

Study Skills

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9 Good Reading Habits

1. Use the cover up: For many students, the words on the page run and blur together. To help, use a 3x5 index card to cover everything except the sentence the student is reading. When they finish a line, they move the card down and repeat the process.
2. Text with finger: Along with the card, have the student follow their reading with their finger, engaging a tactical learning style.
3. Read aloud or mouth the words: Again, another way to engage verbal processing. Many students don't need to literally talk out loud - mouthing the words serves the same end.
4. Keep moving: As always, fidgeting is good for the brain. Keep them moving, to keep them on target.
5. Use 3-color highlighting: Highlights are a cheap and easy way to integrate visual memory into a reading process. Students can use 3 different colors and have them assign a different color to the main points, supporting details and terms of the reading.
6. Use bookmarks/flagging: The student uses a type of "red flag" that they can use to mark important ideas or passages. The coolest ones are made by 3M and are literally plastic flaps that come in all different colors and stick directly on to the pages. Also, the students' record in a notebook the page numbers and any thoughts they had on why they flagged that page.
7. Take margin notes: If allowed, have the students write notes, questions, comments, side remarks, or draw pictures in the margin.
8. Write or talk out summaries: Having a student take a few minutes to either write up a reading summary or talk it out will help him retain the readings and ultimately help him recall it come test or essay time.
9. Consider reading notes: I include this one with some hesitation - reading notes are great for some students and horrible for others. The problem with reading notes is that for some students, if they take notes, they'll never finish reading. The upside of reading notes is that they can obviously help with retention and retrieval of information come test time. So if you decide to work with the students on taking reading notes, make sure you limit them to writing at most one sentence about every other paragraph and summaries at the end of sections or chapters depending on the lengths of the assignments.

Reading Difficult Material

- Choose a moderate amount of material or a chapter to begin
- Get a grasp of how the material is organized: Scan the section for titles, headings, sub-headings, and topic sentences to get its general idea; pay attention to graphs, charts and diagrams
- If there is a summary at the end of the chapter, read it. Check the beginning and the end for leading questions and exercises
- Read first for what you do understand and to determine difficulty. Mark what you do not understand to review later
- As you read, practice the "look-away method:" Periodically look away from the text and ask yourself a stimulus question relating to the text. Phrase the question positively! Respond, or restate, in your own words. Make connections and associations, but don't use this exercise to memorize - but rather understand.
- Look up words whose meanings are important to your understanding of the material, but you cannot discern from the context.
- Read to the end - do not get discouraged and stop reading. Ideas can become clearer the more you read. When you finish reading, review to see what you have learned, and reread those ideas that are not clear.
- Organize your notes by connecting ideas you choose into an outline or concept map. Pay attention to relationships between ideas. Do not confine yourself to words! Use representations, graphics, pictures, colors, even movement to visualize and connect ideas. Use whatever techniques work to help you understand. At this point, if you do not understand your reading, do not panic! Set it aside, and read it again the next day. If necessary, repeat. This allows your brain to process the material, even while you're sleeping.
- Reread the section you have chosen with the framework (outline or concept map) you have constructed in mind. Separate out what you do understand from what you do not.
- If the reading is still a challenge, consult, with a teacher, or reading specialist.

IF...The Subject Matter Is Difficult To Comprehend...

- Arrange to study with fellow students. Discuss difficult concepts - quiz each other.
- Use your dictionary! Keep a list of unfamiliar words and their definitions, or make vocabulary cards with the new word on one side and the definition on the other. Use heavy paper such as index cards. When you have any free time, go through the cards.
- Check the library for books on the same subject, which may present the material in easier terms.
- Use the **SQ3R** Method.
 1. **Survey** - Skim the chapter, read headings, introductory and concluding paragraphs, summary.
 2. **Question** - Turn heading into questions. If there are no headings, make up questions like "What are the major points on pages 65-70?"
 3. **Read** - Read the material, trying to answer the questions.
 4. **Recall** - Go back and answer the questions without looking at the book. You may wish to recite out loud.
 5. **Revue** - Think about the meaning of what you've read. Write a brief outline or paragraph of the entire chapter without using any notes that you might have made.
- Expect to have to spend more time on this subject. An old rule has proven adequate: for every hour spent in class, a student may need to spend 2 hours out of class on that subject. Sometimes even more time must be devoted to the subject.
- Adjust your reading speed to the material. Easy material can be read quickly; more difficult material must be read slowly.
- As you read, take notes on important facts and ideas.
- Adjust the amount the time you study to the type of material: If you are required to understand relationships, study for relatively long periods, up to an hour. If you are studying new material, set aside at least half an hour every day.

