Guidelines for Using Groups Effectively

Compiled by Chad Hershock and adapted by Stiliana Milkova Center for Research on Learning and Teaching

Students learn best when they are actively engaged in the processing of information (Bonwell & Eison, 1991). One way to involve students in active learning is to have them learn from each other in small groups or teams. Research shows that students working in small groups tend to learn more of what is taught, retain it longer than when the same content is presented in other instructional formats, and appear more satisfied with their classes (Davis 1993, Barkley, 2005). But not any group activity or task will promote learning. In order to be productive, a group assignment needs to be designed so that it leads to collaborative learning (Michaelson, Fink & Knight, 1997). Groups function most successfully when mechanisms for individual and group accountability inform group interactions. Effective management of group activity before, during, and after further maximizes student learning. Below are strategies for creating and managing group activities or assignments.

Strategies for Designing Effective Group Activities and Assignments

Choose tasks that are appropriate for groups.

Assignments should include work that is best done *in groups*: brainstorming, problem solving, making a specific choice, planning and designing, forming strategies, or debating an issue. Avoid activities that can be accomplished individually or subdivided and parceled out to individuals. In particular, avoid writing assignments because writing is an inherently individual activity and this skill is also best developed individually. However, groups may be effective for brainstorming writing topics or peer-reviewing drafts of student writing.

Align activities with learning goals.

First, clearly identify your learning goals (See outline learning objectives in "*Strategies for Effective Lesson Planning*", p. 37). Next, ask yourself, "What does this activity ask learners to do?" Then, decide whether completing the activity will result in the achievement of the learning goals. For example, if your goal is to foster critical thinking skills, select an activity that requires application of concepts to unfamiliar situations, analysis, problem-solving, synthesis, evaluation, or questioning the premise of the problem itself, rather than an activity that only requires recall or comprehension of facts.

Phrase assignments to promote higher-order cognitive skills.

The best questions for engaging groups are open-ended and have no single correct answer, are controversial and have a variety of perspectives/viewpoints or are inquiry-based requiring predictions and data interpretations. To promote higher-level thinking, challenge students to engage in analyzing, evaluating, synthesizing, and/or questioning the problem's premise or assumptions. For example, ask students to make or defend a specific choice. Closed-ended problems with one correct answer should be difficult enough that individuals cannot solve them easily and should require learners to identify and apply relevant concepts.

Successful group activities have a highly structured task.

Provide written instructions to your students that list (1) the task (e.g., brainstorming, strategies, choosing, solving); (2) the expected product (e.g., reporting back to the class on ideas, handing in a worksheet, presenting a solution to the class); and (3) the method of "debriefing" or "reporting out" (e.g., sharing group results, sharing pros/cons, discussing group ideas, noting consensus and diversity of ideas). Communicate milestones so groups can monitor and reflect on their progress and performance. Always set a time a limit for the activity and periodically inform students about how much time remains.

Promote group cohesiveness.

Choose tasks that foster the positive interdependence of group members. Select tasks that encourage discussion and maximize student interactions. Activities should require input from all group members and group agreement. Encourage team-building activities to foster social cohesiveness such as icebreakers (so students know each other), choosing a group name, or periodic group- or peer-evaluations. Provide students with immediate and unambiguous feedback on their group products and process. Logistics can be an impediment to group learning that occurs outside of class. Consider setting aside class time for group work, team building, and feedback from the instructor.

Have students do individual work before entering their group. Require students to work individually first (i.e., have them complete a worksheet or assignment, answer questions, or make a choice) so that each member has something to contribute to the group. An individual assignment/assessment completed before class could be used as each student's prerequisite "ticket" into the group activity.

Ensure both individual and group accountability.

A variety of teaching strategies can provide both individual and group accountability, whether or not group work is graded. If you decide to grade group work, a grading system should include (1) individual performance/products; (2) group performance/products; and (3) each member's contribution to team success (e.g., peer evaluation). Be sure to plan in advance how you will evaluate each of these three aspects and how you will communicate your expectations and/or grading criteria to students. One way to ensure accountability without grading is to call randomly on selected students to present their group's progress or final product. It is best to establish and explain the procedure at the beginning of class to set the tone and expectations for group work.

