

## How to Learn More Effectively from Taking Notes

Notetaking can be an effective way to make sense of new information and preserve it in memory. But many students have difficulty taking notes effectively. Research has shown, for example, that college students' notes typically include less than one half of the main ideas from a class period (Kiewra, 1989).

Why note-taking is difficult in class

Taking notes during a lecture is a strenuous mental activity. You must listen to the teacher, read slides and graphics, compare the oral presentation with the graphics, filter out distractions, think about the meaning of the information, and decide what to write down and how to write it. These are a lot of tasks to juggle at one time. It is easy to get overloaded and frustrated. When mentally taxed, students may resort to a simple notetaking strategy such as writing down as much as they can without thinking about the information.

Even when lectures are well organized and the presentation is clear, many students use a verbatim notetaking approach, trying to write down everything the instructor says. With a verbatim approach you may produce a lot of notes but writing the information takes most of your mental effort. As a result, you are not able to think about the material and don't develop much understanding of the subject. Think of it this way – when you take verbatim notes your mind is focused on what the teacher says so that you can write it down. In order to learn the material, you need to focus on what the information means so that you can make sense of it and remember it.

What constitutes more effective note-taking?

Note-taking serves two important functions for learning. One, it can aid comprehension, especially when you try to make sense of the information, paraphrase it and connect it to what you already know. Second, note-taking is a way to preserve new information for later study. You can refer back to your notes to remind yourself about the subject matter.

Three key elements make note-taking a more effective learning experience:

1. You think about the meaning of the information and write it in your own words. This need not be full sentences. Notetaking can include key words, phrases, drawings, diagrams, symbols, and abbreviations to represent the material [aids comprehension].
2. You attend to the organization and structure of the information. Rather than treat the information like a stream of facts and ideas, you think about how the parts of a lecture are connected or related. This helps you see the information as a body of related concepts rather than a lot of isolated factual information [aids comprehension].
3. You review your notes later and fill in missing information, and use them for self-testing [aids memory].

Below are two note-taking approaches that incorporate these three features. If you struggle to take notes that help you learn and understand the material, consider adopting one of these approaches:

**The Cornell Note-taking System.** In the Cornell approach, the most important task during class is to write the gist of the information presented. Use phrases, diagrams, key words or full sentences in

your own words. Then after class, you create questions and “cue words” related to your notes. You use your notes and questions for review and study.

Here’s how it works

To understand the procedure, use the one-page handout at the end of this document or download the handout at <http://lsc.cornell.edu/wp-content/uploads/2016/10/Cornell-NoteTaking-System.pdf>.

1. Divide your paper (or screen if using a laptop) into two columns. The left column is for CUES, the right column is for your class NOTES.
2. Record NOTES (right column) – During class, write down key ideas and phrases, diagrams. Try to write the gist of the information as best you can. Don’t focus on grammar.
3. Write a summary of your notes at the end of class or soon after.
4. Create QUESTIONS and CUE WORDS (left column): As soon as possible after class, formulate questions based on your notes. If you can’t think of questions just write “cue-words” that indicate what the topics are in the Notes column. Writing questions helps to clarify meanings, reveal relationships, establish continuity, and strengthen memory. Also, the questions and cue words can be used later for practice testing when you study for the exam.

Now use your NOTES and QUESTIONS to study.

5. RECITE: Cover your NOTES (right column) with a sheet of paper. Then, looking at the CUE column (left column), say aloud in your own words, the answers to the questions, facts, or ideas indicated by the cue-words. This type of practice [self-testing](#) is a very effective way to learn and retain the material.
6. REFLECT: Reflect on the material by asking yourself questions, for example: “What’s the significance of these facts? What principle are they based on? How can I apply them? How do they fit in with what I already know? What’s beyond them? This type of reflection and [self-explanation](#) is a very effective way to develop your understanding of the material.
7. REVIEW: Spend at least ten minutes every week reviewing all your previous notes. Review should include self-testing in which you use your questions and cue words and then try to answer them without looking at your notes. Regular review and self-testing will lead to long term learning. You will be better prepared for class and for exams.

For more information about using the Cornell method, see this [4-minute video](#) [https://www.youtube.com/watch?time\\_continue=6&v=nX-xshA\\_0m8&feature=emb\\_logo](https://www.youtube.com/watch?time_continue=6&v=nX-xshA_0m8&feature=emb_logo)

**Skeletal Lecture Outlines.** A skeletal outline is simply a list of the major topics and questions addressed in a lecture. If your instructor provides skeletal outlines for class lectures, use them! If not, create your own by listing the major headings, topics and questions from the lecture. Leave space between the topics so you can write notes under each heading. Sometimes the instructor’s slides are already formatted this way.

1. Use the outline to organize your notes during class. Write information under the related headings.

2. Write down the gist even if the thoughts are incomplete and fragmented. You can come back to them later. Draw diagrams, symbols, and abbreviations if you think they will help depict a concept or process.
3. Ask questions during class! If you can't ask questions in class, talk to your instructor, a tutor or classmates after class.
4. As soon as you can after class, go back to your notes and try to elaborate on them by completing some of the incomplete thoughts, adding new information, filling in gaps where you missed material.
5. Review and Self-Test. Create questions based on the material to use for practice testing. Write brief summaries of the topics. Identify key terminology and make sure you can recall their meanings.
6. Sweat the details. Write down any questions about things you don't understand so that you can get help answering them.

**Summary.** The Cornell and Skeletal Outline approaches are structured ways to learn from notetaking. In both methods you think about and record the meaning of the new information. In addition, you use your notes for review, self-testing and self-explaining. These mental activities help you make sense of new information and retain it longer.

Research has shown that notetaking is most effective when you:

1. write the gist or meaning of the information in your own words. This can include phrases, individual words, full sentences, diagrams and other symbols that represent the gist of the information.
2. use your notes to review and study. Instead of simply rereading your notes, you will benefit most if you
  - explain the material to yourself, which may involve trying to define concepts, explain ideas and procedures.
  - test yourself by answering questions and/or trying to recall concepts, ideas and procedures without looking at your notes.
  - Use your notes to self-test and self-explain regularly, e.g., 10-20 minutes several times a week.

## References

Kiewra, K. A., Dubois, N. F., Christensen, M., Kim, S., & Lindberg, N. (1989). A more equitable account of the note-taking functions in learning from lecture and from text. *Instructional Science*, *18*, 217-232.

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## The Cornell Note-taking System

