



Cooperative Learning in Higher Education

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Cooperative learning is more than simply asking student to get in a group and work on an assignment together. Most researchers and practitioners of cooperative learning stress that it is a formal instructional model in which teachers carefully design lessons and activities that are suitable for use by teams. These teams are small, stable, and heterogeneous, and have been adequately prepared for working together. There are many models of cooperative learning. I started with Spencer Kagan's *Structural Approach* (1992), but have adapted his ideas somewhat to make them more relevant to a university classroom. I also borrow liberally from the work of Karl Smith, Neil Davidson, & Barbara Millis. When using teams in the classroom, I see faculty as having to direct their attention to six different areas: climate-setting; team formation; teambuilding; cooperative skills development; lesson design; and classroom management.

Climate Setting

While many of my students are enthused about the opportunity to learn with and from their peers, it is not uncommon for me to encounter students who are reluctant to participate in any sort of group activities. So, how does one take a class of students whose feelings about cooperative learning range from love through indifference to downright hostility and turn them into a community of learners? The first (but by no means the only) step is to work on creating a class climate that encourages cooperation. My suggestions include:

- Communicate clear expectations to students about CL on the first day of class. I recommend that you inform students that you plan to use cooperative learning, why you use it, and what it means to them. Will they be graded on class participation? What happens if they come to class unprepared? It's particularly important to let students know about your policies on group grades. It's also a good idea to acknowledge that some people would prefer to work alone, and to point out the activities and assignments they'll be working on independently.
- Provide a non-threatening, hands-on, introduction to cooperative learning that students can easily accomplish.. Rather than telling students that cooperation makes learning fun, demonstrate it. Put students into teams and have them do a simple, well structured cooperative activity. The activity could introduce your course, cooperative learning, or your content.
- Personalize the learning environment. People in a learning community know and use each other's first names. Name tags or tents work well in large classes. In smaller classes (up to 50 students), try the *Name Game*, developed by Jim Luotto and Edwina Stoll (Department of Communication, DeAnza College): moving clockwise, each students says his or her first name, the names of all students who came before him, and then his/her first name again.

Team Formation

There are many different approaches to forming teams in a classroom. Teams might be self-selected, formed randomly or formed by the instructor. They might be large or small. Most CL teachers can agree on the following principles.

- Teams in cooperative learning classroom are formed by the teacher, rather than self selected. Self-selected teams may be composed of groups of students who all have similar skills and are lacking the requisite skills to complete particular tasks or assignments. They may be composed of groups of friends who share similar opinions, when it might benefit them to work with students whose ideas are different from their own.
- Teams are heterogeneous on the basis of achievement, skills, ethnicity, gender, or experience. There are many classes in which teams should be heterogeneous by academic performance, but often, the type of heterogeneity you desire depends on your content. If teaching a business class, you might consider pairing students who have real business experience with those who have limited work experience. In a development psychology class, you might want to mix those who have children, or who have experience working with children, with those who have no such experiences. If there is a significant amount of writing in your class, you might consider assessing writing skill as a basis to form the team. If students will need to use a particular piece of software, you might try to make sure that at least one person on each team is familiar with it.
- Teams are small, composed of no more than five members. It's easy to hide in a team of eight, but if you're in a group of two and don't participate, it's noticeable. I really like to use fours. I can have them occasionally work in pairs to double the amount of participation.
- Teams are stable (they change no more than twice during the semester). It takes all of us time to get comfortable and efficient working with a new group of people. If you switch teams frequently, students never have time to get to the "performing" stage of group development. Some faculty prefer to keep teams together all semester. I usually have two to three sets of teams each semester.

Teambuilding

Teambuilding may be defined as "the process needed to create, maintain, and enrich the development of a group of people into a cohesive unit" (Solomon, Davidson, & Solomon, 1993). Teambuilding exercises are very important in the development of teams that will work together for an extended period of time on a complex project or a series of activities. These exercises should revolve around four needs:

- The first step of teambuilding is simply getting acquainted and becoming socially cohesive. Team building exercises that have a component of fun or play are useful in allowing social cohesiveness to develop. Examples include: designing a team logo, sharing information about first jobs, or participating in activities to discover characteristics that team members have in common.

- Teams need to develop roles and norms. An example of a teambuilder which would help teammates to develop effective norms would be to ask them to develop team groundrules or a “Code of Cooperation.” A teambuilder which would help teammates use roles effectively might ask them to select the roles which are most needed to accomplish the task at hand and to assign those roles to team members.
- Effective interpersonal communication is vital to the smooth functioning of any task group. Norms will develop governing communication - do those norms encourage everyone to participate, or do they allow one or two dominant members to claim all the “air time?” Team building exercises can focus on skill development, communication network design, and norms, but even when the exercise is focused on another issue, communication is happening. Active listening exercises, practice in giving and receiving feedback, and practice in checking for comprehension of verbal messages are all aimed at developing skills.
- Teams need to be able to process or reflect on how well they are working together. Teaching team members to give and receive constructive feedback (both positive and negative), and allowing them time in class to do so helps to focus their attention on their interdependence.

Cooperative Skills Development

Cooperative skills development is one of the concepts that distinguish cooperative learning from traditional group work. There are a number of approaches for helping students develop these skills. Most faculty rely more heavily on one or two of these strategies.

