NYU Stern Center for Innovation in Teaching & Learning
Stephanie Nickerson & Cheryl Cappiello

April 2, 2003

# Alternative Teaching/Learning Strategies
# Faculty Forum



You may also find this document on the
Center for Innovation in Teaching and Learning's website

## Creating a Climate for Alternative Teaching/Learning Strategies

1. Spend the time to set a supportive learning environment early on in the course by....
    - Defining your expectations of students
    - Decreasing anonymity
    - Seeking feedback from students
    - Creating a community within the classroom

2. Learn students' names and use them.

3. Make your assumptions explicit the first day of class and on your syllabus--about your expectations of work and behavior, how students and teacher will interact, how you will address each other.

4. Try different strategies to involve students in classroom participation:
    - Write, pair, share
    - Think, pair, share
    - Buzz groups
    - Have the last person who speaks call on the next person to speak
    - Many students need to be called on. Make it a norm in the classroom early.

5. Incorporate activities into your classroom that will require students to get to know each other as individuals.

6. Talk to students individually, if you can, and request directly that you would like them to speak more in class. Ask them if there is something you can do that will help them do that.

7. Use examples from different students' cultures in your assignments, demonstrations and discussions.

8. Make sure you model patience and attention to students for whom speaking is difficult, either because of shyness or English is not their first language.

9. Model the kind of behavior you would like from your students.

10.

11.

12.

---

**Related information on CITL Web site:**
*First Day of Class:* http://w4.stern.nyu.edu/faculty/citl/articles.cfm?doc_id=3378
*Active/Collaborative Learning:* http://w4.stern.nyu.edu/faculty/citl/articles.cfm?doc_id=3379

## Tips for Using Learning Groups in Class

**Good small group work requires a lot of pre-class work—planning and structuring—thinking through your goals for the groups and thinking through the logistics of the activity and the tasks you assign groups. You should be prepared to deal with the following issues any time you use learning groups.**

**Group Formation:**
It is generally better to create random groups than to let individuals work with their friends. A quick way of creating, say, 10 groups of five each in a 50 person class is to count off by 10 and have all the ones get together, all the twos get together, and so on.

**Size of Groups:**
Pairing is great for quick 30-second or two-minute problem solving. Groups that might stay together for 10 to 45 minutes or longer might be 4 to 6 people.

**Setting Ground Rules:**
Many students are not used to working in groups in a classroom; so setting some ground rules with the class makes sense before your first group activity. Some instructors make the setting of ground rules the first activity of their learning groups. The ground rules focus on "how we want to work together."

**Assign Roles:**
Many students benefit from having specific roles in the groups: Scribe, spokesperson, clarifier, leader, discussion facilitator are all potential roles for individuals in a group.

**The Task:**
The task the group does is important. If at all possible, it is good to have a product at the end of the time in the group. "Decide" "List" "Prioritize" "Solve" "Choose" are all good tasks for a learning group. "Discuss" is ambiguous—discuss to what purpose? No matter how simple the task or directions are, it is a good idea to write them down as well as announce them.

**Time for Group Work:**
Many instructors make the mistake of giving groups too much time. Err on the side of too little time rather than too much. You can always give the groups more time. But set a time limit. How much time you give groups depends on the task. In most cases don't wait for every group to be finished. Once most or more than half are finished, give the rest of the groups one more minute. You don't want students to think they are wasting their time.

(continued on next page)

## Tips for Using Learning Groups in Class (cont'd)

**Report outs from the Groups:**
This depends on the task. If every group has had the same task, it will get boring to hear that 10 groups came to the same response. If each group has a different task or question to respond to, then you as instructor must make sure students preface their report out with a clear statement of their group's particular task. Another strategy for "reporting out," have the groups respond on newsprint or on the whiteboard or on overhead transparencies; If the report out is on flipchart paper, hang the sheets and have the class circulate to read all the sheets. Then as a large group, discuss the responses.

