This paper discusses cooperative learning, a technique in which students work in small heterogeneous learning groups. Following a definition of cooperative learning, the paper describes the most widely used cooperative learning methods, including Student Teams-Achievement Divisions (STAD), Teams-Games-Tournament (TGT), Jigsaw, Learning Together, and Group Investigation. The next section presents a brief review of related research. The final section offers methods and strategies applicable to the reading classroom, including: Cooperative Integrated Reading and Composition (CIRC), dyads, groups of four, think-pair-share, group retellings, turn to your neighbor, reading groups, jigsaw, focus trios, drill partners, reading buddies, worksheet checkmates, homework checkers, test reviewers, composition pairs, board workers, problem solvers, computer groups, book report pairs, writing response groups, skill teachers/concept clarifiers, group reports, summary pairs, elaborating and relating pairs, and playwrights. (SR)
COOPERATION VS. COMPETITION:
Techniques For Keeping Your Classroom
Alive But Not Endangered

A presentation made at the
The Thirty-Fourth Annual Convention
International Reading Association
April 30 - May 5, 1989
New Orleans, Louisiana

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Cooperative learning is a technique in which students work in small heterogeneous learning groups. Over the past 15 years a substantial body of research has developed on this method.

The purposes of this presentation are to: (1) define cooperative learning, (2) present major cooperative techniques, (3) present a brief review of the related research, and (4) present strategies applicable to the reading classroom.

The basic elements of cooperative learning are: (1) positive interdependence, (2) face-to-face interaction, (3) individual accountability, (4) interpersonal and small group skills, and (5) group processing. (Johnson, Johnson and Holubec, 1986).

Positive interdependence is an integral feature of this model. Students are made to feel that they need each other in order to complete the group’s task; in other words, that they sink or swim together.

Face-to-face interaction is another element of this technique which results from the interaction patterns and verbal exchanges. Oral summarizing, giving and receiving explanations, and elaborating are types of verbal interchanges which take place.

Individual accountability results because cooperative learning groups are not successful until every member has learned the material or has helped with and understood the assignment. Another element of cooperative learning is the interpersonal and small group skills which are taught and stressed. Students do not come to school with these skills to collaborate effectively. Leadership, trust, decision-making and conflict management skills are taught.
Lastly, group processing helps all members achieve. Processing means giving students the time and procedures to analyze how well their groups are functioning and how well they are using the necessary social skills.

Cooperative learning methods are aimed at reducing student isolation and perceived hostile climates that exist in highly competitive classrooms, and at increasing students' ability to interact and work with other students toward common goals.

The most widely used cooperative learning methods include:

- **Student Teams-Achievement Divisions (STAD):** Students assemble in teams of four or five members to master worksheets on material covered in a lesson just presented by the teacher. Subsequently, they individually take a quiz on that material. The team's overall score is determined by the extent to which each student improved over his or her past performance. The team demonstrating the greatest improvement is recognized in a weekly class newsletter.

- **Teams-Games-Tournament (TGT):** The procedure in TGT is the same as that used in STAD, but instead of taking quizzes, the students play academic games with other members in the class whose past performance was similar to their own. The team is also based on individual improvement.

- **Jigsaw:** Students meet in five or six member teams. The teacher gives each student an item of information which the student must "teach" to the team. Students are then individually tested for their mastery of the material. Jigsaw II is the same, except that students obtain their information from textbooks, narrative material, short stories, or biographies. The class is then quizzed for individual and team scores.
Learning Together: After the teacher has presented a lesson, students work together in small groups on a single worksheet. The team as a whole receives praise and recognition for mastering the worksheet.

Group Investigation: This is a more complex method, requiring students to accept greater responsibility for deciding what they will learn, how they will organize themselves to master the material, and how they will communicate what they have learned to their classmates.

