


Chapter 10 :

Discussion (starts on p.173)

Engaging Ideas

The Professor's Guide
to Integrating Writing,
Critical Thinking,
and Active Learning
in the Classroom

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Alternative Approaches to Active Learning in the Classroom

(Discussion starts on p. 173)

Chapter Nine focused on the use of small groups to promote critical thinking and active learning. This chapter turns to other classroom teaching strategies that promote active exploration of ideas through talking and writing. In most of these strategies, the instructor encourages inquiry by presenting students with disciplinary problems that stimulate critical thinking and by making students responsible for formulating their solutions in language, either spoken or written. (For more comprehensive treatments of active learning, see Bonwell and Eison, 1991; Meyers and Jones, 1993; and Davis, 1993.)

Increasing Active Learning in Lecture Classes _____

Lecture courses, by nature, place students in a passive role and imply a transmission theory of knowledge in which students "receive" the ideas and information "sent" by the instructor. Johnson, Johnson, and Smith (1991) provide a helpful summary of the problems with lecture teaching based on research into such matters as listener attention span, learning styles, retention patterns, and levels of reasoning stimulated by different modes of instruction. They conclude that although lectures are appropriate in many circumstances, they tend to reach only those students who "learn auditorially, have high working memory capacity, have all the required prior knowledge, have good note-taking

skills, and are not susceptible to information-processing overload" (p. 89).

Fortunately, there are many ways to make lecturing more effective for a wider range of learners. Johnson, Johnson, and Smith suggest a variety of cooperative education techniques for getting students more involved in listening to and processing a lecture. Their approach is similar to many of the teaching strategies recommended by Davis (1993), who cites research noting that students have, on average, attention spans of approximately ten to twenty minutes (p. 99). Consequently, Davis shows, the most successful lecturers change the pace several times during a class session by breaking the lecture into parts punctuated by student-centered activities in which the instructor gives students a problem to solve at their seats, switches to discussion for a few moments, assigns an in-class freewrite, and so forth. As we have seen elsewhere in this book, astute use of formal or informal writing assignments—integrated into the overall course design—can also make students more active learners in lecture courses. This section reviews several active learning strategies specifically adapted to lecture courses.

Use Cooperative Learning Groups to Help Students Listen to Lectures

Johnson, Johnson, and Smith (1991, pp. 91–92) recommend that instructors design their lectures so that the cooperative learning groups can help one another absorb the lecture content. The groups can be simply pairs (if students are seated in a large lecture hall) or groups of three to five (if movable chairs are available). The class time proceeds according to the following rhythm.

1. Opening discussion (five or six minutes) in learning groups in response to a question presented by the instructor or to an "advance organizer" that outlines the upcoming lecture.
2. First lecture segment, lasting ten to fifteen minutes, "about the length of time an adult can concentrate on a lecture" (p. 91).
3. Learning group discussion based on a question presented by the lecturer (four or five minutes). Each person answers the question individually and then compares answers with group members. Before proceeding with the lecture, the instructor asks one or two groups to summarize their answers as a check on learning.
4. Second lecture segment, followed by discussion period. Continue this alternation as time allows.

5. Final discussion aimed at summarizing the whole lecture and integrating it into students' previous knowledge.

An alternative way of handling the discussion between lecture segments is to use what Johnson, Johnson, and Smith (1991) call "cooperative notetaking" (pp. 97–98). With this strategy, the instructor asks student pairs to compare their lecture notes and help each other flesh them out.

Require Lecture Summaries

Another strategy for promoting better listening is to have students write one-page summaries of your lectures. At the beginning of each class, collect the previous day's lecture summaries; later, read a random selection as a check on student understanding. Chemistry professor Richard Steiner (1982) reports two benefits from this process: students learned more from the lectures, and the instructor was able to make adjustments in his lectures based on his new awareness of problem areas. (For further discussion of summaries, see Chapter Seven, pages 128–129, and Chapter Eight, pages 145–146.)

Develop Guided-Journal Tasks Keyed to Your Lectures

In this approach, the instructor designs guided-journal tasks that require students to use concepts or information from the lectures. For example, tasks can ask students to link lecture material to their own experiences, to apply lecture material in new contexts, to argue for or against certain propositions in the lectures, or to raise new questions. The key here is to design tasks that cannot be completed unless the student pays close attention to the lectures.

Another use of guided-journal tasks (or in-class freewrites) is to engage students with a problem that the day's lecture will address or to activate prior learning and personal experience that will facilitate learning of new material. The teacher's goal here is to till the soil prior to planting the seeds in lecture. (See Chapter Six, pages 107–108, for an explanation of guided journals; see Chapter Seven for suggestions on the design of tasks.)

