

N3

Effective Study & Test-Taking Strategies for Kids with Learning Difficulties

Effective study strategies are the gateway to school success, graduation, college entry, and job advancement. Poor study habits can bar even bright students from many important opportunities that would otherwise enable them to realize their potential. For many children who have learning and/or attention difficulties, studying is an overwhelming challenge. Consider your child's current study skills; he may not know **what** to study or **how** to approach studying, may have difficulty **remembering the information** even when he has studied, may have trouble **expressing what he knows** (especially in essays). If your child struggles with these problems, he is far from unique.

From late elementary school into college, problems with studying and test-taking represent a major hurdle for many children and adolescents, especially those who have learning and attention problems¹. These difficulties are often identified only after discrepancies are discovered between these students' high grades for class work and their low scores on standardized tests. Their test scores frequently do not reflect their strong conceptual understanding or their level of ability. As a result, study sessions are often highly charged and extremely stressful for these students and their parents.

It is now recognized that **many children and adolescents with learning difficulties need explicit, intensive instruction in study strategies**^{2,3,4,5,6}. This article will describe strategies your child may need to learn, including prioritizing and shifting approaches, and identifying global themes while ignoring irrelevant details⁷. Self-monitoring strategies such as checking, planning, and revising are critical, as your child, like many others, may not use these automatically^{8,9}. Finally, your child may need to be taught explicitly how to figure out which strategy is appropriate when preparing for a test¹⁰.

Identifying Problem Areas

How can you help your child improve his study skills and reduce the stress involved? You can play a critical role in preventing a negative cycle where your child's poor test performance discourages him from applying himself and learning more effective study strategies. The first step is to determine why your child is having difficulty. Here are some questions to consider and discuss with your child:

- Does your child usually know what to study?
- Does he use a systematic method for studying?
- Does he seem to have inefficient study skills (i.e., he spends long hours studying, yet performs poorly on tests)?

Knowing What to Study

Children are often unaware of the breadth and depth of the material to be covered in an upcoming test. To determine your child's level of awareness, ask him:

- Has he checked in with the teacher about the content of the test?
- Has the teacher provided a study guide or practice test?

- Is there a review session your child can attend?
- Does your child have a plan for studying?

Help your child understand that **his teacher may offer clues about important details to focus on when studying for a test**. Phrases teachers use to signal importance include:

- "Write this down"
- "Let me summarize"
- "Let me say it again"
- "This is important"
- "I'll write this on the board"
- "Remember... "

Next, assess your child's listening skills, attention, and focus. Does he listen for the teacher's "signals" as to what is important? **Active listening** in the classroom during everyday lessons helps children to "zero in" on key facts or skills that a teacher may include on a test.

Textbooks offer clues that identify important information. If possible, review your child's textbook and discuss the use of different size or colored fonts, side-bars, figures, etc. included in the chapter(s) he'll be tested on. Think about your child's learning and reading style. Remind him to use **active reading strategies** when reading his textbook. For example:

- Review the chapter and section headings and convert them to questions. For example, the header, "Causes of World War I" might be changed to "What are the causes of World War I?"
- Review the words, phrases, and sentences that appear in bold type to denote their importance.
- Study the pictures and tables.
- Look at the sidebar information.
- Review and answer the questions at the end of each chapter.

Encourage your child to use colored highlighters or Post-it! notes to flag important information in textbooks and class notes. This will help him review the material more efficiently.

Learning How to Study

Your child may need to learn specific study strategies for organizing, remembering, prioritizing, and shifting approaches flexibly. These processes are the underpinnings of strategic learning and are essential for accurate and efficient studying. He may also need strategies for identifying global themes while ignoring irrelevant details and shifting from the details to the main ideas^{11,12}. Self-checking strategies such as editing, planning, monitoring, and revising are critical, as many children do not use these automatically^{13,14}. The study and test-taking strategies cited below are derived from the intervention research and clinical work we have done at the Research Institute for Learning and Development (Research ILD) over the past few years, which have demonstrated the efficacy of strategy instruction for all students, particularly for students with learning or attention problems^{15,16}.

