

Discovering Your Learning Curve

In order to excel in college, you must first learn how to study properly. Contrary to historical opinion, there are many effective ways to learn information; it is a question of figuring out what works for you. What type of studying best suits you? What time of day are you most efficient? What is the proper environment for you to study in? Before you can answer these questions, you have to do a little research. It takes an effort but the rewards are more than worth it.

Memory

When we first learn something, information is processed into the brain to form a neural trace. This trace first enters your sensory memory, and then, if you're paying attention, to your Short Term Memory, or STM. If you keep working to process the information and adapt it correctly it then moves to your Long Term Memory, or LTM. The information processed into your LTM is more or less permanent; with occasional reviewing you will not forget it. The trick is to adapt the information you really need into your LTM as quickly as possible. Your STM has a small capacity and a short duration; you may learn something very quickly, but in 24 hours you will lose 80% of that information. The STM is fast and easily accessed, the LTM is slower but larger.

Repetition

The key to learning something well is repetition; the more times you go over the material the better chance you have of storing it permanently. Before you begin this process, however, it makes sense that you determine the type of learner you are. There are three basic types of learning: Auditory, Visual and Kinesthetic (Tactile). Most of us are some combination of the three, but chances are one style will suit us more than the other two.

Auditory Learners Usually:

- Prefer to get information by listening-needs to hear it to know it
- May have difficulty following written directions
- Find difficulty with reading
- Experience problems with writing
- Cannot read body language and facial expressions

Auditory Learners Should:

- Read and discuss what you read with others.
- Talk to yourself out loud about what you read.
- Get someone to read portions of a book out loud. Reread them on your own later.
- Read aloud, go over your notes and talk to yourself about the important points.
- Before reading, set a purpose and verbalize it, after you've finished be sure to summarize out loud what you just read.
- Speak your ideas into a tape machine as if you were having a conversation with someone.
- Because Auditory learners sometimes have trouble keeping columns aligned, try doing math computations by hand or on graph paper.
- Join or create a study group, or get a study partner.
- To learn a sequence of steps, write them out in sentence form, then read them out loud.
- When you are learning new information, state the problem out loud and reason through solutions out loud.
- Make up a song using the subject material. (The crazier the better.)
- Make up and repeat rhymes to remember facts, dates, names, etc.
- Use tapes for reading, for class and lecture notes.
- Learn by interviewing or by participating in class discussions.
- Read aloud test questions or directions.



Visual Learners Usually:

- Need to see it to know it
- Have a strong sense of color
- May have artistic ability
- Often have difficulty with spoken directions
- May over-react to sounds
- May have trouble following lectures
- Often misinterprets words
- Have trouble working while having a dialogue, even if the dialogue directly pertains to the subject matter

Visual Learners Should:

- Look at the professors when they are speaking, participate in class discussions and take detailed notes during lectures.
- Study alone in a quiet place and try to transcribe your material on paper.
- When possible make drawings, graphs or tables of complex abstract ideas and work alone.
- Create a system of color-coded highlighting to organize notes.
- Create charts and diagrams that demonstrate key points.
- Use the computer to organize materials, to create graphs, tables, charts, and spreadsheets.
- Make flashcards and use them during the session/s. The act of writing (the cards) and viewing them doubles your comprehension.
- Visualize the scene, formula, words, charts, etc.
- Write the explanation down first when you need to explain something.
- Use acronyms, visual chains, and mind maps.
- Take notes during class, tutoring sessions, study groups, etc. This is a must for most visual learners.
- Use graphics to reinforce learning; films, slides, illustrations, diagrams and doodles.
- Ask for written directions.
- Visualize spelling of words or facts to be memorized.



Kinesthetic Learners Usually:

- Prefer hands-on learning
- Often can assemble parts without reading directions
- Have difficulty sitting still
- Learn better when physical activity is involved
- May be very well coordinated and possess athletic ability

Kinesthetic Learners Should:

- Make studying more physical; work at a standing desk, pace around the room, do reading while on an exercise bike, chew gum.
- Try to use color when you can; highlight your readings, read with a filtered light, put posters and bright colors around your desk.
- Vary your activities, if you feel frustrated or 'clogged up' do something different for a few minutes.
- Try and keep a list of distractions as they come to you; once you write them down, they won't bother your concentration as much.
- \circ Play music in the background at whatever volume you choose to.
- \circ $\,$ Skim over the chapter to get a basic meaning before you really dig in.
- Visualize complex projects from start to finish before you begin them. Visualization is a useful tool for Kinesthetic people, it helps you keep a positive, productive outlook on the task at hand.
- Pick up the book as you are reading or talking.
- Write as you are reading or talking.
- $\circ~$ Sit near the front of your classroom and take notes to stay focused.
- Spend extra time in any study labs offered.
- $\circ~$ Use the computer to reinforce learning using your sense of touch.
- Write lists repeatedly.
- Use gestures when giving explanations.
- Make models that demonstrate the key concept. (The purpose here is the act of making the model.)
- Make flashcards for each step in the procedure. Put the cards in order until the sequence becomes automatic.
- \circ $\,$ Use audiotapes from classes and play them while you walk or exercise.
- Take frequent breaks in study period.