Conduct Feedback Lectures

In a feedback lecture, the instructor stops at an appropriate point in a lecture and asks students to write for several minutes on what is currently puzzling them or gives students a thought problem keyed to the current point in the lecture. The instructor then asks a student

or two to read what they have written or collects a random sampling for reading after class. These freewrites serve as a means of intellectual communication between students and teacher and provide a window into students' thinking processes. Besides providing valuable feedback for the lecturer, the freewrites serve as a kind of seventh-inning stretch for students, refocusing their attention and increasing listening during the last part of the class period. Angelo and Cross (1993, pp. 148–153) call this approach the "minute paper."

Deliver Narrative Lectures That Model the Thinking Process

Another way to promote critical thinking is to model it. Occasionally give a lecture that takes students through your own thinking process in addressing a problem or that summarizes the history of scholarship on a classic disciplinary problem. At the beginning of the lecture, pose the problem that puzzled you or your disciplinary community. Then, in detective story fashion, re-create for students the process of your thinking (or your discipline's collective thinking), complete with false starts, hunches that did not work out, frustrations, and excitement. (In effect, this is your own "lecture version" of the exploratory essay explained in Chapter Five, pages 92–93.) Used to regarding their professors as repositories of received knowledge, students enjoy seeing them occasionally as active critical thinkers wrestling with a problem.

Ask Students to Question Your Lectures

If appropriate to your discipline, at the beginning of a lecture or a series of lectures, introduce a major question or issue that your lectures will address, telling students that not all scholars in your discipline will agree with your views. Then give students a writing assignment in which they have to summarize your "answer" to the question and respond to it through analysis and further questioning. Perhaps they will even be persuaded to argue against your position. The point is to help students see your lectures as arguments rather than as mere information.

Design a Formal Writing Assignment in Which Students Must Integrate Lecture Material

Another good strategy is to develop a writing assignment that cannot be accomplished unless students have thoroughly understood lecture material. One suggestion is to create an assignment that compares a point of view you have taken in a series of lectures with an alternative point of view they learn about through assigned readings or library research.

Increasing Active Learning in Discussion Classes

Whereas lecturing is often regarded as a passive form of instruction for students, most teachers think of discussion classes as active. However, discussion classes often fail to produce the kind of active learning desired. Particularly problematic are discussions in which the teacher simply tries to elicit correct answers, bull sessions where the discussion wanders aimlessly, and guessing-game discussions where the students are not asked genuine questions but are led to guess "what the instructor is thinking." Another problem with discussion classes, paradoxically, is that the teacher frequently monopolizes the talking. Brown and Atkins (1988) summarize research studies of discussion classes showing how often teachers, without realizing it, dominate the talk time; one study showed that teachers talked about 86 percent of the time, even though these teachers saw themselves as leading a discussion (p. 59). A related problem is that in many cases, the discussion is carried on by only a few students, while the majority (usually many more than the teacher realizes) listen passively. Davis (1993) cites studies reporting that in classes of fewer than forty students, "four or five students accounted for 75 percent of the total interactions per session" (p. 79). And even in discussions where there is lively give-and-take throughout the whole class, there often is not enough "space" for any one student to develop a point at length. A student is often cut off in midargument by the next person who wants to contribute. Indeed, as we all know from personal experience, participants in discussions often spend their time planning out the next point they want to contribute rather than listening actively to fellow participants.

The following suggestions address some of these problems.

Increase Wait Time

A simple strategy for improving class discussion is to increase your "wait time" after asking a question. Studies (including Rowe, 1987) have shown that many teachers, after asking a question, rarely wait more than a few seconds before initiating discussion (if hands go up) or giving prompts (if hands do not go up). Instead, try waiting fifteen or thirty seconds (or even a full minute) before calling on the first person. As hands start going up, acknowledge students with eye contact, but say quietly, "Let's wait for a few moments until everyone has formulated an answer." This approach gives all class members time to engage the question. Even better, let students free-write for several minutes following your opening question of the day. You can then begin discussion by asking one or more students

to read their opening freewrites. Shy students can often be drawn into the discussion if they are asked to read a freewrite.

Use Discussion Strategies Derived from Inquiry Teaching

An extensive body of literature focuses on whole-class discussion techniques for promoting inquiry and critical thinking. The literature addresses the kinds of questions to ask, strategies for responding to student contributions, and techniques for keeping discussion on track and moving forward. Although the literature is too extensive to summarize here, it reveals, in general, that inquiry teachers pose the same kinds of open-ended critical thinking problems used by collaborative learning teachers. However, they prefer to guide whole-class discussions themselves rather than to relinquish the time to independent small groups. Of course, many teachers move back and forth easily between whole-class discussions and use of small groups. (For instructors interested in whole-class inquiry techniques, I especially recommend Welty, 1989; Bateman, 1990; Gullette, 1992; Davis, 1993, pp. 63–95; and the collections of essays in Wilen, 1987, and Christensen, Garvin, and Sweet, 1991.)

