Some Principles of Effective Teaching

Adapted from the Teaching Effectiveness Manual prepared by the Al-Ouds/Brandeis Teaching Effectiveness Partnership Team*
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I. Introduction

Brandeis University values innovative approaches to critical inquiry that engage students in active learning through a wide range of pedagogical techniques. Our departmental and inter-disciplinary programs enable students to develop the core skills to advance knowledge and social justice as lifelong pursuits. Please consult your department or program's learning goals while you are developing student learning goals for your syllabi. As professors in the 21st century, we recognize that effective learning rather than good teaching must be the measure of our success. To paraphrase Plutarch, education is not filling a vessel, but kindling a fire.

We encourage you to read the following suggestions and try out some new techniques and methods, and then to share your experiences with your colleagues, so that the university as a whole can develop more effective teaching and learning practices. We also invite you to visit your colleagues' classes and to participate in the workshops and discussions offered throughout the year by the Committee for the Support of Teaching (CST).

II. Designing Your Courses

A. "Backward Design": begin with learning goals

- Think about the skills and knowledge you want students to acquire.
- Work backwards from your intended learning outcomes to create your course outline and to select topics, readings, and activities (such as oral presentations, sequenced writing assignments, group projects, field trips, etc.)
- Then design assessments that accurately assess student learning of course content and skills.
• Be sure your assessments match both your learning objectives and the class sessions, readings, and assignments you have chosen

B. **Make your learning objectives clear to the students**

• State them clearly in your syllabus
• Refer to them throughout the course
• Make sure to include verbs that describe the skills to be mastered (e.g. demonstrate, evaluate, analyze, synthesize)
• Focus on the most important knowledge and skills for this subject

C. **Imagine your syllabus as a “roadmap” for your students and yourself**

• Explain to students how elements of the syllabus are sequenced and interconnected
• Show how each course module and/or class session will contribute to achieving the large goals of the course
• Make clear the relationship between this course and the curriculum as a whole (e.g. the major, or a cluster of courses, or a graduate program)

D. **Make sure your syllabus explains clearly the procedures, policies, requirements, and practical information that will enable students to succeed in your course**

• **Contact Details and Office Hours**: specify instructor’s office phone number, e-mail address, website address, office location and office hours
• **Course Description**: provide a short description of the course, the main topics, and the general format
• **Learning Objectives**: list the knowledge and skills that you would like the students to learn or demonstrate as a result of this course
• **Prerequisites**: identify the level at which the course is targeted, list any courses that are formal prerequisites, mention knowledge or skills with which students should be familiar before starting the course
• **Expectations for student behavior**: clarify preparation (e.g., read all texts before class), participation, timely completion of assignments, your policy on use of cellphones and laptops
  • **Disabilities**
  • **Cell phones**
  • **Religious Observance**
• **Communications**: provide details about class mailing or websites and relevant links; explain how students should keep themselves informed about the class and communicate with other students in the course
• **Course Materials**: list all required and recommended materials including the books or other items to be purchased and any supplementary web readings
• **Course Plan (the heart of the syllabus)**: give a detailed list of proposed topics and assignments for the semester, with an entry for each class session that makes clear what is expected each day; the course plan should show students how each part relates to the whole; it might also include daily objectives and/or study questions;
• **Critical Dates**: include visibly on the syllabus all due dates for exams, homework assignments, papers, projects and presentations
III. Assessing Student Learning

A. Observe the following guidelines when you consider ways of evaluating your students' achievements:

- Identify learning goals and objectives: what skills are students expected to develop, and in what context(s) are the skills expected to be used?
- State these goals clearly and explicitly in the syllabus
- Work backwards to design assignments that allow you to evaluate how well students are achieving these goals
- Relate assessment to the context in which skills will be used
- Provide assessment periodically, not just at the end of the semester, so that students will build the skills necessary to move to the next context
- Always include both formative and summative assessments:
  - Formative assessments (e.g., problem sets, lab exercises, short quizzes) take place during the course and help the instructor understand how the course is going, with the goal of informing instruction to improve learning.
  - Summative assessments (e.g., exams and final papers) happen at the end of a unit or a course and are intended to judge the students' competency and readiness for the next phase of learning.
- Explain all assignments clearly and in detail, either on the syllabus or on a separate handout.

B. Remember, as you create assignments, that assessment is most likely to foster learning when:

- the assignment accurately reflects the content and goals of the course
- the level of difficulty is appropriate for the students at their stage in the course
- expectations, questions/topics, and terms of evaluation are clearly articulated
- test items approximate real-life situations and contexts in which the skills will be used
- the assignment can effectively be accomplished within the allotted time
- evaluation and feedback match learning goals
C. Rather than relying entirely on examinations, combine multiple means of assessment in a single course so that students learn critical thinking, writing, and oral presentation skills. The following list shows a broad range of possible assignments and assessment tools:

- **Writing assignments** from long essays to one-minute papers; from formal essays to journals to letters; from scholarly to theoretical to persuasive pieces; first drafts and revisions
- **Oral presentations** by individuals or groups and structured debates or discussions
- **Research projects** involving field work, lab experiments, surveys, library research, or other sources of data
- **Tests and examination** from one-minute quizzes to final exams, including both in-class and take-home varieties
- **Peer evaluation and self-evaluation**
- **Creative performance** through oral, written, or electronic modes
- **Clinical practice** observations, demonstrations, reports
- **Group projects** in and outside the classroom
- **Multimedia productions** in video, digital, or live form
- **Simulations** such as mock trials, model UN

D. Make sure that the points or percentages of the final course grade allocated to each assignment are made clear on the syllabus. The following is a sample distribution of assessments in a single course. Other examples of grading criteria are available online.