Have you thought of this?

- **Increase Reading Speed** - Reading difficulties stem from a variety of causes: single word reading; inadequate vocabulary; inability to vary the reading rate to suit the material; lack of concentration; and a habit of reading slowly. Become conscious of your reading habits. See if you are able to determine where you are struggling. Teach yourself to read phrases, not single words. Your eyes should **NOT** stop at each word but instead should move across the page stopping only in the middle of each small though block. Learning to read by phrase units will require practice and patience. Once you've developed the phrase reading technique, practice daily and push yourself. But always remember that rapid reading with low comprehension is not productive. Close reading demands your full intellectual powers and your full concentration.

If...I Have Trouble Taking Notes While My Teacher Is Talking

- Try to read the material before the teacher lectures.
- Don't try to write down every word. If the lecturer repeats material in the text, don't take notes.
- Learn to abbreviate. Words can be shortened by omitting vowels: brought - brgt; lesson - lssn; happiness - hppnss; or words can be shortened by abbreviating: government - gov't; yesterday - yest.; or symbols can be used to substitute for words:
 - And - &
 - At - @
 - Less than - <
 - More than - >
 - With - w/
 - Without - w/o

Symbols such as these can be found in many dictionaries.

- Rewrite your lecture notes as soon as possible, adding to them the material that you had not included in your original notes because of lack of time. If you do this on the computer, it won't take much time, and the rewriting will reinforce the original learning.

- When taking notes, write only on one side of paper. On the other side, supplement your notes from your readings, discussions with your instructor, etc.
- Listen, then write. If you concentrate hard on your note taking, you may miss the sense of the lecture.
- Leave blanks for words or phrases missed. Later ask the teacher or a fellow student to fill in the blanks.
- Date and label your notes.

If...I Can't Remember What I Read Or What I Hear in Lecture...

- Reread your notes as soon as you can after making them. Do not set them aside until quiz or test time.
- Have someone quiz you (using your notes) within a few hours of the first exposure.
- When memorizing, study only for 15-30 minutes, then do something else. After a break, come back to your memorizing.
- Take notes on your reading. Don't copy - use your own words.
- REMEMBER - Mastery of the material means frequent exposure to it.
- After class - review your notes and think about what was covered in class.
 1. Some people like to rewrite their notes
 2. Some people like to underline and highlight important ideas and vocabulary
 3. If you have a choice, try to sit near the front of the class - you can usually listen better if you are in the front.

Do not confuse listening with hearing. You can hear something but not be listening: "In one ear and out the other." To listen you must be thinking. Listening is an *active*, not passive activity.

Recitation works for several reasons:

1. When you know you are going to recite something in your own words, you pay more attention. It forces you to employ the principle of intent to remember.

2. You get immediate feedback. You know if you are able to explain something in your own words out loud. You understand it.
3. When you hear something, you have used an entirely different part of the brain.

TIPS

- Use flashcards for things you need to learn.
- When you finish reading a paragraph in your assignment, stop and recite. You will soon see that understanding what you read and explaining it out loud are very different. If you can explain something out loud, you are well on your way to learning it.
- Find a partner and ask each other questions and answer out loud.

