

Targeted Teaching Strategies

Dimension 8: ASSIGNMENTS

Assignments: High scores in this dimension generally indicate that activity in learning was found to be valuable and that the learning experiences involved were meaningful. Assignments provide students with opportunities to practice new knowledge and skills. Furthermore, learning tasks that constitute assignments are often presented in learnable units even if they are not always completed in an appropriately paced sequence. The Assignments dimension, too, seems consistent with sound principles of learning.

The following ideas are suggested and used by outstanding university faculty across a range of institutions and disciplines. Faculty will generally find these strategies most beneficial when, *after considering all the ideas*, they select *no more than three or four* which appeared potentially most profitable and *made a commitment* to apply or adapt them to improve their teaching effectiveness.

I. Planning for Assignments

1. Prepare test questions that are similar to those used in your quizzes, homework, readings or discussion.

"I try to generate exam problems that are similar to my homework problems so there are no surprises," comments a Mathematics professor. "I also try to include problems everyone should be able to do (some very easy ones) as well as questions that require more thought and really make my students go beyond the material."

"Questions on midterm and final exams should not take a form radically different from those which you use in quizzes, homework assignments, lecture or discussion."

"When students can see a link between the things they are asked to do during their private study time, and the things they will be asked on the exam, they are more motivated to make the effort," a professor in Psychology said. "Particularly when there is a need to reduce the amount of assessable work, such an incentive ensures that students will appreciate the value of recommended readings or practice questions."

2. Give your students at least one assignment which consists of several options.

One professor of English requires every student to write two essays on assigned topics. His third assignment, however, sets forth five or six options from which his students may choose the one which sounds interesting and most allows them to do their best.

Examples of the options which he offers include: a piece of creative writing; a dramatic representation to be performed in front of the class (which can be a small group or team project); an original videotape to be shown to the class (which can also be a team effort); or a third essay (a "safe" option generally selected by his more conventional students). In addition, with his permission, students can create an option of their own if they wish.

"More than five or six options tends to confuse some students; it becomes too difficult to decide," he believes. "Two few options, on the other hand, restricts unduly my more creative and daring students." Although optional assignments must be related to the subject matter of the course, he encourages his students to take an interdisciplinary approach and to link content and skills from other courses.

3. Plan to give your students frequent homework assignments and be prepared to return them at the next class meeting.

"When I schedule student assignments, I block out my own time or grade them immediately following class," one Engineering professor says. "This is important for two reasons. First, the quick turn around time ensures that my students are still thinking about the assignment. Thus any criticism or feedback is likely to have a stronger impact than if it were delayed a week or more. Second, prompt feedback indicates to my students the importance of what they are doing and my concern for their learning the material."

An English professor agrees. "The impact is enormous when you return assignments at the next class session. Students are still anxious to know how they have done. That's a tremendous advantage in maximizing the impact of feedback on their learning."

4. Set up student panels.

One faculty member in the social sciences organizes the term as a series of student-led discussions. "I believe my students can teach themselves a great deal; therefore I do not play an active role in the student-led discussions. My role is to serve as organizer and facilitator.

In the first week his students select the topic and the date of their presentation. Generally, there are three to four students per topic. Outside class, his students meet as groups with the faculty member to discuss how to organize their topics for presentation and discussion. It is up to each student group to select whatever format they wish for their presentation.

"In the past, student groups have conducted a debate, performed a skit, or simply led a discussion about the topic," he says. "They learn a lot about the topic and they really get to know one another while preparing their presentations.

5. Prepare answers to exams and quizzes to hand out as soon as your students turn in their work.

One Chemistry professor prepares a handout of correct answers which he gives to students as they turn in their answer sheets and leave the room. "There is no point in making students wait several days or weeks to find out how they did," this professor explains. "They are most interested in the results at the time of the examination, and it is at the time of the examination that the greatest reinforcement of the learning can take place.

Note that this method gives students immediate feedback even though it may be a week or more before the assignments can be returned with comments or grades.

