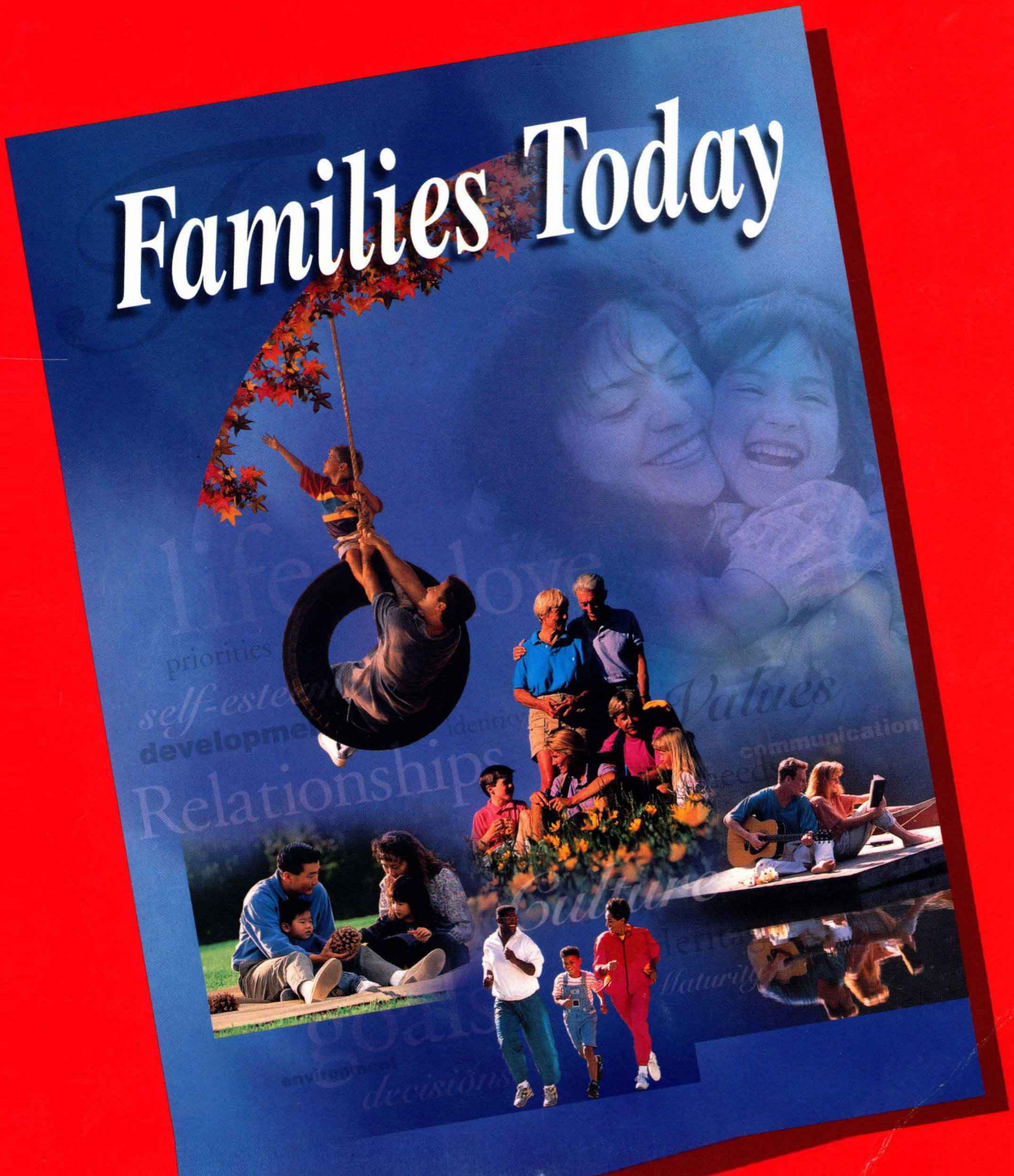
Cooperative Learning



Families Today

Cooperative Learning

Second Edition

Linda R. Glosson
Donna S. McCaw

Glencoe McGraw-Hill

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The projects themselves will help you implement cooperative learning techniques in the classroom. They are varied and easy to use. Each is comprised of a project plan that gives objectives, skills that will be emphasized, the cooperative learning structure used, a guide to the time that will likely be needed for the project, a list of materials, a project introduction, the steps to follow in carrying out the project, and a list of methods for evaluation and accountability. Some projects also have handouts and worksheets for students to use in completing the project. These follow the project plan. Because of the interest in cooperative learning today, these projects can serve as a useful tool for you. Not only can you use them as is, but you can also take the information you find in this booklet and use your own creativity to spin off with ideas of your own.

