



Cooperative Learning That Really Works!!

Debbie Silver, Ed.D.
www.debbiesilver.com
debbie@debbiesilver.com

What is Cooperative Learning?

Cooperative learning is an instructional strategy that uses small groups of students working together and helping one another on specific learning tasks with an emphasis on group members supporting one another.

It is characterized by activities that:

1. **Require students to depend on one another for success.** Having students sit side by side working on something they could just as easily do by themselves in *not* cooperative learning. Students must be required to share materials, knowledge, time, talents, and effort (or any combination of these).
2. **Provide for individual accountability.** Group members share jobs and make group presentations. Group members are tested individually and/or as a group to ensure that each person has mastered the required learning.
3. **Utilizes face-to-face interaction among students.** For all group work students are arranged in close proximity of each other. They can be at tables, in desks or chairs pushed together, on the floor, or virtually anywhere they can do the task at hand separated from other groups.
4. **Focus on interpersonal and group skills.** Tasks are designed to include components of positive interpersonal communication skills such as active listening, building consensus, sharing, supporting, restating, using appropriate eye contact and gestures, and encouraging. Teams learn to stay on task and check each other for understanding.

Traditional Classroom	Cooperative Classroom
Learners are passive	Learners are active
Students work alone	Students work with 1 to 4 partners
Teacher directs work	Students direct work
Silence is valued	Learning noise is appropriate
Teacher initiates discussion	Students initiate discussion
Some students do not participate	All students participate
Individual accountability	Individual and group accountability
Independent learners	Interdependent learners
Affirmations come from teacher	Affirmations come from peers
Individual materials needed	Shared materials

Effective Use of Cooperative Learning Can

1. Increase achievement (at all ability levels)
2. Empower students to take responsibility for their own learning
3. Improve retention
4. Generate more positive feelings towards the subject matter
5. Provide more active learning
6. Focus more time on learning
7. Lower frustration and anxiety among students
8. Enhance a sense of community among students
9. Promote inter-personal communication skills
10. Boost feelings of self-worth

Tips for Cooperative Learning in the Early Grades

- Think big, start small! Try short, easy activities at first.
- Children from three 1/2 to five years old work best in pairs. First and second graders work best in pairs.
- Third graders are usually ready to work in groups of four (if they work in “pairs within pairs”). Pairs can always work together for a while and then compare notes with another group.
- Partners may not change for several days or weeks in primary grades.
- Do not assign a cooperative learning activity that could just as easily (or more easily) be done alone. Be sure to create a *positive interdependence* in the way you structure the activity.

- Whole class group-building activities are used to build class morale, develop team spirit, and promote awareness of others in the class.
- Paired group-building activities are designed to bring students together in pairs to develop awareness of others, build communication skills, foster trust, and provide practice for interacting successfully with others.
- Participation can be encouraged by grouping reluctant students with more nurturing students.
- Competition between students should be discouraged because competition increases anxiety among some students and causes them to withdraw. Competition with last year's group or a previous personal performance may be appropriate.
- If the activity is fun, no other reward may be needed since intrinsic rewards are most fulfilling. However, teachers of young learners may choose to use:
 - verbal praise
 - food rewards
 - singing a favorite song
 - an art activity
 - game time
 - other suitable reinforcers
 - activities may be videotaped as a reward
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**Differences Between Cooperative and Traditional
Early Learning Groups**

(adapted from J. Abruscato's Teaching Children Science, 2001)

Cooperative Learning Groups

Positive interdependence
Individual accountability
Shared leadership
Shared responsibility
Task and process emphasized
Social skills directly taught
Teacher observes and intervenes
Groups process their effectiveness

Traditional Learning Groups

No interdependence
No individual accountability
One appointed leader
Responsibility only for self
Only results emphasized
Social skills assumed and ignored
Teacher ignores group functioning
No time for group processing

Cooperative Learning For Secondary Learners

In working with secondary school learners it is important to remember that:

- Group members are responsible for the performance of each individual learner.
- Group members are individually accountable and must be able to report on or explain the team's results.
- The groups are to be assigned by the teacher. Their make-up should be heterogeneous with respect to sex, race, socioeconomic status, ability/learning styles, cliques, and other important factors.
- Leadership is shared on a rotating basis. Each team member has a job and responsibilities.
- The teacher is a resource; students are in charge of their own learning.
- Time must be allowed for group processing and self-evaluation.

