

POD —IDEA Center Notes

J U L Y 2 0 0 5

Michael Theall, Youngstown State University, Series Editor

IDEA Item #5: “Formed ‘teams’ or ‘discussion groups’ to facilitate learning”

Todd Zakrajsek

Central Michigan University

Background

Learning is best realized when students have an opportunity to talk to one another about the topic at hand and to directly apply the material in a meaningful way. Active and collaborative learning are regularly discussed in the literature, and few debate their value in terms of impact on student learning when done well (1, 2). Students themselves note time and again, the value of working in teams or in discussion groups. Responses from students indicate that they learn when they “reflect, dialogue, question, write, summarize, and create their own knowledge” (3).

Nelson (4) argues that courses taught by the traditional lecture are actually biased against those students who come to our classes without strong preparatory training. That is, for many students we deny an educational experience by NOT requiring them to discuss class material with one another. For example, one study incorporating structured peer group/team work resulted in a reduction of D or F grades for African American students from 60% to 4%. Following the incorporation of teams, not only were there fewer grades of D and F, but students also had exam scores similar to all other students (5). Angelo and Cross (6) discuss a case of a calculus instructor who began to require students to discuss their homework problem-solving strategies with classmates. In addition to improved student grades and an increase in his own enthusiasm for the subject, the instructor reported passing every single student for the first time in 30 years.

IDEA Item #5 correlates most strongly with IDEA items #14 (involved students in hands-on projects such as research, case studies, or real-life activities), #16 (asked students to share ideas and experiences with others whose backgrounds and

viewpoints differ from their own), and #18 (asked students to help each other understand ideas or concepts). As expected, this item correlates very strongly with IDEA learning objective #25 (acquiring skills in working with others).

Helpful Hints

There are many ways to incorporate discussion groups or teams into the course, including think-pair-share, team-learning, problem-based learning, case-based learning, jigsaw method, simulations, gaming, and service-learning (7, 8). These techniques differ from one another, but all are valuable in promoting good learning opportunities. The primary consideration in choosing a specific approach is the learning objective you are pursuing. For example, the think-pair-share process is a very effective technique for increasing communication among students and for having students learn concepts from one another. The jigsaw method increases both cooperation and an appreciation for the value of interdependence. Problem-based learning requires students to work through real-life applications and demonstrates that many problems have multiple solutions. Service-learning shows how specific content within a course may be applied to directly benefit society. A benefit to all these methods is the instilling of cooperation and loyalty among team members.

The following hints provide a foundation for the effective use of discussions or teamwork.

Present good scenarios or ask good questions. To ask students to work together to discuss relatively easy knowledge-based questions will typically result in a simple division of labor without any meaningful discussion. The issue or problem should challenge

the groups and demonstrate that there are no easy answers within the area of study.

Be clear about what you expect to happen with the discussion and structure the experience well (7, 8). The question itself may be very ill-defined, but the task should be understood by all before you begin.

Stay in the room to monitor progress and assist with clarifying procedural points. You may leave if you feel it is important for students to work through a difficult problem without your assistance, but typically it is better for you to be in the room.

Be willing to adjust if groups are going in good directions even if it is in ways you did not expect. That said, be ready to get groups back on task if they stray from the essence of the task at hand.

Ask questions of the groups as they proceed, but be careful NOT to be drawn into the discussion.

Make the groups accountable for their results. They may hand in a summary of the problem or “report out” to the entire class, depending on the size of your class and the amount of time you have available. You could certainly also have one or two groups report out and all turn in a summary. The point is they must document work on the issue. If there is no accountability groups will rarely complete the work.

With the increase in the use of course management systems, such as WebCT and Blackboard, keep in mind there are several methods by which an instructor can set up on-line discussion groups and team projects. Those have the added benefit of allowing students to work together from their own homes.

Assessment Issues

There are many ways to document the value of using the team or discussion group approach. One is to simply ask students to describe their learning. A second is to compare the level of work completed by individual students following discussion or teamwork compared to previous semesters when material was presented primarily by lecture. If you have multiple sections of a course, you could also teach one using the traditional lecture methods, teach a second by some form of discussion, and then compare outcomes. Finally, there are a number of assessment methods such as the memory matrix, muddiest point, concept maps, and directed paraphrasing outlined by Angelo and Cross (6) that would be appropriate to assess group learning.

There is a growing body of research demonstrating the value of teamwork and discussion groups in class. Collecting evidence of the value of this

approach will allow you to fine-tune your teaching strategies, demonstrate to your students that you care about their learning, and document that what you are doing in the classroom is leading to meaningful student learning.

References and Resources

- (1) Chickering, A.W., & Gamson, Z.F. (1987). Seven principles for good practice in undergraduate education. *AAHE Bulletin*, March, 3-7.
- (2) Johnson, D.W., Johnson, R.T., & Smith, K.A. (1998). Research on cooperative learning. In K.A. Feldman and M.B. Paulsen (eds.), *Teaching and learning in the college classroom*. ASHE Reader Series. Boston, MA: Pearson Custom Publishing.
- (3) McKinney, K. (2004). Learning sociology: Successful majors tell their story. *Journal of Scholarship of Teaching and Learning*, 4(1), 14-23.
- (4) Nelson, C.E. (1996). Student diversity requires different approaches to college teaching, even in math and science. *American Behavioral Scientist*, 40(2), 165-175.
- (5) Fullilove, R.E., & Treisman, P.U. (1990). Mathematics achievement among African American undergraduates of the University of California, Berkeley: An evaluation of the Mathematics Workshop Program. *Journal of Negro Education*, 59(3), 463-478.
- (6) Angelo, T.A., & Cross, K.P. (1993). *Classroom assessment techniques (2nd ed.)*. San Francisco: Jossey-Bass. See pp. 142, 154, 197, 232.
- (7) Michaelsen, L.K., Knight, A.B., & Fink, L.D. (2002). *Team-based learning: A transformation use of small groups in college teaching*. Westport, CT: Bergin & Garvey.
- (8) Millis, B., & Cottell, P. (1998). *Cooperative learning for higher education faculty*. Westport, CT: Greenwood Press.

IDEA Paper No. 15: [Improving Discussions](#), Cashin and McKnight

IDEA Paper No. 38: [Enhancing Learning - and More! - Through Cooperative Learning](#), Millis

©2005 The IDEA Center

This document may be reproduced for educational/training activities. Reproduction for publication or sale may be done only with prior written permission of The IDEA Center.