

Self-Testing: Student Tip Sheet

Self-testing is a very potent learning strategy. In studies that compare the effectiveness of different learning strategies, self-testing comes out on top. It is effective for two reasons:

1. Whenever you try to recall information you have been learning, it strengthens your memory. This makes it more likely that you will recall the information again in the future.
2. When you try but can't remember information, it is a clear signal that you don't know it and that you need to go back and review it.

Self-testing can be done in many different ways to enhance your learning. Here are a few examples, and you may think of additional ways to incorporate it into your study.

When you read an assignment. Read a segment of the material, a paragraph or an entire page. Then stop, put the material aside and try to write down everything you remember from what you just read. This will seem difficult and you probably won't remember everything or even understand everything. But that's OK; the point is to try to remember it. You will be strengthening your memory for everything you are able to recall, and that information will be easier to remember again later. Go through the entire assignment, reading and then trying to remember the information from each part.

Research has shown that this type of practice testing is superior to reading and rereading the material, and even better than reading and taking notes on the material. Here is another tip. Reread the assignment several days later. But before you reread, take a few minutes to test yourself by trying to remember the information from the assignment. Jot down everything you remember. Then read the assignment again, using the self-testing approach. When you are done, use your answers to identify gaps in your knowledge and understanding of the material. You can then go back and review the chapter and pay special attention to the parts of the material you don't yet know.

This self testing approach will probably seem more difficult than simply rereading or taking notes from the reading assignment. And, it is. You are using your mind in a different way to think about the subject matter. Rereading and note taking seem easier because you don't have to think deeply about the meaning of the material or try to remember it. Although practice testing feels harder, on the plus side, it is more effective and takes less time than rereading or reading and note-taking.

At the end of class. As soon as you can after class, take five minutes to write down the major points from the class period, and then try to recall as much as you can under each major point. This is an excellent way to consolidate what you were trying to learn in class. Then later when you review your class notes, handouts, etc., you can refer back to your answers to see where you need to review and add to your understanding.

Answer practice questions. If you use a textbook that has questions at the end of each chapter, get in the habit of trying to answer them. Read the chapter and then answer the questions as best you can. Don't look back at the answers in the book. You may not be able to answer all of them well, but that's OK. Trying to answer the questions will improve your memory for the material. You can then go back and review the chapter, paying special attention to the gaps in your answers.

Answer Study Guide Questions. A study guide from the instructor is a gift; use it! If the study guide includes practice test questions – use them!! An effective approach is to: 1) review the study guide questions for the assigned reading first, 2) then read the assignment, and 3) then answer the questions without looking back at the material. Don't answer the questions by looking back at the book! Don't look up the answers! Try to answer the questions as best you can first. The next time you read the assignment review your answers and then study the material strategically – paying special attention to gaps in your understanding and weak spots in your answers.

Flash Cards. Research shows that many college students use flash cards to study. Flash cards can help you learn specific ideas, concepts, formulas, or terminology. Using flash cards is a form of self-testing. To maximize the benefit from using flash cards, do these things:

1. Each time you look at a card try to answer the question before looking at the answer. Try hard and don't look at the answer too soon.
2. If you answer correctly, do not drop the card from further study. Keep it in the deck. Just because you get an answer correct one time does not mean you will know the answer when you take a real test over the material. A good rule of thumb is to answer the question several times correctly on different occasions before dropping the card from further study.
3. Spread out your use of the flashcards. It won't help much to look at the same cards 5 times in one hour. It would be a lot more effective to self-test using the flashcards several different times over a period of a few days.
4. Practice the concepts during the entire semester to ensure that you know the material so well you won't need to cram for the final exam. Seriously, this is a way to study for the final exam in small doses throughout the semester.

Remember:

1. Try to remember the flash card answer before looking at the answer on the card. If you don't really test yourself, the using flashcards is no more effective than just reading the material.
2. Don't drop a card from study too soon. You should be able to answer the card correctly at several different times. Think of it this way. You may be able to answer the card correctly today—but can you answer it correctly in several days when it is on an exam. The best way to protect yourself from forgetting, is by testing yourself over the material at several different times.

Keep in mind three more things about the limitations of flash cards:

1. Flash cards will help you learn the information on the card. They will not help you learn concepts that are not part of the flash card questions.
2. Flash cards help you remember information. They may not help you more fully understand the concepts being tested. If you don't understand the material try a different strategy like self-explanation to develop a better grasp of the concepts.
3. Flash cards are unlikely to help you learn to apply the material. If your course exams involve solving problems, applying material to new situations, analyzing or evaluating ideas, flash cards won't be much help. Instead you need to use practice tests in which you practice applying the material, solving problems, analyzing or evaluating ideas.