Marking and Underlining Text

- First read a section
- Review the section, marking and underlining selectively
- Circle and/or box special vocabulary words and transitional words and phrases
- Number important or sequential ideas
- Underline information as if you were preparing brief notes from which you could study
- Underline all definitions of terminology
- Mark or label examples that represent main ideas
- Jot down paraphrases, questions, and summaries in available space within the text
- Use double lines under words or phrases to signify main ideas
- Use single lines under words or phrases to signify supporting material
- Mark small circled numbers near the initial word of an underlined group of words to indicate a series of arguments, facts, ideas - either main or supporting

- Use one asterisk in the margin to indicate ideas of special importance and two for general ideas of unusual importance. Reserve three asterisks for principles and high level generalizations
- Circle key words or terms
- Box words of enumeration or transition
- Place a question mark in the margin, opposite lines you do not understand, as a reminder to ask the teacher for clarification
- If you disagree with a statement, indicate that in the margin

Using Memory Effectively

1. **Acronyms and Acrostics (for information involving key words)**

An acronym is an invented combination of letters. Each letter is a cue to an idea you need to remember. Example: BRASS is an acronym for how to shoot a riffle - **B**reath, **R**elax, **A**im, **S**ight, **S**queeze.

An acrostic is an invented sentence where the first letter of each word is a cue to an idea you need to remember. Example: EVERY GOOD BOY DESERVES FUN is an acrostic to remember the order of G-clef notes on sheet music - E, G, B, D, F.

2. **Rhyme-Keys (for ordered or unordered lists)**

First, memorize keywords that can be associated with numbers. For instance, bun with one; shoe with two; tree with three; door with four; hive with five, etc. Next create an image of the items you need to remember the keywords. For example, if you had to remember the four basic food groups - dairy products, meat, fish and poultry; grains and fruit and vegetables, imagine cheese on a bun, livestock with shoes on, a sack of grain suspended in a tree and opening a door to a room stocked with fruits and vegetables.

3. **The Method of Loci (for approximately twenty items)**

Select any location that you have spent a lot of time in and have easily memorized. Imagine yourself walking through the location, selecting clearly defined places - the door, sofa, refrigerator, shelf, etc.

Imagine yourself putting objects that you need to remember into each of these places by walking through this location in a direct path. Again, you need a standard direct path and clearly defined locations for objects to facilitate the retrieval of these objects. For example, if you had to remember George Washington, Thomas Jefferson and Richard Nixon, you could imagine walking up the door of your location and seeing a dollar stuck in the door; when you open the door,

Jefferson is reclining on the sofa and Nixon is eating out of the refrigerator.

4. The Keyword Method (for foreign language vocabulary)

First, after considering the foreign word you need to remember, select a keyword in English that sounds like the foreign word. Next, imagine an image which involves the keyword with the English meaning of the foreign word.

For example, consider the Spanish word "cabina" which means "phone booth." For the English keyword, you might think of "cab in a..." You could then invent an image of a cab trying to fit in a phone booth. When you see the word "cabina" on the test, you should be able to recall the image of the cab and you should be able to retrieve the definition "phone booth."

5. The Image-Name Technique (for remembering names)

Simply invent any relationship between the name and the physical characteristics of the person. For example, if you had to remember Shirley Temple's name, you might ingrain the name in memory by noticing that she has "curly" (rhymes with Shirley) hair around her temples.

6. Chaining (for ordered or unordered lists)

Create a story where each word or idea you have to remember cues the next idea you need to recall. If you had to remember the words Napoleon, ear, door and Germany, you could invent a story of Napoleon with his ear to a door listening to people speak German.

Adapted by Bob Nelson from *The Complete Problem Solver* by J.R. Hayes, 1989

Index Study System

Here is a method of studying that gives you an accurate perception of how well you know the material and forces you to think about it rather than just look over it.

