

# Note Taking Strategies

## Why take notes?

Taking notes, reviewing them, and synthesizing information positively affects your learning process. Research has shown that taking notes actively can make you more likely to remember information and can help you perform better on exams. Note-taking and synthesizing notes will help you gather notes from various sources (lectures, texts etc.). It can help you keep course materials more organized in an easy to comprehend manner that will make exam preparation easier.

## How to take effective notes?

1. **Handwriting notes can improve learning by forcing you to synthesize information.** Because our hands cannot write as fast as a person speaks (unless you can write shorthand), we synthesize information when taking notes by hand. The key is developing your ability to synthesize important information from lectures. Pay attention to when your instructor repeats something, uses a different tone, or stresses a concept's importance. This information should be noted so you can review it later or use the information as a reminder to research more after class.
2. **Don't try to write word-for-word what the lecturer/instructor is saying.** You will miss important information if you are too busy trying to "transcribe" the lecture. Using a computer can be beneficial in certain classes, but often it's better to avoid taking notes on an electronic device because it can increase the temptation to try to transcribe the lecture instead of processing the lecture. You are also more likely to remember information if you are actively engaged in taking notes. Otherwise, you may not realize you don't understand the information until you're studying and trying to make sense of concepts that were taught while you were transcribing.
3. **Write notes you will use.** There is no one size fits all strategy. What works for person might not work for another and what works in one class might not work best for another class. But here are some suggestions for you to try.
  - a. **Cornell System:**  
**When to use?**  
While taking notes in class and/or while reading the text book. It's a framework to keep information organized. It requires some preparation in getting notes ready for the 3 column

## AT A GLANCE

1. [Handwriting notes can improve learning](#)
2. [Don't try to write word for word](#)
3. [Write notes you will use](#)
  - a. [Cornell System](#)
  - b. [Outline method](#)
  - c. [Matrix/Table](#)
  - d. [Mind Mapping/Concept Mapping](#)
4. [Review/synthesize notes after class](#)
5. [Swap notes with a peer and cross compare](#)



Washington University in St. Louis

CENTER FOR TEACHING AND LEARNING

approach and planning and persistence in reviewing notes, texts, and lectures later to update and summarize information. This method emphasized 3 aspects of note taking- taking notes in class, adding extra comments and questions after summarizing each lecture.

**How to?**

- Begin by taking notes in class using the right-hand column.
- Next, go back through and write key terms, questions and points in the left-hand margin to easily identify what the notes relate to.
- Finally, at the bottom of the notes, write the main idea of the lecture. This helps you quickly identify main concepts, which is helpful when reviewing notes.

**Example:**

**Super Mario Bros Notes**

	<b>Cues</b>	<b>Notes</b>
<p>Written soon after class Main ideas Anticipated exam questions Used for review/study</p>	<ol style="list-style-type: none"> <li>1. Which animals, if any, are good to interact with in game?</li> <li>2. How can enemies be dealt with to keep progressing forward?</li> <li>3. What, if anything, is useful for the player to collect or touch?</li> <li>4. What is the main goal of the game?</li> </ol>	<p>-goombas, turtles, other animals: bad</p> <p>-mushrooms, fire flowers: useful</p> <p>-enemies can be defeated by jumping on their heads</p> <p>-the goal is to progress from left to right, eventually fight a turtle and save a princess</p> <p>-Bowser is the main antagonist, Mario is the hero that the player controls, Peach is the princess.</p>
<p>Written after class Highlighting/Summarizing key ideas in the notes</p>	<p><b>Summary</b></p> <p>Super Mario Bros is a game where various animals pose as enemies for the main character, Mario. These enemies can be defeated by jumping on their head as the player progresses from left to right, hoping to eventually save Princess Peach from the clutches of an evil turtle named Bowser. Various items, like mushrooms and fire flowers, can aid the player in their quest. The game will be considered finished and won if the player rescues the princess.</p>	

Main points  
Bullet points  
Paraphrase  
Examples  
Diagrams

**b. Outline:**

**When to use?**

It is the most common method of note taking. It naturally follows the sequence of the lecture or the text book. It also allows you to elaborate on topics while taking notes in class and/or while reading texts. Nevertheless, it is easy to write a lot in this format without paying attention. Notes may need to be reviewed and processed later to highlight important information.

## How to?

- If there are assigned readings, read them before class to familiarize yourself with the topics
- During lecture, highlight/underline main topics
- Use numbers to separate main topics
- Use indentation to write the subtopics or related ideas. Spaces will indicate major/minor topics
- Allow spaces between topics to add more later
- Take notes only on one side of the paper. This will allow you to add notes/thoughts later
- Make note of what the instructor repeats or writes on the board
- Distinguish your thoughts from what the instructor says
- Capture relationships, examples etc.
- Review notes after class to add missing information or highlight information

## Example:

**Forces in Creation**

- 1) Introduction
  - a. What is force?
  - b. What is gravity?
- 2) The Four Fundamental Forces of Creation
  - a. Gravitational force - attracts objects to each other. Weakest of the four forces.
  - b. Electromagnetic force - force that exists between particles with an electrical charge.
  - c. Weak force - governs some radioactive processes in atoms
  - d. Strong nuclear force - force that holds the center of the atom (nucleus) together.
- 3) The Gravitational Force
  - a. Newton's Universal Law of Gravity
    1. All objects with mass are attracted to one another by the gravitational force.
      - a. all matter is attracted to all other matter
      - b. applied to anything in the universe that has mass
    2. The gravitational force between two masses is directly proportional to the mass of each object.
      - a. strength of the gravitational force between two objects increases as the mass of either object increases.
    3. The gravitational force between two masses is inversely proportional to the square of the distance between those two objects.
      - a. when the distance is big, the force is small. When the distance is small the force is big.



