



INTERVENTION
CENTRAL

RTI Toolkit: A Practical Guide for Schools

The Academic Enabling Skills: Interventions for Middle and High School Students

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'Academic Enabler' Observational Checklists: Measuring Students' Ability to Manage Their Own Learning

Student academic success requires more than content knowledge or mastery of a collection of cognitive strategies. Academic accomplishment depends also on a set of ancillary skills and attributes called 'academic enablers' (DiPerna, 2006). Examples of academic enablers include:

- Study skills
- Homework completion
- Cooperative learning skills
- Organization
- Independent seatwork

Because academic enablers are often described as broad skill sets, however, they can be challenging to define in clear, specific, measurable terms. A useful method for defining a global academic enabling skill is to break it down into a checklist of component sub-skills--a process known as 'discrete categorization' (Kazdin, 1989). An observer can then use the checklist to note whether a student successfully displays each of the sub-skills.

Observational checklists that define academic enabling skills have several uses in Response to Intervention:

- Classroom teachers can use these skills checklists as convenient tools to assess whether a student possesses the minimum 'starter set' of academic enabling skills needed for classroom success.
- Teachers or tutors can share examples of academic-enabler skills checklists with students, training them in each of the sub-skills and encouraging them to use the checklists independently to take greater responsibility for their own learning.
- Teachers or other observers can use the academic enabler checklists periodically to monitor student progress during interventions--assessing formatively whether the student is using more of the sub-skills.

A collection of the most common global 'academic enabler' skills in ready-made checklist format appear below.



Study Skills. The student:			
<input type="checkbox"/> takes complete, organized class notes in legible form and maintains them in one accessible note book	Poor 1	Fair 2	Good 3 NA -
<input type="checkbox"/> reviews class notes frequently (e.g., after each class) to ensure understanding	Poor 1	Fair 2	Good 3 NA -
<input type="checkbox"/> When reviewing notes, uses highlighters, margin notes, or other strategies to note questions or areas of confusion for later review with teacher or tutor	Poor 1	Fair 2	Good 3 NA -
<input type="checkbox"/> follows an efficient strategy to study for tests and quizzes	Poor 1	Fair 2	Good 3 NA -
<input type="checkbox"/> allocates enough time to study for tests and quizzes	Poor 1	Fair 2	Good 3 NA -
<input type="checkbox"/> is willing to seek help from the teacher to answer questions or clear up areas of confusion	Poor 1	Fair 2	Good 3 NA -
<input type="checkbox"/> Other: _____			
Comments: _____ _____			

Organization Skills. The student:			
<input type="checkbox"/> arrives to class on time.	Poor 1	Fair 2	Good 3 NA -
<input type="checkbox"/> maintains organization of locker to allow student to efficiently store and retrieve needed books, assignments, work materials, and personal belongings	Poor 1	Fair 2	Good 3 NA -
<input type="checkbox"/> maintains organization of backpack or book bag to allow student to efficiently store and retrieve needed books, assignments, work materials, and personal belongings	Poor 1	Fair 2	Good 3 NA -
<input type="checkbox"/> brings to class the necessary work materials expected for the course (e.g., pen, paper, calculator, etc.)	Poor 1	Fair 2	Good 3 NA -
<input type="checkbox"/> is efficient in switching work materials when transitioning from one in-class learning activity to another	Poor 1	Fair 2	Good 3 NA -
<input type="checkbox"/> Other: _____	Poor 1	Fair 2	Good 3 NA -
Comments: _____ _____			



Homework Completion. The student:				
<input type="checkbox"/> writes down homework assignments accurately and completely	Poor 1	Fair 2	Good 3	NA –
<input type="checkbox"/> makes use of available time in school (e.g., study halls, homeroom) to work on homework	Poor 1	Fair 2	Good 3	NA –
<input type="checkbox"/> has an organized, non-distracting workspace available at home to do homework	Poor 1	Fair 2	Good 3	NA –
<input type="checkbox"/> creates a work plan before starting homework (e.g., sequencing the order in which assignments are to be completed; selecting the most challenging assignment to start first when energy and concentration are highest)	Poor 1	Fair 2	Good 3	NA –
<input type="checkbox"/> when completing homework, uses highlighters, margin notes, or other strategies to note questions or areas of confusion for later review with teacher or tutor	Poor 1	Fair 2	Good 3	NA –
<input type="checkbox"/> turns in homework on time	Poor 1	Fair 2	Good 3	NA –
<input type="checkbox"/> Other: _____	Poor 1	Fair 2	Good 3	NA –
Comments: _____ _____				

Cooperative Learning Skills. The student:				
<input type="checkbox"/> participates in class discussion	Poor 1	Fair 2	Good 3	NA –
<input type="checkbox"/> gets along with others during group/pair activities	Poor 1	Fair 2	Good 3	NA –
<input type="checkbox"/> participates fully in group/pair activities	Poor 1	Fair 2	Good 3	NA –
<input type="checkbox"/> does his or her 'fair share' of work during group/pair activities	Poor 1	Fair 2	Good 3	NA –
<input type="checkbox"/> is willing to take a leadership position during group/pair activities	Poor 1	Fair 2	Good 3	NA –
<input type="checkbox"/> Other: _____	Poor 1	Fair 2	Good 3	NA –
Comments: _____ _____				