Strategies for Organizing and Remembering

In order for your child to remember information, the information needs to be filed away in his brain in

an organized way. The information will then be much more easily accessible when it is time to retrieve and use the information in the classroom or on a test. Tests are often used by teachers to evaluate how much students understand and retain after days, weeks, or even months of class work, reading, discussions, homework, and projects. It is important that your child develop organized systems for keeping track of information, or he may become overwhelmed or confused about the many details. You can help your child accomplish this by:

- Making sure he is doing nightly reading assignments and using a system to record or summarize, such as taking notes, writing section or chapter summaries on sticky notes, or answering questions at the end of each chapter.
- Having him summarize orally to you what he has read to make sure he derived the main ideas.
- Assisting him in organizing materials, such as cleaning out binders and folders, creating sections with tabs or folders, and making sure all study materials, including study guides or review sheets, are gathered in one place.

Your child will probably remember information better when it is meaningful, familiar, or even silly! The following memory strategies may help your child with those details and facts that just won't "stick."

- **Crazy phrases:** If your child has to remember a list of items in order, such as the planets in the solar system, help him come up with a silly sentence using the first letter of each item on the list. The following is an example many teachers use to help students remember the nine planets in order:

My Very Eager Mother Just Served Us Nine Pizzas

Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune, Pluto

- **Acronyms:** When the order of the information does not matter, your child can take the first letters of each item on the list and try to form them into a word. For example, to help remember the systems of the body, the acronym "RED CRaNES" can be used:

Reproductive

Excretory

Digestive

Circulatory

Respiratory

a — (no system — place holder)

Nervous **E**ndocrine

Skeletal

- **Cartoons or pictures:** If your child is a visual learner, it may help to make cartoons to illustrate concepts (e.g., history, science) or to draw small pictures to trigger his memory for vocabulary words.
- **Word associations:** You can help your child make connections to other information he knows by using the sounds or visual representations of words. For example, if he has to remember that the word "distinct" means "different or unmistakable," you can help him find another word that sounds similar, such as "stink." If something stinks, it is definitely different and unmistakable!

Strategies for Self-Monitoring

For all students, an important part of studying is becoming aware of their most common mistakes, so they can try to avoid making the same errors on the next test. To help your child become more strategic while studying, you can:

- Ask him to look through his graded homework assignments and previous tests to find any patterns of mistakes.
- Help your child to make a personalized **checklist of test-taking techniques to remember** while taking the test, such as remembering to look back to make sure he didn't miss any questions or remembering to answer all parts of the questions. Checklists can be subject-specific as well. The following is a sample personalized checklist for a math test:

Math Test Checklist

- a. Did I copy the problems correctly?
- b. Did I remember to label my answers?
- c. Did I use the right operation?
- d. Did I check my answers to see if they make sense?

Making a Study Plan and Sticking to It

The following suggestions may be helpful when your child is studying for tests in content areas such as history or science. Encourage your child to:

- Assemble all relevant materials before he begins, namely, textbooks, class notes, homework, and old quizzes.
- Make strategy cards for important concepts or terms by listing the term on the front of the card. On the back of the card, your child can list the key information and a memory strategy.
- Review class notes, homework, and quizzes, highlighting important information.
- Make a chart of the important events and note their causes and consequences.
- Predict possible essay questions and jot down notes for answering each question.
- Explain the main ideas of the chapter to a parent or friend.
- Have friend or parent quiz him.
- Make a time-line of important events in the chapter.
- Answer questions at the ends of the chapters.

Goal-setting and Self-pacing

Does your child rush through his study sessions? If so, you can teach your child to **set goals** and to **pace** himself. Here are some steps to take:

- Review his study plan and set a timer for a certain study period according to the plan.

- Make sure he builds short breaks into his study schedule. Shorter blocks of work time (e.g., 30-45 minutes) are often more productive than 2-hour time blocks. For example, your child might try working for 30-45 minutes, then taking a 15-minute break, and resuming work again for 30-45 minutes.
- Discuss a goal for studying. What does he want to master and how well does he want to do on the homework or the test?
- Suggest that you will quiz him on the material when he thinks he is ready to make sure that he knows the information.