I. Teaching for Assignments

6. Give a brief early assignment that allows your students to build on knowledge and skills acquired in previous courses.

One professor of Architecture does this in his studio courses. "Beginning with a problem that my students can easily master increases their self-confidence and creates a relaxed, non-threatening atmosphere for the course," he explains. "My first assignment always calls for my students to use skills learned in prior courses and to apply them to an elementary design problem."

7. Give students frequent assignments and make extensive, constructive comments on them.

"Students need to know what they are doing well in addition to what they need to improve," says one professor of History. "I am always careful to praise their strengths and to be as constructive and helpful as possible in pointing out their weaknesses."

"I make a point of writing extensively on my students' papers," says a professor of Architecture. "I make comments in the margins as I am reading and then append lists of strengths and suggestions for improvement."

"I write many comments on my students' papers and essay exams," says a professor in Ethnic Studies. "In fact, I write just as much on the best papers as on the poorest. On failing papers I write something like, 'Insufficient..come see me Wednesday' or on a good paper I might write 'Read such and such over the weekend and come talk to me about it next Tuesday.' I am also careful to remark on any improvements or progress a student may have made from one writing assignment to another."

8. Give your students the choice of substituting a paper for one of your midterms.

A professor of Classics gives two midterms and one final exam. He has found it useful to give his students the option of writing a paper (from an approved list of topics) for either of the midterms.

"I haven't really noticed any pattern of who takes the midterm and who writes a paper," he comments. "Good and poor students do both. In general about 25% of the class chooses to write a paper." He finds that giving his students options increases their motivation and makes them more active learners.

9. Discuss the answers to exams, quizzes, or homework assignments at the next class meeting.

One Engineering teacher says that even if he cannot return graded assignments or exams, he always discusses the answers at the next class meeting. "I want to correct any misunderstandings and reinforce their learning as soon as possible," he says. "Students are much more receptive to this right after completing an assignment."

10. Include peer-editing of student assignments (papers, computer programs, or design projects) in your course.

"In my upper division courses, I have my students submit two copies of each computer program they write," one faculty member explains. "One copy goes to me and the readers and the other copy is assigned to another student in the class to evaluate and edit."

He believes that learning to program is like learning to write short stories; you learn not only by doing it but by reading programs other people have written. He has his students read and analyze exemplary programs, much as they might read excellent short stories. He believes that peer-editing also gives his students yet another opportunity to demonstrate understanding.

A professor of Architecture uses the same strategy with student papers. He has students exchange papers to take home and edit. "The final paper is submitted along with a copy of the first draft with its edited corrections in red," he explains. "Each paper then receives two grades, one for the author and one for the editor."

In this way, students receive prompt informal feedback from a peer, followed by a grade and a formal critique by the faculty member. This technique helps students acquire good editing as well as good writing skills.

11. Have your students keep a journal of their learning experiences during the course.

A journal can be a very effective way to facilitate students' reflection on their own learning during a course, leading to greater understanding and appreciation of the subject. It is important, however, to ensure that students have been familiarized with the process of journal writing and the benefits they can expect from it.

This may be required as an assessable project, or simply recommended as effective preparation for class discussions, presentations, or exams (particularly if the exam is designated as "open-journal" rather than "open-book", as one professor suggests).

12. Create opportunities for role playing.

An Engineering professor makes use of role playing to encourage his students to develop skills they will need in their careers. "I give my students copies of an Engineering report, for example. Then one half of the class is asked to assume the role of the authors of that report and prepare an oral presentation for the client or funding agency. The other half of the class is assigned to act as representatives of the client or funding agency and to prepare questions to be asked of the engineers.

"About a week later, during class time, I select certain students to actually enact these roles in front of the class. My students do not know ahead of time who will be called upon, so everyone has to be prepared. Those not called on join me in the role of the observer. When the students have enacted the meeting, the rest of us give a critique of each side's performance."