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THE TEAM APPROACH TO LEARNING

A Need for Cooperation

From the workplace to the classroom, the emphasis on teamwork is growing. Both employers and educators are discovering the rewards that result when people are skilled at working together.

In the workplace, one way employers increase productivity and improve quality is through the use of quality circles. These are small groups of employees who meet regularly to discuss the way they do their jobs and to recommend changes. Working in teams like these is so much a part of employment today that many employers give prospective employees inventories and assessments to ensure an applicant's ability to function within a team framework.

In the classroom, teachers are moving away from the lecture format to more student involvement via learning teams. It makes sense for students to discover and practice teamwork at school so that they can carry the skills they learn to the workplace and other areas of life. Through research and development, an educational approach to teaching teamwork has emerged. It is called cooperative learning.

In 1989 the *Carnegie Report on Adolescents* called for educational programming that ensures success for *all* students. One of many recommendations was the use of cooperative learning. The work of such individuals as Elliot Aronson, Robert Slavin, Spencer Kagan, and David and Roger Johnson points to the benefits offered by cooperative learning. Backed by such proponents and a growing following in the educational arena, cooperative learning has earned a place in the classroom.

What Are the Benefits?

One of the biggest frustrations with teaching today lies in the enormous amount of time teachers must spend in disciplining, motivating, and trying to engage a commitment to learning. By the sixth grade, students commonly label classes as boring. Living and working in an age of electronic wizardry challenges teachers to offer students something that can compete with "virtual reality." Cooperative learning is a step in the right direction. It can generate student enthusiasm at a time when their attitude toward education is far too low.

When handled well, cooperative learning strategies have many benefits to offer. Here are a few that proponents often cite:

- Students enjoy the opportunity to get away from the straight lecture format. Active involvement is conducive to learning and creates an interest in learning.
- Students discover how to work with people of all types. They need this ability in a society that is so diverse. Ethnic differences seem less significant when people begin to see each other as just that — people.
- The pressures of competition, common in many teaching situations are less, as students learn to work in a cooperative atmosphere.
- Empathy grows as students are compelled to consider the feelings of others when they work closely together.
- Communication and social skills build because they are essential to the implementation of cooperative learning.
- Students learn to work through conflicts.
- Students develop self-esteem as they support and encourage each other in the pursuit of successful outcomes. Attitudes become more positive toward self and others.
- Unique activities and techniques spark an interest in learning and discovery.
- Higher level thinking is promoted as students are drawn into learning situations that require them to be directly involved, making a contribution, and processing input from others.
- Research has shown that students overall have higher individual, academic achievement when they are active participants.

Cooperative learning also benefits you as a teacher. You have the opportunity to observe and assess students both as individuals and as members of a group. In addition, the approach provides you with a chance to meet and confer with smaller groups of students than more traditional classroom design affords. Your awareness of student needs can increase and your rapport with students improve when cooperative learning is part of your approach to teaching.

What Is Cooperative Learning?

For some educators, the first reaction to cooperative learning is, "But I've always used group work in my classroom." Of course, this is true. Today's approach, however, is perhaps a more thoughtful and systematic way of looking at an old idea. Cooperative learning brings emphasis and structure to a teaching tool that is particularly useful in today's world. Even if you, as a teacher, have become adept at incorporating group work in your classroom, you may find that cooperative learning has some new perspectives and techniques that can be useful to you.

With cooperative learning, groups of students work together to reach an instructional goal. Each student is responsible for his or her own learning *and* for helping others learn. As in any successful team effort, the strengths of each person are utilized in a way that ensures success for both individuals and the group.

To be effective, cooperative learning techniques combine several elements. These are *heterogeneous grouping, positive interdependence, individual accountability, skill instruction*, and *group processing*. Finding ways to include each of these is necessary for true cooperative learning to take place.

Heterogeneous Grouping

Heterogeneous grouping has proven to be beneficial when students work cooperatively. Student diversity broadens the information base, facilitates learning, and teaches tolerance and understanding. Heterogeneous grouping can be based on academic ability, gender, and social and ethnic backgrounds. Some teachers also like to mix students with different learning styles — visual, kinesthetic, and auditory.

By examining the academic ability level of your students, you can place them on teams that have an even balance of high-ability, average-ability, and low-ability students. To create teams, first rank-order your class roster according to ability. Then choose a name from the top, one from the bottom, and two from the middle to form a team of four.