Washington University in St. Louis

CENTER FOR TEACHING AND LEARNING

c. **Matrix/Table:**

**When to use?**

The table method is helpful to organize information into categories while comparing events, theories, authors, studying animal classification etc. This method is also helpful to quickly review relationships.

**How to?**

- Identify topics from your lecture or readings that need to be compared
- Identify the categories in which the topics need to be compared
- Make a table and write out topics in the first column (one topic in each row) and the categories in the other columns.

**Example:**

Method of Movement	Benefits	Drawbacks	My Opinion
Walking	Exercise No negative environmental impact	Slower Distance may be too far	Best when doing things close to home
Driving (my car)	Convenient Fast	Expensive to own Negative environmental impact	Best when have to travel long distances and with an inflexible schedule
Driving (taxi)	Convenient Fast Supports local economy	Expensive cost Negative environmental impact	Best to use in places I don't know the streets
Bus	Somewhat convenient Less environmental impact than a car	Can't choose schedule Somewhat negative environmental impact	Best to use when I have a flexible schedule and not travelling a long distance from home
Train	Fast Probably less environmental impact than a car	Can't choose schedule Less convenient than a car	Best to use when traveling long distances into the city, but too far for a bus, and when car traffic is heavy



Washington University in St. Louis

CENTER FOR TEACHING AND LEARNING

**d. Mind Mapping or Concept Mapping:**

**When to use?**

Organizing concepts, conceptualizing processes and relationships among them, accessing prior knowledge, identifying gaps. It is a great way to synthesize information, after class, can serve as a retrieval practice and help prepare for exams.

**How to?**

- Identify main concept or core concept
- Organize your thoughts and all information related to the core concept
- Place the main idea down on the map, then connect the major points related to the core concept via links/arrows and then add the significant details.
- You may also label the links defining how two concepts are related to each other
- To double check you have included all information in the map try asking the following questions-

Have you included all the ideas related to the core concept?

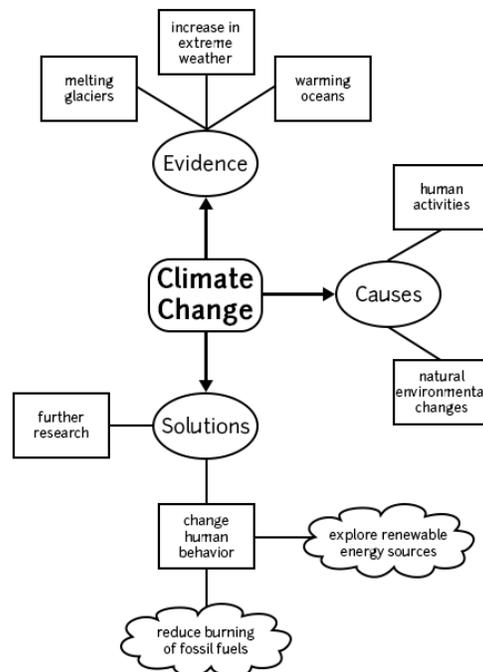
Have you accurately represented the core concept?

Have you included information from lectures, notes, texts etc. related to the core concept?

Have you noted the relationships, similarities, differences among the concepts?

Are there any areas that are unclear that need clarification?

**Example:**



Washington University in St. Louis

CENTER FOR TEACHING AND LEARNING

4. **Review and synthesize notes after class.** Reviewing notes within 24 hours after class can be useful. Compare lecture notes with text books and/or lecture material to make sure key points are identified, missing information is added, etc. This can be used as a way to engage with the information and make connections. Any of the methods described above can be used as a way to synthesize notes after class.
5. **Swap notes with a classmate to gain another perspective.** People absorb and synthesize information in different ways, which means note-taking style and content can vary considerably between individuals. Reviewing a classmate's notes from the same lectures can help you see material that you may have missed or understood.

### Additional Resources

<https://www.youtube.com/watch?v=w44PycEH0jc>

### References

- Kauffman, D., Zhao, R., & Yang, Y. (2011). Effects of online note taking formats and self-monitoring prompts on learning from online text: Using technology to enhance self-regulated learning. *Contemporary Educational Psychology, 36*, 313-322. doi:10.1016/j.cedpsych.2011.04.001
- Luo, L., Kiewra, K.A. & Samuelson, L. (2016). Revising lecture notes: how revision, pauses, and partners affect note taking and achievement. *Instructional Science, 44*(1). 45-67. <https://doi.org/10.1007/s11251-016-9370-4>
- Mueller, P. A., & Oppenheimer, D. M. (2014). The pen is mightier than the keyboard: Advantages of longhand over laptop note taking. *Psychological Science, 1*-10. doi:10.1177/0956797614524581
- Stutts, K. J., Beverly, M. M., & Kelley, S. F. (2013). Evaluation of note taking method on academic performance in undergraduate animal science courses. *NACTA Journal, 57*(3), 38-39.
- Wammes, J.D., Meade, M.E., & Fernandes, M.A. (2016). The drawing effect: Evidence for reliable and robust memory benefits in free recall. *The Quarterly Journal of Experimental Psychology, 69*(9). <http://doi.org/10.1080/17470218.2015.1094494>
- <https://blog.studentlifenetwork.com/2019/11/04/take-more-useful-notes-cornell-method/>
- <http://reviews.shopwritersbloc.com/general/what-is-the-cornell-note-taking-system.html>
- <http://www.onbeyondz.net/learning-to-learn-note-taking-and-study-tips.html>
- <http://www.onbeyondz.net/learning-to-learn-note-taking-and-study-tips.html>



Washington University in St. Louis

CENTER FOR TEACHING AND LEARNING