Independent Seat Work. The student:				
<input type="checkbox"/> has necessary work materials for the assignment	Poor 1	Fair 2	Good 3	NA –
<input type="checkbox"/> is on-task during the assignment at a level typical for students in the class	Poor 1	Fair 2	Good 3	NA –
<input type="checkbox"/> refrains from distracting behaviors (e.g., talking with peers without permission, pen tapping, vocalizations such as loud sighs or mumbling, etc.)	Poor 1	Fair 2	Good 3	NA –
<input type="checkbox"/> recognizes when he or she needs teacher assistance and is willing to that assistance	Poor 1	Fair 2	Good 3	NA –
<input type="checkbox"/> requests teacher assistance in an appropriate manner	Poor 1	Fair 2	Good 3	NA –
<input type="checkbox"/> requests assistance from the teacher only when really needed	Poor 1	Fair 2	Good 3	NA –
<input type="checkbox"/> if finished with the independent assignment before time expires, uses remaining time to check work or engage in other academic activity allowed by teacher	Poor 1	Fair 2	Good 3	NA –
<input type="checkbox"/> takes care in completing work—as evidenced by the quality of the finished assignment	Poor 1	Fair 2	Good 3	NA –
<input type="checkbox"/> is reliable in turning in assignments done in class.	Poor 1	Fair 2	Good 3	NA –
<input type="checkbox"/> Other: _____	Poor 1	Fair 2	Good 3	NA –
Comments: _____ _____				

Motivation. The student:				
<input type="checkbox"/> has a positive sense of 'self-efficacy' about the academic content area (self-efficacy can be defined as the confidence that one can be successful in the academic discipline or subject matter if one puts forth reasonable effort)	Poor 1	Fair 2	Good 3	NA –
<input type="checkbox"/> displays some apparent <i>intrinsic</i> motivation to engage in course work (e.g., is motivated by topics and subject matter discussed or covered in the course; finds the act of working on course assignments to be reinforcing in its own right)	Poor 1	Fair 2	Good 3	NA –
<input type="checkbox"/> displays apparent <i>extrinsic</i> motivation to engage in course work (e.g., is motivated by grades, praise, public recognition of achievement, access to privileges such as sports eligibility, or other rewarding outcomes)	Poor 1	Fair 2	Good 3	NA –
<input type="checkbox"/> Other: _____	Poor 1	Fair 2	Good 3	NA –
Comments: _____ _____				



Teacher-Defined Academic Enabling Skill:					
Skill Name: _____					
Essential Subskills: The student::					
<input type="checkbox"/>	_____	Poor 1	Fair 2	Good 3	NA -
<input type="checkbox"/>	_____	Poor 1	Fair 2	Good 3	NA -
<input type="checkbox"/>	_____	Poor 1	Fair 2	Good 3	NA -
<input type="checkbox"/>	_____	Poor 1	Fair 2	Good 3	NA -
<input type="checkbox"/>	_____	Poor 1	Fair 2	Good 3	NA -
Comments: _____ _____					

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Troubleshooting Student Homework Problems...

The student does not write down homework assignments correctly or completely.

- Type up all class assignments for the week or month and pass out to the class.
- Set up a 'homework hotline' that students (and parents!) can call with a pre-recorded message listing current class assignments. Or create and regularly update a web page that students can visit to browse a listing of pending assignments and their due dates.
- Pair off students. At the end of each class, instruct students briefly to check each other's organizers or notebooks to ensure that each has accurately and completely recorded assignments from the board.
- Instruct the student to approach you at the end of each class period with his or her organizer or notebook. Read over the student's listing of assigned work. If the student's recording of the assignment is incomplete or incorrect, prompt him or her to write it correctly. Then initial the assignment page.
- Select a staff member (e.g., vice principal, reading teacher, counselor) who can serve as a 'check out' person at the end of the school day. Assign that staff member a caseload of students who have chronic difficulties accurately recording homework assignments. As each student stops by, the 'check-out' person reviews the student's recording of assignments to ensure that he or she has written them down completely.

The student fails to take work materials home that are required for his/her homework assignment.

- When writing assignments on the board, include a list of required work materials as a reminder to students.
- At the close of class, remind students what materials they will need for homework.
- Have the student keep one set of textbooks at home and one at school.
- Post worksheets to be done as homework on the Internet where students can download and print off as needed.
- Explicitly teach students how to prepare at the end of each school day for that night's homework. Instruct students to review each instructor's homework assignment and verify that they have put the necessary work materials to do that assignment into their backpack or book bag. For students who need additional practice, walk them to their lockers at the end of the day and coach them as they pull together their homework materials.

The student does not have a regular routine (fixed time, location, etc.) for studying and completing homework.

- Have the student complete a homework schedule each week with adequate time set aside daily for homework. Verify with the student's parent(s) that the student is abiding by the schedule.
- Meet with the student to identify both a place at home where the student can do homework without distractions and a set time for doing homework. Check in with the student occasionally to monitor his or her homework habits.
- If the home environment is not conducive for completing homework, encourage the student to find another location (e.g., local branch of the public library, community center) suitable for homework.
- Encourage the student to use study halls or other in-school time to get a head start on homework.
- Team up with other teachers to sponsor a 'homework club' where students can stay after school to complete homework with adult support and supervision. Consider having different teachers 'host' the club on different nights of the week.

The student lacks an efficient strategy for completing homework assignments.

- Train students in the specific steps needed to build a work plan for doing homework. Show them how to preview their afterschool assignments, order those assignments so that they do the most difficult first (when their energy level is highest), break larger assignments into smaller sub-tasks, and estimate how much time each assignment is likely to require. Assign students to create their own homework plans for a week and to turn them in to you. Follow up by asking students to reflect on how their use of these plans may have improved their homework completion.
- If you are giving students an especially challenging homework assignment, provide them with strategies (e.g., time-saving tips, techniques to check for mistakes, etc.) for doing that homework efficiently.
- Suggest to students that they take short breaks between homework assignments (e.g., spending 10 minutes watching television) to refresh and reenergize.
- Recommend to students (and perhaps to their parents) that they remove unnecessary 'time-wasters' from the homework setting (e.g., Internet messaging, television, radio, cell phones).
- Enlist the student's parent to serve as a 'homework coach', meeting with the student each night to look over assignments, set up a plan for completing the homework, monitoring the student's actual time spent doing homework, and reviewing finished work to verify its completeness and quality.