**How Long do Groups Stay Together?**
Some instructors keep learning groups together for the entire semester. Others change the groups in every class. It depends on your purposes for the groups.

**A Word about Group Management:**
If you use group work in a large class, much of the time can be consumed with simply moving people around--the logistics of getting the groups together, getting them working and then moving them back into the large group. High energy on your part will help, as will a brisk, organized, cheerful and assertive approach to facilitating the activities.

*__Note__: Please turn to page 15 for how to use Blackboard to facilitate group work.

---

*See also*: Lincoln University, New Zealand. (2000). ***Using Groups in the Classroom.*** http://learn.lincoln.ac.nz/groupwork/

## An Example of Student-Centered Discussion

This activity lends itself to many disciplines. The goal is to get students working with concepts they have just learned and evaluating them as to their importance or utility.

The task: Have students individually decide what the four most important points or concepts are in a particular reading assignment. Then, with them in small groups, tell them to come to a consensus about those four concepts, points, etc., and to develop a good rationale for choosing each concept over another. Tell them to be prepared to report out to the large group.

*Guidelines for doing the activity:*

1. It is generally better to have randomly assigned groups or for the instructor to form the groups than to have groups self-select. One way to randomly assign groups is to count off by as many groups as you wish to have. So, if you want seven groups of six, count off by seven. Then all the ones go together, all the twos together, and so on.

2. Especially the first couple of times you use groups, it helps for the instructor to say: "All the ones over here, the twos go into that section of the classroom, "and so on. You will speed up the formation of the groups and allow them to get to work more quickly.

3. Too little time in the groups is better than too much. Tell them they will have, e.g., 10 minutes to "Come to a consensus about which four concepts in chapter X are most important, and why. Be prepared to present your four concepts to the large group. Also, be prepared to defend your choice of these four over other concepts."

4. Have the task written on the board or on an overhead or slide. Check to make sure everyone knows what "coming to consensus" means. If no one can explain it, tell them it means, "making sure everyone has at least partial agreement with the final decision. No majority rule, no badgering others to agree with you. Everyone must be heard and buy in to the decisions."

5. While the groups are working, you might position yourself somewhat outside of the groups while making it clear you are observing them from a distance, or you can move around the room dropping in on the groups but making it clear you are an observer, not a participant. Especially when you first start to use student-centered groups, it's a good idea to be silent when you visit the groups so that you set the norm that this is student air time.

(continued on next page)

## **An Example of Student-Centered Discussion** (cont'd)

6. When 10 minutes (or whatever time you set) is almost up, you might want to check if the groups need more time. If they do, give them a bit less than they ask for, but don't give them more time if most groups are about ready to go—give them a wrap up minute. After a while of using groups, you will get a sense of how to move them in a way that serves the entire class, not just individual groups.

7. Depending on how many groups in your class, you might have each group report out <u>one</u> of their most important concepts and say why they chose that one. You might have every group list their four concepts on the board and have the class examine all the lists and then ask the class to ask each other questions, e.g., Why did you choose THAT concept over X concept? The important thing is to keep the discussion focused on working with the concepts. (In general, it is useful to have the groups write or graph the product of their group activity—so it is great to have newsprint and markers and masking tape available to everyone.)

8. After general discussion, end the activity with a statement about how well the groups have chosen, and tell them what concepts people in the field believe to be the most important, if applicable. In some cases, you may acknowledge that it is not that one concept is more important than others but that students have gotten experience examining these ideas and analyzing and defending why they are important.

## Using Case Studies

A definition: A case study is a summary of a real-life problem faced by an organization, a person, or a group of people. It is usually used for teaching business and law, but suitable for many fields. A case is most often written in narrative form but can be on film or videotape. A case can run to 30 pages, be highly complex, and have multiple parts (with students being given part B, for example, after they have analyzed and discussed part A). It can also be as short as a paragraph, covering a single problem or issue.

