

Using Dilemmas and Case Studies to Promote Critical Thinking and Interpersonal Skills

“Education is not the learning of facts, but the training of the mind to think.” – Albert Einstein

For many of us, our student populations are diverse—military, veterans, fathers, mothers, grandparents, siblings, caretakers, high school students, first-generation college students, students with undergraduate and graduate degrees, working professionals, single parents, non-citizen U.S. nationals, and students with full- and part-time jobs. With such diversity, there is an opportunity to experience different perspectives, backgrounds, and cultures in the classroom. One way to capitalize on this valuable opportunity is through classroom discussions.

Lecturing, as an instructional method, is not sufficient. Lecturing is teacher-centered, demonstrating what instructors know. Whereas discussion, an active approach to learning, is student-centered and allows the instructor to discover what students know. Active learning may also involve activities or experiences that encourage practice and application, as well as add value to the content; going beyond the surface-level of content helps students contextualize their learning. According to 2014 research published by the [Proceedings of the National Academy of Sciences \(PNAS\)](#), science, engineering, and mathematics students showed improvement in grades and reduction in overall failing grades in classes where students were actively engaged versus in classes that were only lecture-based. Active learning promotes critical thinking and enhances interpersonal skills that serve students well not only in the classroom, but also in their careers.

Adding Value Through Engagement

Has a student ever asked, “Will this be on the test?” There is no argument that students want to be successful and, as educators, we want them to be successful, too. However, in some cases, this question may imply a motivation or preference to be taught directly to the test. Occupations require problem solving and critical thinking around general concepts. According to an article for the Association for Supervision and Curriculum Development (ASCD), [Teaching to the Test](#), by W. James Popham, “Cognitive demand does not change when teaching test items.” Translation: Students do not need to

think much when being taught directly to the test. ASCD suggests instructors “direct your instruction toward the body of knowledge or skills that a test represents.”

I find that some students are more comfortable memorizing than conceptualizing. Knowing particular facts, algorithms, and core knowledge is important. There are also cases where memorization is necessary (i.e., administering accurate doses of medicine, pilots’ step-by-step procedures when all engines stop running during flight). However, conceptualization helps with retaining and shaping information so judgments and decisions can be made about how to apply core knowledge.

Students view some courses as simply a means to an end and don’t see the value in the course or content, but instead focus on the value of some end goal. For some, the end goal may be a grade point average boost, fulfilling an undesirable but necessary prerequisite, a college degree, a certificate, a job promotion, or to enter a field that offers higher wages. The reality is that all students are not going to share the same level of enthusiasm we have about our content or professional skills. Enthusiasm is not a requirement for learning; however, I continually strive to seek ways to stimulate intellectual curiosity and critical thinking in the classroom.

Students see value in courses of interest or where real-world implications are obvious. Some courses naturally include opportunities to apply content or skills (i.e., nursing, culinary arts, teaching, electrical wiring, truck driving), while other courses or content can leave students wondering where or how they’ll ever use the information. According to the Center for Community College Student Engagement’s report, [Matter of Degrees: Engaging Practices, Engaging Students \(High-Impact Practices for Community College Student Engagement\)](#), information is best retained when connected to students’ major areas of study, their lives, experiences, or interests. Students can benefit from opportunities to engage in discourse, to hypothesize, investigate, discuss, confirm, or reject ideas and strategies.

Dilemmas and Case Studies

Dilemmas and case studies are excellent ways to encourage cognitive apprenticeship—a form of apprenticeship that focuses on thinking. As educators, professionals, and experts, we know our field well; however, we should not assume that our students have the same awareness or skills to successfully navigate the content.

Many students are likely to have misconceptions related to our content. In an article published by

the American Psychological Association, *How do I get my Students Over Their Alternative Conceptions (Misconceptions) for Learning? Removing Barriers to aid in the Development of the Student*, authors Joan Lucariello and David Naff argue that misconceptions are common and hinder learning. Misconceptions are not always easy to change and nearly impossible to identify when lecture is the sole method of instruction. An active approach to change inaccuracies and promote critical thinking is to challenge students to provide evidence from reputable sources in their assignments. Another approach is to have students investigate and reflect on content through application. This strategy can be accomplished using dilemmas and case studies.

