

# Targeted Teaching Strategies

## Dimension 4: GROUP INTERACTION

**Group Interaction:** This factor refers to verbal interaction in classrooms in the form of questions and answers facilitating the expression and sharing of ideas and knowledge. Higher ratings in this factor suggest that the motivational potential of social interaction with others in learning contexts is being capitalized upon and also that the classroom context is being used as a venue for activity in practicing and testing ideas and obtaining feedback.

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 Group Interaction

#### 1. Face openly any reservations or fears you may have about encouraging group discussion and interaction.

Many professors feel uncertain about the utility of class discussion or feel uncomfortable about implementing or keeping control of it.

"It is important to recognize potential problems and limitations involved in a discussion format, without rejecting it as an option," says an outstanding Economics professor. "Any strategy has potential weaknesses. The decision regarding whether to encourage more discussion with and between students should be based on a careful search for ways to maximize the utility of discussion, and to minimize any limitations - even if that does sound like a cold economist's approach!"

Potential concerns include covering less material, getting "sidetracked", and causing confusion among students who experience difficulties in understanding the purpose, relevance or flow of the discussion.

The ideas presented below provide a number of solutions to these and other concerns.

#### 2. Plan your sessions to incorporate time for discussion.

Allowing time for discussion or other group activities often means that fewer points can be addressed in a given session. Acknowledging this in advance, a number of professors set out-of-class readings and assignment material to cover additional content.

"I was initially reluctant to assign material which I had not specifically covered in lectures, but I quickly found that when students knew in advance what was required, and how the discussion related to the content, they were highly motivated and productive, both during the session and in their readings and assignments," a professor in Physics revealed.

### **3. Identify discussion questions in advance.**

Students are more inclined to participate when they know the focus or intent of a discussion. A preview of discussion topics can help your students to organize their thinking and prepare to express their views. Several faculty members develop discussion questions in advance and distribute them to their students.

"In my Education course," one professor explains, "I give my students a series of four to eight discussion questions on each week's reading assignment. These are spelled out in my course syllabus which is handed out during the first week of class. All of my students are responsible for all of the questions each week. These questions serve both as study aids and stimuli for discussion."

### **4. Divide the class into smaller groups with a formalized structure.**

An Education professor divides his class into groups of six to eight students. Each group is assigned a specific question or topic to discuss, selected from a list of questions prepared in advance. But, because students do not know beforehand which questions their group will be assigned, they must be prepared to discuss all of them.

The professor assigns one student in each group to be the discussion leader, another to be the group's summarizer, and a third to be the group's evaluator. Each group conducts its discussion in the manner it feels will be most effective. During the discussion, the faculty member moves back and forth among the groups, noting any issues he may want to bring up or clarify at the end of the class.

After the groups have discussed their respective topics, the class is called back together and each group presents the results of that group's discussion, highlighting key terms or other information felt to be important. Each group's evaluator then provides some observations on how well the group functioned and makes suggestions as to how it might have functioned more effectively. During the course of the term, each student serves at least once as a group discussion leader, a summarizer, and an evaluator.

### **5. Create an appropriate physical setting for the discussion, *or* use a fixed setting appropriately.**

It is difficult for students to talk to people they cannot see. In a typical classroom, with fixed seats facing forward, students tend to direct their comments to the front of the room - to their teacher - rather than to other students. This arrangement encourages one-to-one dialogues rather than group discussion. If, on the other hand, students can see each other, they are more likely to interact with one another as well as with the teacher.

If there is no alternative to fixed seating, discussion may be best limited to pairs of students, who are then invited to report back to the professor. The professor can also move around the theatre, "Donahue-style", to focus attention on a variety of contributors to a discussion (see Strategy No. 10).

A circle or U-shaped arrangement of chairs is the most useful for discussion. Instructors also find that if they sit with their students rather than stand in front of them or sit behind a table, it helps promote group discussion rather than student-faculty exchanges.

## **II. Teaching for Group Interaction**

### **6. Get to know your students: Where they are "at"; and what they relate to.**

Knowing your students is important for a number of reasons. Several outstanding professors stressed that new learning must begin from what students are already familiar with. "Otherwise they quickly become confused, disinterested or anxious," a professor in Education explains. "Students will also open up more in class discussion if they feel a comfortable rapport with the professor."

Getting to know what gets the class "fired up", or what they relate to is a strategy that several professors have recommended as a means of generating a vibrant learning atmosphere. This requires establishing good rapport and making time to chat with students in non-teaching situations (see packet 5 for more ideas concerning "Individual Rapport").

### **7. Confound yourself, and let your students "rescue" you occasionally.**

Asking open-ended questions which the students can sense are mystifying to you personally is a great way to encourage relevant discussion and to model your enthusiasm for discovering the secrets of the subject.

A distinguished professor in Education reports that "When I ask myself a question that initially seems puzzling to all of us, it lets my students know that I'm not omniscient, and that it's all right to ask questions or get confused occasionally. The class really responds to that."

### **8. Explain the purpose of discussion.**

To get your students involved in class discussion, it is helpful to explain the value of their participation and what they can expect to get out of the experience.

