

III. Lesson Delivery

Chapter 7 - Lecturing Effectively

Lectures are comprised of two components: Content and Delivery. Both components are essential for creating an interesting lecture. If the beginning of a lecture captures your attention, the middle builds suspense or intrigue as the lecture unfolds, and the end forms a resolution, you have a lecture in story form – the age-old method for passing on information. Yet, how well a story is told is dependent upon the quality of the delivery. First, we cover the rules of content; later in the chapter, we discuss the elements of delivery.

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Appropriate Uses for Lectures

- Lectures are best suited for making information memorable; that is, lectures provide elaboration of content, examples, and context. Also, because texts often lag behind current knowledge, lectures are valuable methods for presenting new information.
- Contrary to popular belief, lectures are not the best method for imparting large amounts of information. Voluminous information is better presented in text format, where it can be made available for review whenever the students need access to it. In fact, one of the most effective learning strategies students can employ is to read and then re-read their text assignment.
- One counterproductive lecture activity is to read the text to the students. Most instructors would say, “I never do that!” But they do. A survey of U.S. Air Force Academy students showed that if the instructor lectures the text material, the students do not bother to read the text. Instructors often think students are lazy, that they do not come to class prepared or ready to learn. Yet, the instructors inform the students, through the lecture, what material they should have read in the text. Generally, it is not a good idea to lecture from the text.

- Yet, it is helpful to elaborate on what is presented in the text. If your students have read the assignment, you are providing what the text cannot provide, a context for use of the information, examples of when or how that information is used, and stories that illustrate the importance of the information.
- Focus the message. In the words of Howard Gardner (2000), “In a lecture, less is more.” It is very easy to present too much information, which quickly saturates students, causing them to drop into a passive-listening role. They may understand what is being said, but they are not retaining it. In fact, some research suggests that students can only remember five to nine major points from a lecture. It is better to teach a few things well than to teach a lot of material poorly. Unless the learner can encode the information in a rich context with good examples and reasons for remembering it, the information will not stay in memory very long.
- To aid memory, use visual illustrations during a lecture. Visual illustrations are remembered longer than verbal information, and they can aid the recall of information that is associated with them. Many classrooms are equipped with technology that will help you add other dimensions to your lecture.
- Technology-Enhanced Classrooms (TECs) allow you to use computer consoles, DVD/VHS players, personal response systems, wireless microphones, and other technologies to enhance your teaching. You can display your teaching files (PowerPoint, sound files, images), and your course site or other websites on an LCD projector. Using the “T: Drive” from your home or office allows you to access your files without carrying around a disk or laptop. You need only create (or renew) your TEC account and reserve one of the many TECs available across campus to use this resource. Remember to practice with the technology prior to your class meeting and be sure to arrive early enough to get the equipment up and running before class starts.

Use of PowerPoint to Enhance Lectures

Many instructors find PowerPoint useful in enhancing lectures and emphasizing key point to their students. However, misuse and overuse of this software can lead to a room full of bored looks and glassy stares. To avoid “death by PowerPoint,” consider the following tips.

- PowerPoint is a visual medium. Use graphics, pictures, models, and other images instead of bullets to make your point whenever possible.
- In PowerPoint, less can be more. Think big, bold, and

brief. Do not put large amounts of text on the screen. Aim for no more than seven lines per slide and ruthlessly edit so that your bullets contain only the main points.

- Design your visuals so students in the back row can see them. Font sizes less than 24 pts are difficult to read. Try to choose sans serif fonts such as Tahoma, Arial, or Verdana, which are easier to read when projected.
- Avoid putting large amounts of text on the screen and then reading it to the audience. Pause for a moment and let the students read the slide before you comment or elaborate on it.
- Use animation events sparingly.
- Use highlighting features to focus attention on what you are discussing.
- Think contrast when selecting colors for the background and text. Yellow or white text on a black background, for instance, is a good high-contrast choice.
- Select color combinations with care. Text and background in red and blue; red and green; or blue and black can be difficult to read. Also, be aware that color-blind individuals have trouble telling the difference between red and green, or blue and purple. Avoid these color combinations when possible.
- Spend enough time on each slide to fully develop your explanation. Three minutes per slide is a good general rule.

- Help students take notes by using the slide handout feature. These can be passed out in class or posted on your course website.

Active Lectures

In Chapter 8 we discuss students as active learners. Here, we pose the question: Can a lecture be active? If your lecture is dynamic and interesting, students become fascinated with the subject and want to learn more. Are the students leaning forward in their seats trying to catch every word? With an active lecture, students become active listeners. Or are they leaning back, thinking about what they are going to do this weekend? If this is the case, students have become passive listeners.