The student completes homework but fails to turn it in at school.

- Meet with the student's parents and suggest that they check each morning to be sure that the student has all completed homework assignments in his or her backpack before leaving for school.
- Set up a homework chart for the student. Award the student a point for each day that he or she turns in homework. Allow the student to redeem collected points for rewards or privileges.
- Build a sense of personal accountability by requiring that students put their homework directly in your hand as they walk in the door at the beginning of class. Note which students fail to turn in homework and approach them before the class period is over to have them pledge when they will turn it in.
- Send 'overdue homework' notices home every several weeks to parents of your students. The notices should include enough information about the missing assignments so that the parents have all the information that they need to prod their child to get the work done and turn it in.
- Designate a staff member to be a 'homework check-in' person for selected students. At the beginning of the day, students go to the staff member in the school's main office and surrender their completed homework assignments. The staff member immediately puts students' homework in the appropriate teachers' mailboxes.
- Encourage students to complete their homework in study halls or in an afterschool 'homework club'. Appoint a staff member to collect students' completed homework before they leave for the day and to put finished homework into the appropriate teachers' mailboxes.

School-Wide Strategies for Managing...STUDY SKILLS / ORGANIZATION

As students transition to middle and high school, they are expected to depend less on the teacher to manage their instruction and to put increasing energy into becoming self-managing learners. But students must master essential study and organizational skills before they can function as independent learners. Individuals with strong study and organization skills are able to break class and homework assignments into subtasks and use time efficiently to complete those assignments, save and store graded papers and handouts for later retrieval, regularly review class notes and course readings, and practice effective study techniques. Instructors can accelerate the development of students into self-managing learners by explicitly teaching and evaluating study and organization skills and by delivering structured lessons that students can easily follow and capture in notes. Here are a range of ideas that can assist students to study more effectively and become more organized:

Independent Work. Create Customized 'Common Mistakes' Checklists (U.S. Department of Education, 2004). Students can develop an individualized checklist of the kinds of errors that they commonly commit on independent assignments and use this checklist to reduce or eliminate mistakes before turning in those assignments. As a class exercise, give several examples to your students of common mistakes that you find on their assignments (e.g., failure to show all work on math problems; incomplete entries on term-paper outlines). Next, have the class brainstorm a list of mistakes that they are most likely to make. Then direct each student to review the class list and create a customized checklist by selecting the 4-5 mistakes that he or she is most likely to commit. Direct students to keep their customized error checklists and use them to review their assignments before turning in.

Independent Work: Assign an Adult Advisor (U.S. Department of Education, 2004). Struggling students will do a better job of managing their many academic work and study requirements when they can have informal weekly meetings with an adult advisor. The advisor can be any school staff member who has a good relationship with the student. The role of the advisor is to communicate with other members of the student's team to ensure that the student is caught up with all homework and classwork assignments and is doing a satisfactory job of preparing for tests and quizzes. The advisor should plan to meet with the student at a fixed time at the start of each week for a brief meeting (1) to review academic progress, (2) help the student to get organized for upcoming assignments and prepare for tests, and (3) provide the student with encouragement and 'mini-skills' lessons in organization and study skills as needed.

Independent Work: Have Students Break Larger Tasks into Smaller Sub-Tasks (U.S. Department of Education, 2004). Students who easily become overwhelmed when given a large assignment to do independently can boost their confidence when taught first to break that assignment down into smaller, more manageable sub-tasks. Select an upcoming assignment that students are expected to complete on their own (e.g., term paper, homework assignment with multiple math problems). Demonstrate for the class or to the individual student how to partition the larger assignment into smaller steps or 'chunks'. Have the student(s) complete the assignment independently, one sub-task at a time, using your work plan. On the next assignment, have the student(s) subdivide the task into chunks to create their own work plan while you observe and provide feedback.

Independent Work: Teach Students to Adapt Worksheets (U.S. Department of Education, 2004). If students seem to struggle with the format of complex worksheets, teach them tricks to reduce the complexity or 'busyness' of the sheet. If students appear to become anxious or to lose their place when given a worksheet with a large number of math problems, for example, suggest that they fold the page or use a blank piece of paper to hide all problems

except the one on which they are currently working. Or if a double-sided worksheet has a complex informational graphic (e.g., a map) on one side of the page and questions to be answered on the flip side of the worksheet, give the student an extra copy of that worksheet so that the student can look at the questions and the graphic at the same time.

Instruction: Preview & Review Lesson Objectives (Beyda, Zentall, & Ferko, 2002; U.S. Department of Education, 2004). Teachers can help students to retain the key points of a lesson by previewing the important learning objectives, labeling important points during the lesson, and reviewing those points at the close of the instructional session. Open the lesson by telling students what they will be learning that day and the materials that they will need to accomplish the lesson. During the lesson, emphasize important information that students should write into their class notes. At the end of the lesson, briefly review the central points again to improve student retention.

