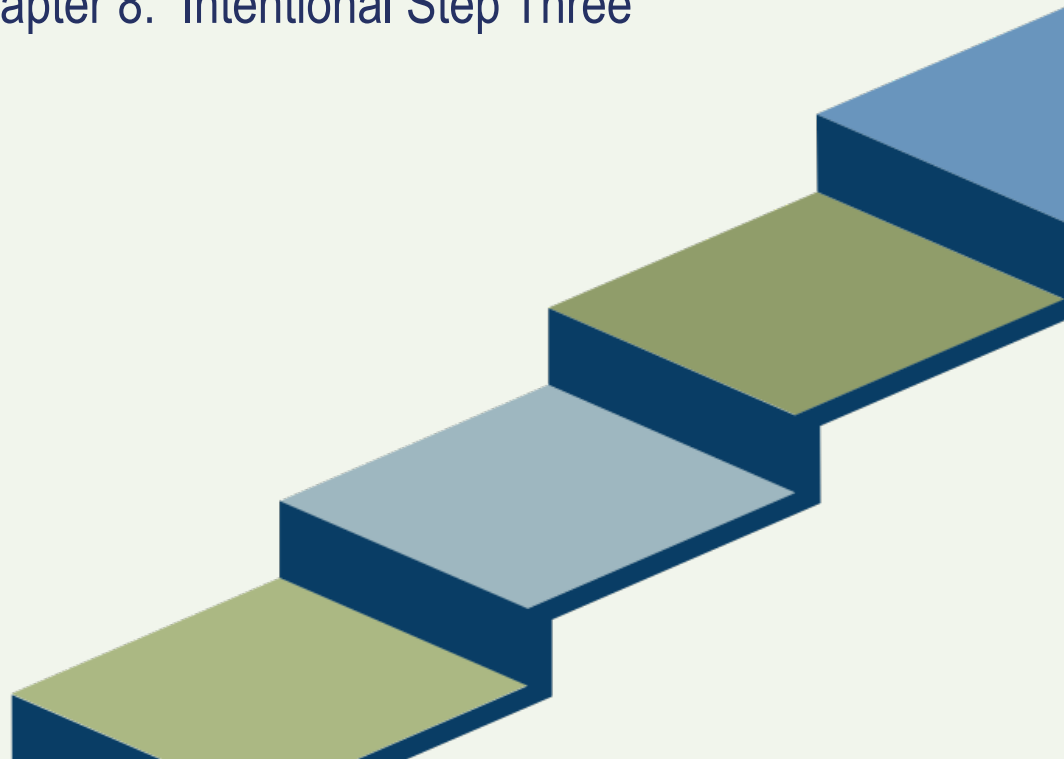


# Intentional Instructional Moves

Strategic Steps to  
Accelerate Student  
Learning

## Companion Guide

Chapter 8: Intentional Step Three



## Chapter 8

### Intentional Step Three: Design Effective Lectures

While direct instruction involves many different modes of teaching, research confirms that lecturing is still an effective way to deliver content (Dartmouth, 2016). With intentional planning, clear and concise instructions, and step-by-step scaffolding, lecturing can be an active and engaging part of the lesson. This method of direct instruction allows teachers to share new content with students, synthesize information about a topic or problem, engage students through storytelling, explain the value of what students are learning, present up-to-date information, model thought processes, and clarify confusing ideas or concepts. Lectures can also reinforce the learning goals and success criteria, bridge the gap between students' prior knowledge and new information, and set the stage for further learning.

Like the teacher at the beginning of this chapter, educators need to intentionally design their lectures so they help students absorb and process the content. To do this, they must balance the delivery of information with active forms of learning and engagement. Lectures should be student-centered and stimulate deeper thinking. Teachers can begin by reflecting on what students should know and be able to do by the end of the lecture. Then, they can intentionally plan for how students will engage with the material, their peers, and the teacher. Research in this area suggests chunking lecture material into smaller segments of 5-15 minutes (Dartmouth, 2016). These segments are then broken up with learning activities and exercises that help students engage with and process the content.

## Strategy 1: Note Taking

Note taking is an excellent strategy for engaging students and organizing their thinking while the teacher is lecturing. Not only is it an important skill, but studies have also shown that taking notes by hand helps students process and retain information better (Kruse, 2020). While taking notes on a computer or tablet can be helpful as well, researchers found that students who wrote longhand outperformed their classmates who took notes on a computer.