The job assignments I use for traditional grouping are these:

Group Leader

1. Reads all directions to group
2. Leads the discussions
3. Checks the data sheet
4. Helps with clean-up
5. Is the only one who can ask a question of the teacher

Materials Manager

1. Is responsible for collecting and returning all materials & supplies to the appropriate place(s)
2. Is the only one who can get up for materials and supplies
3. Makes sure the everyone in the group has equal access to the materials and supplies
4. Checks the data sheet
5. Helps with clean-up

Time Keeper

1. Holds the team stopwatch (or watches the clock)
2. Keeps group on task and reminds them about time
3. Is responsible for getting the group to finish on time
4. Checks the data sheet
5. Helps with clean-up

Data Collector

1. Collects the data for the activity
2. Records data on the appropriate form or sheet
3. Returns data sheet to teacher and/or records group data on class data sheet
4. Makes sure all other team members check the data sheet
5. Helps with clean-up

Since this is not a perfect world, and all class populations are not divisible by four, I have a fifth job that can be assigned in a group:

Encourager

1. Monitors other team members to make sure they do their own jobs
2. Takes responsibility for praising and affirming jobs that are well done
3. Records comments and actions that show positive interpersonal communication
4. Reports recorded data to group at de-briefing session
5. Helps with clean-up

If a group of four has one member absent, two of the jobs can be combined for that day.

Part of the group's participation grade is based on how well each team member performs her/his job. Points are deducted if one team member does another team member's assigned responsibility.

Cooperative Learning Jobs for Lower Elementary**Group Leader**

1. Leads discussion
2. Only person who can ask questions of the teacher

Materials Manager

1. Gets materials out and puts them back
2. Responsible for taking care of materials

Time Keeper

1. Keeps group on task
2. Makes sure group gets done on time

Data Collector

1. Writes down information
2. Makes sure all teacher gets all forms and papers

Group Participation Number Line

Date: _____
Group Number: _____
Group Members Present: _____

100 95 90 85 80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0

Participation Points Earned: _____

Group Participation Number Line

Date: _____ Group Number: _____

Group Members Present:

+5 +4 +3 +2 +1

Participation Points Earned: _____

Group Participation Number Line

Date: _____ Group Number: _____

Group Members Present:



There is nothing chaotic about cooperative learning that is well-planned and well-managed. Teachers should plan activities that are challenging and yet doable if the group members work together. Tasks should require the concentrated efforts of all team members doing their jobs and working with in the allotted time. Materials and supplies should be out and sorted before students arrive. During the cooperative learning activity it is the responsibility of the teacher to monitor the students and:

- Give immediate feedback and reinforcement for learning
- Re-teach certain concepts if necessary
- Clarify directions
- Encourage oral elaboration
- Affirm positive interactions and efforts
- Informally assess student learning and collaboration

Another way to ensure that the cooperative learning activity is organized and has a smooth closure is to allow time after clean up and whole group information sharing to ask the groups to evaluate how they interacted with one another. Either verbally or in their journals students can answer questions like these:

- Tell how involved each of your team members was in the decisions your group made.
- How do you feel about the work your group did today?
Why?
- What would you would like to tell your teammates about how you felt during today's activity or the way you feel now?
- What could your team do to improve the way you get along and/or work together?
- What is your favorite thing about being on this team?