Instruction: Signal Key Words or Concepts That Will Be on the Test (Sprick, Borgmeier, & Nolet, 2002). Teachers can improve students' motivation and boost their performance on tests by writing the examinations first and then structuring course content and review activities to help students to successfully pass these tests. The instructor constructs the test in advance so that it contains the essential elements of course content that students must master. During instruction, whenever the teacher presents to the class any concept, fact, or operation that will appear on the test, the instructor announces that 'this will be on the test' as a cue to alert students to attend closely to the information. The teacher also selects review activities that allow students to practice and master course material before they are tested on that material.

Study Skills: Effective Studying Requires Preparation & Follow-Through (University of North Dakota Learning Center, n.d.). Effective study habits require that the student prepare before class to more fully understand the instructional content, attend carefully during class for clues about what facts or concepts the teacher views as most important, and quickly review notes after class to fill in any missing information and to cement understanding. In preparation for the class period, the student completes any assigned reading, and looks over notes and quickly skims the reading from the previous class session. During class, the student focuses on the instructor, listening carefully to how the instructor 'cues' the class that information is important (e.g., tone of voice, repetition, notes written on the board). If the teacher announces that a particular fact, concept, or idea will appear on a future test, the student records this information in his or her notes. Within 24 hours after class, the student reviews the class notes to help him or her to capture this course information in long-term memory. The student also uses this review opportunity to add any additional details, to reword notes to clarify their meaning, or to check with other students or the teacher to fill in any gaps in the notes.

Study Skills: Study Actively (University of North Dakota Learning Center, n.d.; Wright, 2002). Students get much more out of study sessions when they use strategies to actively review the material--such as summarizing main ideas from passages, formulating possible test questions from class notes, reciting information aloud, and studying with others. When reviewing readings from the course, the student should pause after important passages to attempt to summarize the main idea, or 'gist sentence' of each passage. While reviewing class notes, the student should attempt to identify concepts or facts from the notes that are likely to appear on an upcoming quiz or test. The student then formulates a possible test question that would be answered by the selection from his or her notes. Some students also find that they retain information more effectively during review when they occasionally read aloud sections from their course readings or class notes. Studying with others is another good method for reviewing course material, as students can motivate and encourage one another during the study session.

Study Skills: Teach a Structured Note-Taking Process (Pauk, 1989). Students benefit in two ways when using a highly structured note-taking process such as the Cornell System: Not only do they recall more information from lectures because they made the effort to capture it in the form of notes, but students also have a more complete set of notes to which they can refer when studying for quizzes and tests. The Cornell Notetaking System is organized into the following steps: (1) The student draws a vertical line on blank lined note paper. The line separates the page into a left-margin section that is 2.5 inches in width and another on the right that is 6 inches in width. (2) During reading or lectures, the student jots all notes in the 6-inch section of the page. (3) After leaving class or finishing the reading, the student reduces the notes into key words or key phrases. These condensed words or phrases are jotted into the 2.5-inch left margin of the page. (4) When reviewing course material, the student looks over his or her notes and jots down possible questions from the content that might appear on a test. The student then covers the notes (6-inch section of the page) and attempts to recite answers to the questions that he or she has created--using the key words or phrases in the left margin as prompts. (5) The student reviews notes periodically (e.g., 2-3 times per week), repeating the procedure outlined in step 4.

Study Skills: Use Student Study Schedule (Wright, 2002). A daily study schedule can ensure that the student makes the most efficient use of study time. Each day, the student makes a written schedule for homework and study. The study schedule should also include time for leisure activities—and the student should be sure to limit leisure activities to the time allotted. A study schedule has greater weight if the student's parent(s) monitor the student's adherence to the daily schedule.

Work Materials: Organize the Backlog of Old Papers (Sirotowitz, Davis, & Parker, 2003). Students are much better organized when they can identify old papers that should be saved for later review, have a system for labeling and filing these archived papers, and stay caught up by filing papers promptly. The teacher or parent (helping adult) first assists the student in carrying out a 'paper search', rummaging through the student's backpack, school locker, bedroom, notebook, or any other location where old papers may have collected. Next, student and helping adult sort through the pile of amassed papers, deciding which should be tossed in the trash and which should be saved. (Candidate papers to save include old tests, teacher handouts, and graded homework.) Then student and adult write at the top of each saved page the subject, the approximate date that the paper was created or handed out, and any other important identifying information (e.g., the textbook chapter or page that a series of handwritten notes were drawn from or are linked to). For each subject, label a manila folder. File all old papers for that subject in the folder, organized by date or by chapter/page number (depending on which scheme seems a more useful way to group the material). Put all folders of sorted papers into a single file cabinet drawer, crate, or other easily accessible location. Then encourage the student to sort through old papers each day and file those that are to be saved away in the appropriate folder. Also, remind the student to review the contents of folders when studying for quizzes and tests.

Work Materials: Schedule Regular 'Clean Outs' (Gleason, Colvin, & Archer, 1991; U.S. Department of Education, 2004). Students are most productive when they are periodically given time and guidance to organize their work- and storage spaces to better manage the 'paperflow' of school work. Prepare a class mini-lesson to present suggestions on how your students should organize their desk or other class workspace, backpack, and/or locker. Work with your class to develop organizational tips (e.g., what does belong in a locker and what does not) and a rubric to judge the degree to which each student's work- and storage spaces are appropriately organized. Schedule time periodically for the entire class or selected students to organize their work and storage spaces under your supervision. Have students refer to the class rubric and provide teacher feedback as they organize their spaces.

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Guided Notes: Increasing Student Engagement During Lecture and Assigned Readings

Description: The student is given a copy of notes summarizing content from a class lecture or assigned reading. Blanks are inserted in the notes where key facts or concepts should appear. As information is covered during lecture or in a reading assignment, the student writes missing content into blanks to complete the guided notes.