These methods share four positive characteristics. (1) The cooperation required among students prevents one student from doing most of the work for the others. (2) In spite of the cooperative nature of the groups, each student must learn the material in order to improve his or her own score and the team score. (3) Even low achievers who may not contribute greatly can receive recognition since scores are based on individual improvement, however small, over past performance. (4) Students are motivated to cooperate since they receive not just a grade on a piece of paper, but public recognition from the teacher and the class. (Slavin, 1981).

The earliest research on achievement effects of cooperative learning dates back to 1978. Since that time numerous studies have investigated the effects in a variety of subject areas across grade levels 2-12, and with several types of student populations.

Cooperative learning methods have positive effects in several areas. They contribute significantly to student achievement — to an equal extent in both elementary and secondary schools; in urban; suburban; and rural schools; and in diverse subject matter areas.
Schools with racially or ethnically mixed populations do not necessarily have better intergroup relations based solely on student proximity. However, when dissimilar students work together in small groups toward a common goal and are allowed to contribute equally, they will learn to like and respect one another.

Cooperative learning methods also increase acceptance and understanding among educable mentally retarded students, physically handicapped students, and their nonimpaired classmates. They also have a positive effect on student self-esteem.

Students who participate in cooperative learning like school more than their peers who are not allowed to work together; they are better able to interact appropriately with others and to understand another person's point of view. (Slavin, 1981).

Since the benefits of cooperative learning techniques are noteworthy, an attempt has been made to pull together descriptions of cooperative learning methods which can be used successfully in a reading program. Among these are: (1) CIRC, (2) dyads, (3) groups of four, (4) think-pair-share, and (5) group retellings.

CIRC

Cooperative Integrated Reading and Composition is a program for teaching reading and writing in the upper elementary grades. This approach consists of three basic elements: (1) basal-related activities, (2) direct instruction in reading comprehension, and (3) integrated language/arts writing. Students work in heterogeneous learning teams. All activities follow a regular cycle that involves teacher presentation, team
practice, independent practice, peer pre-assessment, additional practice and testing.

Students are assigned to teams composed of pairs of students from two different reading groups. While the teacher is working with one reading group, students in the other groups are working in their pairs reading to one another, writing responses and practicing vocabulary. Students do not take the quiz until their teammates have determined they are ready. Team rewards are certificates given to teams based on the average performance of all team members on all reading and written activities. (Stevens, et al, 1987).

**Dyads (Pairs)**

Students work in pairs to read and study. The pairs begin by reading two pages of text silently. One person is the recaller, who summarizes orally what has been read. The other partner is the listener, who corrects, clarifies, and elaborates on the material. For the next two pages, the partners switch roles. The process is repeated and continues until the entire chapter or unit has been read. (Wood, 1987; Madden, 1988).

**Groups of Four**

Students are randomly assigned to groups of four. After the groups check a previous assignment, the teacher presents the lesson, introduces a task, and asks for questions. Students within their groups share ideas and questions, and then record their information on a group-recording sheet. The teacher circulates and interacts with a group when necessary. The lesson ends with a follow-up discussion which focuses on the academic task and on interactions within the groups. (Burns, 1981).
Think-Pair-Share

This is a simple informal cooperative learning method developed by Frank Lyman of the University of Maryland. Students sit in pairs as the teacher presents a lesson to the class, the students think of an answer on their own, then pair with their partners to reach consensus of an answer. The students share their agree-upon answers with the rest of the class. (Lyman, 1988).

Groups Retellings

Students work in groups of three or more. Each student is reading a different piece of material on the same topic. After reading, they retell to the group in their own words what they have read. Others from the group add information as needed. (Cunningham, 1988).

Although we have found few limits to the number of ways Cooperative Groups can be used, here are some additional ideas to get you started. (Johnson, Johnson and E. Holubec, 1987, 51-54.)

Turn to Your Neighbor

Ask the student to turn to a neighbor and ask him/her something about the lesson; to explain a concept you just taught; to explain the assignment; to explain how to do what you just taught; to summarize the three most important points of the discussion, or whatever fits the lesson.