Note taking has many benefits, but teachers should be mindful of how they implement this strategy. Often students will attempt to write down as much as possible while the teacher is lecturing, but this approach doesn't always allow them to process what they're learning. Likewise, sometimes it's difficult for struggling students to multitask as they attempt to listen, write, and process the content while the teacher lectures. Even guided notes can prove less effective if students aren't encouraged to review what they've learned. Research contends that multitasking can hinder learning, so to avoid this pitfall—as well as more passive forms of note taking—teachers should help students develop more effective note taking skills (Krow, 2021).

Begin by teaching students how to take good notes. Teachers can model different kinds of note taking and explain the pros and cons of each. Students should be able to choose a style of note taking appropriate to the content being delivered and/or their preferred learning styles. As teachers model different approaches, they can talk through why they are writing down certain information, why they are leaving other details out, and how they're organizing the notes. They should also offer feedback on students' notes so they can learn and improve at this skill.

### **Note Taking Methods:**

- 1. Web and Mind Mapping:** Students take notes on a cluster web graphic organizer, where subtopics branch off of a central idea. Or, students can map out

their thoughts by writing the topic in the center, adding subheadings that branch off of it, and filling in details as needed. These techniques help students make connections between ideas.

- 2. Double-Entry Notes** - The teacher gives students a handout for taking notes where one portion of the handout is for content notes and the other portion is for making mental notes. For example, the left-hand column might contain key ideas about the topic and the right column is where students can note questions, connections, or thoughts. This helps them make connections to what they're learning. The teacher can also pre-fill the content side of the handout and then ask students to process the content on the other side. See the “Double-Entry Notes” handout for a sample.
- 3. Critical Thinking Questions to Encourage Rigorous Reflection** - The teacher includes stopping points in their lecture where they pose intentional, rigorous questions to students. They can ask questions specific to the content students just learned and then give them time to think about their answers. Ex. *How do you know this? Why does this topic matter? Can you give me an example?* (Leming, 2020). Students can share their thoughts in a quick-write or during a whole-class discussion. Be sure to plan rigorous questions ahead of time so they stimulate appropriate levels of thinking.
- 4. Stop and Jot** - While the teacher is lecturing, students are asked to put their pencils down so they can focus on the lesson. The teacher pauses at certain intervals and invites students to stop and jot down three important things that they can remember from that section of the lecture. For instance, the teacher might ask,

“In the last five minutes, what have you learned?” Students would then record their thoughts and briefly talk about their answers with the class. This allows teachers to determine if students are focusing on the most important content. It also ensures that students who struggle to write and listen to the teacher at the same time are able to process and then release that bit of content so they can learn the next set.

- 5. Sketch Noting** - Sketch noting is a form of visual note taking where students are encouraged to draw, color, write, make connections, and illustrate important content as they listen to a lecture. This strategy works best when students already have a basic understanding of the material.
- 6. Collaborative Revision Notes** - *Teachers* intentionally plan breaks during their lectures so students can review and revise their notes with a partner or in small groups. Students might review their notes independently at first, and then work in small groups to continue revising, or they might work in groups for the entire period. Giving students time to revise their notes helps them process and retain information better. Also, collaborating with their peers helps students take even better notes because they can see what their partners wrote down and decide if they want to add or change their own notes (Gonzalez, 2018).
- 7. Skeletal Notes** - Teachers can scaffold this skill by offering students a form of guided note taking. For this strategy, teachers provide a “skeleton” of the material to be covered in the lecture, but leave spaces for students to fill in their thoughts on the content. For example, engineering professor Susan Reynolds created a version of skeletal notes that includes illustrations, hand written content, and

typed notes, while leaving space for her students to jot down their own thoughts and work through problems. Important technical material is recorded in these documents, but students must still actively engage with the content and process it as the teacher lectures. This form of note taking has the potential to “substantially increase student achievement across all grade levels” (Haydon et al., 2011, as cited in Gonzalez, 2018, para. 20).

Research supports the fact that taking notes helps students gather, encode, and retain information more efficiently (Gonzalez, 2018). It is a form of active learning that makes it easier for students to study, keeps them organized, and improves their overall performance in school. Hattie found that effective note taking has an effect size of .50, but note taking can also be a vehicle to help students realize self-efficacy (.92) if they are learning how to learn, and not just what to learn. When students have to process and sort information, they also practice skills like summarizing, paraphrasing, and concept mapping. Future employers are looking for some of the soft skills that note taking promotes, like attentiveness, organization, active listening, and being able to prioritize information.