Purpose: Guided notes promote active engagement during lecture or independent reading, provide full and accurate notes for use as a study guide, and help students to identify the most important information covered (Heward, 2001).

Materials: Guided notes

Preparation: The instructor identifies the lecture content or assigned reading that will be covered in the guided notes.

Intervention Steps: Guided notes can be prepared and implemented through these steps:

1. A set of notes is prepared that contains the essential information to be covered in the lecture content or assigned reading.
2. The instructor reviews the notes and highlights or underlines the key facts, concepts, or information that the student will be responsible for writing into the final version of the guided notes.
3. Using a word processor, the instructor replaces the segments of notes identified in the previous step with blanks.
4. Prior to handing out copies of the guided notes in class, the instructor ensures that students understand their responsibility to attend to content covered in the lecture or the reading and to fill in each of the blanks in the guided notes with the appropriate concepts, definitions, or other content.
5. During lecture or while reviewing assigned readings in class, the instructor displays the guided notes (via overhead projector, computer projector, or smartboard) and fills in blanks with appropriate facts or concepts as they are presented.

Adjusting/Troubleshooting: Here are recommendations for using guided notes and addressing issues that might arise:

Keep guided note entries brief. Shorter guided note entries promote student understanding of content as well as or better than longer entries (Konrad, Joseph & Eveleigh, 2009). Also, short entries can increase student motivation to write in responses.

Distribute entry items throughout the guided notes. Guided notes help to promote active student engagement during lecture or reading (Heward, 2001). When entry items are distributed evenly throughout the guided notes, they require higher rates of active student responding (Konrad, Joseph & Eveleigh, 2009), which can both promote mastery of content and increase levels of on-task behavior.

Verify student completion of notes. To ensure that students are actively engaged in completing guided notes, the instructor can occasionally collect and review them for accuracy and completeness (on a random and unpredictable

schedule).. As an incentive, those students correctly completing their guided notes can be assigned bonus grade points (Konrad, Joseph & Eveleigh, 2009). Or students can periodically pair off and compare their guided note entries for completeness while the instructor circulates through the room conducting spot-checks of individual students' guided notes.

Have students tally notes-review sessions. Guided notes are a powerful tool for reviewing course content. Students can be encouraged to write a checkmark on the cover of a set of completed guided notes each time that they review them (Lazarus, 1996). These tallies assist students to monitor whether they have adequately reviewed those notes in preparation for quizzes and tests.

Fade the use of guided notes. As the class becomes more proficient at note-taking, the instructor can gradually 'fade' the use of guided notes by providing less pre-formatted notes-content and requiring that students write a larger share of the notes on their own (Heward, 1996).

Give students responsibility for creating guided notes. The classroom teacher generally is responsible for preparing guided notes. Instructors of older students, however, may discover that they can hand some responsibility to their students to prepare guided-notes. For example, as a cooperative-learning exercise, a group of students might be assigned a chapter-section from a biology text and asked to compose a set of guided notes based on its content. The teacher can then review and edit the notes as needed.

Jim's Hints for Using...Guided Notes

Accommodating Diverse Learners. Students who have difficulty keeping up with even the modest writing requirements of guided notes may benefit from being assigned a peer helper from the class with whom they can meet at the end of the lecture. The peer helper reviews the student's notes to ensure that each section contains complete and accurate information about the day's lecture content.

As another accommodation for students of diverse abilities, the instructor might prepare several versions of guided notes. Students who find note-taking most challenging would be given a version of guided-notes that requires relatively little writing, while more skilled note-takers could have a version of notes that call for the student to record and synthesize a greater amount of lecture information.

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Homework Contracts: Tapping the Power of Parents

Students who regularly complete and turn in homework assignments perform significantly better in school than those of similar ability who do not do homework (Olympia et al., 1994). Homework is valuable because it gives students a chance to practice, extend, and entrench the academic skills taught in school. Parents can be instrumental in encouraging and motivating their children to complete homework. This homework contract intervention (adapted from Miller & Kelly, 1994) uses goal-setting, a written contract, and rewards to boost student completion (and accuracy) of homework. Students also learn the valuable skills of breaking down academic assignments into smaller, more manageable subtasks and setting priorities for work completion.

Materials:

- Copy of Daily Homework Planner

Preparation:

Train Parents to Be Supportive 'Homework Coaches'. Parents are often very committed to helping their child successfully complete homework. To ensure that parents have positive interactions with students around homework, though, the school should sponsor one or more parent workshops to offer tips on how to be 'homework coaches'. In particular, parents should be offered strategies for listening in a careful and non-judgmental manner to their child, to avoid nagging about homework, and to brainstorm with their child about possible solutions for common homework difficulties (e.g., writing down all homework assignments correctly). Additionally, they should be taught the essentials for setting up and following through with a simple reward system at home (Miller & Kelly, 1994). At this introductory workshop, parents would also be trained in the steps of the homework contract (described below).

Steps in Implementing This Intervention:

1. *The Parent Creates a Homework Reward System for the Child.* The parent should put together a short menu of reasonable daily and weekly rewards that the child can earn for successfully completing homework. Good choices for daily rewards are those that do not cost a lot of money, and do not take much time to deliver. While weekly rewards should be somewhat larger than daily rewards, they should still be affordable and not require a great deal of the parent's time. Because any rewards that the parent chooses must appeal to the child, the parent should consult the child in the selection of rewards.
2. *The Parent Negotiates the Homework Contract Program With the Child.* Before starting the homework contract, the parent should meet with the child to introduce the program and to set up a reward system (see Step 1). Together, they agree on the percentage of homework goals the child must complete each day (e.g., 80%) to earn the daily homework reward. They also agree on the number of times in a week that the student must earn the daily reward in order to be eligible for the weekly reward (e.g., 3 times in a week).
3. *The Parent and Child Fill Out the Daily Homework Planner.* Each day when the student has assigned homework, the parent and student sit down with a copy of the Daily Homework Planner [web page; pdf document]. Together they preview the homework assignment for all subject areas. Then they break the assignment into manageable 'chunks' or subtasks. A description of each subtask is written into the Daily Homework Planner in enough detail so that both parent and student know what must be done to complete that homework chunk. A description for a math subtask, for example, might read "Complete 20 multiplication problems from pg. 40 of math book, then use

answer key to check work". The parent and child might write on the homework contract that the child will reserve 30 minutes to complete that subtask.