When putting groups together, aim for small numbers. Pairs and groups of four (squares) are common structures in cooperative learning. When the teams become too large, students are easily lost in the crowd. Interaction of ideas is hampered. Reaching consensus also becomes more difficult in large groups. A large group may focus more on simply trying to function as a group than on the actual learning objective.

Positive Interdependence

Positive interdependence occurs when students feel that they need to do their own part for the benefit of the entire group. Students quickly learn that they "sink or swim" together.

Positive interdependence is achieved through division of labor; dividing materials, resources, and information among group members; assigning students different roles; and giving group rewards. Students learn to depend upon each other for information, materials, ideas, energy, and motivation.

Like other teachers, you may be concerned about the student who sits back and allows everyone else to do the work. To combat this, inform students how they will be "connected" to each other. Students work hard for extra credit points that can only be achieved when the entire team or class is demonstrating a certain social skill, academic achievement, or creative idea. For example, a minimum percentage goal could be set for individual quiz results. Only when each member of the team achieves the minimum does the team receive extra credit points, water passes, homework passes, or any other creative bonus. Each member has a vested interest in teaching and encouraging other members.

Another method of establishing positive interdependence is with the use of roles and responsibilities. Roles might include:

- *Recorder* — takes down actions and ideas of the team.
- *Reporter* — gives the team report to the large group.
- *Collector* — gathers and puts away all materials needed by the team.

- *Leader or Chief* — keeps team focused and on task.
- *Encourager* — leads the way in making supportive comments and praising appropriate social skills and ideas.
- *Cutting Edge* — comes up with at least one outrageous idea when the team is brainstorming. This encourages teams to utilize creative problem-solving strategies.
- *Time Keeper* — keeps team focused and monitors the time.
- *Summarizer* — summarizes the progress and the conclusions of the group.

Individual Accountability

All members of a cooperative learning group must be held responsible for the work and the learning that takes place. To assess this, individual grades can be given. Such grading is particularly important when students make distinct individual contributions.

You may need to structure assignments so that individual contributions are expected if some group members are likely to ignore their responsibilities. Quizzes, tests, reports, journals, and writing samples are all possibilities for individual assessment. Randomly pulling an individual student's written work for review increases the level of individual involvement.

For some cooperative learning activities, a handwritten assignment may not be used for accountability. Instead, students may be expected to give verbal responses that may or may not be graded.

Skill Instruction

As students become involved in cooperative learning activities, they need to learn the necessary skills for effective group functioning. Many students are used to working alone and with close supervision by a teacher. Working as a team calls for learning and practicing specific skills that may be unfamiliar to them.

Certainly, all the skills taught in the *Families Today* text will be useful to students who are working on teams. Communication skills are at the top of the list. In addition, students need to know how to lead and follow. They must use conflict-resolution and management skills. High-level thinking and reasoning skills are also necessary for greater understanding and successful outcomes.

When thinking about specific skills that are needed for cooperative learning, however, certain ones come to mind. They can be divided into two categories: task skills that help students get the work done and working relationship skills that enable the group to function together. Some examples are given below:

Task Skills

- Asking questions
- Asking for clarification
- Paraphrasing
- Summarizing
- Checking for understanding
- Sharing information and ideas
- Elaborating on the ideas of others
- Following directions
- Listening actively
- Staying on task
- Getting the group back to work
- Keeping track of time

Working Relationship Skills

- Inviting others to talk
- Taking turns without interruption
- Sharing feelings
- Acknowledging contributions
- Respecting opinions
- Responding to ideas
- Giving positive feedback
- Encouraging others
- Expressing support
- Showing appreciation
- Showing consideration
- Keeping a calm atmosphere
- Checking for agreement
- Disagreeing with tact
- Mediating

As you implement cooperative learning in your classroom, you will want to emphasize those skills that your students need to improve the most. The new skill should be clearly defined and specific examples posted within the classroom. For example, if "giving positive feedback" is the skill to be learned, list specific actions students can take and words they can use. You might suggest such statements as: "I like that idea" or "That sounds good to me."

Students should understand why each skill is important and how they can benefit from learning it. Many teachers concentrate on only a few specific

skills each semester. Practice, practice, and more practice — makes permanent.

Group Processing

Ownership of the team and the content takes place at the close of a project or activity. Team self-evaluation occurs each time the team works together. Time out for such analysis by the individual, team, or whole class is necessary so that students can evaluate what went well as they worked together and what didn't, thereby discovering ways to make improvements for the next time.