Use Out-of-Class Exploratory Writing to Prime the Pump

The use of learning logs, dialectic journals, reading logs, thought letters, or guided-journal tasks can prime the pump for class discussions. By designing your course so that out-of-class exploratory writing is keyed to in-class discussion topics, you can greatly increase your class's readiness to engage in lively discussion. See Chapter Six for advice on how to use exploratory writing.

Use Interest-Generating Questionnaires to Stimulate Discussions

Davis (1993) sometimes begins class discussions by distributing a brief questionnaire eliciting students' initial positions on issues or problems relevant to the day's discussion material. She collects the signed questionnaires and then uses them to stimulate discussion: "Ellen, I see you answered the first question in the negative. Daniele, I note that you disagree with Ellen," or, "Amber, your answer to question four is intriguing. Can you tell us more?" (p. 68).

Have Students Generate the Questions to Be Discussed

Steffens (1989) reports a technique for increasing engagement with readings and for making students more active learners in

class. He has students in his history seminars generate the questions to be addressed in class discussion. When students have completed a new assigned reading for the course, he puts them in small groups to generate lists of questions raised by the readings. He reports that these initial discussions about questions are themselves lively and profitable. Each group has to reach consensus on one or two key questions group members would like the class to discuss. Once groups have reported their questions, the whole class works together to rank them. From then on, the format switches from small group discussion to whole-class discussion, with the teacher now participating in addressing the questions raised by the students. Steffens summarizes the process and the benefits this way: "As the semester continued, students came to class with their favorite questions already in mind. As soon as they arrived, they sat with their groups and began working out the questions for the day. . . . The wealth of questions helped to reinforce the intended impression that learning about the seventeenth century, or any other historical topic, can never be finished and over with. There is always more of interest to investigate" (p. 128).

Early in the Course, Hold a Discussion About Discussions

Davis (1993, pp. 76–77) suggests a valuable strategy for use early in a course. Make two columns on the chalkboard, one headed "characteristics of good classroom discussions" and the other headed "characteristics of poor classroom discussions." Let students, calling on their own experiences, brainstorm the features of effective and ineffective discussions. Based on ideas emerging from the class, develop criteria for good discussions, focusing on both student and teacher behaviors. This approach gives teachers an idea of what students expect from their instructors in leading a discussion, while also highlighting the responsibilities of students.

Consider Time-Outs to Write the Discussion

Sometimes discussions get so heated that more hands are in the air than you can call on. One way to promote thoughtful learning in such a situation is to stop for five minutes and have everyone freewrite the contribution he or she wants to make to the group. This method gives students the "space" to articulate their arguments without fear of being interrupted before they can get their own ideas clarified. Once the freewrites are completed, the instructor can resume the class discussion, perhaps by inviting several students to summarize their freewrites.

Using Alternative Classroom Activities _____

The suggestions so far have been aimed at increasing active learning in the traditional classroom settings of lectures or whole-class discussions. The teacher's goal in these settings is to increase the number of students actively engaged in critical thinking, either by involving more students in classroom discussions or by extending and deepening the classroom discussions through the use of writing. The rest of this chapter is devoted to alternative classroom formats or settings that can promote critical thinking and active learning.

Classroom Debates

The classroom debate, focusing on a controversial proposition related to a key course issue, can generate considerable class enthusiasm. The following suggestions for holding classroom debates can be adopted to most classroom settings.

Suggestions for Holding an In-Class Debate

- I. Choose a debatable issue.
 - A. Be sure the issue is pertinent to the learning goals of the course, is of interest to the students, and includes plausible arguments on both sides.
 - B. If the issue requires research, be sure the material is readily accessible through course texts, previous lectures, library reserve, and so forth.
- II. Formulate the issue in a clear, positive proposition.
 - A. Avoid lengthy, ambiguously worded propositions.
 - B. Make sure key terms are stated so that a simple "definition of terms" can be made.
 - C. Avoid negatives in the proposition.
- III. Carefully prepare the class for the debate.
 - A. Through lecture, reading, and discussion, prime the students for the debate by covering needed background and context, but do not exhaust the arguments on both sides or show favoritism to one side.
 - B. Determine the *time allotments* of each speaker. Hold them to this exactly in order to keep the debate within one class period. For a fifty-minute class, try the following allotments:
 - Affirmative (5 minutes)
 - Negative (5 minutes)
 - Affirmative (5 minutes)

Negative (5 minutes)

(Break: 5 minutes)

Negative rebuttal of affirmative (3 minutes)

Affirmative rebuttal of negative (3 minutes)

Negative's response (3 minutes)

Affirmative's response (3 minutes)

Total time: 37 minutes (This allows about ten minutes at the end for judges' reports.)