4. *The Parent Checks the Child's Homework Completion and Delivers Any Earned Rewards.* When the student has finished his or her homework, the parent and student hold a brief follow-up conference. They go through the Daily Homework Planner sheet, circling Y[es] or N[o] to indicate whether each subtask was completed within the time set aside for it.
 - a. If the student earned the daily reward, the parent has the student choose an item from the reward menu. (Daily rewards should be given immediately if possible.)
 - b. If the student also earned the weekly reward, the student can also select an item from the weekly reward menu (to be delivered in a timely manner but when convenient to the parent).

5. *Fade the Reward System.* As the child shows that he or she is able to complete daily homework assignments on a regular basis, the parent may want to start 'fading' the reward system. First, the parent may stop the daily rewards but continue the weekly rewards. Then the weekly rewards can be stretched out to biweekly and eventually monthly rewards. In the final stage of fading, the parent can stop giving out regular rewards altogether. Instead, the child's motivation can be kept high by the parent 'surprising' him or her occasionally with an unexpected reward.

Troubleshooting

The parent cannot or will not use the homework contract. If a parent is unable or unwilling to use the homework contract with a student, the intervention can be used in school instead. At the end of the school day, for example, the teacher or other staff member might meet with the child to preview all homework assignments and assist the student in filling out the Daily Homework Planner. If the student brings the Contract sheet and completed homework back to school the next day, the teacher can give him or her the earned daily (and perhaps weekly) reward.

Jim's Hints for Using...Homework Contracts: Tapping the Power of Parents

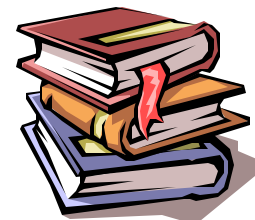
Identify Other People To Help the Parent With the Homework Contract . If the student attends an afterschool program where he or she completes homework, personnel from that program may be willing to set up and use the homework contract with the child. Or if there is a responsible older sibling in the home, he or she may be willing to administer a homework contract system. The parent would still be expected to deliver any rewards that the student may have earned.

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Daily Homework Planner (Adapted from Miller & Kelly, 1994)

Student: _____ Date: _____



Before starting my homework, do I:

- have all the materials that I need?
- know what homework has been assigned in all subjects?
- have a quiet place to work?

Task	Academic Subject	Description of Work Goal Set by Student	Time Needed to Complete	Goal Successfully Achieved?
1				Y N
2				Y N
3				Y N
4				Y N
5				Y N

- *Daily reward:* The student will earn the daily reward by completing at least _____ % of the homework goals for that day.
- *Weekly reward:* The student will earn the weekly reward by meeting the daily homework goals for _____ days of the week.
- *Percentage of Goals Achieved Today* (Number of Goals Achieved/Number of Goals Set) _____ %
- Circle those days that the student has met the daily homework goal for this week:
S M T W Th F S

Parent Signature _____

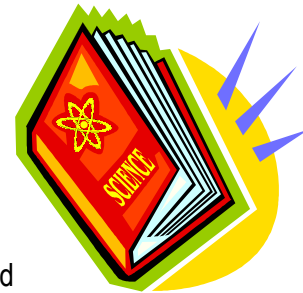
Managing Test Anxiety: Ideas for Students

Tests and quizzes are more widely used in schools than ever. Teachers rely on written examinations to show whether students have learned the information presented in the course. Colleges and universities evaluate applicants' performance on entrance examinations such as the Scholastic Aptitude Test (SAT) to judge whether these applicants are likely to be successful in their programs.

With so much depending on test results, it is no wonder that students often become anxious about taking tests. But don't worry! You can master test-anxiety and improve your performance on exams by following a simple plan: develop good study habits, use effective techniques to memorize content, take steps to reduce test anxiety, and take advantage of smart strategies when taking the test. Read through the tips below for ideas that you can use:

Effective Study Habits

It is not enough just to schedule lots of study time. You also need to make sure that you use effective study *techniques*. Some smart study tips are to:



- *Create a quiet, neat study area.* Distractions and clutter interfere with studying. Select a quiet spot where you are unlikely to be interrupted and organize it so that you can study efficiently. If space is cramped at home, use a corner of the local library or other suitable spot as your 'study haven.'
- *Study from good notes.* Your study sessions will be productive only if you are studying from a legible and complete set of notes. If your notes are incomplete, see if your teacher has a loaner set of master class notes that you can review to get the missing information. Or ask a classmate who takes thorough notes if you can borrow them.
- *Use bits of unexpected free time to study.* Carry 'pocket work' with you to review whenever you have a few minutes of free time. For example, have a set of index cards with course notes on hand that you can conveniently pull out and look at during spare moments.
- *Make a study schedule to avoid 'time-drains'.* People often don't realize how much time they spend on activities such as watching TV, surfing the Internet, talking with friends on the phone, and so on. If we aren't careful, though, we may discover that our leisure activities 'drain away' time that could have been better used for study. Create a general study schedule, with time set aside for fun activities. Then be sure to limit those fun activities to the time allotted.
- *Take advantage of your peak energy levels.* Pick the time of day when you tend to have the most energy and try to schedule your study sessions at this time. Also, study your most difficult or challenging material first, while you are still fresh. When you study at the same time each day, you will also find that studying begins to turn into a habit!
- *Create a study group.* Gather together classmates to form a study group. Groups can make studying more fun. Another advantage of groups is that its members can consult multiple sets of notes whenever a course concept is unclear. (Just be sure that your group takes studying seriously and