For a quick method of group processing, use the "thumbs up" approach. If a student feels that he or she was listened to by team members (a social skill of the day), the student gives you the "thumbs up" sign. If a student feels unheard, a "thumbs down" sign is given.

You might also have team members put their heads together to develop one goal for improvement. The "glows and grows" method works well for this. In using it, students identify one skill they feel they contributed to the team (glows) and one skill that they need to work on (grows). These can be shared verbally, written in a team notebook, or posted within the room. Students refer to these for their team's goal development. The teacher also shares group "glows and grows" that were noted as monitoring took place.

Another technique for identifying glows and grows begins by having team members discuss what they have done well. On a large sheet of paper, ask them to draw a large sun and write down what they glowed about. Then have them discuss areas in which they still need to improve. On a separate sheet of paper, have the teams draw a tree, writing on it the areas in which they need to grow. Hang both sheets on the bulletin board. Teams may add to or modify the sheets on a regular basis.

Another facet of group processing deals with the closure of the content. Have students stop and think about the content, using questions like these: What have you have learned or relearned? How are you going to use this information in your life? These and other such questions help students internalize the content.

Classroom Management Techniques

A little up-front planning and thought can make cooperative learning activities go more smoothly. Some basic suggestions apply to most of the cooperative learning structures you decide to use.

Group Selection

As mentioned earlier, groups should be heterogeneous and usually small. Taking time to put groups together carefully is a good idea.

Random group selection, although it may be useful at times, may not result in heterogeneous mixtures. It is literally the luck of the draw. When you do decide to put students together randomly, you might count off with numbers or colors. You can also organize by birth dates or alphabetically or some other creative method.

Most teachers are wary of allowing students to select their own teams or partners. Popularity should not be part of any selection process. Sometimes students who are friends work well together. Although this offers some advantages, it may not be the arrangement of choice unless the possibilities of rejection can be managed.

Time Management

People tend to use less time more efficiently. To get more time on task from your class, give less time for the completion of the task than you think it will take. This technique is especially useful for activities that take more than ten minutes. For example, tell students that they will have ten minutes for task completion for an activity you think might take twenty minutes. When the students get down to business, check for progress and completion. Then assign students more time as needed (five or ten minutes at a time).

Room Arrangement

Students should sit in groups so that they can see each other. Face-to-face interaction is important. They also need to be able to see any information needed for successful teamwork. This information might include an overhead projector, the teacher, and other teams. Seating at a table or with the

desks turned facing each other is optimal. The teacher should instruct teams where to sit. This limits confusion and noise.

Planning and Materials

Just as traditional teaching requires an awareness of materials needed to teach and learn, so does cooperative learning. Teachers typically require more planning time during the first year that they use cooperative instruction. You will have to plan academic and social objectives, how to group, what structures to use, where to seat the groups, materials and roles needed, time frames and training time, and how to assess or evaluate.

Noise Level

When first introducing cooperative learning to your class, spend time teaching them what you expect concerning the noise level. Typically teachers encourage students to use six-inch voices. Keep in mind that the noise level will increase from whatever you accept the first day. For this reason, many teachers start from a zero base — allowing *no* noise as students move into groups and very quiet talking during the team interaction. Taking the time to train your students from the beginning will save much time and frustration later.

One teacher has students move into their teams so quietly that she can't hear "their toenails." They must maintain the level for twenty minutes. That may sound silly, but her students understand her base. As they get more comfortable and louder with team sharing, the noise never gets to a level of discomfort for her or her colleagues. After all, up from zero is not nearly as loud as up from five.

Monitoring

The most active part of cooperative learning for the teacher is the movement around the room, monitoring teams at work. You will be observing relationships and social skill development as well as giving feedback, answering questions, and much more. A clipboard is handy for making notes about overheard praises, ideas, and behavioral observations. These are then shared by the teacher during the processing or evaluation stage. Students attend to task, use the desired skills, and collaborate better when they know the teacher is watching them.

Some teachers see this time as their opportunity to "get some other things done." By skipping the monitoring process, however, they limit their opportunities to direct, guide, and provide appropriate feedback. Monitoring can be the most effective tool for the teacher who wants a successful lesson.

Behavior Problems

Controversy reigns high on the topic of behavior management and cooperative learning. Forcing a team to work with an unwilling member or a student with whom teachers feel frustrated may not be fair, especially if the students have not been equipped with the skills needed to resolve conflicts and solve problems.

Everything is not for everyone, nor will it work for everyone. Not all students want to work in cooperative learning groups, although most are willing to participate. Allowing a student who resists to do *all* of the work on an individual basis is worth considering. The prospect may be enough to promote cooperation.