In Tools for Teaching, Barbara Gross Davis gives these guidelines for using case studies:

1. Pick or construct cases that are conducive to **discussion.**

2. Consult collections of case studies, since they are time-consuming to construct.

3. Select or prepare cases that are engaging.
   - A case is good if it is life-like, raises a compelling issue or problem, involves conflict, promotes identification or empathy with key characters, doesn't have a clear answer or solution, requires students to analyze and take a position, requires a decision.

4. Give students guidance on how to read and prepare to discuss a case.
   - You may want to give them a general strategy for reading and preparing a case; e.g., skim first; then read carefully; sort out the facts and key events, but don't take everything at face value; then make tentative recommendations for action.
   - Also, you might include study questions for them to think about when reading a specific case.

5. Prepare yourself for leading a case study discussion.
   - Know the content of the case very well, and have a plan for how you will get the discussion started and how you will "run" the case. Have prepared a list of questions you will ask students in order to bring out the major issues. One way you might start the class (after they have read the case) is by asking someone to summarize the situation and the problem. Keep to facts at this point. Don't let students analyze or discuss "fixing" the problem. Then start the analysis by asking a student to describe one or two issues the case raises. Put on the board the list of issues as they are raised for later in-depth discussion. Have questions ready if the discussion falters. You might ask students to speak for different characters or interests in the case. At the end of the discussion, you might summarize the key points [or have students do it] and connect how that day's discussion fits into the bigger picture of your course.

(continued on next page)

## **Using Case Studies** (cont'd)

6. Adopt a nondirective, facilitative role.
    - You will want to guide the discussion to major issues but don't lecture or tell students the "right" answer. Focus on asking questions so that the students have to analyze the case themselves. (Davis, 1993, pp. 159-165)

---

**Related information on CITL Web site:**
*Case Studies:* http://w4.stern.nyu.edu/faculty/citl/articles.cfm?doc_id=3379

## Un-graded Quizzes for Learning

Tell the class they will be able to check how well they did the reading for this class. Announce a quiz. Give them 7 to 10 minutes or however much time you think they will need to take the quiz individually. (Generally multiple choice quizzes are the easiest to use for this format, but you could also use short answer questions.)

After students are finished, direct them to small groups where they will take the quiz again with others and agree as a group on the final answers. (For added motivation, tell them the group with the most correct answers will win a prize.) Give them 10 minutes for the group work.

Then reconvene in the large group and go over the answers one more time, pulling the correct answers and the rationale for the correct answers from the group; don't tell them the answers unless everyone is wrong. This should take less time than the other two stages of the activity.

With great fanfare, award the prize (e.g., a bag of candy the group can share with the class or a small bit of candy--enough only for the group).

What does the class get for about twenty minutes of time? A group activity that energizes the class, motivates students to learn the answers they did not know, and twenty minutes of students working with new material, with the instructor only structuring the task and preparing the quiz and monitoring the activity.

***Note:** Please turn to page 15 for how to use Blackboard to administer quizzes and surveys.

## Student Presentation Assignment Template

One of the key assignments in this course is to make a short individual presentation to the class about a topic on X.

Your talk should be no more than five minutes long. Because it is a short presentation, the topic should be very well defined and finite. You will have five additional minutes for questions from the class.

You may choose any topic that interests you as long as it relates to XYZ. If you have a particular expertise, build on it. A talk that is practical is always welcomed by the class.

In five minutes one can give a fair amount of information, but not a lot of detail. You need to narrow down your topic. I am available for consultation, but it is up to you to develop and shape your talk so that it is informative and interesting to the others in the group. Make the talk a coherent whole.

My short presentation on ZZZ can be a model for the type and amount of information expected for this assignment. I will give another short presentation like yours before you have to do yours.

