

How to Study and Learn

excerpt from criticalthinking.org

All thinking occurs within, and across, disciplines and domains of knowledge and experience, yet few students learn how to think well within those domains. Despite having taken many classes, few are able to think biologically, chemically, geographically, sociologically, anthropologically, historically, artistically, ethically, or philosophically. Students study literature, but do not think in a literary way as a result. They study poetry, but do not think poetically. They do not know how to think like a reader when reading, nor how to think like a writer while writing, nor how to think like a listener while listening. Consequently they are poor readers, writers, and listeners. They use words and ideas, but do not know how to think ideas through, and internalize foundational meanings. They take classes but cannot make connections between the logic of a discipline and what is important in life. Even the best students often have these deficiencies.

To study well and learn any subject is to learn how to think with discipline within that subject. It is to learn to think within its logic, to:

- raise vital questions and problems within it, formulating them clearly and precisely
- gather and assess information, using ideas to interpret that information insightfully
- come to well-reasoned conclusions and solutions, testing them against relevant criteria and standards
- adopt the point of view of the discipline, recognizing and assessing, as needs be, its assumptions, implications, and practical consequences
- communicate effectively with others using the language of the discipline and that of educated public discourse
- relate what one is learning in the subject to other subjects and to what is significant in human life

To become a skilled learner is to become a self-directed, self-disciplined, self-monitored, and self-corrective thinker, who has given assent to rigorous standards of thought and mindful command of their use. Skilled learning of a discipline requires that one respect the power of it, as well as its, and one's own, historical and human limitations...

[Here are] eighteen ideas for becoming a master student:

Idea #1: Make sure you thoroughly understand the requirements of each class, how it will be taught and what will be expected of you. Ask questions about the grading policies and for advice on how best to prepare for class.

Idea # 2: Become an active learner. Be prepared to work ideas into your thinking by active reading, writing, speaking, and listening.

Idea # 3: Think of each subject you study as a form of thinking (If you are in a history class, your goal should be to think historically; in a chemistry class to think chemically; etc...)

Idea # 4: Become a questioner. Engage yourself in lectures and discussions by asking questions. If you don't ask questions, you will probably not discover what you do and do not know.

Idea # 5: Look for interconnections. The content in every class is always a SYSTEM of interconnected ideas, never a random list of things to memorize. Don't memorize like a parrot. Study like a detective, always relating new learning to previous learning.

Idea # 6: Think of your instructor as your coach. Think of yourself as a team member trying to practice the thinking exemplified by your instructor. For example, in an algebra class, think of yourself as going out for the algebra team and your teacher as demonstrating how to prepare for the games (tests).

Idea # 7: Think about the textbook as the thinking of the author. Your job is to think the thinking of the author. For example, role-play the author frequently. Explain the main points of the text to another student, as if you were the author.

Ideal # 8: Consider class time as a time in which you PRACTICE thinking (within the subject) using the fundamental concepts and principles of the course. Don't sit back passively, waiting for knowledge to fall into your head like rain into a rain barrel. It won't.

Idea # 9: Relate content whenever possible to issues and problems and practical situations in your life. If you can't connect it to your life, you don't know it.

Idea # 10: Figure out what study and learning skills you are not good at. Practice those skills whenever possible. Recognizing and correcting your weaknesses is a strength.

Idea # 11: Frequently ask yourself: "Can I explain this to someone not in class?" (If not, then you haven't learned it well enough.)

Idea # 12: Seek to find the key concept of the course during the first couple of class meetings. For example, in a Biology course, try explaining what biology is in your own words? Then relate that definition to each segment of what you learn afterward. Fundamental ideas are the basis for all others.

Idea # 13: Routinely ask questions to fill in the missing pieces in your learning. Can you elaborate further on this? Can you give an example of that? If you don't have examples, you are not connecting what you are learning to your life.

Idea # 14: Test yourself before you come to class by trying to summarize, orally or in writing, the main points of the previous class meeting. If you cannot summarize main points, you haven't learned them.

Idea # 15: Learn to test your thinking using intellectual standards? "Am I being clear? Accurate? Precise? Relevant? Logical? Am I looking for what is most significant?"

Idea # 16: Use writing as a way to learn by writing summaries in your own words of important points from the textbook or other reading material. Make up test questions. Write out answers to your own questions.

Idea # 17: Frequently evaluate your listening. Are you actively listening for main points? Can you summarize what your instructor is saying in your own words? Can you elaborate what is meant by key terms?

Idea # 18: Frequently evaluate your reading. Are you reading the textbook actively? Are you asking questions as you read? Can you distinguish what you understand from what you don't?