- Participation in class discussions (10%)
- Midsemester exam: take-home or in class (20%)
- Group or individual presentation (10%)
- Analytical paper, first draft and revision (30%)
- Final exam: short-answer and essay (30%)

E. Know how to write good exams and when to use them.

- Exams can play an important role even when using a variety of assessment tools. Exams are especially appropriate when there are specific facts that you need students to know, or problems that you need students to be able to solve, in order to demonstrate mastery in a course and readiness for the next course in a sequence.
- Be clear about the goals of each question they ask on an exam: what material is it covering? what skill is it assessing?
- Exam questions should allow students to demonstrate their mastery of the skills or knowledge that form the learning objectives for the course.
- Exam questions should be clearly drawn from the course content, should be tailored to the topic, and should not be surprises.
• Good exam questions not only reflect learning objectives but also approximate real-life situations where students might use the knowledge or skills on which they are being tested.
• Exam should include both forced-choice and open-ended questions, with the types of questions tailored to the learning objectives. In general, writing and problem-solving are more useful than filling in blanks or selecting from multiple choices.
• If at all possible, limit the use of chain questions (wherein if students miss the first question, they cannot correctly answer the following questions) to situations in which the chain of answers would approximate a real-life situation.

F. Comment on student papers as you read them. Comments on a paper are the main way for faculty to improve student writing. While reading a paper, make comments in the margins to show the student that you have read attentively and to help them understand the connection between the paper and your final evaluation. Some faculty insert comments via “track changes”, keeping an electronic graded copy of the paper.

• Make some positive comments. Students need to know what worked well to repeat successful practices.
• Comment primarily on patterns or main issues. Discuss both strengths and weaknesses.
• Write in complete, detailed sentences. Symbols and abbreviations are sometimes confusing to students. The more specific and concrete you can be, the more helpful will be your comments.
• Ask questions in the margins to promote student thinking while also helping them anticipate questions future readers might raise.
• Use a respectful tone.
• Write legibly. (Red ink is intimidating, so another color, or pencil, is preferable).

G. Provide a summary evaluation of each student’s paper rather than only giving a grade. Your summary comment on a paper is your chance to teach students how to write more effective papers or undertake more effective projects in the future.

• Type these final comments if possible, to ensure legibility and to keep a record of your comments.
• Open with a greeting, using the student’s name.
• Restate the paper’s main point to show that you took the paper seriously.
• Discuss the paper’s strengths to make sure the writer knows what she has done successfully.
• Discuss the paper’s weaknesses, focusing on large problems first. Choose two or three of the most important areas that need improving, and present these in order of descending importance. Suggest solutions that the student might adopt in a later paper.
• Decide on the grade after you’ve written your final comments.
• Reread your comments to make sure the student will understand them.

H. Make clear to students the rationale for your grading. Here is a sample rubric for evaluating papers that considers the quality of thesis, evidence, analysis, structure, and style. Some of these criteria apply equally well to essay exams and other projects.

• an A paper makes an interesting, complex, and important argument and supports that argument with well-chosen evidence; the structure is logical and engaging, the writing is clear and concise, and all aspects of the assignment are thoroughly well-executed;
• A high B paper either aims at making an engaging, complex argument but is hindered by problems of structure, analysis, or style, or else it has a simpler argument that is thoroughly well-executed;
• A B paper addresses the assignment and demonstrates efforts to produce a complex argument but is hindered by either a lack of complexity or importance in the thesis or by structural, analytical, or stylistic problems in the execution of ideas;
• A low B paper demonstrates effort to address the assignment, but the argument is ultimately too obvious, undeveloped, or obscured by significant structural, analytical, or stylistic problems;
• A C paper has significant problems with argumentation and/or presentation;
• A failing paper does not meet the minimum page requirement, does not address the assignment, plagiarizes, or does not meet standards for academic writing or argumentation.

IV: Interactive Teaching: Promoting Active Learning

A. Teach to your learning goals:

• Consider how each class session and the course as a whole can facilitate learning
• Connect each individual class session to the learning goals of the entire course
• Create a “roadmap” for each session or module, so that students know what is coming and why
• Lecture only as much as necessary, and lecture interactively
• Connect new material to material students already know

B. Foster learning and keep students engaged during lecture sessions through strategies such as these:

• Ask questions to stimulate student participation
• Vary your pace and activity: shift gears every few minutes and break up segments of lecture with some form of interaction
• Consider using narratives, concrete and real life examples, and multiple methods of presenting a given concept (verbally, graphically, numerically, metaphorically)
• Do not read from powerpoint, lecture notes, or textbooks
• Use voice and movement to sustain interest
• Use visual aids such as diagrams, films, and pictures to reinforce learning
• Present key points early in the class session
• Pause to solicit questions and to be sure what you’re presenting is clear
• Use handouts or on-line materials to supplement lectures or clarify lecture material
• If you use powerpoint, be sure the slides are easy to read, encourage student interaction, and supplement rather than substitute for interactive lecturing.