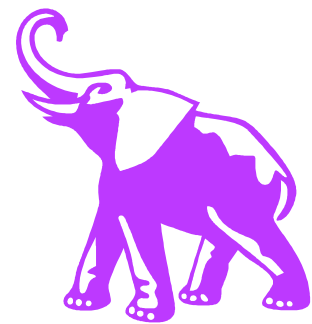
doesn't spend too much time socializing!)

- *Teach content as a 'learning check'.* A very effective way to check whether you have learned course content is to try to teach that information to another person (e.g., to a study partner). The challenge of having to put key concepts into your own words and make them understandable to others will quickly reveal whether you have truly mastered that information.
- *Recite information aloud.* One study trick is to recite important information aloud. As you *say* the information, you also *hear* yourself saying it. These two channels for language, *speaking* and *hearing*, help to embed the information in your memory.
- *Pose difficult questions.* When studying, stop every so often and ask yourself, "What question(s) or problem type(s) am I most afraid will be on the test?" Your answer will give you a valuable hint about what parts of the course content you still find difficult and should spend the most time studying.
- *Don't forget to review previously learned material.* As you study, you start to learn the material. But a single pass through your notes is usually *not* enough to cement learning. During each study period, set aside time (e.g., at the start of the session) to review previously learned information or concepts. Remember, review, review, review!
- *Avoid cram sessions.* Pulling all-night study sessions only tires you out and leaves you exhausted on the day of the test. (And people seldom think clearly when they are tired...) Rather than cramming your review into one or two marathon sessions, break your study up into short periods and study more frequently. Also, start studying early in the course, well before the first test, to give yourself a head start in learning the material.
- *Reward yourself.* Select an activity that you find rewarding (e.g., watching a favorite videotape, going for a walk, calling a friend). Set a contract with yourself to complete a set amount of studying (e.g., to study chemistry for 90 minutes). If you have met your short-term study goal at the end of the study period, give yourself the reward.

Tips to Memorize Content

The best way to remember information from your notes or reading is to set aside enough time to study it well. Some tips for memorizing information are to:

- *Read and review using SQ3R.* The SQ3R approach is a structured, thorough method for learning the content of a book chapter or section: (1) **S**urvey the chapter, to get an overview of what it contains. Read through the chapter summary and all headings. Also, briefly take note of figures, tables, and illustrations. (2) **Q**uestions based on each of the chapter headings. The questions should be similar to those that you might find on a test. (3) **R**ead through the chapter. As you read, do your best to answer the questions that you developed. (4) **R**ecite the questions. From memory, verbally answer each question. (Hint: You can learn even more effectively if you write down your answers. Your responses can be written as single words or short phrases so long as they capture the main content of the answer.) (5) **R**evise your answers. Compare your responses to the information in the text to make sure that your answers are complete and accurate.



- *Make up flashcards.* To memorize vocabulary, write the key word or term on one side of an index card and the definition on the other side. To review, read off the word and recite the definition from memory before flipping the card over and checking your answer. Then review the cards again, this time reading the definitions and recalling the key word or term from memory. To memorize other information, copy a fact or concept on one side of the card and a 'test' question matching the concept on the card's flip side. To review, read off each question and attempt to recall the answer before flipping the card over to check your work.
- *Create acronyms or acrostics.* When you want to remember words or concepts in sequence, you can sometimes combine the first letters of the words into an *acronym*. For example, the color spectrum of visible light is: **Red-Orange-Yellow-Green-Blue-Indigo-Violet**. Generations of students have memorized this sequence as the acronym (and fanciful name) ROY G. BIV.

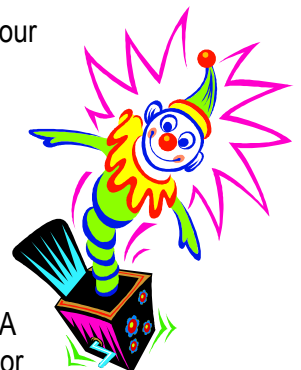
An *acrostic* is a sentence made up of words whose initial letters are memory cues. For example, biology classifies living organisms according to their place in the following categories: **Kingdom-Phylum-Class-Order-Family-Genus-Species**. Many students have memorized this sequence using the sentence, "King **Phillip** Came **O**ver **F**rom **G**ermany **S**wimming."

- *Use visualization tricks.* Because we often think in pictures, we can use our 'mind's eye' to help to memorize information as mental images. (Hint: Silly images can often make the information even easier to recall!) Here are a couple of ideas for memorizing a list of words or key terms:
 1. *Chaining.* First, think of an object to represent each word or term that you must commit to memory. Then construct a mental 'chain' that connects the objects in a short sequence. If, for example, you wanted to memorize the first four planets (Mercury, Venus, Earth, Mars), you might visualize a winged god (*Mercury*) planting a *Venus* flytrap in a pile of *earth* and surrounding it with *Mars* bars.
 2. *Familiar places.* Select a location that is quite familiar to you (e.g., your house or apartment). Next, think of an object to represent each word or term that you must commit to memory. Then mentally 'place' the objects at various places in the location. If you wished to remember the first four planets, for example, you might first pick your kitchen as a familiar location. Then you might imagine that a statue of *Mercury* is sitting on the stove, a *Venus* flytrap is sitting in the sink, a pile of *earth* is spilled on the floor, and two *Mars* bars are sitting on the counter.

