Cooperative Learning: The Essentials of Small Group Activities

A good teacher is one who makes himself progressively unnecessary.

--Thomas Carruthers
Cooperative Learning: The Essentials of Small Group Activities

Research and works of Spencer Kagan

Active Learning: Cooperation in the College Classroom by Roger Johnson and David Johnson (Univ. of Minnesota)
According to current research...

Cooperative learning works with kindergartners and graduate students,
with students who struggle to understand and students who pick things up instantly;
it works for math and science, language skills and social studies, fine arts and foreign languages.

--Alfie Kohn
Why cooperative learning?

**Active Learning**
Anything that students do in a classroom other than merely passively listening to an instructor's lecture.

**Collaborative Leadership (CL)**
Increase students’ confidence in working in groups for a shared goal and develop skills and dispositions like team building, delegation, conflict resolution, and effective communication.
Cooperative learning is not group-work.
Spencer Kagan

Cooperative Learning = Content + Structure

Structures are designed to increase participation, increase comprehension, increase achievement, primarily during class time.
Think, Pair, Share

Structured Controversy

More complex structure, more planning, more time

Relatively simple, easy, and time efficient structure
Think, Pair, Share

Structured Controversy

REGARDLESS OF COOPERATIVE STRUCTURE, THEY TEND TO SHARE COMMON ATTRIBUTES...

More complex structure, more planning, more time

Relatively simple, easy, and time efficient structure
Maximize Face-to-Face, Productive Interaction among Students

*Productive interactions? Students are...*

- providing each other with help and assistance.
- exchanging needed information and resources.
- providing feedback in order to improve performance.
- challenging each other’s conclusions and reasoning.
- influencing each other’s efforts to achieve goals.
- maintaining group morale and “health.”
Promote Positive Interdependence
Each group member's efforts are required and indispensable for group success

Techniques...
Each team member assigned a unique role

Each team member provided with a portion of resources, information, materials necessary

Group benefits from both individual and group performance
Promote Individual Accountability

Techniques...

Small group size (4 seems to be ideal)
Structured observation of groups while working
Randomly choosing spokesperson for group
Assigning team roles, each with demonstrable task
Cooperative process but individual assessment
Develop Interpersonal & Small-Group Skills

- willingness to listen to other’s ideas
- willingness to change, compromise
- sensitivity to needs of others
- team building
- delegation
- conflict resolution
- effective communication
- maintain focus on task
  etc., etc., etc. ...
Group Processing
Reflection on the process not just the content

Group members discuss how well they are achieving their goals and maintaining effective working relationships

Describe what member actions are helpful and not helpful

Make decisions about what behaviors to continue or change
Maximize Face-to-Face Productive Interaction among Students

Promote Positive Interdependence

Promote Individual Accountability

Develop Interpersonal & Small-Group Skills

Time for Group Processing
Think/Pair/Share

15 minutes into lecture/presentation, present question: Connect/React/Predict/Solve/Resolve/Summarize

In 2 to 3 minutes:

a) Formulate an response to the question/prompt.

b) Share your response with your partner.

c) Listen carefully to her response.

d) Try to create a new answer that is superior to each member's initial formulation through the process of association, building on each other's thoughts, and synthesizing.

Random selection for response of pair.
Think/Pair/Square

Think/Pair/Share plus...

1. Two groups merge.
2. The two groups share what is on their lists. As they share, if they hear something that is not on their original list, they add it.
3. By the end of the sharing session, both groups will have a list that contains the same items.
1. A set of cards are created with “matching” information or items. For example, if the class has 20 students, there might be 10 cards with concepts on them, and 10 other cards with the 10 examples that match those concepts on them.

2. Each student gets one card.

3. The teacher calls out, “Mix.” The students begin to walk around the room, trading cards (continuously) until the teacher calls out “Match.”

4. When the teacher calls out “Match,” the students look at the card in their hand, turns the card to face their peers, and begin walking around the room looking for the match to their card.

