Chapter 5

Facilitating Discussion

Active learning is the key word (or phrase) in contemporary higher education. Mayer (2008, p. 17) explains active learning as paying "attention to relevant information, organizing it into coherent mental representations, and integrating representations with other knowledge." The prototypic teaching method for fostering active learning has always been *discussion*:

> Leading a productive discussion, one that engages students and enhances their understanding, may be the most complex and challenging task in teaching. (Henning, 2005, p. 90)

Often teachers in large classes feel that they must lecture because they think discussion is impossible; but in reality, discussion techniques can be used in classes of all sizes. Generally, discussions in smaller classes *are* more effective, but perhaps they are needed *more* in large classes to avoid students going into passive learning mode. Chapter 18 will deal in more depth with how to integrate discussion into a large class setting, but as you read through this chapter, try to imagine how any interesting strategies you find could play out in a large class with a little tweaking.

Discussion techniques seem particularly appropriate when the instructor wants to do the following:

1. Help students learn to think in depth about the subject matter by giving them practice in thinking.

2. Help students learn to evaluate the logic of and evidence for their own and others' positions.

3. Give students opportunities to formulate applications of principles.

4. Develop motivation for further learning.

5. Help students articulate what they've learned.

6. Get prompt feedback on student understanding or misunderstanding.

7. Take advantage of the impact that social interaction has on learning and behavior.

Why should discussion be the method of choice for achieving such objectives? The first justification is a very simple extrapolation of the old adage, "Practice makes perfect." If instructors expect students to learn how to integrate, apply, and think, it seems reasonable that students should have an opportunity to practice these skills. To help students learn and think, both you and they need to find out what is in their heads. Discussion can help. A second justification is that recent research supports the assertion that having to explain your thinking is very effective in clarifying it and helping you learn from it (Fonseca and Chi, 2011).

TASKS IN TEACHING BY DISCUSSION

In teaching by discussion, the instructor is faced with several tasks:

1. Helping students prepare for discussion.

2. Getting and maintaining participation in the discussion.

3. Facilitating the discussion in a way that progress is made.

4. Helping students learn and practice the process of civil discourse.

5. Listening to the students supportively to make the class a safe place to express ideas.

This chapter should help you make progress with each of these tasks.

HELPING STUDENTS PREPARE FOR DISCUSSION

As noted later in this chapter, it's hard to have a discussion if the students aren't prepared. But something to ask yourself very seriously is: What do you mean by prepared? If yours is a course that occurs very early in the students' sequence, they may have very little experience in discussing what they are learning, other than at a very low level that just confirms they read the material. Providing the students with higher cognitive level questions that ask for more than just details is one way of helping them use their preparation time wisely. The suggestions that were offered in the chapter on "Reading as Active Learning" for making their reading productive might be another good way to help them become better learners.

Other instructors have encouraged students to be prepared for class by beginning the class with a short quiz. Some instructors make them unannounced, but in my opinion, why not remove that anxiety and just make it a practice to start off the class with a student review of key points? This is the process in Team-Based Learning (Michaelsen, Sweet, and Parmelee, 2008). As I described in the chapter on "Reading as Active Learning," I use this process in my undergraduate class and the students really like it. At first each student takes the "readiness assessment" independently, and then again as part of a group. The combined points are part of their participation grade. In the group discussions a lot of confusion gets cleared up before the whole class discusses. That whole class discussion then can be devoted to the points that really need discussing.

Another example of something similar was described by McElwee (2009). He uses what he calls Participation Preparation Assignments that students work on before class. The PPAs are distributed at the end of the previous class and must be completed for the following class. The actual activities vary in format, from explaining a portion of the reading assignment in their own words to applying the reading content to a scenario appropriate to the topic. In the class period when these are due, the students spend some time working together in groups comparing their assignments and then presenting the result to the class as a whole. McElwee's students reported that they completed more of the readings because they knew what to do, which made them feel more prepared and more confident in their ability to participate.

There are also several examples of instructors who use participation in online discussions before class as a way of helping students prepare for the in-class discussion. For example, Lineweaver (2010) conducted a set of studies in which students were assigned different questions to be discussed online before the class on alternate class days. Students had to post their responses and respond to other students' posts before class. They received a small number of points for each completed

discussion. She found that students reported reading the materials more closely and more regularly. I've used a similar procedure in my graduate classes with one addition. I make sure that I have read all the posts and brought them into the discussion in class so that students feel their work is valuable.