13. Assign provocative or controversial topics for papers.

"I find that the quality of the papers I get often depends on the quality of the assignment I give," says a professor of Business Administration. He tries to give provocative topics as

paper assignment. For example, in a recent assignment he asked his students to respond to the question, "If you were working in a company that illegally pollutes the environment what would you do and why?" Giving provocative assignments not only challenges his students and makes for more interesting reading but also diminishes the chance that the papers will be plagiarized.

One professor who successfully engages students this way warns that it is important, even when deliberately trying to be provocative, or "realistic", to choose topics that the students are "ready" to deal with in the context of the material being covered.

The importance of getting to know what gets the class "fired up" and what they relate to, is emphasized by several professors in setting appropriately provocative assignments.

14. Use a structured process to help your students choose topics and groups.

In one Public Health class, students work in small groups on a major project throughout the term. The professor has developed procedures to help his students choose topics and groups. First, all possible project ideas are listed on the board using a brainstorming technique. The question posed to students is "What topics or areas would you like to explore?"

Enough topics are generated so that each is taken on by a group of four to six students. The small groups meet around their selected topic of interest and students explore in detail the nature of their project. At the end of the first period, students indicate on an index card their name, address, phone number, group and whether their decision is firm. This list is typed and distributed at the next class meeting when needed changes are made.

This procedure gives students a chance to identify appropriate topics and explore in preliminary fashion how they might proceed. It gives students working on their term projects early and has the added benefit of providing each student with a list of everyone in the class and their project interests.

15. Ask students to analyze an essay or journal article and to write a critique of it.

One professor of English assigns the work of a literary critic and then asks his students to write an essay taking an adversary position. "If my assignments are provocative," he says, "I get better results. I stress the importance of their presenting a personal point of view. They should enjoy doing the paper; it should provide them with a personal learning experience."

A Psychology professor asks his students to write an evaluation or critique of a paper by a professional psychologist. "The process of analysis and evaluation captures what I am trying to do in the course," he explains.

16. Give assignments which put your students in the role of another.

A History professor reports that she used to give rather standard writing assignments, e.g., "compare author X and Y's views on A," where the two authors tended to be professional historians. "Most undergraduates, however, find the arguments of current historians somewhat arcane," she says.

"Therefore, most recently I have asked my students to read a collection of the 18th century speeches on why Louis XVI should be killed and assigned them the task of writing their own speech as if they had been living during the French Revolution.

"Undergraduates really are enthusiastic about this kind of assignment and do an incredibly good job. It helps them to identify with the issues of the time; in fact many of my students went to great lengths to research the authenticity of their own empathic interpretations. Next year, I intend to take this assignment a step further by dividing my students into small groups and having them actually deliver their speeches to the group."

17. Assign "thought problems" which are typical of the problems faced by professionals in the field.

A Forestry professor assigns weekly "thought problems" which are of the same type of questions professional foresters are asked, such as, "What is killing that tree?"; not "Name six factors which can kill trees."

18. Use real problems and have your students solve them.

An Engineering professor presents his students with problems based on real cases. "For example," he says, "my students are told that a ball bearing failure has occurred in an airplane. They are asked to outline what steps they would take in determining the cause and correcting it.

"They tell me what tests they would make and, using simulation techniques, I tell them what the results of those tests would be and ask what they would do next. This continues until my students have either solved the problem or are stumped. Then their results are compared with those from the actual case study.

"The value of this approach is to give my students experience solving the type of practical problems they will encounter as professionals," he explains. "Also, because the problems are based on actual cases, it gives my students a chance to compare their own problem-solving skills with those of practicing engineers."

19. Use case studies to give your students practice at answering practice questions.

A professor of Anthropology carefully prepares case study assignments to give her lower division students exposure to primary research techniques and strategies. Students are presented with a collection of photos, maps, and narrative information, which depict a site as an archaeologist would see it. Students must answer a series of questions, e.g., "What changes in eating habits can you infer from the artifacts found at two different levels?"