- Review your notes and readings frequently so the material is "fresh"
- As you're reading your text or reviewing your notes, generate and write down questions about the material. Imagine you are teaching the course. What questions would you ask on the exam?
- Keep track of any terms you need to know
- Write each question or term on the back of an index card. On the front of each index card, write the answer or explanation for the question or term on the back. Use your notes for reference, but put the answer or explanation in your own words whenever possible
- Shuffle the index cards so you can't figure out any answers based on their location in the deck
- Look at the card on the top of the deck. Try to answer the question or explain the term. If you know it, great! Put it on the bottom of the deck. If you don't know it, look at the answer and put it a few cards down in the deck so you will come back to it soon.
- Proceed through the deck of cards until you know all the information

Some Tips

- Carry your cards with you everywhere. Take advantage of little pockets of time. Test yourself while you're waiting on line, riding the bus, etc.
- If you think you know an answer but can't put it into words, you probably don't know it well enough. Being able to explain the information is the only way to be sure that you know it. It's also the best way to prevent test anxiety
- Consider testing yourself someplace where nobody can see you (and think you're crazy) and recite the answers out loud. That's the best way to be sure that you can explain them

- Study with a friend from your class. You can share ideas and help each other out with concepts. Also, you can use each other to make sure that you're explaining your answers adequately.

Paying Attention in the Classroom

If you have difficulty paying attention to what is being said in the classroom:

- Try to anticipate the main ideas of the coming lecture. Look over your notes of the previous lecture and read the course material. If you have questions from the previous class or text, ask the instructor before class about them. Prepare a few questions you expect to be answered on new material if possible
- Resist distractions by sitting in front of the room away from disruptive classmates and by focusing on the instructor through active listening and note taking
- Put yourself in the "mood" with attentive expression and posture; do not sprawl
- Shift position in your seat every so often. Don't sit frozen in one position. Shifting on occasion will help keep the blood circulating, sending more oxygen to your brain and help you remain alert
- When appropriate, ask a question, ask for more clarity, or engage an instructor and the class in dialogue
- Train yourself not to give in to distractions.

The Spider Technique

Hold a vibrating tuning fork next to a spider web. The spider will react and come looking for what is vibrating the web. Do it several times and the spider "wises up" and knows there's no bug and doesn't come looking.

You can learn that. When someone enters the room, or when a door slams, do not allow yourself to participate. Rather, keep your concentration on what is in front of you.

- Form a tunnel between you and the lecturer. Practice letting people move or cough without having to look at them - just let them "be out there" as you focus on what is being taught

- When talking with someone, keep your attention on that person, look at his face and note what is being said. Let the rest of the world just "be out there."

Use the "Focus" technique to help you regain concentration when you do become distracted momentarily.

Concentrating When Studying

Concentration (the ability to direct your thinking)

The art of practice of concentration, no matter if studying biology or playing pool, is to focus on the task at hand and eliminate distraction.

We all have the ability to concentrate - sometimes. Think of the times when you were "lost" in something you enjoy: a sport, playing music, a good game, a movie. Total concentration.

But at other times,

- Your mind wanders from one thing to another
- Your worries distract you
- Outside distractions take you away before you know it
- The material is boring, difficult and/or not interesting to you

These tips may help; they involve:

1. What you can control in your studies
2. Best practices

What you can Control in your Studies.

"Here I study." Get a dedicated space, chair, table, lighting and environment. Avoid your cell phone or telephone. Put up a sign to avoid being disturbed or interrupted. If you like music in the background, OK, but don't let it be a distraction. (Research on productivity with music versus without music is inconclusive)

Stick to a routine and efficient study schedule.

Accommodate your day/nighttime energy levels.

Focus

Before you begin studying, take a few minutes to summarize a few objectives, gather what you need and think of a general strategy of accomplishment

Incentives

Create an incentive if necessary for successfully completing a task, such as calling a friend, a food treat, a walk, etc. For special projects such as term papers, design projects, long book reviews, set up a special incentive.

Change Topics

Change the subject you study every one to two hours for variety

Vary your Study Activities

Alternate reading with more active learning exercises. If you have a lot of reading, try the SQ3R method. Ask yourself how you could increase your activity level while studying? Perhaps a group will be best? Creating new study questions? Ask your teacher for alternative strategies for learning. The more active your learning, the better.

Take Regularly Scheduled Breaks

Do something different from what you've been doing. (e.g., walk around if you've been sitting) and in a different area.

Rewards

Give yourself a reward when you've completed a task.

Best Practices

You should notice improvement in a few days, but like any practice, there will be ups, levels and downs. It will benefit other activities you do!