Analyzing the Format of Homework and Tests

Does your child have difficulty understanding and remembering the homework assignments, teacher expectations, and test questions? Children with learning and attention problems often misread questions, focus their attention on sections of the question rather than the entire question, have difficulty understanding nuances in the language, struggle to determine what's most important, and do not easily differentiate between similar answers. If this description matches your child, here are some suggestions that may help:

- Ask the teacher for **sample questions** and examples of high quality sample responses, and review them with your child.
- Make your child aware of specific **key words** that clarify the meaning of the question (for essays and short answers) and help to eliminate some of the answer choices (on multiple choice questions). One way to remember these keywords is to use an acronym such as RED CRANES which was shown earlier. In addition to memorizing the acronym, it is important to insure that your child knows the meanings of each of these words and is able to apply this knowledge to succeed on tests.
- Encourage your child to practice **multiple-choice questions** if teachers use this format on tests. On multiple-choice tests, the vocabulary, and the visual layout of the answer sheet can confuse children. For example, children with visual-spatial or fine motor difficulties may have difficulty filling in scantron forms rapidly and accurately or copying answers onto a separate answer sheet. If your child struggles with the layout of the test or answer sheet, talk to the teacher and advocate for a different format or permission to answer directly on the test.
- Remind him that **multiple-choice questions** often have a correct answer, an answer that is obviously wrong and then one or two choices that are close to the right answer. He will need to read each choice carefully and try to eliminate as many of the answers as possible before choosing one. Encourage your child to stick with his first answer unless he knows that he made a careless error.
- For **matching questions**, suggest to your child that he read all of the choices, match the items that he is certain of, cross off the choices that he has used and then proceed with the remaining items. Some children have difficulty with the visual aspect of the task — looking at two lists and keeping track of those answers that have already been chosen. Others may have trouble remembering the specific vocabulary or connections between items.
- On **short-answer questions**, encourage your child to plan essay questions ahead using maps or 3-column organizers. You can help your child review study guides, practice tests, text books, and class notes for the teacher "signals" discussed earlier so that he can predict likely essay or short-answer questions. This will enable your child to map out key points and

arguments ahead of time. Even if the actual questions he prepares are not on the test, the work he does will give practice in thinking through questions and formulating answers.

- Remind your child not to get stuck on any one item. Teach him to move on to the next question if he doesn't know the answer. The answer will probably "pop" into his mind later in the test.
- Because anxiety can adversely affect memory and attention to detail, encourage your child to **check his work for careless mistakes** as much as possible. A personalized checklist of the most common kinds of errors that your child makes (based on previous tests) can be helpful for prioritizing which problems or questions to recheck before handing in the test.

Putting it in Perspective

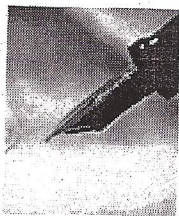
Sometimes anxiety can impede a student's performance on tests even when he prepares well. If your child panics or become anxious when studying for tests, here are some strategies you can try:

- **Encourage your child to focus on his strengths.** "Remember, you have a really good memory and can recite all of the important facts."
- **Help your child put the test in perspective.** "Remember this is just one test — you've done so well on the papers and projects, it won't matter if you make some mistakes."
- **Emphasize the importance of your child's effort and the strategies used.** "You studied really well, and can be proud of that... It will really pay off on the test," or in terms of the rest of his life.... "No one's going to care what you get on this test — a year from now, twenty years from now..."

As adults, we know test performance is only one small way of measuring understanding and that learning is a complex, multifaceted process that needs to be measured in many different ways. We also know how important it is ensure our children have positive and successful school experiences so that they have as many options as possible open as they advance into adulthood. We hope these suggestions will help you to support your child with learning and/or attention problems so he can develop successful study skills, and can achieve success in and out of the classroom.

Many of the examples provided in this article are from BrainCogs[®], a CD-ROM that helps children learn study strategies in a self-directed way. Institute for Learning and Development -Fable Vision, 2002.

© 2004 Charles and Helen Schwab Foundation Created: 12/03/2004



About the Contributors

Lynn Meltzer, Ph.D., Bethany Roditi, Ph.D., Judith Stein, Ph.D., Kalyani Krishnan, M.Ed., and Laura Sales Pollica, M.A. are colleagues at the Research Institute for Learning and Development. They develop resources that teach strategies to help all learners succeed, including the award-winning BrainCogs[®] CD-ROM.