

The ToolBox

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A Teaching and Learning Resource for the Faculty of Indiana Wesleyan University



The Physics of Teaching: Time and Space

Teaching in higher education takes place within a specific framework: assigned rooms, master schedules of course offerings, credit hours, semesters, and clock hours invested in the classroom. Within that framework, faculty members must make a series of instructional decisions that are dramatically impacted by the physics of teaching, namely time and space.

Time

Once the semester starts, college faculty must make a variety of instructional decisions that direct what is to be taught and the pace at which content is shared and learned. To illustrate this challenge, consider a distraught faculty member who comments at mid-semester: "I am so far behind. I will never be able to catch up." This comment, made frequently,



contains several key assumptions: 1) There is a specified body of knowledge that I *must* deliver to my students in this course and during this semester, 2) The pace at which I am sharing information with my students is slower than I had anticipated, and 3) To make up the difference, I will need to talk faster and move more quickly through the course content (e.g., often translated into the number of remaining PowerPoint slides that are yet to be shown), and 4) "Covering" the material is the highest, most important, and most noble instructional outcome.

Consider another example. Imagine that you have been invited to participate in a lecture/discussion on an important topic about which you are only vaguely familiar. The presentation is guided by an individual who is a well-known expert in the field. The session, although filled with valuable informational tidbits, has not been very well planned. As time runs out, the presenter laments that there is much more information that needs to be "covered" but time will not permit that opportunity to occur. The presenter agrees to provide a copy of the PowerPoint slides. You appreciate that gesture, but also feel that the slides do not adequately capture the information at a level that will be helpful. You would like to hear the bullet points on the slides discussed, reviewed, and illuminated. That, however, will not happen as the allotted time has elapsed. Sadly, many college classroom sessions relive this dilemma on a far too-frequent basis.

The amount of classroom time that is available to teach each and every college class, over the span of a semester, is always a known fact. This reality should result in faculty members asking several key questions: 1) What is the content that I actually need to teach my students *this* semester in *this* particular course? 2) What is the process that I will use to determine, narrow, and verify the course content that is most important and critical for this course? 3) Based upon this inventory of knowledge, skills, and dispositions (i.e. learning outcomes for the course), what are some things that I may need to leave out of this course or ask students to pursue outside of class time? 4) How will I apportion the time available?, and 5) What are the strategies that I will use to reapportion the time available in response to schedule changes and student learning patterns? Time is, indeed, a variable in the instructional process. A variable that we must master to assure the quality of instruction.

Managing Time and Space

Ways of Capitalizing on Time

As you think about the variable of time in your teaching, consider the following strategies for maximizing and managing this variable as part of the instructional process:

- Prior to the beginning of every course and every semester, create a “game plan” that summarizes the content that will be covered during each of the scheduled classes. For planning purposes, this tentative schedule can simply be a listing of topics, learning outcomes, assigned readings, and assignments that are due. Share this information with your students.
- Design an agenda for each class session. This agenda could include, for example:
 - ♦ An introduction or advance organizer that helps students to know the learning outcomes/topics for that particular class
 - ♦ An interspersed mixture of lecture, small-group and large-group discussion, and technology (e.g., PowerPoint, video, audio)
 - ♦ A cohesion builder that helps students encapsulate the content that has been covered listing of topics, learning outcomes, assigned readings, and assignments that are due. Share this information with your students.

It is a virtual certainty that the schedule you develop for the semester will be disrupted by unexpected events and/or miscalculated pace in relation to content coverage and student learning. Be flexible and creative in the development of ways that you can adjust the schedule of topics/times for the remainder of the semester. This may, in fact, mean a reassessment of the remaining content and a decision to delete the depth of coverage on certain topics. Good learning always trumps simple content “coverage.”

Space

There are a wide variety of classroom configurations and architectural styles represented on college campuses: lecture halls with sloped floors and fixed seating, rooms with movable furniture, rooms with tables and chairs, conference rooms, etc. It is interesting to note that the seating styles found in academic buildings can be traced to the time when these buildings were constructed (e.g., buildings from the 70s featuring large lecture halls with sloped floors, buildings built after the year 2000 feature movable tables and chairs). As Bligh observes, in the book *What's the Use of Lectures?* (2000), the architecture style of the classroom reflects certain beliefs about faculty, students, teaching, and learning.

The architecture of a classroom can dramatically impact the choice of instructional strategies and even the range of options that are seemingly available. For example, in a classroom with sloped floors and fixed seating, it is generally difficult to use interactive/small group learning strategies. Although it is possible to ask students in these settings to engage in dialogue with their neighbor or those seated around them, large group lecture settings generally encourage participants to, at best, face forward and passively watch the speaker or PowerPoint projection screen. As a counterpoint, for those faculty who are inclined to lecture, a classroom where students are seated around tables facing different directions can be a distraction and an invitation to inattention. Space is a challenge that must be addressed in pursuit of the most favorable learning conditions.

Bligh, D. A. (2000). *What's the use of lectures?* San Francisco: Jossey-Bass

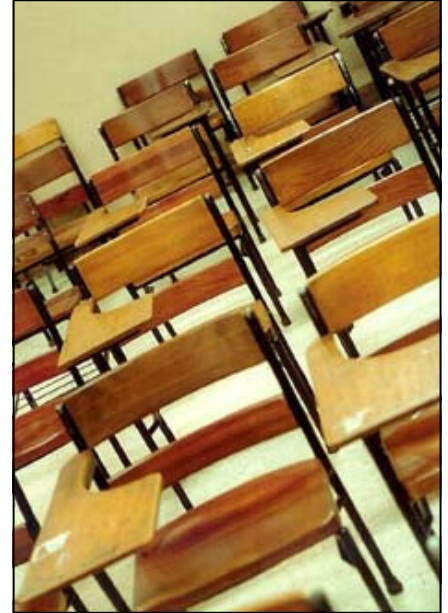
“With pride architects build terraced lecture halls in colleges and universities equipped with the best projection facilities. They represent a conception of education in which teachers who know give knowledge to students who do not and are therefore supposed to have nothing worth contributing.” (Bligh, 2000, p. 3)

Managing Time and Space...

Ways of Capitalizing on Space

As you think about the spaces in which you will be teaching, consider the following strategies for maximizing this important instructional variable:

- Think of classroom space as a blank palette. After determining the nature of the chosen classroom activities and teaching strategies, begin to think about how the room can be reconfigured to maximize the impact on learning (e.g., move chairs and tables, use of empty space around the edges of the room).
- Logistically, if you plan to alter the seating arrangement in your classroom, it may be necessary to move the seats at the beginning of class and then move them back to their original position at the end of class. Students, if prompted, will easily and naturally get into the routine of helping this happen at the beginning and end of the class.
- If the classroom you are assigned is not compatible with the chosen teaching strategies, consider the possibilities:
 - ◆ Look around campus and seek approval for moving to another location.
 - ◆ Use the hallways and other open/gathering spaces that are adjacent to your assigned classroom for small group discussions/activities. You can then circulate to assure that students remain on task and provide guidance and assistance.
 - ◆ Make sure that you remain true to the position that architecture should not dictate pedagogy.



The Physics of Teaching

$$E=mc^2$$

Excellence in teaching = Mindful Caring

Excellent teaching is a combination of careful and thoughtful planning of instructional experiences combined with an abundance of care about the well-being and success of each student.

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