Students may not be eager to share or question what they know or think they know. Some assume they do not have any skills or knowledge to contribute to discussions. A strategy to encourage discussion among students is to select or create dilemmas and case studies connected to things students relate to or that may appeal to their curious nature. For example, students in my introductory psychology courses tend to be the least interested in, and to have the most difficulty with, research methods. With this in mind, one of the ways I introduce research methods is by sharing a relatable case (i.e., a texting and driving story), followed by jargon-free discussion questions. The questions are structured around the objectives for the content so class discussions are purposeful. After questioning, I acknowledge participation with praise and restate some of the students' responses as a display of appreciation for contributions. To stimulate intellectual curiosity, I usually refrain from providing responses to their questions right away. As we begin to discuss research methods, we refer back to the texting and driving case as often as necessary to make relevant connections (i.e., how hypotheses are generated, types of research, ethical considerations).

Resources

Dilemmas and case studies may be found through internet searches, consulting with campus research librarians, news media, film, television programs, cartoons, or by sharing personal or professional stories.

The [National Center for Case Study Teaching in Science \(NCCSTS\)](#) provides comprehensive, peer-reviewed cases online that are written by faculty members. There are dilemmas and mini case studies provided for nearly 80 different disciplines and for 10 different educational levels. Disciplines covered in the NCCSTS include agriculture, anatomy, biology, business/management science, civil engineering, computer science, economics, food science/technology, forensic science, journalism, linguistics, mathematics, nursing, nutrition, physics, psychology, public health, sociology, sports science, teacher education, toxicology, veterinary science, and many more. Educational levels span middle school to graduate school, professional

degree programs, clinical education, continuing education, and professional development.

Additionally, the University of Southern California Annenberg School for Communication and Journalism publishes case studies through an online, open-access, peer-reviewed journal titled *Case Studies for Strategic Communication*. These case studies are designed for use in a classroom environment and cover a wide variety of disciplines such as marketing, development and fundraising, investor relations, and internal or employee communication.

Other internet resources include:

- [Medical Reports and Case Studies \(MRCS\)](#), published by OMICS International. This online, open-access, peer-reviewed journal offers case studies for clinical medicine and life sciences. One of the stated aims is to share current developments in the disciplines.
- [International Council on Hotel, Restaurant, and Institutional Education \(ICHRIE\)](#), which publishes a peer-reviewed e-journal titled *Journal of Hospitality & Tourism Cases*.
- [American Anthropological Association](#).
- [Earthquake Engineering Research Institute](#).
- [Connecticut Teacher Education and Mentoring \(TEAM\) Program](#).

Considerations for Discussions

In addition to cognitive skill development, interpersonal skills are important. Promoting interpersonal skills involves social awareness, listening, and effective communication with others. In my face-to-face and online courses, students have opportunities to test their thoughts and strategies with classmates, provide evidence for their claims, and share relevant background knowledge. When it comes to discussion in face-to-face courses, it is ideal to have small groups of three to four students, which offers students an opportunity to interact and hear a variety of viewpoints or different ways to solve problems. Based on my experience and from reviewing literature on groupings, pairs are more likely to veer off topic, depending on how much time you dedicate to the discussion. Pairs also have a greater risk of both students being misinformed, potentially perpetuating misconceptions. Large groups tend to be dominated by a few students, and may even encourage social loafing or lack of participation for students who do not want to interact with others.

Discussions are a way to practice helping others, listening, and working through challenges and disagreements. If students are hesitant to disagree, encourage groups to designate the role of a skeptic for each topic or problem. A skeptic's role is to question, present an opposing viewpoint, or challenge the group to be more reflective.

Instructional Methods

One consideration when integrating these activities in the classroom is time. There are different instructional methods for integrating dilemmas and case studies into courses. One of the quickest ways to integrate a dilemma and assess student knowledge is by discussing a brief prompt, such as "Would you rather...?" An example for a psychology course might be, "Would you rather have issues with your temporal or occipital lobe?" For a business course, an example might be, "Would you rather invest your money into an established business or start your own business?"

Additional suggestions for integrating dilemmas and case studies include:

- Give "hooks," or snapshot previews or reviews of cases, during the first three to five minutes of class.
- Flip the classroom. Have students review content independently and apply it during class.
- Integrate the dilemma or case study at different points throughout a lecture.
- Assign group projects.

Workplace Implications

Employers will expect graduates to demonstrate more than basic knowledge. There is a desire and need for graduates to think critically, be efficient problem solvers, and able to effectively function within the social culture of their workplace. The classroom is an ideal environment to practice and hone these skills.

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