Lectures Combined with Class Discussion

Penner, in his book *Why Many College Teachers Cannot Lecture* (1984), cites research that shows students' attention to a lecture begins to wane after just 10 minutes, and is at its lowest from 20 to 40 minutes into the lecture. In light of this research, consider dividing your material into 15-minute mini-lectures and interspersing your talk with activities that will engage your students.

One method for making your lectures more interesting is to combine them with class discussion. Some techniques for doing this are discussed in Chapter 11 – Teaching Contexts. Here, we concentrate on what makes a good lecture discussion and some pitfalls to avoid.

- **Good discussion questions get the students' attention.** Start by asking a question associated with something they should have read – not a recall question, but perhaps one on a controversial topic.



Example

“How many of you agree with _____’s position on (topic)?” When students raise their hands, choose one and ask why he or she agrees with that position. Or, ask the other students why they disagree. Another strategy is to divide the class in half – ask one half to take a pro position with regard to the topic, the other, a con position. Ask how the topic could be viewed differently from each viewpoint.

- **Start with a divergent question** such as, “What are the criteria for evaluating good teaching?” Write the first answer on the board. Ask for another. When you have ten or so criteria, ask the class which is the single best criteria and why? Who has a different opinion?
- **Do not ask recall questions that have a single correct answer unless you are going to do something with the response.** Ask the question, and then call on a student to answer it. If you identify the student first, the rest of the class is off the hook, and they may pay less attention.

- **Can the rest of the class hear the student asking or answering a question?** Have the student stand up and speak loudly enough so everyone can hear. If necessary, repeat the question or answer so that the entire class can hear.
- **Give everyone the opportunity to talk.** Spread the questions around; do not answer them all yourself – redirect them to other students in the class. Ask for examples from the students’ experiences.

Organizing the Lecture

Quality lectures contain content that is well organized. To organize your lectures, heed the maxim - tell them what you are going to tell them; tell them; and tell them what you told them.

- Tell them what you are going to tell them establishes an expectation of what is coming next, and allows the learner to get into the proper frame of mind. One way to do this is to remind the students of the learning objectives for the lesson.

 **Example**

“Today’s lecture is about the rules for establishing normality in a relational database. When we are finished, I expect you to be able to recall the three rules I will talk about, and why they are critical to maintaining a useful database.”

If the students were assigned a reading, this might be a good time for a question to get their attention.

 **Example**

“If a person’s name is found in a relational database more than once, can it still be normalized?”

An additional introductory strategy is to review what was covered in the last class. This strategy brings to mind material that you plan to build on, and establishes a link among a series of lectures. This too can be done with a question as well as with a presentation.

- **Tell them.** Now comes the major content of the presentation. The body of the lecture may contain a number of components.

1. Presentation of new information
2. Elaboration of that information
 - a. Application of that information
 - b. Examples and non-examples
 - c. Pictures, visual images, or concrete objects where possible

Listeners are quickly saturated with new information. Pictures, examples, and other images help the listener to encode the new information and make it memorable. Remember Howard Gardner’s advice, a few things learned well are more valuable than a lot of information soon forgotten. In general, learners can maintain somewhere between five and nine ideas in mind at a single time. Aim for the lower end of this, and you are more likely to be effective than if you try to teach too much. Cluster things you talk about.

 **Example**

“I am going to talk about five types of data: text, integer, floating point, images, and date/time. Can someone give me an example of text data?”

An especially valuable opportunity is when students provide examples or apply what has been presented. This gives you an opportunity to determine if what you are saying is being understood. Remember, after 15 minutes student attention wanes, so have them engage in some form of activity that aids memory of what you just said.

- **Tell them what you told them.** Although the lowest point for student attention is between 20 to 40 minutes into the lecture, attention picks up again from minutes 40 to 45. But the drawback is that now you are beginning to fatigue. This would be a good time to summarize the important concepts or information for the day. Go over the objectives and the resolution. This strategy brings together the information and helps hold it together.

Involve students in the final five minutes of class, rather than lecture to them. Studies have shown that students are thinking about leaving, and assimilation of new information is at its lowest point. Instead, have students jot down the most important thing they learned, or a question they would like answered about the day's lecture, or have them answer a single question over the lesson material.

Listening Skills

Not all students are good listeners. But it is your responsibility to grab their attention and maintain it. Your job is easier if students come to class prepared for the lecture (which, remember, should not be a rehash of the readings, but an expansion or elaboration of it). To do this, provide them with strategies for arriving to class better prepared.

Similar to the steps in delivering a lecture is a series of steps in reading a text, the “three S method” — Scan, Study, and Summarize.