A professor of Business Administration stresses the importance of explaining the benefits of discussion with students. "My students don't know how to participate in a seminar so I make a point of telling them what skills they will acquire: how to speak and discuss their ideas, how to listen and respond to the ideas of others."

In seminars, especially, many faculty members find that it is worthwhile taking some time to teach their students how to listen to others, how to paraphrase, how to involve other members of the group. "Students have to understand that in a seminar they share the responsibility for making the discussion a worthwhile experience for us all," says one social science teacher. "This is a new idea for most of them."

Several professors have found that a clear explanation of the purpose or value of particular activities motivates the students to respond positively, and helps to focus their energies.

### **9. Force yourself to lengthen your "wait time" after questions and after answers.**

A professor in Education points out that it is well worth waiting an extra few seconds before continuing to speak after asking a question or after a student contributes something to the class.

It takes a conscious effort to wait beyond the normal 'comfort zone', she warns, "but my experience has confirmed research which shows that both professors and students make great mental use of such a pause - at least three seconds - to work through what is being said or asked, leading to better quality questions, answers and discussion in general."

"Students in Mathematics are often not quite confident enough to offer answers, or even ask for clarification, for fear of sounding ignorant," explained another outstanding professor. "By pausing for an extended period, and looking around at the faces in the class, students are more likely to decide to 'bite the bullet'. Sometimes it gives them a chance to formulate their question to their satisfaction, sometimes they sense that I'm waiting to hear from them (which reinforces their confidence that their question is appropriate), and sometimes they sense that I won't go on until I've heard from someone. It can be a little uncomfortable for all of us occasionally, especially early on, but the gradual growth in confidence and competence shown by the students is definitely worth the effort."

#### **10. Move around the room in a way which will promote discussion.**

A professor of Business Administration finds that the way he moves around the room alters the kinds of interaction he is able to generate among his students. "When a student asks a question, it is natural for an instructor to move toward that student," he points out. "However, this tends to exclude the other students and focuses the interaction on the teacher and the one participating student.

"In order to draw my other students into the discussion and to get them to address their comments to one another as well as to me, I find that it helps if I move away from the student who asks a question rather than toward him or her. This forces the student to project so that everyone is drawn into the conversation. It also makes it more likely that the student will address fellow students."

Moving around the room during group discussions also allows you to monitor the direction that groups are taking in their discussion.

A professor in Chemistry moves around in his large lecture sessions involving 200-250 students, and involves students in his lecture in what has been described as his "Donahue style." While it is not generally recommended that students be put "on the spot" in ways that pose a threat to their esteem, he manages to keep the atmosphere non-threatening by encouraging questions and opinions rather than "right or wrong" answers. He finds students are far more interested in the lectures when the "spotlight" occasionally moves to include a different character, and they know that they could be part of the "action."

#### **11. Redirect your students' questions.**

Whenever you have reason to believe that there are students in your class who know the answer to a student's question, it is useful to redirect the question to one of those students or to the class as a whole. A professor in the social sciences, for example, says that in the discussion class he tries hard not to answer his students' questions directly unless he doubts that anyone in the class would be in a position to give the correct response.

"Even in lecture classes, I often use this technique," he says. "It tends to involve the other students more with the question and it illustrates how fellow students can be a resource for learning."

## **12. Turn one of your lecture periods into a discussion class.**

An Engineering professor teaches a lecture course with an enrollment of about 40 students. Because of its size, there is no tutor for the class and no formally scheduled discussion class.

"I believe that discussion is quite important, but the current size of 40+ students really prohibits useful exchange in the lecture setting," he says. As a result, he decided to restructure one of the lecture meetings into two discussion classes.

On Mondays and Wednesdays, he lectures to the class. On Fridays, his students meet in two different classes (15-25 students in each group) to discuss the material. The faculty member conducts both discussion classes.

Although it may be difficult to schedule a convenient time for one of the classes (the other can meet during regular lecture hours), the benefits are worth the effort to this instructor.

## **13. Use students' written assignments as the basis for discussion.**

An Engineering professor identifies several key questions or issues which he gives to his students a week or two before they are to be discussed. His students prepare written responses of no more than one typewritten double-spaced page. As a result of writing their answers, students come to class well prepared to discuss the material. Their written responses are turned in at the beginning of the period and are subsequently graded, as is their participation in the discussion of the topic.

A History professor uses a similar strategy. In the first week of class he gives a few short writing assignments, each of which can be completed in one or two short paragraphs. "It's hard to provoke discussion at the beginning of the term by simply tossing out a broad query to the class," he says. "Assigning a specific topic to write about helps students prepare for the discussion. Later, when students are more comfortable with each other and with me, this kind of formal preparation is less necessary."

A professor of Business Administration uses the same approach throughout the term. Each week a "reaction" paper is due which requires his students to write one to three pages on a specific topic, typically responding to a controversial issue. The papers are graded and used as the basis for class discussion.

## **14. Call on students who might provide an interesting viewpoint.**

"I call on students whom I think might have a different perspective or set of experiences relevant to a given topic or issue," says a professor in Political Science. "I try to take advantage of the probability that outdoor types have different experiences and attitudes about environmental issues, or that women and men students view prostitution and childcare differently."