A good way to put the talk together is to follow these steps (after you have decided generally on your topic):

1. Establish what you want to accomplish. What are the goals of your talk?
2. Keep in mind your audience -- the class -- and what we might or might not know about your topic.
3. Prepare a plan; decide what main ideas you want to get across. Two or three are plenty.
4. Organize your material; make an outline.
5. Practice, practice, practice, preferably in front of real people. Time yourself.

Try to make both the content and the style interesting. Be audible, make sense, be creative, have fun. Use sparingly PowerPoint slides, charts, drawings, other visuals. Think beforehand what the best way is to present your material for our class. Feel free to use notes or note cards, but DO NOT READ YOUR PRESENTATION.

Presentations will be scheduled throughout the term.

## Template for Basic Team Presentation Skills

This sheet is designed to remind you of some basic skills to enhance your presentations to the class. This sheet is not concerned about preparation of the content of your presentation, which obviously should be well researched, introduced succinctly, organized logically, with clear transitions and conclusions.

You must be audible: **If the class can't hear you, you have wasted everyone's time. When you practice, have a group member listen to you in a large room and have that person alert you if you cannot be heard easily.**

**Make eye contact, or the semblance of it:** When you rehearse your presentation, practice scanning the room, even if you are looking just over the heads of the audience, or at people's eyebrows. Take the whole room in.

The norm at Stern tends to be that presenters use PowerPoint slides as their notes. That's OK as long as you **don't turn your back on the audience**. To deal with this potential problem, some people use note cards to keep them facing front, on track, and as a back up in case of technology failure. If a team member manages your slides, you can be free to focus on your presentation.

**Do not read your presentation**. Reading is the best way to lose your audience. Speak naturally so that you don't sound as if you have memorized your talk.

**Many of us speak too fast.** If you are one of them, build into your presentation pauses and reminders to speak more slowly. Some people find it helpful to include in selected parts in their notes big red marks saying "BREATHE!" or "PAUSE" or "SLOW DOWN."

**If English is not your first language** and you are worried people will have difficulty understanding you, **or if you speak with a strong American regionalism, speak more slowly and deliberately distinctly at the beginning** of your presentation to allow the audience get used to your speech patterns.

**Time yourself.** Cut appropriately. Include the crucial information. Save the interesting but non-crucial material for the question and answer period if you have extra time.

**Plant yourself:** Many people have trouble standing still when they give a talk. It helps some people to think of their feet rooted in the ground, as if they could not move. It gives them strength and keeps them literally more grounded. For some people, the choice of shoes is important as well.

Since you are presenting in a team format, try to **present a united front** when you make your presentation. For example, using "we" instead of "I" makes it sound as if you worked together. Showing that you are listening when other team members talk is good too. **Practice,** preferably in front of other people who can give you honest and useful feedback. **Finally, try to enjoy yourselves.**

## The Enhanced Lecture*

### 1. The Pause Procedure

Pause for two minutes after every 12 to 18 minutes of lecturing and ask students to review their notes or to compare their notes with a neighbor. After a unit on a particular topic, for example, "net present value," an instructor could ask students to review their notes on it and, after two minutes, the instructor could ask if students have questions on the concept. Research has shown that more information is retained when this strategy is used than in a similar lecture with no pauses.

### 2. Short Writes

At an appropriate time in the lecture, instructor stops and asks students to take two or three minutes to write briefly on something related to the lecture, e.g., "Write in your own words what the purpose of linear regression is." Alternately, instructors might ask students to write the key points so far in the lecture—something that encourages students to reflect on the material.

### 3. Think -- Pair -- Share

Tell students to take a moment to think about a specific question, concept, issue, problem that has just come up in lecture. Then students discuss and compare their responses with one other student for one or two minutes. (You can move around the class for that time, listening to the pairs of students.) Finally, you open the discussion to the entire class. The main benefit of this strategy is that at least 80 percent of the class has been focused on the question at hand—not just one or two students. In addition, having spoken with another class member, and perhaps gotten social support for their ideas, even students who rarely speak in the class are more likely to do so in the full class discussion.