- **Scanning** establishes an expectation of what the chapter will cover.
- **Studying** allows the text to present the new information (with whatever elaboration is presented).
- **Summarizing** reflects on what was read, making sense of it. Students who are unfamiliar with this system should try it out on a small chunk of reading, rather than a whole chapter, until they become comfortable with it. A prepared listener is a motivated listener, because what is being talked about makes more sense and builds on what the learner has read.

Learners As Lecturers

To teach is to learn twice. Students cannot tell you if they misunderstand something you may have said. They can tell you they do not understand. The danger is that they heard you, yet they have *misinterpreted* what you said. One way to prevent misinterpretation is to have the student become the lecturer, at least for small parts of the presentation. This method moves you away from the straight lecture and into a lecture/discussion presentation.

When students present or participate in discussions, it is important to recognize them for contributing, *and* give them feedback with regard to their understanding. These are two different things. Communication is reduced if you embarrass a student by *implying* that her question or answer is stupid. To do so is to build a barrier that is difficult to overcome. Also, other students in the class will quickly learn that they too could become the target of ridicule and will hesitate before participating in discussion.

Example

In a pizza restaurant, a Jamaican man came in to order a slice of pie. The man behind the counter was an Italian, and had not been in the U.S. very long. The Jamaican ordered. The Italian did not catch what he said and asked him to repeat his request as he listened very carefully to the heavy British accent. He repeated the Jamaican's order and said, "Oh, you don't speak English very well either." Whereupon the Jamaican replied, "I am from Jamaica. I speak English perfectly."

The first words out of our mouths form a first impression that influences communication. Many students will accommodate to dialects, and sometimes to less than perfect English, but it can be a barrier that hinders learning. In these cases, it is a good idea to use other teaching techniques frequently and to rely on lecture as little as possible. Or, get help in becoming a better speaker.

- To reduce concerns related to language, speak slower when lecturing so students can adjust to a different accent and dialect. Consider writing unfamiliar words on the chalkboard or displaying on PowerPoint so that students do not have to struggle with terms.
- Acknowledge that you may pronounce words differently and ask students for their pronunciation.
- Avoid misunderstandings by rephrasing a student's question such as "*I understand you are asking about...*"

Also, save the last few minutes of class to have students write a summary of the lecture, provide three main points covered that day, or answer a question related to the class. This technique can help you check their understanding of the material without adding to their stress.

- Keep in mind that many American undergraduate classes are considered very informal as compared to international classrooms. Use this to your advantage by engaging students in discussions about your topic. Students are likely to appreciate your willingness to involve them and will help offset any difficulties with the language.

Reduce students' anxiety about understanding what is important in your course by clarifying expectations in your syllabus and at the beginning of each class. Have clear learning outcomes of what you want your students to know or do and organize your lectures and assessments around achievable outcomes. Post your outcomes on the course site so students can easily review them.

Resource

- At FSU, students and faculty can get help from the Center for Intensive English Studies.

Elements of Delivery

How you say something is equally as important as what you say. The three major components of delivery are: vocal elements, body language and gestures, and in instructional situations, visuals (or artifacts).

Vocal	The basic concept is that you are communicating with each individual in the audience. You have to speak loudly enough to be heard, clearly enough to be understood, and with enough enthusiasm to maintain attention.
Intonation	Intonation is the range of your voice. Some speakers are monotone, which tends to be boring. On the other hand, some speakers are too histrionic, which tends to become tiresome, e.g., a Bob Barker voice. A natural speaking voice with a good range of inflection works best.
Loudness	Too soft and the audience cannot hear you. Too loud and they will not want to. Of the two, too loud is preferable, but somewhere in the middle is “just right.”
Rate	Speaking too fast does not give students time to digest what is being said. Too slow puts them to sleep. Research has shown that students attribute more intelligence to someone who talks at a more rapid pace; yet, it does not say how much they learn.
Stress	Stress and inflection are related to intonation but they are not the same. Stress is how you emphasize an important point or issue, which can be applied by slowing speech, stopping, spelling a word out, repeating a phrase. Use stress to highlight important detail, but used too much, it becomes tiresome.
Pauses	Pauses are used both to stress a point and to allow students time to think and catch up. A pause can be used to gain attention, for transition to a new event, to give students time to catch up with an illustration, or to take notes. Example - You might say, “Copy down what is on the board,” or “Look at Figure 2 on your hand-out,” and then pause so that they can focus their attention on it.