5. Once students find their match, they stay with them (side by side), holding their cards for all to see.

6. Group process as necessary.
Four Corners

1. Instructor poses a question and gives four potential responses and points to a corner for each one.
2. Students decide which they agree with or would like to discuss and then move to that corner.
3. They discuss the topic with those who also move to that corner.
4. Process: spokesperson randomly chosen from each group to summarize
Carousel Brainstorming

1. Post charts on the wall with key questions, names, or concepts at the top.
2. Groups are formed and one person scribes for the group and adds to the chart as they brainstorm.
3. Groups move to a new chart, read other groups’ responses and then add to the chart. Teams may use a different color of felt pen. Time limits depend on instructor’s goal.
4. Process: bring all charts together – use for discussion or keep up during unit of instruction.
5. Use as anticipatory set.
Scripted Cooperative Reading Dyads

[Dansereau and associates]

1. Flip a coin to determine who will be partner A or B.
2. Both partners read Passage #1.
3. When both are finished, put the passage out of sight.
4. Partner A orally summarizes Passage #1.
5. Partner B detects and corrects any errors in Partner A's summary (the metacognition step).
6. Both partners work together to develop analogies, images, etc., to help make the summarized information memorable (the elaboration step).
7. Both partners read Passage #2.
8. Repeat steps 4-6 with partners reversing roles.
Reciprocal Peer Tutoring (RPT)  
[Fantuzzo and associates]

**Designed to promote mutual tutoring**

**Requires participants to assume both tutor and student roles**

1. Students are randomly paired with a partner throughout a semester course of study.

2. Before every class unit exam, each partner creates a 10-question multiple-choice test based on assigned readings and lecture material for that unit.

3. They also provide a 3 x 5 index card for each question. The card contains the correct answer to the question and a reference to the section of the book or lecture where the information was presented.

4. For the tutoring sessions, students administer their written exams to one another under test-like conditions. After completing the exam, subjects switch tests and score their partner's exam.

5. Alternately provide one another with explanations for questions answered incorrectly.

6. Students turn in their corrected tests and answer cards before every course unit exam.
Jigsaw

*When one teaches, two learn.* --Robert Half

1. Provide each member of team with a component of a larger topic, question, or problem.
2. Each student on the team becomes an "expert" on one topic by researching and working with members from other teams assigned the corresponding expert topic.
3. Upon returning to their teams, each one in turn teaches the group.
4. Teams synthesize topics as dictated by content and learning objectives.
5. Students are all assessed on all aspects of the topic.
Peer Editing I

Details of the Editing Procedure (Cerritos College, LA):

1. On the assigned day bring to class usually 3 PRINTED COPIES of your draft in the correct format (one is to hand in to your instructor). Follow all format instructions as already given. Give one copy to each group mate for peer editing (see below regarding being a Reader/Editor).

2. In class, you will spend some productive and quality time with each of your group mate’s draft. Your task here will be to compose an informal, though carefully considered, response to each draft. You should write any corrections/suggestions directly on your group mate’s paper and be sure to write your name at the top of page one. Also be sure to discuss your responses, having a pleasant conversation with the writer, when you will elaborate on your comments and suggestions.

3. At the end of the editing period, you will have acquired hopefully at least two drafts full of comments and suggestions for your paper. You'll take these materials away with you and use them as much as possible as you forge the next draft(s) of your essay, on your way to creating the final paper which will be turned in to me.
Peer Editing II

1. Instructor assigns students to pairs. The writing assignment is given.
2. Student A describes to Student B what she is planning to write. Student B listens carefully, probes with a set of questions, and takes notes or outlines Student A’s composition.
3. Reverse roles and repeat.
4. Students research individually for their composition while keeping an eye out for material that might help their partner.
5. The two students work together to write the first paragraph of each composition.
6. Students complete compositions individually.
7. Students proofread and give feedback.
8. Revise accordingly.
9. Read final draft and sign to insure that every effort has been made to avoid errors and inarticulate presentation.
1. Teams go through homework and “check” answers through consensus.

