then ask the student to report how long it actually takes her to complete homework. If it is taking too much time, reduce the amount of homework. For example, a National NEA/PTA policy

suggests that a sixth grade student should spend up to a total of about one hour each evening on all homework (10 minutes per grade).

- **Assign fewer problems or questions.** Where feasible, assign fewer problems, sentences, or questions, if that still covers the necessary skills and mastery of major concepts. For some students with ADD or ADHD, math homework may be the biggest problem and should be reduced. For example, the student may be asked to complete every second or third problem.
- **Write the correct answers only.** Have the student write only the correct answers, rather than the whole sentence or question. The goal is to see whether the student knows the answer to the question, not to see if she can copy the question.
- **Fill in the blanks.** Allow students to photocopy math problems or scan in science or history questions from the book and fill in the blanks instead of writing the whole problem or sentences.
- **Allow students to dictate schoolwork.** Sometime the student may dictate a report to a parent or friend (scribe) who types up the information. Researchers have found that the quality and length of reports and essays were better when students with learning problems dictated their work.
- **Substitute creative activities for written assignments.** Develop an **Assignment Menu** that offers students the choice of creative, active assignments as a substitute for written assignments. For example, one Language Arts teacher allowed her students to give book reports accompanied by a videotape of two or three favorite scenes from a book, a cake as described in a book, and an oil painting of a famous poet. Other examples include writing a play, building a model, writing about imaginary travels, and contacting a space center and getting their reaction to a topic.
- **Reduce note taking.** Students with ADD or ADHD can have trouble focusing on what is being said in class because of their limited working memory capacity and difficulties in identifying key points to record. Try these strategies to enable them to listen better:
 - **Identify a note taker for the whole class.** Ask another student who is good in the subject to take notes and star the important issues of the lesson. The designated student takes notes, makes ten copies, and places them in a box in the room available to any student in need.
 - **Provide guided lecture notes.** The need for note taking is reduced when a student has guided lecture notes to follow.

Shorten keyboarding assignments. Although working on a computer can be a lifesaving skill for student with attention deficits, initially their keyboarding skills are often terrible. Their combined learning problems related to memorization, slow retrieval, slow processing, and fine motor skills are horrendous obstacles to mastering keyboarding skills. Some teachers are reluctant to reduce keyboarding assignments but it is a *critical accommodation for most of these students!*

Accept unfinished class work, sometimes. Occasionally, if the student seems to understand the concepts or is in crisis, accept unfinished class work, without piling it on in addition to homework assignments. These students may reach a point where the amount of overdue school work is overwhelming. They may give up because they feel they can never catch up.

Break assignments and long-term projects into segments. When assignments or projects seem long or complicated, students with attention deficit disorders may feel overwhelmed and struggle to get started. Breaking the task into segments can be extremely helpful, thus releasing the logjam. In addition, long-term projects often cause problems because students forget them, lack the organizational skills and awareness of time to plan ahead, or fail to budget enough time to complete the project.

Russell Barkley explains that any assignment involving a significant time lag between the assignment and due date creates a disability for students with ADD/ADHD. Their impaired sense of time and delayed "self-talk" skills make completion of these tasks incredibly difficult. Notification of parents of any long-term projects should be part of all educational plans.

- **Divide assignments into sections.** Divide math or other homework into manageable sections. The student may take a break when she finishes a section. Worksheets may actually be cut or folded in half so the student can "see" how much she has left to complete.
- **Assign separate due dates** for different parts of a long-term project.
- **Grade each section of the project independently.**

Give students some choices with regard to assignments. Students who are allowed to select from several homework options produce more work and are more compliant. Students can be given choices related to the manner in which they present a project: a written report, a video, or a diorama. One teacher set up a 100 point list of spelling options. Students select from ten or so hands-on options each with different point values; ultimately the student must earn 100 points during the week.

- **Tic Tac Toe Assignments.** Teachers list nine assignment choices, one within each block of the Tic Tac Toe grid. Students are instructed to select choices either three across, three down, or three diagonally.

Award homework passes. Give a homework pass to reward good work, effort, or a positive attitude. "This student is awarded a homework pass for any daily homework assignment other than studying for a test." Students may save the coupon and use it one day to skip a homework assignment. Discuss the possibility of saving it for a day when they have forgotten or lost an assignment.

Give a job or cue card for difficult tasks. One reason students with attention deficits often procrastinate is that they feel overwhelmed by large, multi-step projects. They lack the skills necessary to break the assignment down into the required action steps. Consequently, they need more supervision and must be taught this skill. Sometimes they truly don't know what to do or

where to begin. Providing a job card with a brief outline of the steps necessary to complete the project can help. Working on these skills provides the opportunity to teach or shape the new skill. For example, the teacher may initially:

- Discuss the steps required to complete the assignment with the whole class.
- Then write the steps on the board.
- Ask the class to copy the steps down on paper.
- If the student seems to have trouble getting started on the assignment, discuss the steps required and help her write them down on the job card.

Seek quality, not quantity. Ann Welch, a veteran special education teacher, says, "*Fewer high quality responses are preferable to more poor quality responses.*" She explains that when teachers give assignments, they are often looking for three things: 1) speed, 2) completeness (number of problems done), and 3) accuracy. For example, a teacher may want students to finish 30 problems (number), before the end of class or by tomorrow (speed), and have the right answers (accuracy). Since some students with attention deficits work very slowly, typically they will complete fewer problems. Unfortunately, grading criteria "that focus only on speed or completeness, encourage many students to do poor quality work." Welch suggests that modified assignments of reasonable length and difficulty are more likely to produce quality work. For example: "Write three complete, interesting sentences with no more than two spelling or punctuation errors."

Adapted from Teaching Teens with ADD, ADHD & Executive Function Deficits, by Chris Dendy