IMPROVING ACADEMIC TEACHING

ICE Factor 4

Group Interaction
Group Interaction (ICE Factor 4): Learning in institutionalized educational contexts is a social phenomenon. That is, except in rare cases of one-on-one teaching, instruction is given to groups of students ranging from small to very large classes. The ICE Group Interaction 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 on items which are part of this factor suggest that the motivational potential of social interaction with others in learning situations is being capitalized upon. High ratings also indicate that the classroom is being used for activities which allow students to practice and test ideas and receive feedback. As such, the Group Interaction factor has a strong basis in principles of teaching and learning.
Improving Academic Teaching

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The following ideas and suggestions have been used by outstanding university instructors.

1. **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 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 professor. “This is a new idea for most of them.”

2. **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 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 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 (his or her voice) so that everyone is drawn into the conversation. It also makes it more likely that the student will address fellow students.”

3. **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 she tries hard not to answer students’ questions directly unless she 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,” she says. “It tends to involve the other students more with the question, and it illustrates how fellow students can be a resource for learning.”
4. Create an appropriate physical setting for the discussion.

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.

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.

5. 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 students 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 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.”

6. Turn one of your lecture periods into a discussion class.

An Engineering professor teaches a lecture course with an enrollment of over 40 students. Because of its size, there is no TA 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.” As a result, he decided to restructure one of the lecture meetings into two discussion classes.

On Mondays and Wednesdays, he lectures to the entire class. On Fridays, 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 discussion classes (the other can meet during regular lecture hours), the benefits are worth the effort to this instructor.

7. Divide the class into smaller groups with a formal 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 summarizer 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.

8. **Assign your students specific leadership responsibilities.**

“I find this procedure very effective in getting 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.”

9. **I 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. 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. 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 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.
10. 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 of 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 child care 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 students to talk about their experiences, you can greatly increase the amount of knowledge all your students take away from the course.

11. 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 students will know if others are writing papers of interest to them.
* making copies of the best papers and essay exams available 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 lectures a brief talk by a student who has experience or who is doing a research paper on a relevant topic.

12. Encourage your students to write papers related to their backgrounds.

A professor of English encourages 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.”

13. Encourage your students to make presentations in class.

“Sometimes 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 students in preparing their presentation and then gives them 10 or 15 minutes of lecture time.

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

15. **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 students know that they may be called upon, they listen more attentively for the main ideas and that helps them to organize their notes better. Getting students to summarize periodically also breaks the monotony of a 50-minute lecture.

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

A faculty member in the Humanities wanted to provide opportunities for student questions during lectures, but 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. 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.”

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

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 student 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 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.
18. Increase the amount of eye-contact you have with students during lectures.

“She 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?”
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