A Law professor follows much the same procedure. "Some of my students have been divorced which means they have had personal experiences related to a particular law," she says.

Several teachers stress the fact that by getting your students to talk about their experiences, you can greatly increase the amount of knowledge all your students take away from the course.

### **15. Introduce students to the good work done by their peers.**

There are several techniques used by a faculty member in Business Administration to extend the ideas and the special knowledge of individual students to the class as a whole.

These include:

- \* passing out a list of research topics chosen by the class so that his students will know if others are writing papers of interest to them.
- \* making available copies of the best papers and essay exams to others in the class.
- \* providing time in class to have students read the papers or assignments of others.
- \* requiring each student to write a critique of another student's paper as one of the written assignments.
- \* incorporating into his lecture a brief talk by a student who has experience or who is doing a research paper on a relevant topic.

### **16. Encourage your students to write papers related to their backgrounds.**

A professor of English encourages his students to make use of knowledge and skills developed in other courses in combination with those emphasized in his course. "I strongly encourage my students to write papers on interdisciplinary topics," he says. Examples include: a Botany student wrote a paper on "Shakespeare and Plants," an Anthropology major wrote on "Folk Tales in King Lear," and an Art major analyzed the connection between the paintings of Watteau and imagery in Pope's "Rape of the Lock."

"If you can get your students to realize that they each bring different kinds of talent and expertise to the course and encourage them to apply these, that goes a long way toward motivating them to do their best work.

### **17. Encourage your students to make presentations in class.**

"Sometimes my students come up after class and pose an interesting question or make an insightful comment," says one social science professor. "Often I encourage those students to pursue the topic in more detail and then make a brief presentation to the class. When possible, I try to get several students with complementary experiences to work together on a project of this kind."

This teacher assists his students in preparing their presentation and then gives them 10 or 15 minutes of lecture time.

### **18. Assign your students specific leadership responsibilities.**

"I find this procedure very effective in getting my students to take responsibility for class discussions," notes an Architecture professor. Students select topics for which they will serve as discussion leaders. The number of student leaders per topic depends on the size of the class (usually from one to three students per topic). Each student, either alone or with other students, leads a discussion two or three times per semester.

"The leaders' task is to prepare a set of three to six discussion questions about the reading material. These discussion questions are handed out to the rest of the class the week before the topic is covered. If there is more than one leader for a topic, the leaders assume responsibility for facilitating the discussion."

**19. Require your students in the first week of class to bring examples of work done in previous classes (term papers, examinations, designs, lab reports, etc.).**

One Architecture teacher who does this has his students bring slides of design projects executed in prerequisite courses and present them to the entire class. In this way his students show each other their work and ideas and get to know one another better.

**20. Call on your students to paraphrase or summarize what you have just said.**

"Asking your students if they understand gets you only so far," one History teacher explains. "Asking Ms. Jones to summarize the main things to remember about X, and then asking other students to help out if she is having difficulty is a far better check on your students' understanding."

Asking questions of specific students has other benefits too. For example, because your students know that they may be called upon, they listen more attentively for the main ideas and that in turn helps them to organize their notes better. Getting your students to summarize periodically also breaks the monotony of a 50-minute lecture.

**21. Reserve the last 10 minutes of your class for questions.**

A faculty member in the humanities wanted to provide opportunity for student questions during his lectures, but he was concerned that the questions might monopolize class time and take them off the topic. "I decided to reserve the last ten minutes of class for student questions," he says. "I feel better knowing I will not be interrupted. My students feel better knowing they have an opportunity to clarify points they may not have understood."

**22. Schedule an individual appointment with each student.**

An outstanding professor in Education stressed the importance of knowing and treating students as people, rather than simply as students. "This is central to making the material relevant, opening up discussion, and generally meeting their learning needs," she explained.

A Statistics professor felt that he was not being successful in generating class discussion. At the end of the third week, still unable to encourage class participation, he decided to pass around a sheet of paper with a list of 10 minute blocks of time when he would be available for individual appointments.

Each of his students was required to sign up for one of the 10 minute appointments. They were told that the chief purpose was for him to get to know his students better and to listen to any complaints or suggestions they might have.

"I found that this was a real ice-breaker," he explains. "Even though most of our discussions were mainly chit-chat, some of my students used the opportunity to indicate problems they were having in the course or to make suggestions about course improvements. Perhaps the

chief benefit was that it gave me an opportunity to get to know my students. As a result, they seemed to feel more comfortable asking and answering questions in class.

### **23. Increase the amount of eye-contact you have with your students during your lectures.**

"I look carefully at my students' faces," says one History professor. "You can't teach a bored or confused class. If I see a glazed look which suggests that students are not following me, I interrupt my lecture and say, 'We may be going too fast....' or 'This point doesn't seem to be clear to some of you...'.

Some faculty members prefer to direct their questions to the entire class; others find it effective to call on students by name, interrupting their lecture to say, "Jerry, you look like you had a question," or "Several of you looked puzzled. Sally, can you tell me what doesn't seem to be clear?"

**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).**