- You may choose to directly teaching cooperative skills. One approach is that of David and Roger Johnson and Karl Smith, who use a T-Chart to have students brainstorm the non-verbal and verbal components of a particular social skill. For example, students are asked, “What does active listening look like? What does it sound like?” Their answers are recorded and posted in the classroom as a reminder to use the targeted skill when working together on team tasks.
- For some tasks, it is useful to assign roles and gambits. For example, let’s say that I notice that many teams in my class are not finishing on time, that in several groups one person is dominating, and that some of the teams have turned in very superficial reports. A good leader would keep the team on task, check the quality of the report, and make sure everyone participates. Rather than having one person try to oversee all of these functions, I will distribute them among the team members. I’ll use a Taskmaster and a Recorder to enhance task performance and a Gatekeeper (someone who opens and closes the gate of communication to ensure that students participate equally) and Encourager to help the group function smoothly. I’ll also give them some gambits (helpful verbal and nonverbal cues) to go along with their role. For a different kind of assignment, I might use different roles (e. g., materials monitor, devil’s advocate, coach, etc.).
- The structure of the task itself may foster certain skills or address certain team problems. For example, if you find that students have a tendency to only listen to one or two team members’ ideas when solving a problem you might use the structure *Formulate-Share-*

Listen-Create by Johnson, Johnson, and Smith. In this structure students must each formulate an answer individually, listen to all answers and then create a new answer that incorporates the best of all the ideas. Obviously, it also promotes active listening.

- Monitor teams and reinforce good skills. As a part of the monitoring process, you might point out teams that are successfully using a particular cooperative skill. This helps to reinforce the skill for the whole class as well as that particular team. You may also take notes on team interactions and present them to the team in confidence.

Lesson Design

Well designed CL lessons and assignments give students a *specific* task, such as solving a problem, creating a model, or comparing and contrasting. To a certain extent, they also provide a set of instructions that describe *how* students should work together. There are a number of considerations in developing lessons and assignments.

- You might consider using or adapting a pre-existing structure or procedure like *Jigsaw*, *Academic Controversy*, *Think-Pair-Share*, or *Formulate- Share-Listen-Create*. In choosing a structure, consider whether you want one answer or multiple answers from the team, what form or product you expect their work to take, and how skilled or experienced are they at working together.
- If you cannot find a pre-existing structure that you can use or adapt, create your own. Decide upon your academic and cooperative skills objectives. Then rough out a series of steps that you can have students go through to accomplish the task. Check to see if you have incorporated the basic principles of cooperative lesson design (see below). Then write a series of instructions to your students explaining how they should accomplish the task.
- It's not cooperative learning if the **lesson design** does not include the following four principles:

Positive interdependence-- the success of all in the team is linked through goals, materials, or rewards. Students are aware that "we sink or swim together."

Individual accountability –at various points in the process, the instructor can verify that all students are contributing and learning. Often this is accomplished through individual public performance (randomly calling on one student in the team) or requiring individual assignments as part of the team assignment.

Equal participation—the structure of the assignment should be such that all students have to participate, and that there are mechanisms to ensure that the participation is fairly equitable. You may try assigning roles, adding steps to the lesson that require input from all team members, or establishing turn-taking procedures.

Simultaneous interaction – at several points in the lesson, you should ensure that at least more than one student is actively engaged at a time. Adding a step where students work with a partner within the team doubles the amount of participation. Having all students write an individual response before engaging in a team discussion gets all simultaneously involved.

Classroom Management

A cooperative learning classroom means that your management strategies will be different. In addition to paying attention to organizing your Powerpoint slides and lecture notes, you have to think about preparation that will ensure that small groups will be able to work relatively independently while staying on task and getting along.

- Before teaching a class that relies heavily on cooperative learning, it's often useful to assign homework or prepare a quiz to ensure preparation. If you have a well-designed activity that relies upon students having already read an article or chapter, it can be a complete waste of everyone's time if they haven't.
- Planning ahead and preparing materials and agendas for your teams really pays off. Give instructions in writing, and clearly specify the academic objectives for the assignment. Using graphic organizers, like T-Charts or Venn Diagrams also helps teams to organize their work.
- Frequently I specify the social skills needed to complete the assignment successfully. Sometimes I simply remind students to make sure that everyone contributes. Other times I help them brainstorm components of complicated skills like giving constructive feedback.
- During teamwork, monitor the teams. I intervene when teams get off track or stuck. I don't want them to be unable to complete an assignment because they misunderstood directions or got off on the wrong foot. I also don't want them getting off task. Sitting down next to a team reminds members to stop talking about the latest movie or last weekend's basketball game.
- After teamwork, it's very important to debrief the assignment. You want to check randomly with groups to see that they "got it." Good ideas can be shared from the team to whole class, and misunderstandings can be corrected before students go home to study or work on individual assignments.

Conclusion

Successful cooperative learning requires balancing all of these areas, while still covering content (and publishing, and writing grants, and serving on committees). Consider, but don't obsess over them, when planning. Revisit them after you develop a new lesson or activity to help you reflect on what works well or not so well for your teaching style, your students and your content.

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