Body

Gestures	Two extremes of gesturing are: none and wild. Gestures and movement convey a sense of comfort with the material. They can be used along with vocal variation to stress the importance of something, or simply to point out an important part of a visual.
Movement	Two extremes of movement are: clutching the podium and pacing the room. Both are distracting to the communication process. Movement should be a natural flow, from the podium to the board to the audience. Another consideration is your position in the room. Changing location causes the students to refocus their attention, and can keep students alert.

Visuals

Chalkboard	Two extremes of chalkboard use are: Too much time spent writing information on the board, which could have been provided in a handout; and no use of the board, when it would have been helpful to the learners.
Graphics Complexity	The biggest problems with graphics are that they are usually too small to read and contain too much material. Keep graphics simple and large.
Graphics Use	Discuss the graphic in your lecture. A graphic that is not referenced during the lecture is not much help. The graphic is an elaboration to aid recall of verbal information or propositions.
Types of Visuals	All of your visuals do not have to be PowerPoint slides. The use of real objects can increase attention, particularly if they are passed around the room. Remember to pause, giving students time to look at them.

The Gestalt

While it is possible to break the presentation or delivery into the above-listed components analytically, the lecture is more than the sum of its parts. All of these delivery components work together with the content to capture the attention and imagination of the audience.

Improving Your Lecturing Skills through Microteaching

Microteaching is giving a short lecture, demonstration, or leading a discussion *with your peers*. When first suggested, the idea of teaching in front of one's peers strikes fear in the heart. Microteaching, however, is a time proven method of learning and practicing one's lecturing skills. After participating, most instructors come to believe that microteaching is a superior method for improving their lecture skills.

Your presentation is videotaped, and an evaluator gives you feedback on a number of different criteria. There are many different criteria for being a good lecturer, and it is probably not possible to keep all the criteria in mind at one time.

You can set up a video camera in your class and review the tape in the privacy of your own home to improve areas where you feel you have weaknesses. Also, it is a wonderful technique to use with students. Students feel amazing empathy for instructors when they have experienced the other side of the podium. Keep in mind:

- **It is an authentic experience.** Pick a skill or information that you feel you can teach someone in 8 to 10 minutes. Write down the objective, so that you can determine later whether the audience thinks your objective was reached.
- **Be natural.** The purpose of the exercise is to improve your present teaching skills. If you practice especially for this presentation, and do it significantly different from your standard lectures, you will not get the feedback you need to improve.



Suggestions

- Introduce yourself.
- Speak so everyone can hear you.
- Tell your audience the objective you hope they will attain.
- Avoid standing behind or clutching the podium during the entire lecture.
- Use visuals where they might help the learner understand.
- Put your lecture outline, or points to present, on a few 3 x 5 cards.
- Have fun!

Lecture Skills Observation Sheet

Needs Improvement	Just Right	Needs Improvement
Verbal Communication		
Speaks too softly.	Changes volume, either increasing or decreasing, for emphasis or to regain attention of the audience.	Speaks too loudly.
Articulates poorly.	Articulates precisely.	Exaggerates the articulation.
Speaks too slowly.	Speaks at a good pace.	Speaks too rapidly.
Fills pause with vocalizers (e.g., ah, um, okay, now, you know).	Uses pauses to emphasize important content.	Does not use pauses.
Does not vary voice pitch; speaks in monotone.	Voice replicates the natural rhythms and pitch changes of conversation.	Uses repetitive patterns of pitch and emphasis (sing-song quality).
Non-Verbal Communication		
Hides behind podium, hand glued to the podium.	Is visible to the students and uses gestures when appropriate to reinforce the content.	Is constantly moving, pacing, rocking, or talking to the chalkboard.
Distracts the audience by looking out the window, down the hall, etc.	Makes good eye contact with the audience; reads body language of the students.	Reads directly from notes; makes little eye contact.
Uses no visuals, no handouts, or lecture support materials.	Uses visuals and handouts that will be helpful to the students.	Hands out the complete text of the lecture, or reads the text.
Dress is too casual for the audience; does not reflect professional position.	Personal appearance conveys the image that teachers should project.	Personal appearance is too formal for the situation.
Preparation/ Organization		
Seems unprepared, disorganized.	Uses outline or visuals for organization; speaks without notes.	Reads from text, showing little knowledge or a lack of confidence.



Instructions

Place a check in the box that you feel most accurately provides feedback to the person you are evaluating.



Example

If a person is speaking too slowly and you feel his or her rating should be “too slow,” then put a check somewhere in that box.

Resources on Lecturing

Books/Articles

- Gardner, H. (2000). *The disciplined mind: Beyond facts and standardized tests, the K-12 education that every child deserves*. Penquin Books: New York, NY.
- Penner, J. G. (1984). *Why many college teachers cannot lecture: How to avoid communication breakdown in the classroom*. Charles Thomas Publishers.