Select a debriefing mechanism that promotes high-energy class discussions and reflections.

Minimize the lecture mode of group sharing (i.e., a series of group presentations). Keep the groups' output for class discussion simple and focused on essential data. For example, ask students to choose the most important reason or the best solution. Then, select a mechanism whereby groups share their essential results simultaneously in a highly visible way. Provide time for groups to digest, process, compare and contrast, and evaluate the output of other groups prior to the whole class discussion.

Effective group activities are interesting and relevant.

Aim to create a problem that is engaging, complex, realistic, relevant, and builds on prior knowledge. Problems should be impossible to complete without understanding the basic course concepts, otherwise the activity may be perceived as irrelevant.

Checklist for Managing Group Work Effectively

What to do before the activity/assignment:

- instructor interactions during group work and associated class discussions. Provide your own ideas and solicit student feedback and suggestions for additional guidelines.
- Provide written and verbal instructions, including time limits and deadlines. Check for understanding of instructions and clarify confusion before starting the activity. Clearly set expectations for individual

and group preparation, attendance, products and deliverables, and performance (including grading criteria, if applicable).

- Explain the motivation and learning goals for the activity. Explain why it is important to spend time in on this group activity. Provide a meaningful context for the activity with respect to course content or real-world applications or relevance.
- Establish accountability for both individuals and groups.
- Provide students with the necessary resources to succeed. Teach any new content or skills that are required to complete the activity and provide any resources (e.g., readings, video clips, lab equipment) needed to prepare for the activity.

What to do during the assignment/activity:

- Actively engage and monitor groups. Check for understanding frequently and clarify instructions or confusion. Visit all groups regularly. Facilitate, assist, mediate, intervene, and redirect groups as needed.
- Frequently provide feedback to groups and individuals.

What to do after the assignment/activity:

- **Debrief the activity with the entire class.** Revisit the learning goals. Summarize and synthesize the main lessons. Connect the learning to previous knowledge, real-world applications or motivational contexts.
- Assess student learning informally or formally. Use non-graded classroom assessment techniques (e.g., minute paper/muddiest point) or graded group or individual products to assess student learning.
- Provide feedback to individuals and groups regarding both group process and products.
- Provide students with opportunities to reflect on their learning as well as teamwork.

Sources

- Allen, D., Duch, B., & Groh, S. (1996). The power of problem-based learning in teaching introductory science courses. In L. Wilkerson and W. Gijselaers (eds.), *Bringing problem-based learning to higher education: Theory and practice*. San Francisco, CA: Jossey-Bass.
- Barkley, E., Cross, P., & Major, C. (2005). Collaborative learning techniques. San Francisco: Jossey-Bass.
- Bonwell, C. C., & Eison, J. A. (1991). *Active learning: Creating excitement in the classroom.* ASHE-ERIC Higher Education Report No.1. Washington, DC: The George Washington University, School of Education and Human Development.
- Davis, B. (1993). Tools for teaching. San Francisco: Jossey-Bass.
- Heller, P. & Hollabaugh, H. (1992). Teaching problem solving through cooperative grouping. Part 2: Designing problems and structuring groups. *American Journal of Physics*. 60(7), 637-644.
- Michaelson, L. K. & Black, R. H. (1994). Building learning teams: The key to harnessing the power of small groups in higher education. In S. Kadel (ed.), *Collaborative learning: A sourcebook for higher education*, Vol. 2 (pp. 65-81). State College, PA: National Center for Teaching, Learning, and Assessment.
- Michaelsen, L. K., Fink, L. D. & Knight, A. (1997). Designing effective group activities: Lessons for classroom teaching and faculty development. In D. DeZure (ed.), *To improve the academy: Resources for faculty, instructional, and organizational development,* (Vol. 16, pp. 373-397). Stillwater, OK: New Forums Press.
- Oakley, B., Felder, R. M., Brent, R., & Elhajj, E. (2004). Turning student groups into effective teams. *Journal of Student Centered Learning*, 2(1), 9-34.