ACE Teaching/Learning Strategies

Try These Too!

Three-step Interview

Three-step interviews can be used as an ice breaker for team members to get to know one another or can be used to get to know concepts in depth, by assigning roles to students.

- Faculty assigns roles or students can "play" themselves. Faculty may also give interview questions or information that should be "found."
- A interviews B for the specified number of minutes, listening attentively and asking probing questions.
- At a signal, students reverse roles and B interviews A for the same number of minutes.
- At another signal, each pair turns to another pair, forming a group of four. Each member of the group introduces his or her partner, highlighting the most interesting points.

Roundtable

Roundtable structures can be used to brainstorm ideas and to generate a large number of responses to a single question or a group of questions.

- Faculty poses question.
- One piece of paper and pen per group.
- First student writes one response, and says it out loud.
- First student passes paper to the left, second student writes response, etc.
- Continues around group until time elapses.
- Students may say "pass" at any time.
- Group stops when time is called.

The key here is the question or the problem you've asked the students to consider. It has to be one that has the potential for a number of different "right" answers. Relate the question to the course unit, but keep it simple so every student can have some input. Once time is called, determine what you want to have the students do with the lists...they may want to discuss the multitude of answers or solutions or they may want to share the lists with the entire class.

Focused Listing

Focused listing can be used as a brainstorming technique or as a technique to generate descriptions and definitions for concepts. Focused listing asks the students to generate words to define or describe something. Once students have completed this activity, you can use these lists to facilitate group and class discussion.

Example: Ask students to list 5-7 words or phrases that describe or define what a motivated student does. From there, you might ask students to get together in small groups to discuss the lists, or to select the one that they can all agree on. Combine this technique with a number of the other techniques and you can have a powerful cooperative learning structure.
Structured Problem-solving

Structured problem-solving can be used in conjunction with several other cooperative learning structures.

- Have the participants brainstorm or select a problem, issue, or concept for them to consider.
- Assign numbers to members of each group (or use playing cards). Have each member of the group be a different number or suit.
- Discuss task as group.
- Each participant should be prepared to respond. Each member of the group needs to understand the response well enough to give the response with no help from the other members of the group.
- Ask an individual from each group to respond. Call on the individual by number (or suit).

One Minute Papers

Ask students to comment on the following questions. Give them one minute and time them. This activity focuses them on the content and can also provide feedback to you as a teacher.

- What was the most important or useful thing you learned today?
- What two important questions do you still have; what remains unclear?
- What would you like to know more about?

You can use these one minute papers to begin the next day's discussion, to facilitate discussion within a group, or to provide you with feedback on where the student is in his or her understanding of the material.

Value Line

One way to form heterogeneous groups, is to use a value line.

- Present an issue or topic to the group and ask each member to determine how they feel about the issue (could use a 1-10 scale; 1 being strong agreement, 10 being strong disagreement).
- Form a rank-ordered line and number the participants from 1 up (from strong agreement to strong disagreement, for example).
- Form your groups of four by pulling one person from each end of the value line and two people from the middle of the group (for example, if you had 20 people, one group might consist of persons 1, 10, 11, 20).

Cooperative Graffiti:

Each team is given one large, butcher-block sized piece of paper on which teammates individually record as many ideas as possible—using different colored pens. After completing this individual brainstorming session, teammates work together and attempt to organize their multi-colored collage of ideas into meaningful categories. (Abrami, 1995)

Talking Chips:

Each team member is given a symbolic “talking chip” (e.g., a checker, coin, or pen) and is expected to place the chip in the center of the team’s workspace when she makes an individual verbal contribution to the team’s discussion. Teammates can speak in any order, but they cannot speak again until all chips are in the center—an indication that every team member has spoken. After all chips have been placed in the center, team members retrieve their respective chips for a second round of discussion—which follows the same rules of equal participation (Kagan, 1992).
Uncommon Commonalities

Uncommon Commonalities can be used to foster a more cohesive group.

<table>
<thead>
<tr>
<th>Uncommon Commonalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td>Team Name</td>
</tr>
</tbody>
</table>

- Groups get together and first list individual things about themselves that define them as people.
- Groups then discussed each item, finding things that 1, 2, 3, or 4 of them have in common.
- When the group finds an item that all of them have in common, they list that item under 4; when they find something that 3 of them have in common, the list that item under 3, etc.

Jigsaw Groups

- **Jigsaw I**: Teams are assigned a general topic and each teammate assumes responsibility for becoming an “expert” on one subtopic or piece of this general topic. Then members leave their teams to join members of other teams who are also “experts” on the same subtopic. After meeting in different expert groups, students return to their home team and teach their individual area of expertise to their teammates. The final outcome of this process is the piecing together of separate subtopics (like a “jigsaw” puzzle), resulting in a more complete or comprehensive understanding of the whole topic. (Aronson, et al., 1978)

- **Jigsaw II**: A slight modification of Jigsaw in which the final step in the process is for team members to take an individual quiz or test on the material they have taught each other. (Slavin, 1980)

Numbered Heads Together:

The instructor poses a question to 4-member teams of students with the directive that they should put their “heads together” and make sure that every member on the team knows the correct answer or solution. After the team reaches consensus on what they think is the correct answer, students number-off within their teams (i.e., each student assumes either the number 1, 2, 3, or 4). The instructor then randomly calls one of these numbers to check for comprehension, and only those students with that number respond on their team’s behalf (Kagan, 1992). Because the answer is team-generated and the individual student is reporting a team answer, there is much less anticipatory anxiety or apprehension about giving the wrong answer, and much less embarrassment experienced if an incorrect answer happens to be reported (Millis & Cottell, 1998). Note: To add some drama and game-like atmosphere, the rolling of a die could be used to randomly identify the student number that will be called (Cuseo, 1997).
4 Corners

Students move to one corner of the room based on personal choice, preference, or individual characteristic. For instance, students may move to a corner of the room that represents (a) choice of an answer to a multiple-choice test question, (b) level of agreement with respect to a particular issue or statement (strongly agree – agree – disagree – strongly disagree), (c) preference or interest in a particular topic, or (c) personal characteristic (e.g., learning style, academic major, age group). The instructor then forms smaller groups or teams of students, either from within the corner of the room they occupy—creating homogeneous teams, or by mixing students from different corners of the room—creating heterogeneous teams. (Kagan, 1992)

Forced Debate

All students who agree with a proposition sit on one side of the room and all who disagree with that proposition sit on the opposite side. Teams are then formed among students who find themselves on the same side of the room, and the instructor unexpectedly “forces” them to argue for the position opposite to the side they have chosen. (Kalish, 1996)

Note: This structure requires students to actively attend to, and think through, opposing arguments rather than defensively denying them or summarily dismissing them.

Cooperative Learning References

• Davis, J.R. Better teaching, more learning. Phoenix, AZ: The Oryx Press.

Adapted from:

a) Grayson H. Walker Teaching Resource Center: University of Tennessee at Chattanooga (1998)
b) Cuseo, J.B. () Igniting student involvement, peer interaction, and teamwork: A taxonomy of specific cooperative learning structures and collaborative learning strategies. Marymount College: Rancho Palos Verdes, California.