

## Methods for Encouraging Discussion

If your goal is to increase student learning, have students discuss and debate challenging conceptual questions with each other. This technique, peer instruction, is a proven method of increasing learning. Have students answer individually first; then discuss with those sitting next to them; then answer again. See step by step application below.

Additionally, Stress that genuine learning is not easy and that conceptual questions and conversations with peers can help students find out what they don't really understand and need to think about further, as well as help you pace the class. Students tend to focus on correct answers, not learning. Explain that it is the discussion itself that produces learning and if they "click in" without participating they will probably get a lower grade on exams than the students who are more active in discussion.

### Turn to your neighbor

- Easy to Implement
- Pose question or problem to students.
- Students turn to the classmate sitting next to them to discuss their answer.
- Limit their time to discuss to about 30 seconds.
- Both students must contribute to the discussion.
- Allow the each pair to share out with the class, or randomly call upon pairs to share out [optional].

### Think-pair-share

- Easy to Implement
- Pose question or problem to students.
- Students think alone about the answer (limit to about 30 seconds).
- Students turn to the classmate sitting next to them to discuss their answer (limit to an appropriate amount of time).
- Both students must contribute to the discussion.
- Allow each pair to share out with the class , or randomly call upon pairs to share out [optional].

### Think-pair-share-squared

- Same a Think-Pair-Share with one added step before pairs share out with class.
- After student pairs share with each other, each pair shares with another pair to promote small group discussion.
- To avoid one pair dominating the conversation, limit the amount of time each pair has to share with each other.

(continued)



**Round robin - good for brainstorming discussions**

- Create student groups consisting of 3-5 students each.
- Present a problem or question.
- Each student in the group should quickly share their responses or answers.
- Students have one chance to pass on answering.
- Have student groups share out with the class, or randomly call upon groups to share out with the class.
- Allow individuals in each group to clarify any misunderstandings.
- Do not let students criticize each other.
- Critique answers provided [optional].

Bruff, D. Multiple-Choice Questions You Wouldn't Put on a Test: Promoting Deep Learning Using Clicker (2009-10), Essays on Teaching Excellence: Toward the Best in the Academy, Vol. 21, # 3, Vanderbilt University