It's reasonable to assume that students want to do well in class discussions, and would do well if they only knew how to prepare. I think it is definitely worthwhile to get them started off knowing just that. As the semester progresses, they can use these strategies to get ready without prompting from the instructor.

CONDUCTING A DISCUSSION: GETTING STARTED

After a class has been meeting and discussing problems successfully, there is little problem in initiating discussion, for it will develop almost spontaneously from problems encountered in reading, from experiences, or from unresolved problems from the previous meeting. But during the first meetings of new groups, you need to create an expectation that something interesting and valuable will occur.

Starting Discussion with a Common Experience

One of the best ways of starting a discussion is to refer to a concrete, common experience through presentation of a demonstration, film, role play, short skit, or brief reading. It could be a common experience among all students, an issue on campus or in the media, or you can provide the experience. These days there is a wealth of material available on the web to spark a discussion. For example, the thought-provoking lectures presented at the TED (Technology, Entertainment, Design) website seem to be an endless array of short discussions of current issues from the annual conferences they sponsor (http://www.TED.com/talks). Teachers are encouraged to make use of this site to foster expanding understanding of current events. For example, in my own class, I showed a ten-minute lecture on neuroscience advances and whether mind control was possible. Following such a presentation it's easy to ask, "What are the implications of what you've just seen?"

Such an opening has a number of advantages. Because everyone in the group has seen it, everyone knows something about the topic under discussion. In addition, by focusing the discussion on the presentation, the instructor takes some of the pressure off of any anxious or threatened students who are afraid to reveal their own opinions or feelings.

Starting Discussion with a Controversy

A second technique of stimulating discussion is through disagreement. Experimental evidence indicates that a certain degree of surprise or uncertainty arouses curiosity, a basic motive for learning (Johnson and Johnson, 1995). Some teachers effectively play the role of devil's advocate; others are effective in pointing out differences in points of view. Some instructors invite the students to offer hypothetical contrary opinions or positions to be discussed.

I have some concerns about the devil's advocate role. I believe that it can be an effective device in getting students to think actively rather than accept passively the instructor's every sentence as "truth." Yet it has its risks, the most important of which is that it may create lack of trust in the instructor. Its success depends a good deal on the spirit with which it is played. Linc Fisch (2001) handles this problem by donning a T-shirt with "Devil's Advocate" on the front. My own compromise solution is to make it clear when I'm taking such a role by saying, "Suppose I take the position that ___" or "Let me play the role of devil's advocate for a bit."

In any case, the instructor should realize that disagreement is not a sign of failure, but may be used constructively. When rigid dogmatism interferes with constructive problem solving following a disagreement, the instructor may ask the disagreeing students to switch sides and argue the opposing point of view. Such a technique seems to be effective in developing awareness of the strengths of other positions. A good description of the "constructive controversy" strategy is found in an article by Johnson, Johnson, and Smith (2000) listed at the end of this chapter. They give not only the reasons behind using controversy but very practical suggestions about making sure students come away challenged to think differently.

Starting Discussion with Questions

The most common discussion opener is the question, and the most common error in questioning is not allowing students time enough to think. You should not expect an immediate response to every question. If your question is intended to stimulate thinking, give the students time to think. Five seconds of silence may seem an eternity, but a pause for five to thirty seconds will result in better discussion. In order to alleviate that awkward feeling in my own class, I actually endorse silence by saying, "I want you to think about the following question and no one can say anything for the next two minutes." In some cases you may plan for such a thoughtful silence by asking the students to write down one element that might help answer the question. Such a technique increases the

chance that the shyer or slower students will participate, since they will know what they want to say when the discussion begins. In fact, you may even draw one in by saying, "You were writing vigorously, Ronnie. What's your suggestion?"

There are many different models for questions for both in-class and online discussions; several are described below.

Factual Questions There are times when it is appropriate to check student background knowledge with a series of brief factual questions, but more frequently you want to stimulate problem solving. You could start with a statement like, "Let's just make sure we all agree on some of the key definitions and facts before we start discussing," and then invite the students to suggest what the facts are. One common error in phrasing this type of questions is to ask in a way that conveys the message: "I know something you don't know, and you'll look stupid if you don't guess right." My former boss used to refer to these as "guess what's in my pocket" questions, guaranteed to annoy the students.