Focus

This deceptively simple strategy is probably the most effective. When you notice your thoughts wandering astray, say to yourself, **"Focus"** and gently bring your attention back to where you want it.

For example: you're studying and your attention strays to all the other homework you have, to a date, to the fact that you are hungry. Say to yourself **"Focus."** Focus on the subject with questions, summarizing, outlining, mapping, etc. and maintain your attention there as long as possible. When it wanders again, repeat, **"Focus"** and gently bring your attention back and continue this practice, repeatedly. It will work.

Do not try to keep particular thoughts out of your mind. For example, as you sit there, close your eyes and think about anything you want for the next three minutes except cookies. Try not to think about cookies... When you try not to think about something, it keeps coming back. "I'm not going to think about cookies. I'm not going to think about cookies!"

You might do this hundreds of times a week. Gradually, you'll find that the period of time between your straying thoughts gets a little longer every few days. So be patient and keep at it. You'll see some improvement!

Do not constantly judge your progress. Take it easy on yourself. Good practice is enough to say that you did it and that you are on the road. The mind is always different and the practice unfolds over time with many ups and downs.

Worry or Think Time

Research has proven that people who use a worry time find themselves worrying 35 percent less of the time within four weeks.

1. Set aside a specific time each day to think about the things that keep entering your mind and interfering with your concentration.

2. When you become aware of a distracting thought, remind yourself that you have a special time to think about them.
3. Let the thought go perhaps with "Focus."
4. Keep your appointment to worry or think about those distracting issues

For example, set 4:30 p.m. to 5:00 p.m. as your worry/think time. When your mind is sidetracked into worrying during the day, remind yourself that you have a special time for worrying. Then, let the thought go for the present and return your focus to your immediate activity.

Tallying your Mental Wanderings

Have a 3 x 5 inch card handy. Draw two lines dividing the card into three sections. Label them "morning," "afternoon," and "evening." Each time your mind wanders, make a tally in the appropriate section. Keep a card for each day. As your skills build, you'll see the number of tallies decrease.

Maximizing Your Energy Level

When is your energy level at its highest? When are your low energy times? Study your most difficult courses at your high-energy times. Sharpest early in the evening? Study your most difficult course then. Later in the evening? Work on your easier courses or the ones you enjoy the most. Most students put off the tough studies until later in the evening when they become tired and it is more difficult to concentrate. Reverse that. Study hard subjects at peak energy times; easier ones later. This alone can help to improve your concentration.

Visualize

As an exercise before you begin studying, think of those times when concentration is not a problem for you - no matter what situation. Now try to feel or imagine yourself in that situation. Recapture that experience immediately before your studies by placing yourself in that moment. Repeat before each study session.

Note Taking

You can develop your own note taking system and study strategy:

Record * Reduce * Recite * Reflect * Review

Get a good loose-leaf notebook. This will enable you to add, delete, and re-sequence pages and materials. Begin each session's notes with a cover page for later summaries and test preparation.

A typical notes page:

Date and Heading	
Reduce After class note: <ul style="list-style-type: none"> • Key/cue words • Phrases • Questions Link information from the text or other sources	Record/take notes here: Identify the main points Capture the main ideas Use outlines or concept maps Use pictures and graphs or whatever it takes to get the information down quickly. Avoid quoting unless it is very necessary.
Review: Summarize the page, especially challenging content	

Heading

- Date
- Class/subject or title or number (e.g. 3/34)
- Guest speakers' names, including your fellow students' contributions

Recite: Talk Aloud!

- Review from memory what you have learned
- Using the left-hand margin's keywords and questions, talk through, or illustrate definitions, concepts, etc.
- Create your own examples

Reflect: Think Over!

How does this relate to what you knew before?

Note the essay terms and find the best ones that refer to your studies:

Apply, Compare, Diagram, Evaluate, etc.

Review the Notes You Took

Summarize your notes on the bottom of the page at your next study session and before reading new material or studying for tests.

Multiple Pages of Notes for One Lecture

- Summarize each page at the bottom
- Summarize the lecture either at a cover or end page