Tips to Reduce Anxiety About Tests

A little nervousness before a test can be good. It motivates us to work hard and put forth our best effort on the examination. When we become too anxious, though, that anxiety can undermine our confidence and interfere with our ability to solve problems. Some tips to reduce test anxiety are to:

- *Remember to take care of yourself first.* You should be sure to eat healthy foods and to get enough sleep before a test. After all, sleepy, hungry people are not in the best frame of mind to perform well on tests! You may also want to engage in moderate physical activity or exercise prior to taking the test to reduce body tension. A student who gets a full night's sleep, goes for a jog, and eats a balanced breakfast prior



to the test will improve the odds of doing his or her best on an examination and avoiding the 'testing jitters.'

- **Take practice exams.** People are less likely to become anxious when doing something that is familiar. If your instructor gives you the opportunity to take practice exams, take advantage of the opportunity to study the tests and become familiar with their format and style. During a study period, take the practice exam under the same conditions that you would take the real exam. (For example, if notes are not allowed during the test, do not look at your notes when taking the practice exam. If the test is timed, observe the same time limit when completing the practice exam.)
- **Come prepared.** Arrive at the test site early. Make a special effort to bring all materials, including extra pens, pencils, paper, etc. By showing up on time and prepared, you will not have to waste valuable energy worrying about small details and become distracted from the real goal: doing your best.
- **Make an effort to relax periodically during the test.** During a test, you may feel yourself becoming tense or nervous. Whenever you feel the tension building, take a brief relaxation break, using whatever method works for you. Here are some simple relaxation ideas:
 - Take several deep breaths, exhaling slowly after each one. Visualize the tension draining from your body as you breathe out.
 - Tense your muscles and hold for 5 seconds, then relax. Repeat 3 times.
 - Think of a peaceful, quiet setting (e.g., the beach). Imagine yourself calm and relaxed in that setting.
- **Engage in positive self-talk.** Replace irrational negative thinking with positive self-talk. When you have studied hard for a test, for example, your confidence will be shaken if you think negative thoughts such as "I don't have a chance of passing this exam!" Instead, adopt an upbeat but realistic attitude: "I prepared carefully for this test. If I do my best, I have a good chance of passing it." One more tip: If your friends are nervous about the test, try to avoid talking with them about it. You don't want their anxiety to rub off on you!

Effective Test-Taking Strategies

Become familiar with the test that you are about to take and have a mental plan for how you will spend your time most productively during the examination. If you follow a positive plan of action as you take the test, you will be less likely to feel helpless or to be preoccupied with anxious thoughts. Here are some useful test-taking strategies:



- **Listen carefully to directions.** Make a point to listen closely to any test directions that are read aloud. Read through written directions at least twice before starting on a test section to ensure that you do not misinterpret them. Hint: If you are confused or unsure of the test directions, ask the teacher or test proctor to explain or clarify them. It is better to seek help to clear up any confusion that you may have than to run the risk of misunderstanding the directions and completing test items incorrectly.
- **Perform a 'brain dump'.** At the start of the test, write down on a sheet of scrap paper any facts or key information that you are afraid that you might forget. This 'brain dump' will help you to feel less anxious

about forgetting important content. Plus, you can consult this sheet of information as a convenient reference during the test.

- *Preview the test.* Look over the sections of the test. Think about the total amount of time that you have to complete the test. Look at the point values that you can earn on each section of the examination. Budget your total time wisely so that you don't spend too much time on test sections that contribute few points to your score.
- *Multiple-choice: Don't get sidetracked looking for patterns of answers.* Some people claim that students can do better on multiple-choice tests if they look for patterns in the answers. For example, the advice is often given that, on questions with four possible answers, teachers most frequently choose "C" as the correct response. In rare cases, such patterns may actually exist—but it is never a reliable strategy to count on tricks and short cuts to do well on a test. Instead, your best bet is to study hard and rely on your own knowledge of the subject to do well.
- *Multiple-choice: Don't rush.* On multiple-choice items, force yourself to read each possible choice carefully before selecting an answer. Remember, some choices *appear* correct at first glance but turn out to be wrong when you take a closer look.
- *Essay questions: Underline key terms.* Before writing your essay, it is a good idea to underline important terms that appear in the test question as a check on your understanding. Words such as *compare*, *contrast*, *discuss*, and *summarize* will give you clear direction on the form that your essay should take and the content that it should include.
- *Essay questions: Outline your answer before you write it.* No teacher wants to read a rambling essay that fails to answer the test question. You can improve the quality of your essay by first organizing your thoughts into a brief outline on scrap paper before you write it. Even a few short minutes of planning time can significantly improve the readability and organization of your essays. And don't forget to write neatly!
- *When in doubt...guess!* If the test does not penalize guessing, be sure that you write in a response for each test item, even if you don't know the answer.
- *Skip difficult items until last.* On timed tests, you should avoid getting bogged down on difficult items that can cause you to use up all of your time. Instead, when you find yourself stumped on a tough test item, skip it and go on to other problems. After you have finished all of the easiest test items, you can return to any skipped questions and try to answer them.
- *Use leftover time to check answers.* If you finish a test early, use the remaining time to check your answers. On multiple choice items, check to see that you answered all questions. Reread each written response to make sure that it makes sense, uses correct grammar, and fully answers the question.

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