Application and Interpretation Questions Rather than dealing with factual questions, formulate discussions to get at relationships, applications, or analyses of facts and materials. Solomon, Rosenberg, and Bezdek (1964) found that teachers who used interpretation questions produced gains in student comprehension. A question of the type "How does the idea that ___ apply to ___?" is much more likely to stimulate discussion than the question "What is the definition of ___?" The secret is not to avoid questions or to lecture in statements, but rather to listen and to reflect on what is heard. Dillon (1982), a leading researcher on questioning, advises that once you have defined the issue for discussion, keep quiet unless you are perplexed or didn't hear a comment. Questions are tools for teaching, but as Dillon demonstrated, they sometimes interfere with, as well as facilitate, achievement of teaching goals. What happens depends on the question and its use.

Connective and Causal Effect Questions These questions involve attempts to link material or concepts that otherwise might not seem related. One might, for example, cut across disciplines to link literature, music, and historical events, or one might ask, "What are the possible causes of this phenomenon?"

Comparative Questions As the name suggests, comparative questions ask for comparisons between one theory and another, one author and another, one research study and another, and so on. Such questions help students determine important dimensions of comparison.

Evaluative Questions These ask not only for comparisons but for a judgment of the relative value of the points being compared; for example, "Which of two theories better accounts for the data? Which of two essays better contributes to an understanding of the issue?"

Critical Questions Asking critical questions is effective at getting the students to examine the validity of an author's arguments or discussion. Television, magazines, and other media provide opportunities for using critical or evaluative questioning. For example, "An eminent authority states thus and so. Under what conditions might that not be true?" Being so critical that students feel that their reading has been a waste of time is not helpful, but presenting an alternative argument or conclusion may start students analyzing their reading more carefully, and eventually you want students to become critical readers who themselves challenge assumptions and conclusions.

Starting Discussion with a Problem or Case

A discussion may arise from a case, or it may be a hypothetical problem. It may be a problem whose solution the instructor knows; it may be a problem that the instructor has not solved. In any case it should be a problem that is meaningful to the students, and for the sake of morale, it should be a problem they can make some progress on. And even if the teacher knows an answer or has a preferred solution, the students should have a chance to come up with new solutions. The teacher's job is not to sell students on a particular solution, but rather to listen and to teach them how to solve problems themselves. Don't be afraid to express your own curiosity, question, or "what if…" wonder about a topic. Ask the students what they think. It is better to be an open-minded, curious questioner than the fount of all knowledge.

Suppose you ask a question and no one answers, or the student simply says, "I don't know." Discouraging as this may be, it should not necessarily be the end of the interaction. Usually the student can respond if the question is rephrased. Perhaps you need to give an example of the problem first; or you need to suggest some alternative answer and ask the student what evidence might or might not support it; or you need to reformulate a prior question. More often than not, you can help the students discover that they are more competent than they thought by sticking with them as they struggle to answer.

One of the biggest problems in teaching by discussion is focus. Getting the discussion headed in the right direction and keeping it there requires that both students and the instructor be focused on the same questions. One of the better methods for producing focus is to use a problem or a case study as the main topic of discussion. The chapter

"Experiential Learning" discusses problem-based learning and the case method in more detail, but what follows here are some general ideas about working with problem-based discussions more efficiently.

Breaking a Problem into Sub-problems One of Norman Maier's (1952) important contributions to effective group problem solving, as well as to teaching, was to point out that groups are likely to be more effective if they tackle one aspect of a problem at a time rather than skipping from formulation of the problem, to solutions, to evidence, to "what-have-you," as different members of the group toss in their own ideas. In developmental discussion the group tackles one thing at a time.

One of the first tasks is likely to be a *clarification of the problem*. Often groups are ineffective because different participants have different ideas of what the problem is, and group members may feel frustrated at the end of the discussion because "the group never got to the real problem."

A second task is likely to be: *What do we know?* or *What data are relevant?*

A third task may be: *What are the characteristics of an acceptable solution?*—for example: What is needed?

A fourth step could be: *What are possible solutions?* and a fifth step may be to *evaluate these solutions* against the criteria for a solution determined in the previous step.