C. Explain the responsibilities of each speaker:

First affirmative: define the main terms and outline of the affirmative case.

First negative: contest any badly defined terms and outline the negative case.

Second affirmative and second negative: complete the case, especially with evidence.

Rebuttals: show weaknesses in the most important arguments of the opposing case.

D. If you have time, you can add a two-minute "cross-question" period after each of the four speeches. The opposing side can ask any questions of the speaker but must give time for answers and not turn the cross-question period into a speech.

IV. Set up teams.

A. Teams can consist of two, four, or five persons (for cross-question debate).

B. Students not debating are judges and must keep a record of the arguments and a verdict.

C. Allow teams adequate time to prepare the case, at least a weekend or a full week.

D. Sometimes it is helpful to allow a class period or half-period for teams to meet, especially the day before the debate. In two-hour classes, the first hour can be used.

V. Hold the debate.

A. Keep time exactly, and insist on a close following of the format.

B. End with a report from each judge: verdict with reasons (based on notes).

VI. Follow up: It can be very helpful to have each student write up a two- or three-page summary of either the affirmative or the negative side of the debate in a speech or essay format. Insist that these summaries be coherent and not merely journalistic accounts of who said what. Include thesis, reasons, and evidence.

“Meeting of the Minds” Panel

An alternative to the classroom debate is a Steve Allen-style “meeting of the minds” panel discussion in which students are assigned to role-play different figures who bring alternative points of view to the discussion topic. For example, in a psychology course, Sigmund Freud, B. F. Skinner, and Carl Rogers could discuss the causes of teenage pregnancy. Prior to the panel, one group of students would prepare to role-play Freud, another Skinner, and a third Rogers. Each group would select its “actor” for the actual panel.

Fishbowls

In the fishbowl strategy, a small number of students are selected to sit in “hot seats” in the center of class, where they respond to critical thinking questions about subject matter that have been passed out several days in advance. The rest of the class, seated around the students in the fishbowl, gets to critique the performance of the fishbowl students after the session. Pressure to perform well in the fishbowl motivates at-home study.

Paper Presentations

In this strategy, which adapts to a large class some of the strategies of seminar teaching, the professor staggers due dates of short formal papers rather than having them due all at the same time. The strategy works best if the formal papers are short enough to fit on one single spaced page. At each class meeting, one or two papers are due, depending on the size of the class, the length of the term, and the number of required essays. Through prior course design, the instructor gives different assignment topics to each student so that the papers due on any given day coincide with that day’s discussion topic. Students come to class with enough photocopies of their essay for all their classmates, and each day’s discussion is initiated by the arguments in the papers due that day. Some teachers then give students several additional days to revise their papers in light of the classroom critique and ensuing discussion. Teachers report that the pressure to “go public” forces students to do their best work and that the quality of the papers initiates excellent classroom discussion of the material. The paper load is easy for the instructor to handle because it involves grading only one or two papers each day—all of which have been critiqued in class at the draft stage several days earlier.

Paper Chase-Style Cold-Calling

In the classic 1973 movie *The Paper Chase*, Professor Kingsfield presents a powerful, chilling image of the rigorous professor. His style is to pose a thinking problem and to call on students at random, grilling them mercilessly, each question followed by a more complicated one. Sheer terror motivates his students. His goal, in the jargon of social construction, is to induct them into the discourse community of lawyers. He never asks questions that elicit “correct answers”; rather, each question forces students to formulate an argument supported by chains of reasons and evidence.

Although Kingsfield the man is few persons’ model of the ideal teacher, his pedagogical goals are like those of other teachers of critical thinking. Whereas the collaborative learning instructor gives critical thinking problems to small groups or the discussion teacher to the whole class, the “cold-calling” professor gives them to one student at a time in front of the whole class. Though one can hardly recommend Kingsfield’s style (he drives one poor student toward suicide), many of my colleagues use similar techniques with great effectiveness (including extremely positive student evaluations). Because the method has the frightening potential to devastate many students—especially beginning students—teachers who use it successfully with undergraduates seem to combine Kingsfield’s commitment to the discipline with a nurturing concern for students. Their positive regard of students is revealed through in-class humor, patient explanation of how this strategy teaches the “thinking on your feet” skills students will need in their careers, and the teachers’ ability to encourage students who perform poorly. They soften the Kingsfield image by learning students’ names, smiling, speaking to students before and after class, encouraging them to come to office hours, writing notes to students, greeting them in the halls, and the like. Thus, cold-calling, if wedded in some way to warmth and care, can be a powerful means of stimulating critical thinking.