Teachers need to keep a close watch on the personal interactions going on within groups. Happy well-functioning groups matched with appropriate tasks and given adequate time constraints run smoothly.

Cooperative Learning Activities

1. **Jigsaw** - Groups with five students are set up. Each group member is assigned some unique material to learn and then to teach to his group members. To help in the learning students across the class working on the same sub-section get together to decide what is important and how to teach it. After practice in these "expert" groups the original groups reform and students teach each other.
2. **Think-Pair-Share** - Involves a three step cooperative structure. During the first step individuals think silently about a question posed by the instructor. Individuals pair up during the second step and exchange thoughts. In the third step, the pairs share their responses with other pairs, other teams, or the entire group.

3. **Three-Step Interview** (Kagan) - Each member of a team chooses another member to be a partner. During the first step individuals interview their partners by asking clarifying questions. During the second step partners reverse the roles. For the final step, members share their partner's response with the team.
4. **Round-Robin Brainstorming** (Kagan)- Class is divided into small groups (4 to 6) with one person appointed as the recorder. A question is posed with many answers and students are given time to think about answers. After the "think time," members of the team share responses with one another round robin style. The recorder writes down the answers of the group members. The person next to the recorder starts and each person in the group in order gives an answer until time is called.
5. **Three-minute review** - Teachers stop any time during a lecture or discussion and give teams three minutes to review what has been said, ask clarifying questions or answer questions.
6. **Numbered Heads Together** (Kagan) - A team of four is established. Each member is given numbers of 1, 2, 3, 4. Questions are asked of the group. Groups work together to answer the question so that all can verbally answer the question. Teacher calls out a number (two) and each two is asked to give the answer.
7. **Team Pair Solo** (Kagan)- Students do problems first as a team, then with a partner, and finally on their own. It is designed to motivate students to tackle and succeed at problems which initially are beyond their ability. It is based on a simple notion of mediated learning. Students can do more things with help (mediation) than they can do alone. By allowing them to work on problems they could not do alone, first as a team and then with a partner, they progress to a point they can do alone that which at first they could do only with help.
8. **Circle the Sage** (Kagan)- First the teacher polls the class to see which students have a special knowledge to share. For example the teacher may ask who in the class was able to solve a difficult math homework question, who had visited Mexico, who knows the chemical reactions involved in how salting the streets help dissipate snow. Those students (the sages) stand and spread out in the room. The teacher then has the rest of the classmates each surround a sage, with no two members of the same team going to the same sage. The sage explains what they know while the classmates listen, ask questions, and take notes. All students then return to their teams. Each in turn, explains what they learned. Because each one has gone to a different sage, they compare notes. If there is disagreement, they stand up as a team. Finally, the disagreements are aired and resolved.

Cooperative Learning (Reaching Consensus)

What is your team's name?

What is your team's logo?

What is your team's favorite movie?

What is your team's favorite food?

What is your team's favorite place to visit?

What is your team's favorite season?

Team Consensus Processing Guide

Now that your team has completed the Reaching Consensus Sheet, take a few minutes to look back at the interactions of your group. Each of you should write some notes, thoughts, or ideas on this form before you discuss how your group worked together. Look for any patterns in the perceptions of your team members.

1. Tell how involved each of your team members was in the decisions your group made.
2. Do you feel good about the decisions your team made? Why or why not.
3. Is there something you would like for your team members to know about the way you felt during the interactions or the way you feel now?
4. How well did your team do in getting along and making joint decisions? What could you do to improve?

Cooperating Learning Related Resources

Books:

Cohen, G. DESIGNING GROUPWORK: STRATEGIES FOR THE HETEROGENEOUS CLASSROOM. New York: Teachers College Press, 1986.

Johnson, D.W., Johnson, R.T., & Holubec, E.J. (1994). THE NEW CIRCLES OF LEARNING: COOPERATION IN THE CLASSROOM AND SCHOOL. Alexandria, VA: Association for Supervision and Curriculum Development (ASCD).

