COOPERATIVE LEARNING
(H. Weller, EDW 472/SMS 491, Spring 2008)

COOPERATIVE LEARNING
• Involves having students work in small groups or teams, with 2 to 6 members, to help one another learn academic material.

• Can take many quite different forms—like “Think-Pair-Share,” “Jigsaw,” “Roundtable,” “Circle of Knowledge,” “Three-Step Interview,” “Numbered Heads Together,” “Student Teams—Achievement Divisions” (STAD).

CHARACTERISTICS OF COOPERATIVE TEAMS (Joyce, Weil, & Showers, 1992; Slavin, 1991)
• **Heterogeneous Teams** – Heterogeneous in academic achievement, gender, ethnicity, task orientation, ability/disability, and learning style. Heterogeneous groups promote some elaborate thinking and explanations, and provide opportunities for students to develop feelings of mutual concern. Pair assistance clarifies concepts for both helper and the student being helped. Heterogeneous teams help students to value individual differences.

• **Group Goals** – The students’ tasks are to “learn something as a team.” Team goals and team success can only be achieved if all members of the team learn the objectives being taught.

• **Positive Interdependence** – The students must feel that they need each other in order to complete the group’s task (i.e., they “sink or swim together”). Positive interdependence can be built into a “reward structure” by assigning team points based on team averages, on members reaching a predetermined criterion, or on team improvement – rather than outright grades.

• **Individual Accountability** – The team’s success depends on the individual learning of all team members. So the team members focus on explaining concepts to one another and making sure that everyone on the team is ready for a quiz or other assessment that they will take without teammate help. Teammates must know that a “chauffeur/hitchhiker” situation will not be productive. Ways to build in individual accountability include: teammates take individual quizzes or other assessments; each student is responsible for a specific portion of a task; each student must be able to summarize another group member’s ideas; any student may be called on at random to answer for the team.

• **Equal Opportunities for Success** – Students contribute to their teams by improving over their past performances. Thus, a) high, average, and low achievers are equally challenged to do their best, and b) the contributions of all team members will be valued.
• **Team Rewards** – It is not enough to simply tell students to work together. A “reward structure” can assign team points based on team averages, on members reaching a predetermined criterion, or on team improvement.

• **Collaborative Skills** – These include skills for working together effectively (e.g., staying on task, summarizing, recording ideas), as well as group maintenance skills (e.g., encouraging each other).

• **Democratic Principles** – The essence of a functioning society is the negotiation with others of the definitions of a problem and the handling of problem situations.

• **Reflection/Processing of Interaction** – “Processing” means giving the students the time and procedures to analyze how well their groups are functioning and how well they are using the necessary collaborative skills. Processing can be individual, team-wide, or at the whole-class level. Examples of processing questions: “How well did I listen?” “Did we take turns and include everyone?” “How could we have tutored each other better?” “How can the class function more smoothly?”

**TEAM FORMATION BY THE INSTRUCTOR**

• **Student Self-selection of Teams** – is generally not successful. The instructor should create the teams or groups. Students may provide some input for instructors to consider in the creation.

• **Random Assignment** -- Can result in teams that are not heterogeneous or are not equal in ability, so this should only be used for short durations.

• **Instructor-selected teams** – Instructor should select teams that are heterogeneous in several, or all, or these characteristics: academic achievement, gender, ethnicity, task orientation, ability/disability, and learning style.

**DURATION OF FORMATION OF GROUPS**

• Groups should stay together long enough for groups to feel successful, but not so long that the team bonds feel counter-productive to the group members.

**GROUP SIZE**

• **In smaller groups** -- (say 2 or 3 in each group), each member generally participates more, fewer social skills are needed, and groups can work more quickly.

• **In larger groups** – (say 4, 5, or 6 in each group), more ideas are generated, students deal better with complex ideas, and students create fewer group reports for the instructor to process.

**REWARD STRUCTURES**
• **Competitive** – The team with the most points wins.
• **Criterion Achievement** – Any team reaching a pre-determined criterion wins a reward. Say, all team members score 85% or better.
• **Cooperative** – For example, a “reward structure” can assign team points based on team on team improvement.

**POSITIVE EFFECTS OF COOPERATIVE LEARNING – RESEARCH RESULTS (Slavin, 1991)**

• Increase of students’ self-esteem.
• Increase of students’ abilities to conduct intergroup relations.
• Greater acceptance of learning disabled students.
• Better attitudes toward school.
• Increased student ability to work cooperatively.

**MANAGEMENT TIPS FOR THE INSTRUCTOR**

• **Noise** – Develop and practice a “Quiet” or “Zero-Noise” signal. The closer students are seated to each other in a team, the quieter their voices can be (e.g., practice “18-inch voices”). Remember that if only one student in a group is speaking at a time, larger groups should result in fewer voices and, therefore, less noise. Have students brainstorm solutions to noise.

• **Deadlining and Task Structure** – Give students specific tasks to finish within a predetermined time limit (e.g., “You have one minute to agree as a group on three reasons.”).

• **Instructions** – Show, don’t tell the instructions. Have a team model the steps. Have the students tell each other the instructions to make sure they understand prior to starting the task.

• **Questions** – The instructor should answer team questions only. Individuals’ questions should be dealt with in their team.

• **Circulate** – Use proximity. Monitor student group discussions to check for understanding and to be aware of collaborative skills that need to be addressed.

• **Roles within the Team** – Structure tasks through roles. For example, each team could have a runner, a checker, a recorder, a reporter, a timekeeper.

**REFERENCES**