Case Studies and Simulation Games

Case studies and simulation games can be useful across a wide range of disciplines. A case study usually presents a fictional scenario leading up to one or more dilemmas requiring problem solving or decision making. When class time is used to act out the case, with different students being assigned different roles to play, the case study becomes a simulation game. Common simulations include mock trials, mock city council or legislative meetings, and mock meetings of corporation stockholders or school boards.

Usually, the simulation assignment includes background information on the problem, biographical synopses for each role in the simulation, and packets of data bearing on the problem. Simulation games can be combined with writing assignments in which participants do the kind of writing appropriate to their role (legal briefs, letters to the editor, proposals, and so forth). (For further discussion of cases, see Chapter Seven, pages 130–131.)

Group Papers

Another fairly common practice is the group or collaborative paper in which teams of students work together to write one paper. This method is an attractive way of reducing the teacher's paper-grading load while giving students extensive practice at the kinds of group interactions common in professional life. Team writing or joint authorship is common in business and the sciences, so these disciplines are particularly well suited for group papers, but many humanities professors use the strategy also. Here, for example, is a group assignment for a course in business ethics, from philosophy professor Kenneth Stickers.



Instructions for Group Project

You will be assigned to a group to argue, using empirical evidence, for or against one of the following statements:

- a. Capitalism provides fertile ground for the cultivation of virtue.
- b. Equality, justice, and a respect for rights are characteristics of the American economic system.
- c. A concern for ethics significantly undermines one's chances for success in a competitive market economy.

- 1. Consider material from Chapters Three and Four of your text as you begin to develop strategies for your argument. Also, be sure to define key terms in the proposition you are defending or refuting.
- 2. There will be no regular class on Thursday, [date]. You will have this time to use in whatever way your group judges best—for example, brainstorming, strategizing, or preliminary library research. Additional group meetings will have to be arranged by the groups themselves.
- 3. Each group will submit on Tuesday, [date], a formal essay presenting the best argument it can make for the position it has been assigned to argue. Who will be responsible for what tasks and how the essay will be written—for example, who will be responsible for its typing—are matters to be decided by the group.
- 4. Supporting arguments and evidence in the essays must be adequately and properly documented by means of footnotes or endnotes. Each essay must have a substantial bibliography—at least three good entries for each group member.

5. Each essay must run to at least five pages. The instructor is more interested in the quality of arguments than in the quantity of information.
6. The instructor will evaluate each group essay, and each person will evaluate the contribution of his or her group's members to the group effort. Individual grades will be based on both evaluations. (The instructor has each student fill out an evaluation sheet ranking the contributions each group member made to the group. The instructor then determines a grade for each individual using a formula based on the group grade for the paper and the individual rankings provided by the groups.)

(For further examples of collaborative writing assignments, including a sample peer evaluation sheet, see Lunsford and Ede, 1990, pp. 251–258.)

In-Class Games and Nonverbal Activities

Many teachers have reported success in developing activities that involve ways of knowing other than the strictly verbal. Mathematicians have developed classroom games that teach mathematical reasoning. Literature professors regularly have students stage dramatic scenes in their literature classes or produce drawings or group tableaux that represent their interpretation of important moments in a literary work. In a religious studies course on liturgy, students have to invent a new ritual and invest it with religious significance or create their own myths and convert them into paintings, sculpture, dance, or music. A common assignment in counseling classes is to have the person being counseled create a typical family scene and assign other students in the class to act out typical family roles. In both communications classes and foreign-language classes, students are being taught how to “read” body language and to be better attuned to the politics of space in different cultures. All these are examples of classroom activities that engage a wide variety of learning styles.

Conclusion: Engaging Ideas Through Active Learning _____

Through strategies that promote active learning, teachers hope to make students more engaged and inquisitive learners, more powerful thinkers, and better arguers. Outside the classroom, a good way to stimulate active learning is to assign exploratory or formal writing that presents students with critical thinking problems keyed to the reading and learning objectives of the course. In the classroom, active learning can be promoted through small group work as detailed in Chapter Nine or through other kinds of teaching methods and learning activities, as suggested in this chapter. Through a mixture of such methods, instructors hope to maximize students' intellectual growth.