20. Have students solve problems at the board.

A faculty member who teaches quantitative methods calls on students to come up to the board to solve problems. Each student is permitted to bring a fellow student as a "coach" so that he or she is not put on the spot. At the beginning of the term the problems are based on homework assignments. Toward the end of the term, they are based on impromptu examples. This method increases student discussion and interaction and encourages your students to pay close attention in class.

21. Use the Socratic method to lead students through the steps involved in applying a particular concept.

For example, taking a concept like "licensing" as a public policy tool, a Political Science teacher guides his students through the steps involved in creating a regulatory commission, e.g., to license prostitution. "What would such a commission look like?" he asks. "Who would want to serve on it? What problems would it encounter? I force my students to apply abstract concepts and principles from their readings to new situations," he explains.

Later in the term, he has his students actually stimulate the workings of a particular regulatory commission and engage in debates on the pros and cons of particular policy solutions.

22. Make assignments which give your students field experience.

A Political Science professor always includes at least one experiential assignment in his courses. A recent example was to require his students to interview a local politician as well as his or her spouse, children, staff members, and several constituents in order to get a better understanding of the daily life of a politician and the issues and problems he or she faces.

"My students were then asked to tell their class about their experiences so that generalizations could be drawn. They compared their own conclusions with those presented by both the theoretical and the popular conceptions of politicians represented in their reading assignments."

"My students are so experience-poor and theory-rich," he explains, "that I find as many ways as possible to get them to use the local area as a laboratory for enriching their understanding of course concepts and theories. My students are also so competitive, that I try to give them a few non-competitive assignments where each student has his or her own unique experience which can be pooled with those of others in the class in a way that enriches everyone's understanding."

23. Have your students do research and write reports for specific "real world" clients.

Some teachers select or simulate a problem in their field and then have their students design a research project, gather the relevant data, and write up the results in a form appropriate for the "client."

Still other teachers find real clients for their students. For example, a teacher of natural resources has his students participate in all phases of the research, report writing, and oral presentation to client agencies for environmental impact studies in the Bay Area. Similarly, a social welfare teacher has her students help agencies define their needs and write grant proposals for submission to foundations and federal agencies.

An Education professor frequently has his students meet with top level University administrators to define current evaluation or information needs on the campus. Each of his students then designs and conducts a small-scale evaluation project on the campus and writes a report for the client-administrator in lieu of a standard term paper. He notes, "You get better results from your students if they feel there is a real audience for their ideas."

24. Have your undergraduate students carry out independent research projects.

A Forestry professor who uses this approach believes that too many laboratory courses follow a "recipe" approach and thus do not really introduce students to science. "I want my students to get a feel for real scientific research," he explains. "Therefore, I require them to develop the questions, select the methods by which they are going to carry out their investigations, review the relevant research literature, and report their findings in both written and oral form."

25. Have your students keep a logbook of their work.

The logbook should not be graded on its aesthetics or its organization. It is intended to be a work in progress, not a final document. Following is an excerpt from a faculty member's course syllabus explaining the procedures to be followed in keeping their logbook.

This term you are being requested to maintain a "Logbook." "Your logbook should be organized along the following principles:

1. Include your notes and thoughts on all design problems, lectures, readings - or anything that bears on this course.
2. After each project is complete, include a photograph or sketch of it in the book.
3. After each review, comment on what was said about your project and indicate how you would modify your scheme if you were to continue to work on it.
4. At the end of the term, reread all the materials in the book, making new comments from your advanced perspective.
5. The logbook will be reviewed at mid-semester; and will be due on the last day of class."

This workbook is based upon materials developed by H.W. Marsh and used with permission. The strategies are part of a package of materials available in: Marsh, H. W., and Roche, L. A. (1994). *The Use of Students' Evaluations of University Teaching to Improve Teaching Effectiveness*. Canberra: Department of Employment, Education and Training. Further information on the Improving Academic Teaching Project can be found in Marsh, H. W., and Roche, L. (1993). The use of students' evaluations and an individually structured intervention to enhance university teaching effectiveness. *American Educational Research Journal*, 30, 217-251 (1993).