Guided Lecture Notes

Students' life circumstances and learning environments have drastically changed during the pandemic, which for some students has translated to difficulty stay focused and on task during lectures. Many students for a variety of reasons find it difficult to make the most out of their college lectures. They will attend class and pay attention only to find themselves struggling to keep up with the pace of the lecture, get lost on a concept they don't quite understand or lose focus get off task.

Many students find it difficult to listen to what faculty are saying, process that information and how it connects, watch what is being done, and write what is important down all at the same time. Many students are forced to pick only some of those tasks and forego the rest or try to do everything and not do any of them well. Even when students can multitask, research shows that students' attention wanes after about 10-15 minutes of listening to lecture unless they are actively engaged in the content. This can not only be frustrating for students, but faculty who are trying to keep students engaged and tech difficult concepts. To help students better connect to material presented in lectures, improve engagement, and overall student success, guided notes can be a useful tool for faculty.

Guided notes are instructor-prepared handouts that provide students with a predetermined outline or structure to follow during class. They often include headings, subheadings, prompts, questions, diagrams, and formulas as well as spaces for students to fill in or expand on notes themselves. By providing students with a framework to follow, it allows them to better focus on what faculty are saying rather than feverishly trying to write everything they hear down without processing the information. It can allow students to better engage in class and improve their abilities to process information presented. Guided notes require students to actively respond during the lecture, improve the accuracy and efficiency of students' note taking, and increase students' retention of course content. Instructors can develop guided notes for a single lecture, for one or more units within a course, or for an entire semester-long course.

Some Pros and Cons of the Lecture Method

Lecturing is one of the most widely used teaching methods in higher education. The format is simple and straightforward: the instructor talks (and illustrates, demonstrates, etc.) and students are held responsible for obtaining, remembering, and using the most important content from the lecture later—most often on a quiz or an exam.

Advantages of Lecturing

- Lecturing is an efficient use of the instructor's time. A good lecture can be presented from one semester to the next, subsequent planning and preparation time limited to review and updates.
- The instructor has complete control of course content. When lecturing, the instructor has complete control over the level of detail and degree of emphasis with which course content will be covered.
- The lecture method can be used to supplement or elaborate course content. Content that is particularly important or difficult for students to learn directly through text, web, or field-based activities can be highlighted during the lecture.
- The lecture method provides flexibility. When lecturing, the instructor can probe students' understanding and make on-the-spot adjustments to the lecture if warranted.
- Lectures can be personalized. Instructors can customize and tailor lectures to meet the students' interests and backgrounds.
- Lectures can be motivating for students. Students can see and hear their instructor's level of enthusiasm for and commitment to the discipline.

Disadvantages of Lecturing

- Lectures can be presented at a pace that is not easy for students to keep at pace with. Writing can take longer than talking and if students need to process information and write- they can often fall behind and miss the next several points mentioned.
- All information presented may not hold equal weight but is presented in a manner where all information is equal. This makes it difficult for students to determine the most important aspects of the lecture (learning objectives) vs supplemental information.
- Students can be passive observers. The typical lecture does not require students to actively engage in the material. Listening is a passive activity and while doing passive activities it is easier for students to get disengaged, distracted or off task.
- Many STEM students are visual or kinesthetic learners, which means information presented in an auditory format may be more difficult to process and retain.
- Many college students do not know how to take effective notes. Many students enter into college never having been taught how to properly take notes.
- Unique learners such as students with disabilities, international or ESL students, or non-traditional learners may have skill deficits in auditory/language processing, multi-tasking, concentration, or fine motor difficulties. These deficits can make it difficult for them to identify important lecture content and write it down accurately and at a pace to keep up with the speed the information is being presented.

Why Use Guided Notes?

Guided notes are designed to improve student learning and student outcomes. Some students find it difficult to listen to what a faculty member is saying, process how this information connects to information they already know, watch what is being written on the board and write what they need to in their notes. This often results in students making a choice on what aspects of the course they can do and which they cannot. This can result in students not taking notes at all or not paying attention to what is being said in lecture and just writing what they hear with no understanding of what they are writing.

Guided Notes can assist with this problem by:
- Assisting students in obtaining accurate notes.
- Reduce cognitive overload. When students are trying to keep up with the lecture, taking notes and process what is being said all at once, they may become overwhelmed by the amount of information they need to process all at once. This can lead to cognitive overload, which can hinder their ability to process or retain information. Guided notes provide a structured framework that can reduce cognitive overload and allow student to organize their thoughts.
- Teach students who may not know how to take notes to improve their note taking abilities by modeling appropriate note taking skills. Additionally, it can help students improve study skills by modeling how to organize and summarize information and identify key concepts and themes.
- Support students who have difficulty taking notes due to a wide variety of needs and/or assist students who have learning disabilities or students for whom lecture format instruction does not match with their learning style.
- Improve in-class participation and engagement. If students are not actively thinking about what is being taught and so focused on writing things down, they are less likely to be able to think of what questions they need to ask during lectures or be able to participate in classroom discussions.
- Instructors are more likely to stay on-task with the lecture's content and sequence. Guided notes let instructors and students know what will be covered and in what sequence. This make is especially helpful if an instructor is teaching multiple sections of a course or if different instructors are teaching the same course to ensure the main learning objectives are equally addressed in all sections and can aid in keeping the sections in lock step with each other.
- Guided note content can easily be converted into test/exam questions, study guides or practice tests.

How to Create and Implement

Creating guided notes can be fairly straightforward, but it does require some planning and preparation. Here are some key tips to help you get started:

- Identify the key concepts and themes that you want to cover in the lecture. Include main points you want students to take away from the lecture. These main points are the foundation for your guided notes. You will need to make sure that your lecture consistently follows these notes in the same specific order they are listed.
- Make sure points listed in guided notes are aligned with course objectives. The notes should help students to reach course objectives not just serve as a summary of the lecture.
- Create a structure or outline for the notes using headings, subheadings, key facts, and concepts. Leave spaces for bullet point of additional notes for students to include additional information or examples. (Guided notes should not be a comprehensive copy of the lecture notes!)
- Consider using PowerPoint slides as the outline that students can populate with examples or additional information in opposed to writing everything.
- Leave ample space for students to write. Providing about three to four times the space needed to type the content will generally leave enough room for students' handwriting.
- Do not require students to write too much. The more that is required for students to write, the less they can focus and process what you are saying. If you do require more writing, consider pausing your lecture for students to catch up.
- Make guided notes available to students via CANVAS. That way students can print them off prior to attending class to hand write on them or complete them digitally during class.
- Enhance your guided notes with visual aids and more:
  - Consider writing formulas or definitions in the notes rather than students writing them by hand. This can ensure accuracy as well as limit the writing that does not need to be put into the student's own words.
  - Consider including a diagram, map, chart, or graph. These items can be especially useful for students but can be difficult and time consuming to recreate in a notebook. By providing the basic graphic and having students fill it in, label it or draw minimal parts, it can allow them to be more engaged in the lecture while still having accurate information in their notes to reference later.
  - Consider adding in additional resources or references the students can use to learn more.
  - Consider listing HW assignments related to that lecture on the bottom of the guided notes.