### 4. Formative Quizzes or a Single Test Question

This is a very good tool to raise the level of involvement in large classes in quantitative subjects, in particular. The statement, "This question is very similar to ones that will be on the exam" is a very effective motivator for many students. Actually responding to a test question and getting immediate and ungraded feedback is even more motivating. Put a question on an overhead or on a slide; give students the appropriate amount of time to work out the problem. Slightly too little time is better than too much; then ask several people what they came up with. Have someone who got the answer right talk through, or better, demonstrate their process on the whiteboard. Alternately, after you have given students time to solve the problem on their own, tell them they have one minute to convince their neighbor of the correctness of their answer. Then bring the large group together to review the answer and how to get it.

(continued on next page)

## The Enhanced Lecture* (cont'd)

**5. Create an Exam Question**
At the end of a lecture unit, ask students to take several minutes to create an exam question based on the material they have just learned. Ask students to turn in the question (and the answer), and use some of the good questions on your exam.

**6. Voting and Polling**
At the appropriate time in a lecture, get everyone to vote on a controversial issue you have raised, or something you are about to discuss. Require everyone to vote by a show of hands. Sometimes an instructor might have a re-vote later in the class.

**7. Classroom Assessment Techniques**
Classroom Assessment Techniques are short, quickly administered, quickly analyzed devices (ungraded and usually anonymous) instructors use to obtain feedback on what and how well their students are learning. You might, for example, use a one minute paper after a unit of the class and ask, "What was the key point of the lecture on the time value of money I just gave?" or, e.g., after teaching the concept of regression, a statistics teacher might ask, "In your own words, what does one use multiple regression to find out?" The students would write quickly their responses. The teacher would collect the anonymous writing to get a sense of how well students understood the issue. See also the CITL Web site for more on Classroom Assessment Techniques: http://w4.stern.nyu.edu/faculty/citl/articles/articles.cfm?doc_id=3377

**8. Mid-lecture Brainstorming**
During a lecture, but before the presentation of new material, ask students to quickly tell you everything they know (or think they know) about a new topic. While the students offer ideas, write everything on a white board or an overhead. Then give the lecture, underscoring some of the points students raised before the lecture, and correcting misconceptions students have about the topic. Students are more involved in a lecture to which they have contributed. Also, you have feedback about what individuals in the group know already.

---

**Adapted from:* Bonwell, Charles C. (1996). "Enhancing the Lecture: Revitalizing a Traditional Format." Please turn to page 16-17 for complete reference.

## Using Blackboard to Complement In-Class Activities

*Managing Discussions in Blackboard*

**1. Communicate your expectations.**
One of the most effective ways to promote student participation is to make it required and graded. In the syllabus, clearly articulate expectations and grading criteria for student participation including a required minimum number of weekly student contributions to the discussions. Grade for both the quality of the postings as well as the quantity of postings.

**2. Start the major topic threads yourself and model good posting structure.**
In order to give students some structure and guidance, it's a good idea for the you or your TA to start all major topic threads. This way, students will know where to post and feel comfortable jumping into the discussion. Model good posting structure by keeping your threads focused and concise.

**3. Facilitate - don't dominate.**
Limit your participation to a level you can sustain and so your contributions complement and expand ideas generated by the participants. Try to encourage your students to interact with each other, not only with you. You can do this by tying related messages in a thread together in one posting, and making comments that address several students instead of answering each one individually.

**4. Set limits on message length.**
Messages posted to the discussion board should not be more than a couple of paragraphs long. This will help to encourage student contribution because students won't feel obligated to write long responses. In addition, readers may begin to lose interest and focus if a message is too long.

**5. Make the activities interesting and relevant to your students' needs.**
Give students a reason to become actively involved in a discussion topic by appealing to their life experiences, interests and goals. For example, you may want to post a link to a recent newspaper or journal article that provides a real world context for the subject of the discussion.

