

Explained course material clearly and concisely

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Why this Teaching Method Matters

Explaining course content so that students understand the material taught is critical to effective learning. Research bears this out. Studies on college classroom behaviors have coded more than 20 separate instructional dimensions important to student learning, suggesting the multi-dimensionality of teaching. At the same time, studies have identified characteristics of teaching most strongly related to student achievement. Without fail, two dimensions stand out—teacher clarity and preparation/organization. For example, an in-depth meta-analysis and a multi-institutional study of student responses to instruction indicated that of all instructional dimensions identified, teacher “clarity and understandability” and “preparation and organization” had the highest correlations with student achievement (1, 2).

Further, studies suggest the specific teaching behaviors that define high teacher clarity and highlight the linkage between teacher clarity and learning, especially for undergraduate students. For example, behaviors such as putting an outline on the board or computer projector, signaling transitions between key points, using relevant and multiple examples during explanation, repeating difficult ideas, stressing important points, and reviewing material are consistently shown to have a positive

influence on student learning outcomes (3). Similarly, lecture cues that are written or oral dramatically improve undergraduate students’ notetaking, and the organizational points recorded in students’ notes are positively related to their learning from lectures (4). Studies also have found that teacher clarity has a positive and significant relationship with students’ motivation, affective attitudes toward the teacher and course, and cognitive learning (5).

While there are a range of behaviors related to high teacher clarity and studies on the topic in various disciplines, taken together they point to the importance of communicating subject matter to students in a way that makes the content intelligible and thus enables their learning. Item 10 correlates strongly with Item #3 (scheduling course work that lets students keep up), Item #6 (making clear how course topics fit together), Item #12 (gave tests, projects, etc. that covered the most important points of the course), and Item #17 (provided timely and frequent feedback on tests, reports, projects, etc. to help students improve). These relationships reinforce the importance and interconnectedness of teaching skills in planning, organizing, sequencing, clarifying, and assessing instruction.

Applying this Teaching Method in the Classroom

Presenting and explaining course material clearly and concisely can encourage students to more effectively process and retain course content. Since this item focuses on teachers’ explanations of material, the following hints are phrased in terms of lectures. However, these hints can apply to other instructional formats such as managing group work, the publication of study guides or notes on course web pages, and technology-based presentations, particularly in distance learning.

Don’t make assumptions about what students know.

Gather information about the students in your class such as their year in school, major, related courses and prerequisites they have completed. Administer a short diagnostic pretest or background knowledge survey to identify what topics or skills students already have mastered (6, 7). After preparing class notes, review them carefully and ask yourself what might students find hard to follow and what examples might make a concept clearer. You might highlight the parts of your presenta-

tion that students are likely to find difficult and make a special effort to make those points very clear.

Define what you want students to learn. Let students know in advance what you expect them to do with the information presented. Some faculty preview learning goals by posting them online before class or on a PowerPoint slide at the start of class. This provides students with an outline or list of questions or problems that will be focused on during class.

Define new concepts and terms. You cannot assume that students will know or remember concepts and terms from prior courses. If you use a term for the first time, define it. If it is not defined or defined poorly in your paper or electronic textbook, look at three or four other sources to find the clearest definition and give it to students. Handouts or slides also should include new terms, complex formulas, and the like.

Use metaphors and analogies. Well-chosen metaphors and analogies can help relatively abstract course content become more concrete for students. They also help students connect new ideas to ideas they already understand. For instance, you might say that the atmosphere of the Earth is like a windshield—it lets in certain kinds of energy (like visible light) while blocking potential dangers (like meteoroids in the case of the atmosphere, bugs in the case of the windshield) (8).

Stress a few major points per class. A key to explaining clearly is to limit the amount of material covered in a single class meeting. Undergraduates, particularly lower-division students, do not need to be exposed to the subtleties and complexities of a discipline. This will only confuse them. Be selective. It is helpful to focus on three to five main points. Since repetition leads to learning, repeat major points several times in different words or with different examples.