The developmental discussion technique can be used even in large groups, since there are a limited number of points to be made at each step regardless of the number of participants. Maier and Maier (1957) have shown that developmental discussion techniques improve the quality of decisions compared with freer, more nondirective discussion methods.

CONDUCTING THE DISCUSSION: MOVING THINGS ALONG

One of the important skills of discussion leaders is the ability to appraise the group's progress and to be aware of barriers or resistances that are blocking learning. This skill depends on attention to clues such as inattention, hostility, or diversionary questions.

Listening, Responding, and Modeling Discussion Behavior

There are some very good overviews of supportive teacher behaviors listed at the end of this chapter. Some are applicable to all discussion classes, such as Gray and Madson (2007) who provide ten ways to engage

students in the class, such as maintaining eye contact (it puts subtle pressure on students to say something) and helping students take notes in discussion (which doesn't usually follow a linear path and therefore doesn't fit standard note-taking strategies). Henning (2005) offers ideas from discourse studies on how to move the conversation along, like follow a student's comment with your reactions, plus some additional related ideas that can be the basis for the next comment. A third instructor, Souha Ezzedeen (2008), focuses on strategies for dealing with controversial topics in the discussion, such as choosing reading materials that *don't* summarize all the arguments. Ezzedeen (and I) think that summaries might remove all the possible things a student might be able to offer as new ideas.

In general, however, all these instructors recommend one particular behavior pattern regardless of the content of the discussion, and that pattern involves actively listening to and acknowledging student comments and ideas. Not only does this pattern keep the discussion flowing because students believe their participation is welcome, but it also provides the model of civil discourse that we hope our students learn and take with them when they leave our classes. They also recommend that early in the semester, instructors draw the students into a discussion about the ground rules for appropriate behavior in the class, especially in discussions. It isn't that the students are unaware of appropriate behavior. Rather it is that by involving the students in the setting of behavior norms, the instructor gives them a stake in their adherence to the rules. In addition, if the students know that there are rules governing what will happen in the class even when things become tense, they will be more confident that things will remain manageable.

A new wrinkle in leading discussions comes along with the new students who have been labeled the "Millennials." Although much has been written about this generation of students born between 1980 and mid-2000, we still are learning about their thinking and ways of engaging in their education. In a recent study, Roehling and her colleagues (2010) interviewed multiple focus groups made up of students in this generational group to understand their views on class discussions and what would help them learn in those contexts. The study's results showed a remarkably perceptive analysis of discussion learning by the participants. They reported three reasons why they found discussions good experiences. First, this group of students values active learning. The students in this generation have grown up surrounded by fast-paced, interactive, and constantly changing media-based activities. To sit just listening is not their style. Discussion allows them to be active. The second quality of discussions that the students cited as positive was that discussion allowed them to develop a deeper understanding of what they were learning for themselves, not having to accept the authorities' versions of

everything. Because they have been treated as special throughout their childhood, they have a strong sense of self and self-confidence. They believe that all perspectives should be honored in the discussion. This is also the third quality of discussion that they liked: everyone's input was valued and considered in drawing conclusions. They also depend on the instructor to create the situation in the classroom that allows these three qualities to be present in their discussions. In reality, the things that instructors would be advised to do to bring the Millennials into the discussion are just as applicable to many groups.

CONDUCTING THE DISCUSSION: COMMON PROBLEMS

Why Students Don't Participate

- Student habits of passivity
- Failure to see the value of discussion
- Fear of criticism or of looking stupid
- Push toward agreement or solution before alternative points of view have been considered
- Feeling that the task is to find the answer the instructor wants rather than to explore and evaluate possibilities

Students' Reluctance to Participate

A primary barrier to discussion is the students' feeling that they are not learning. Occasional summaries during the hour not only help students chart their progress but also help smooth out communication problems. A summary need not be a statement of conclusions. In many cases the most effective summary is a restatement of the problem in terms of the issues resolved and those remaining. Keeping a visible record on the board of ideas, questions, data, or points to explore help maintain focus and give a sense of progress. Asking students to summarize progress and what now needs to be done helps them develop as learners.

Another common barrier to good discussion is the instructor's tendency to tell students the answer before the students have developed an answer or meaning for themselves. Of course, teachers can sometimes save time by tying things together or stating a generalization that is emerging. But all too often they do this before the class is ready for it.