**6. Give feedback.**
Provide timely, constructive, and quality feedback, and where appropriate, add to a student's answer engaging him/her in more dialogue. For example:

- Thank students publicly for comments that show particular insight or depth. This will serve to model the types of responses and critical thinking you want from your students as well as give positive reinforcement to the student who contributed the message.
- Encourage certain participants to consider a more in-depth contribution by asking for specific details pertaining to their posting, or for an example from their experience.

**7. Create a new forum for each topic.**
Blackboard only allows instructors or TAs to create forums on the discussion board, so the discussion cannot begin until you do this. Name the discussion forums according to the weeks, assignments, topics or other logical system to minimize confusion and keep threads organized. You may also want to provide a forum for introductions, so students can get to know one another before the class gets underway.

(continued on next page)

## Using Blackboard to Complement In-Class Activities (cont'd)

*Managing and Using Groups in Blackboard*

**1. Have students organize into groups.**
If you're short on time, this can be done prior to the first day of class. Ask students to post their background information using the Personal Homepage function in Blackboard so they can get to know one another and to select groups appropriately. The discussion board is also useful for facilitating the sign-up process. Students can use it to communicate with potential teammates, and to post their final group compositions.

**2. Set up group spaces in Blackboard.**
Once the groups have been arranged, you or your TA should set them up in Blackboard using the Create/Manage Groups function in your course site. This will automatically create a personal area for each group with a discussion board, chat room and file exchange area accessible only by the group members, yourself, and your TA. Encourage students to use these tools to communicate with one another. You can then monitor group progress.

**3. Submission of group assignments/projects.**
- Ask groups to submit drafts of projects to their private file exchange area for your review. Provide comments on the document using Tools > Track Changes or Insert > Comment in Microsoft Word and re-post it to the group's files area.
- You can also ask groups to post drafts of projects to the class discussion board so that other students can view and reply with their comments. This encourages a collaborative learning environment and facilitates feedback.

*Administering Quizzes and other Surveys in Blackboard*

**1. Conduct short quizzes online.**
Announce short online quizzes throughout the semester to keep students on track. Blackboard will automatically grade true/false, multiple choice and matching questions. Students can receive grades and feedback upon completion, although you may decide whether or not those grades will count towards their final grade.

**2. Conduct surveys or evaluations online.**
Conduct your mid-semester evaluation and Personal Comments to the Instructor (yellow sheet) survey online. Feedback will remain anonymous and available for your review immediately.

**3. Analyze results and review in the next class.**
Quiz results can be analyzed item by item (distribution statistics are available) so misunderstood concepts can be reviewed in the next class.

---

**Related links on CITL Web site:**
*Blackboard tutorials:* http://w4.stern.nyu.edu/faculty/citl/blackboard.cfm?doc_id=4217

## Useful Resources on Alternative Teaching/Learning Strategies

Most of the print resources are available at Bobst Library, and print and videos are also available for loan at the CITL office and the Center for Teaching Excellence:

**Angelo, Thomas A., & Cross, K. Patricia. (1993) *Classroom Assessment Techniques: A Handbook for College Teachers.* (2nd Ed.). San Francisco: Jossey-Bass.**

Classroom Assessment Techniques (CATs) are simple and quick tools for collecting data on student learning in order to improve learning. They are feedback instruments for instructors to find out how much and how well students are learning what they are trying to teach. Fifty CATs are described in detail and categorized according to the instructional goals involved. In addition the book provides examples of how instructors have used CATs in many different disciplines. See also the CITL Web site for additional resources.

**Bonwell, Charles C. (1996). "Enhancing the Lecture: Revitalizing a Traditional Format." In T. Sutherland & C. Bonwell (Eds.). *Using Active Learning in College Classes: A Range of Options for Faculty*. New Directions for Teaching and Learning, 67, San Francisco, CA: Jossey-Bass.**

**Brown, David G. (Feb. 2003). "How to Customize Big Classes." *Syllabus* magazine. http://www.syllabus.com/article.asp?id=7257**

Delegating, communicating, collaborating and customizing through computer use.