2. Individuals receive help from teammates and make corrections as necessary. Objective is for all to understand.

3. If no consensus, call instructor over for assistance or keep record for later large class discussion.

4. If all members of team score 85% or higher on assessment, each receives bonus points.
Reading (Lit) Circles

1. Groups of four, assign roles. For example:
   a) **Director** will prepare one key question or opening comment to bring to the group to begin the discussion. This person will also be responsible for directing the discussion, keeping the group on task and insuring that all members complete their assigned task.
   b) **Luminator** selects one memorable passage to bring to the group. Passages chosen may be funny, shocking, surprising or have some strong interest for the *Luminator*. They will read these passages to the group and discuss why they selected them.
   c) **Connector** will answer the question “What does this chapter have to do with ...?”
   d) **Summarizer** After the other group members have completed their group tasks, the summarizer will give a brief overview and point out the main ideas of the chapter under discussion. *Summarizers* will present their summary to the whole class.
Reading (Literature) Circles

1. Groups of four, assign roles.
2. Read individually before class. Complete 3X5 card with their piece – except for Summarizer.
3. Reading Circles meet for 15 minutes or so to discuss the day’s reading.
4. Instructor randomly calls on one Summarizer to report or, if time, have all Summarizers report.
5. Turn in 3X5 cards, including Summarizer.
6. Rotate roles for next chapter.
1. Provide each group of four with a value line (Strongly Agree to Strongly Disagree) and different tokens
2. Present controversial statement
3. Without discussion, each team member considers the statement and places token on value line
4. Each team member explains why they placed their token where they did
5. After sharing, all are given chance to move their token
6. Instructor randomly chooses member from each team to report:
   – we are leaning toward...
   – we cannot reach agreement...
   – the key seems to be...
Structured Controversy

Setup: Groups of four divided into two pairs; present controversial statement; one pair to assigned to make argument in support of the statement while the other pair assigned to make argument against the statement.

(1) *Learning Positions:* working in pairs, students plan what evidence or arguments to use and how to present the evidence related to their position on the statement.

(2) *Sharing Plans (Optional Step):* all of the students on either side of the controversy meet to discuss the main points of their argument. The two groups should not be able to overhear each other.

(3) *Presenting Positions:* each pair presents case sincerely and forcefully. The other side sits quietly and listens, perhaps taking notes. No questioning or debate, just a one-sided presentation.

(4) *Discussing the Issue:* the opposing pairs freely raise questions about the evidence and reasoning employed while presenting counter-arguments.

(5) *Reversing Perspectives:* each pair presents key points of the opposing viewpoint as if it were their own; this is what makes structured controversy different from debate – the point is to better understand both sides of an issue.

(6) *Reaching a Decision:* each group of four synthesizes information into a brief report, perhaps a paragraph, that is (a) strengthened by good supporting evidence and (b) reflects a joint position on which all members can agree.
Report Out: Stand Up and Share

Closure is critically important to learning
Whole-class reports can be both time-sinks and repetitious
Traditional reports are always time-consuming, are usually uneven, are often tedious and repetitious, and sometimes provoke intense anxiety for the speaker

1. Designated students rise, prepared to respond on behalf of the group.
2. Each team responds in turn, giving only one response, in rapid round robin fashion.
3. May want to go through another rotation, calling on another group member to share one group idea.
4. No ideas should be repeated. If student spokespersons find that all the topics on the team's list have been covered, they merely sit down and the rotation continues.
Links

• Active Learning For The College Classroom

• COOPERATIVE LEARNING IN TECHNICAL COURSES: PROCEDURES, PITFALLS, AND PAYOFFS

• Using Cooperative Learning in College Geology Classes

• Specific Strategies for Using the 'Jigsaw' Technique for Working in Groups in Non-Lecture-Based Courses