Signal transitions. Include explicit transitional statements and signposts. For example, when introducing theories of how people learn, the instructor might state, “Now in the second point I will discuss the theory of deep learning.”

Select suitable examples. Choice of examples is important; students tend to remember examples that connect to their prior knowledge, and that are relevant to their interests and everyday life. Search for examples that clearly illustrate the concept at hand—from the popular press as well as professional journals.

Use multiple modalities. Since different modalities (ver-

bal, visual, written, aural, and so on) activate different parts of the brain, when students encounter new material in several different ways, they’re in a better position to make sense of it (9). Consider how modalities not commonly used in your discipline might enhance your students’ understanding.

Ask students to test their understanding. Stop the class session every 10 or 15 minutes. Ask students to work with the concept or idea presented by solving a problem, analyzing a scenario, or generating questions or related examples.

Summarize key points. Summarize major points at the end of class or ask students to do so. Immediately after class, write comments on your class notes about what didn’t seem clear to students. Use the notes as guides for revision the next time you offer the course.

Applying this Teaching Method Online

As noted above, lectures are not the only aspects of a course in which explanations are important, but explanations are key ingredients in a good lecture. In an online environment, a “lecture” might look very different than in a face-to-face environment. Instructors can provide videos of themselves lecturing much as they would in a physical classroom, but there are other ways to provide students with explanations of course material. Textbooks and other readings play this role in some online courses, whereas others feature slideshows with audio narration, “screencast” videos of instructors solving problems on virtual whiteboards, or short (3-to-5-minute) videos that explain small “chunks” of information. Regardless of the format of the online “lecture,” the helpful hints provided above are just as pertinent.

Given the often asynchronous and distributed nature of an online course, students are in particular need of a clear organizational structure. Many of the aforementioned suggestions can be adapted to online courses. In addition, resources developed by faculty teaching online courses on my own and other campuses provide helpful ideas for structuring an online course, creating community, and assessing student learning (10, 11). Suggestions relevant to teacher clarity include the following. Divide the course syllabus into discrete segments, organized by topic so that students can master one unit before moving forward in the course. Break your assignments into chunks with “touch points” that require students to come back to the course website often, helping

students keep up with the work. Use a table of contents design to help first time online students understand the structure of the course. Finally, structure your online discussions to capitalize on the threaded discussion format. Use “lecture” materials as described above, followed by instructor-guided activities and threaded postings for active learning.

Assessing this Teaching Method

Students can provide great help in determining the extent to which you’ve explained course material clearly. There are a number of specific strategies and approaches that allow students to assess their understanding of teacher explanations (12). One place to start is by guiding student note taking. Pause several times during a class session and ask students to paraphrase what they have written in their notes in their own words, restating definitions, key points and examples. Prompt students to elaborate their notes by recalling similar problems and analogous examples. Such paraphrasing and elaborating help clarify material and make it meaningful. Another strategy for assessing clarity is to pose questions during class for students to answer. After explaining a concept,

you can ask students to look at an example and tell you why it illustrates the concept. Or after solving a problem, you can ask students to try to work through a similar problem to make sure that they have mastered the concept before going on. When students try to answer questions on their own, they often discover that concepts are not as simple or obvious as they thought. At that point, they may be ready to ask you questions for clarification. Many instructors use course-based assessment tools to continuously measure significant learning of knowledge and skills. Perhaps the most widely known are the “minute paper” and “muddiest point” (6). In both techniques, take five minutes at the end of a class to ask students to identify the most important concepts learned during the class, the important questions that remain unanswered, or the least clear or “muddiest point.” Collect the responses, review them, and respond to students’ questions or confusion during the next class meeting. (These questions can also be posted online.) When used several times during the semester, these processes encourage students to listen actively, insure that student’s questions will be raised and answered in time to facilitate further learning, and help the instructor to diagnose in timely fashion what students are finding confusing, unclear or difficult to learn.

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