C. Create student interaction even in large lecture courses with practices such as the following. A longer list of suggestions for increased interaction is available online.

• Put students in pairs or small groups to address a question; then discuss
• Ask students to write down the answer to a question; then solicit answers
• Ask students to “vote” on an answer through a show of hands, or with clickers
• Choose two or three students to “role-play” a situation
• Engage the students as a group in analyzing a text, image, film clip, or etc.

D. Get frequent feedback from students, so that you can adjust your teaching and curriculum as necessary to ensure successful learning outcomes. These strategies will give quick feedback:

• Inviting questions during the lecture
• A simple show of hands (e.g. did you understand this?)
• Quick quiz, oral or written, to see whether students can apply the knowledge
• On-line conversations by which students can raise their questions
• One-minute cards filled out after each session or selected sessions, or emails or uploaded LATTE comments sent in the first hours after class, asking questions such as these:
  • The main point of today’s class was . . .
  • What interested me most was . . .
  • What I don’t understand is . . .

V. Technology In and Beyond the Classroom

A. Take advantage of the fact that technology has changed the ways in which students learn and the available resources for effective teaching, with the following benefits:

• allows simulation
• makes more primary sources available
• provides quick access to resources – including visual resources, film, etc
• saves paper
• provides efficient, convenient information about the course itself
• offers a means of communicating with students about updates in syllabus, timely reminders, etc.
• allows students to add material and to converse with one another
• lets students work at their own pace and schedule
• allows for some class sessions to take place entirely online
B. Remember, however, that teaching with technology is not *intrinsically* active; it must be used strategically to *promote* active learning.

- Post questions to which students must respond
- Encourage students to engage in conversation and comment on other people's response: can increase interaction among students
- Use technology creatively – assign students to make video, make web pages, etc.
- Define clear goals, rules, deadlines, and appropriate behaviors for on-line activities;
- Provide students with sufficient feedback for on-line exercises and make sure the on-line assignments count in grading the student
- Choose web resources that enhance creativity and active learning

C. Consider the following tips for effective teaching utilizing LATTE course management tools for online learning

- All the learning resources for both online and face to face sessions should be installed on your LATTE site.
- If you are conducting on-line sessions, be sure that they follow a predictable structure (for example: title, introduction to the topic, session objectives, session plan).
- There are many learning resources available on the internet which you can use or adapt for your course. You do not have to reinvent the wheel. Do take care to credit your sources.
- Activate "forums" and encourage or require your students to participate in them.
- If you are combining online and face-to-face sessions, **make sure the face-to-face sessions are student-centered** by introducing such practices as group work, role-playing, case studies, and other interactive techniques.
- Be sure to follow the good practices listed above under "student assessment"; these apply equally to on-line and face-to-face teaching.

VI. Responding to Course Evaluations

A. Conduct interim assessments of your teaching rather than waiting until the end of the semester to evaluate your course

- Since student feedback is designed to improve teaching, getting that feedback early will allow you to make immediate adjustments
- Interim evaluations also communicate to the students that you care about improving the course and that students' opinions and learning experiences matter to you
- The Committee for the Support of Teaching website provides samples of two forms, one quantitative and one qualitative, that can be adapted by individual instructors
- Handing out blank index cards periodically can also provide students with the opportunity to give feedback about how the course is going and what can be improved
- In order to receive honest feedback, it is important that students be able to write evaluations in conditions of anonymity
B. Consider a voluntary peer evaluation of your teaching.

- Offer to exchange visits with a colleague so that you can see one another teach and provide the feedback that experts can give one another.

C. Read your final course evaluations carefully and non-defensively.

- Course evaluations are part of the University’s commitment to excellence in teaching and learning. Deans and department chairs may use evaluations to evaluate faculty, particularly in reviews for promotion.
- But course evaluations are at best a mechanism for self-evaluation. It’s important not to dismiss marks or comments that indicate problems and especially to watch for patterns within and across your courses to see where improvements need to be made.

D. Conduct your own self-evaluation at the end of the semester by asking yourself questions such as the following:

- Did the course of instruction address all of the learning goals?
- Did the exams and assignments also measure these learning outcomes?
- Did I provide timely feedback to students on assignments and exams?
- What, if any, adjustments might I make to assignments in the future?
- Were the books and course materials the best available for the purposes of this course?
- Did the students have legitimate complaints about any of the course materials/books?
- Were there ideas that the students found hard to understand?
- How engaged were the students in daily class sessions?
- Did I seek feedback from students and/or colleagues to improve my teaching during the semester?