Reading Groups

Students read material together and answer the questions. One person is the Reader, another the Recorder, and the third the Checker (who checks to make certain everyone understands and agrees with the answers). They must come up with three possible answers to each question.
and circle their favorite one. When finished, they sign the paper to certify that they all understand and agree on the answers.

**Jigsaw**

Each person reads and studies part of a selection, then teachers what he or she has learned to the other members of the group. Each then quizzes the group members until satisfied that everyone know his or her part thoroughly.

**Focus Trios**

Before a film, lecture, or reading, have students summarize together what they already know about the subject and come up with questions they have about it. Afterwards, the trios answer questions, discuss new information, and formulate new questions.

**Drill Partners**

Have students drill each other on the facts they need to know until they are certain both partners know and can remember them all. This work for spelling, vocabulary, math, grammar, test review, etc. Give bonus points on the test if all members score above a certain percentage.

**Reading Buddies**

In lower grades, have students read their stories to each other, getting help with words and discussing content, with their partners. In upper grades, have students tell about their books and read their favorite parts to each other.
**Worksheet Checkmates**

Have two students, each with different jobs, do one worksheet. The Reader reads, then suggests an answer; the Writer either agrees or comes up with another answer. When they both understand and agree on an answer, the Writer can write it.

**Homework Checkers**

Have students compare homework answers, discuss any they have not answered similarly, then correct their papers and add the reason they changed an answer. They make certain everyone's answers agree, then staple the papers together. You grade one paper from each group and give groups members that grade.

**Test Reviewers**

Have students prepare each other for a test. They get bonus points if every group member scores above a present level.

**Composition Pairs**

Student A explains what she/he plans to write to Student B, while Student B takes notes or makes an outline. Together they plan the opening or thesis statement. Then Student B explains while Student A writes. They exchange outlines, and use them in writing their papers.

**Board Workers**

Students go together to the chalkboard. One can be the Answer Suggester, one the Checker to see if everyone agrees, and one the Writer.
Problem Solvers

Give groups a problem to solve. Each student must contribute to part of the solution. Groups can decide who does what, but they must show where all members contributed. Or, they can decide together, but each must be able to explain how to solve the problem.

Computer Groups

Students work together on the computer. They must agree on the input before it is typed in. One person is the Keyboard Operator, another the Monitor Reader, a third the Verifier (who collects opinions on the input from the other two and makes the final decision). Roles are rotated daily so everyone gets experience at all three jobs.

Book Report Pairs

Students interview each other on the books they read, then they report on their partner's book.

Writing Response Groups

Students read and respond to each other's papers three times:

a. They mark what they like with a star and put a question mark anywhere there is something they don't understand or think is weak.

b. They mark problems with grammar usage, punctuation, spelling, or format and discuss it with the author.

c. They proofread the final draft and point out any errors for the author to correct.

Teachers can assign questions for students to answer about their group members' papers to help them focus on certain problems or skills.
Skill Teachers/Concept Clarifiers

Students work with each other on skills (like identifying adjectives in sentences or showing proof in algebra) and/or concepts (like "ecology" or "economics") until both can do or explain it easily.

Group Reports

Students research a topic together. Each one is responsible for checking at least one different source and writing at least three notecards of information. They write the report together; each person is responsible for seeing that his/her information is included. For oral reports, each must take a part and help each other rehearse until they are all at ease.

Summary Pairs

Have students alternate reading and orally summarizing paragraphs. One reads and summarized while the other checks the paragraph for accuracy and adds anything left out. They alternate roles with each paragraph.

Elaborating and Relating Pairs

Have students elaborate on what they are reading and learning by relating it to what they already know about the subject. This can be done before and after the reading a selection, listening to a lecture, or seeing a film.

Playwrights

Students write a play together, perhaps about a time period recently studied, practice and perform it for the class.
References