Johnson, D.W. and R.T. Johnson. LEARNING TOGETHER AND ALONE. Englewood Cliffs, N.J.: Prentice Hall, 1991. This book explores essential components of cooperative learning that must be planned for group activities. These include: (1) positive interdependence; (2) face-to-face promotive interaction; (3) individual accountability and personal responsibility; (4) interpersonal and small-group skills; and (5) group processing.

Kagan, S. and Miguel Kagan. KAGAN COOPERATIVE LEARNING. San Clemente, CA: Kagan Publishing, 2009. This is one of the best assembled group of definitions, examples, and activities I have seen. Kagan does not limit cooperative learning to any one specific model. He offers a myriad of tools and strategies.

Verduin, J.R., Jr. HELPING STUDENTS DEVELOP PROBLEM SOLVING AND INVESTIGATIVE SKILLS IN COOPERATIVE SETTINGS. Springfield, Ill.: Charles C. Thomas, 1996. This book provides guides for creating and helping various kinds of groups to achieve skills for inquiry and investigation.

Weber, E. STUDENT ASSESSMENT THAT WORKS: A PRACTICAL APPROACH. Boston, Mass.: Allyn & Bacon, 1999. Weber provides strategies and question checklists for students to solve group conflicts in order to improve team success for every member. She offers advice on assessing students' products and progress.

Weber, E. ROUNDTABLE LEARNING: BUILDING UNDERSTANDING THROUGH ENHANCED MI STRATEGIES. Tucson, AZ: Zephyr Press, 1997. Weber identifies practical strategies for collaborating with parents, students, teachers, and the wider learning community in using multiple intelligences in your classroom. She lists ten useful principles of change that provide springboards for improved collaboration.

Articles:

Antil, L., J. Jenkins, S. Wayne, and P. Vadasy. "Cooperative Learning: Prevalence, Conceptualizations, and the Relationship between Research and Practice." AMERICAN EDUCATIONAL RESEARCH JOURNAL 35, no.3 (1997): 419-454.

<http://www.aera.net/pubs/aerj/abs/aerj3533.htm>

The authors provide guidelines for deciding on group size and membership. They conclude that most teachers who use cooperative learning use pairs and small groups of three or four at least 57 percent of the time (abstract).

Chang, C.Y. and S.L. Mao. "The Effects on Students' Cognitive Achievement When Using the Cooperative Learning Method in Earth Science Classrooms." (requires subscription) SCHOOL SCIENCE AND MATHEMATICS 99, no.7 (November 1999): 374-379.

<http://osu.orst.edu/pubs/ssm/>

The article compares the effect of cooperative learning and traditional teaching strategies on achievement in earth science at middle and high schools. Cooperative-learning strategies favor students' performances at higher learning levels. Lower learning levels such as fact acquisition and comprehension show neither raised nor lowered performance for either traditional or cooperative groups.

Cohen, E.G. "Restructuring the Classroom: Conditions for Positive Small Groups." REVIEW OF EDUCATIONAL RESEARCH 64, no.1 (1994): 1-35.

Cohen illustrates three common structures for cooperative learning: (1) assignment of individual students to specific responsibilities within a larger group task or project; (2) assignment of students to work together on a common project or task; (3) assignment of students to groups to study and be responsible for group members' learning, where the group objective is the achievement of all group members.

Elbaum, B., J. Schumm, and S. Vaughn. "Urban Middle Elementary Students' Perceptions of Grouping Formats for Reading Instruction."(requires subscription) THE ELEMENTARY SCHOOL JOURNAL 97, no.5 (1997): 475-500.

<http://www.journals.uchicago.edu/ESJ/home.html>

The authors show how examining students' perceptions of grouping alternatives contributes to a deeper understanding of results from various group formats.

