the Catalyst for Learning

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Making Teams of Learners from Groups

Have you ever been instructed to "Get in a group and work on…" some onerous task that you know you could do better with no one's help? Have you been on a committee where one person takes over, makes all decisions and monopolizes the discussion (why even bother to show up?)? Have you ever worked very hard on a project and had to share the credit with others who just barely showed up?

These experiences are similar to what our students live through when they are assigned poorly structured group activities. Volumes of educational research going back decades in multiple disciplines support the premise that the use of collaborative or cooperative learning (carefully designed and structured small group activities) can be extremely beneficial to students, minimizing student passivity and isolation. And, students learn best when they teach other students. The crucial question, then, is how do we design collaborative learning activities that are not merely "group work"?

Dr. Susan Ledlow, Instructional Professional at the Center for Learning and Teaching Excellence at Arizona State University, recently led workshops at Valencia in which she defined the elements a teacher must attend to in designing and implementing effective collaborative learning tasks for students. These elements comprise choosing a learning objective, preparing participants for teamwork, designing suitable tasks, and conducting effective classroom management. According to Dr. Ledlow, it is the teacher's responsibility to provide the structure students need in order to gain the greatest benefits from working with other students to complete a task. "All the disadvantages of group work can be minimized by properly structured collaborative learning activities," says Ledlow. When using collaborative learning, the structure of a class will change. It is not possible to "talk really fast, do the same lecture, and add collaborative learning," according to Dr. Ledlow. "You will have to change the way you conduct class, including your excellent lecture!"

The first task for the teacher is to identify the student learning objectives. As teacher, one must ask oneself, "What exactly do I want my students to learn—what content, critical thinking skills, communication skills, or team skills do I want my students to acquire?" The next question is, "Is a team activity a good way to help them learn it?" Perhaps a homework assignment, a demonstration, a Socratic/case discussion, or a lecture with discussion would be better. Collaborative learning can make some learning objectives easier to achieve. Tasks that are suitable for collaborative learning include those that require multiple perspectives, tasks that are complex, and tedious tasks where working with others is motivating (memorization, classification).

Once the teacher has decided to use collaborative learning, the next steps are to form teams and prepare students for teamwork. Most educators who use collaborative learning effectively agree that students should not be allowed to choose their teams ("buddies" may share similar interests and similar skills, not providing a balance in skills and views), and that

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teams are best when heterogeneous in makeup, based on academic achievement, skills, experience, or other criteria appropriate for the students who populate the class.

A random assignment of students to teams is preferable when the characteristics of the students are not known. Dr. Ledlow finds the optimum size for collaborative learning teams is groups of three to five. According to Ledlow, "It's easy to hide in a team of six. It's hard to hide in a pair." Ledlow recommends teams remain together for a minimum of four to six weeks. Teams go through stages of development (Tuckerman), and it is important they arrive at and spend time in the "performing" stage in order to benefit most from working cooperatively.

After teams are formed, the teacher prepares the class for teamwork. The preparation includes setting the climate for collaboration and helping students develop team skills. The first step in establishing a climate for collaboration is telling students why this strategy is being used and what the team and individual students will learn from the activity. Using icebreakers or team building activities contributes to a climate of cooperation and the development of a community of learners. A demonstration of an easy collaborative learning activity, such as a true/false quiz with no grade assigned, can be a good introduction to the power and pitfalls of collaboration. Developing team skills is the other key element of preparing students for teamwork. Having students develop ground rules for teamwork is an effective beginning. Other approaches for developing team skills include assigning roles defined with verbal and nonverbal clues, and using existing collaborative learning structures, such as *Write Pair Share, Roundrobin, Jigsaw, Pairs Check,* or *Formulate Share Listen Create* (descriptions of the these activities can be found at **http://cite.asu.edu/active/lesspre.htm**). Additional resources for directly teaching team skills can also be found in the references listed at the end of this article.

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After preparing students for teamwork, the teacher must design suitable tasks for collaborative learning. The pre-designed collaborative learning structures listed in the previous paragraph are adaptable to many learning objectives in diverse content areas. When designing tasks "from scratch" for teams, the teacher should specify who (individuals, pairs or teams) does what (write, sketch, think, read) in what order (Ledlow, **http://cite.asu.edu/active/planscra.htm**). The design should adhere to the four principles of cooperative lesson design: positive interdependence, individual accountability, equal participation and simultaneous interaction (Johnson, Johnson & Smith, 2008). Throughout the activity students should be aware that the success of the team depends on the success of each member (positive interdependence); to achieve this, the teacher may assign one team grade that is part of each individual's grade. All students must contribute and learn (individual accountability); throughout the activity the teacher may call on individuals at random from each team to achieve this goal. To ensure that every member has equal opportunity to participate, the task should be designed so that each member is required and offered the opportunity to contribute equitably. This may be achieved by assignment of tasks or turn-taking procedures. Finally, team members should be actively engaged with other team members periodically throughout the activity (simultaneous interaction); teachers may require working in pairs and team discussions as part of the activity.

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When a suitable cooperative activity has been designed, the final tasks for the teacher come under the umbrella of classroom management: monitoring teams and intervening when necessary, and debriefing the results by asking for contributions from teams and bringing out key points while focusing the discussion on the learning objectives. Effective debriefing includes anticipating common errors, asking probing questions to bring out key points, asking teams to contribute equitably (limiting responses of each team to avoid repetition, if necessary), and clarifying and correcting incorrect information. Having teams self-assess what they did well and what they could do better completes the cooperative learning activity.

How can teachers improve student learning with group work? By choosing learning objectives, preparing teams for teamwork, designing suitable tasks, and providing effective classroom management. The structure, monitoring and support the teacher provides are the keys to improved student engagement and learning.

References

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