

## Active Learning : Cooperation in the Classroom

Roger T. Johnson (University of Minnesota)

David W. Johnson (University of Minnesota)

In universities all over the world, there is an emphasis on active learning. Students are required to take an active part in their learning, rather than being passive while the teacher lectures or engages in other forms of direct teaching.

The key strategy for changing the student's role from passive to active is cooperative learning. In cooperative learning situations, students work in small groups to achieve a shared set of goals relating to academic assignments. All group members are expected to contribute to the work of the group by sharing their ideas, helping to solve problems, arguing intellectually in order to reach an agreement, and working toward the goal.

Research has showed that having students engage in cooperative learning results in higher achievement, greater retention, more positive feelings by the students about each other and the subject matter, and stronger academic self esteem, compared to competitive and individualistic learning. One of the reasons that cooperative learning is featured as a major strategy for active learning is that there are hundreds of studies dating back to the late 1800's validating the process of having students work cooperatively (Johnson & Johnson, 1989).

There is a major difference between just having students work in a group and structuring cooperative learning. Social Interdependence Theory describes conditions essential for effective cooperation. The five basic elements are positive interdependence, in which group members perceive that they are linked with their group mates in such a way that they cannot succeed unless all members succeed, individual accountability, in which all group members realize that each of them is responsible for contributing a fair share of the group's work, promotive interaction, in which group members encourage and facilitate each

other's efforts to achieve, interpersonal and small-group skills, such as communication, leadership, trust building, decision making, and conflict resolution, and group processing, in which the group reflects on how well the group members are working cooperatively and how it would be possible to do even better (Johnson & Johnson, 2005).

These basic elements are translated into the role of instructor, who structures cooperation within the groups by making wise decisions before the class begins (e.g., group size, how to assign students to groups, assigning roles when appropriate, providing materials needed by the group, and arranging the groups), explaining the instructional task and the cooperative structure to the students (e.g., a clear group goal, the need to be individually accountable, the expected behavior, and the task instructions), monitoring the groups as they function and intervening when necessary, and assessing student learning and providing time and a format for the students to reflect on their teamwork (Johnson, Johnson, & Smith, 2006).

Advice on using cooperative learning effectively includes that groups are more effective when they are small (2-4 members), heterogeneous (have different perspectives and skills), have a group goal, and cannot accomplish the task by themselves (i.e., the goal is a single product signed by all group members). The instructor checks each group member's participation and mastery of the material (e.g., asking any group member to summarize the group's work at any time). The instructor monitors for specific behaviors that reflect needed social and cognitive skills. The more skillful that students are in interacting with each other, and the more that they process the effectiveness of their cooperative group, the higher the students' achievements will be.

### References

- Johnson, D. W., & Johnson, R. T. (1989). *Cooperation and competition : Theory and research*. Edina,

- MN : Interaction Book Company.
- Johnson, D. W., & Johnson, R. T. (2005). New developments in social interdependence theory. *Psychology Monographs*, 131, No. 4.
- Johnson, D. W., Johnson, R. T., & Smith, K. (2006). *Active learning : Cooperation in the college classroom* (3<sup>rd</sup> ed.). Edina, MN : Interaction Book Company.