Fuchs, D., L. Fuchs, P. Mathes, and D. Simmons. "Peer Assisted Learning Strategies: Making Classrooms More Responsive to Diversity." AMERICAN EDUCATIONAL RESEARCH JOURNAL 34 (1997): 174-206.

The authors identify how groups can effectively address diversity within inclusive classrooms. They provide evidence that group work on academic tasks can facilitate improved student learning.

Kelliher, A.V. "A Critical Study of Homogeneous Grouping." CONTRIBUTIONS TO EDUCATION (Teachers College Bureau of Publications, Columbia University) 452 (1931).

The author shows that homogeneous grouping is not effective for achievement and can have negative effects on student attitudes, self-concept, and educational opportunities.

Hendrix, J.C. "Connecting Cooperative Learning and Social Studies." THE CLEARING HOUSE 73, no.1 (September/October, 1999): 57-60.

The author shows that students learn better through active involvement in activities, small-group interaction, and cooperative learning. The cooperative-learning model is presented for middle and high school social studies classes, but strategies provided here can be adapted to all subjects in most grades.

Randall, V. "Cooperative Learning: Abused and Overused?" THE EDUCATION DIGEST 65, no.2 (October, 1999): 29-32.

The author illustrates how the popularity of cooperative learning sometimes blinds educators to its drawbacks. She highlights weaknesses of cooperative learning and warns against its abuse and overuse.

Slavin, R.E. "Synthesis of Research on Cooperative Learning." EDUCATIONAL LEADERSHIP 48, no.5 (1991): 71-82.

Slavin provides a review of research suggesting that cooperative learning is an effective strategies.

Slavin, R.E. "Ability Grouping and Student Achievement in Elementary Schools: A Best Evidence Synthesis." REVIEW OF EDUCATIONAL RESEARCH 57, no.3 (1987): 293-336.

<http://www.csos.jhu.edu/staff/rslavin.htm>

Slavin shows how the number of participants in groups affects achievement. Groups with two or three members typically do better than groups with four or more members, he says.

Websites:

The Cooperative Learning Center

<http://www.clcrc.com/>

Brothers David and Roger Johnson (authors of LEARNING TOGETHER AND ALONE and many other books on cooperative learning) direct this center, which studies cooperative learning and provides information about it. Both are professors at the University of Minnesota and have studied cooperative learning for decades. Essays on developments pioneered by the Cooperative Learning Center.

Collaborative Learning Project, England

<http://atschool.eduweb.co.uk/collearn>

Supports cooperative network of teaching professionals throughout the European Union for inclusive education and accessible teaching materials for all grades.

Derry Cooperative School District

<http://www.derry.k12.nh.us/>

This school focuses on creating a safe and successful learning environment for all students using cooperative learning.

HerStory

<http://www.herstory-hffu.org/>

Interdisciplinary, activity-oriented curriculum captures the 150-year struggle of American women for the vote; includes cooperative learning, awareness activities, writing, art, music, and drama.

Molholm Elementary School

<http://204.98.1.2/elem/molholm/>

Educational methods include cooperative learning, team building, and the well-known Success For All reading program.

Virginia DeBolt's Web Site

<http://www.vdebolt.com>

Virginia DeBolt is the author of four books for teachers published by Kagan Cooperative Learning. The books contain writing lessons and ideas using cooperative-learning activities. Her site provides further information.

WPI Career Development Center: Cooperative Education Program

<http://www.wpi.edu/Admin/CDC/Coop/>

This program involves non-credit, paid work opportunities in which students practice developing technical skills.

For more information on the specific techniques mentioned in this workshop or for lessons designed around particular age groups and subject areas consult your local bookstore or the Internet. Cooperative learning strategies abound. Using small group interactions is a powerful teaching tool that can be used to enhance the learning cycle and most other effective teaching strategies. Different marchers hearing different songs still need to learn to work successfully in groups when the need arises. Learning interpersonal communication skills helps students to become better citizens. Working in groups helps students “get better together.”