**Christensen, C. R.; Garvin, D. A.; & Sweet, A. (Eds.). (1991). *Education for Judgment: The Artistry of Discussion Leadership*. Boston: Harvard Business School Press.**

For serious students of discussion. All the chapters discuss discussion leading, from how to do it to reflections on the first time one tried to do it. One chapter focuses on listening and questioning; one on classroom process; another on teaching cases in technical subjects; another on the implicit teaching/learning contract, etc.

**Davis, Barbara Gross. (1993). *Tools for Teaching*. San Francisco: Jossey–Bass.**

Davis has many chapters that relate to discussions and other interactive strategies. Each chapter is practical, highly readable and concise. Good for new and experienced instructors. Extensive excerpts are on the Web at: http://teaching.berkeley.edu/bgd/teaching.html

**Derek Bok Center, Harvard University. (1992). *Thinking Together: Collaborative Learning in Science,* (Video). 18 minutes.**

Demonstrates how collaborative learning in the sciences can be rigorous, effective, and exciting. Faculty in physics, chemistry, and astronomy describe what they do in their courses.

(continued on next page)

## Useful Resources on Alternative Teaching/Learning Strategies (cont'd)

**Frederick, Peter, J. (1994). Classroom Discussions. In K. W. Prichard & R.M. Sawyer (Eds.),** ***Handbook of College Teaching*** **(pp. 99-109). Westport, CT: Greenwood Press.**

Suggests innovative ways to start, lead, and sustain class discussion and to encourage student participation.

**Frederick, Peter. (1995). Walking on Eggs: Mastering the Dreaded Diversity Discussion**. ***College Teaching, 43*****(3): 83-92. Reprinted in** ***The Social Worlds of Higher Education: Fieldguide*****. (1999). Bernice A. Pescosolido & Ronald Aminzade (Eds.). Thousand Oaks, CA: Pine Forge Press.**

Aimed at helping teachers help themselves and students to work with multicultural content in the classroom, Frederick's focus is on nine strategies to engage students with each other and with multicultural issues. He describes these strategies, e.g., using powerful evocative quotations, and gives examples of how they might be used. He also describes strategies to create a climate conducive to such discussion—e.g., establishing guidelines for discussion early on in the course, grounding discussion in a close reading of a text. Similarly, he also offers strategies for dealing with classroom crises arising from discussion of such issues.

**Silberman, M. (1996).** ***Active Learning: 101 Strategies to Teach Any Subject.*** **Boston, MA: Allyn and Bacon.**

In a simple and clear format, Silberman presents ways of involving students in class work so that they are doing most of the work rather than sitting passively. Some strategies incorporate team-building activities that help students get to know each other and to create a climate of cooperation and interdependence. Others require paired interaction among students. Some involve the whole class as an entity. Many are easy to implement and can be adapted to almost any instructor's teaching style.

**Sutherland, T, & Bonwell, C. (Eds.) (1996).** ***Using Active Learning in College Classes: A Range of Options for Faculty*****. New Directions for Teaching and Learning, 67, San Francisco, CA: Jossey-Bass.**

A collection of articles describing strategies for promoting active learning. Examples of titles: The Active Learning Continuum: Choosing Activities to Engage Students in the Classroom, Providing Structure: The Critical Element, Enhancing the Lecture: Revitalizing a Traditional Format. Encouraging Self-Assessment, Using Electronic Tools to Promote Active Learning, Cooperative Learning: Making Groupwork Work.

**University of Cincinnati. (1995).** ***Making Large Classes Interactive*****. (Video). 30 minutes.**

This tape shows ways that instructors of large classes in different disciplines -- physics, psychology, art history, biology -- involve their students in actively learning the material.