A student who becomes a discipline problem should be removed to an individual work station and given the choice of returning to the team when he or she feels ready to be a team player. Initially, allow the choice to be the student's; however, if another problem surfaces after returning to the team, removal is necessary again, with re-entry by team consensus only.

If the team is mature and skilled enough to work through the behavior together, the teacher should offer support to the process. Students who cause problems desperately need to learn the skills taught on a cooperative team, but not at the team's expense. When given some time to think and watch the rest of the class work in teams, the problem student often realizes a desire to work with other students and falls into the mainstream.

Gifted Students

Working in groups can bring special problems for high-ability students. Some may feel "put-upon" by the teacher and their classmates, especially when they believe that they will have to carry a heavier load than others in the group. Their empathy with teammates who are challenged by the work may be low.

The wise teacher helps high-ability students see the benefits of learning to teach others. Students often do not realize that a much deeper level of understanding is achieved as someone moves from comprehension to instruction. They may not think that they reap any benefits from working in a cooperative learning group, but they do.

High-ability students also need to realize that the classroom is just a reflection of real life. Sooner or later they will work with others of all ability levels on the job or in the community. It benefits them to learn how to relate and work with people of all types. Those who discover that they can always learn something from someone else, despite background and intelligence, are much closer to getting along well in the world.

Students also need to understand that real life is never quite fair. Those people with higher levels of ability and motivation are often called upon to do a little more. Doing so reaps its own rewards eventually. Although the ideal in cooperative learning is to involve all students equally in the efforts, practically speaking, this is not always possible.

One additional principle helps put the situation of the "gifted" in perspective. Cooperative learning is not the only educational technique to be used. In a well-managed classroom, high-ability students can still have opportunities to enrich their own learning or move at a faster pace. A teacher might even consider putting "gifted" students together in a group now and then, abandoning heterogeneity for homogeneity. By using a combination of teaching techniques, the variety should be refreshing and broadening to all students, including the "gifted."

If a "gifted" student or a parent requests that a student be removed from cooperative grouping, the teacher could allow the student to complete all of the work alone, the same suggestion for the student who is a discipline problem. The student may later request the opportunity to be part of a team. Being a member because one *wants* to rather than *has* to can bring the right attitude to a project.

Evaluation

As noted earlier, individual grades are often given to satisfy the individual accountability component of cooperative learning. In many situations a team grade is useful, too.

Much research has documented the pros and cons of giving team grades. When the outcome objective is a collaborative project, a team grade is commonly recommended. You might consider ideas like these for evaluation:

- Essays
- Written reports
- Tests
- Anthologies of poetry, stories, etc.
- Art work
- Scrapbooks
- Flowcharts
- Portfolios
- Diaries
- Demonstrations
- Oral reports
- Debates
- Dramatic performances
- Panel discussions
- Multimedia presentations
- Critiques

Giving a team grade tends to solidify the "sink or swim" quality of interdependence. Students generally don't want to let the group down. A shared grade can motivate them to participate and do their best. Be sure that students understand how the grade will be calculated. Also, be prepared to defend the use of team grades should a parent question it. If desired, team grades may be given in a creative manner, such as for extra credit, as a substitute for another grade, or for a social grade.

Be cautious about saddling a conscientious student with a low grade for which he or she is not responsible. Good students who are trying to maintain a certain grade-point average can be hurt by a poor group grade that is overweighted. If they didn't cause the low grade, it is especially disheartening to pay a price for the lack of ability or concern by other team members.

Cooperative Learning Structures

Both the pleasure and the challenge begin with cooperative learning when you put the techniques into action in the classroom. Numerous structures have been identified and developed to make cooperative learning work. They range from short and simple to time-consuming and involved. Some help build an atmosphere that promotes teamwork,

where students develop a feeling of rapport with each other. Some are designed to implement the actual learning process. Many do both.

Researchers and educators have contributed to the development of activities, structures, and projects that use cooperative learning. Because the ideas have evolved through many sources, the literature yields variations on similar structures. Sometimes a basic structure is even known by several different names. As you use the structures in your classroom, you, too, will probably make adaptations as new methods and creative ideas come to mind.

To help you get started or to add to what you are already using, some basic structures are described here. You may wish to turn to the actual work of the experts to find more information. The resource list at the end of this discussion suggests materials that have been on the cooperative learning forefront.

Developing Rapport

A sense of belonging has long been recognized as a fundamental human need. Before students can work cooperatively, they need to develop rapport with their teammates. They need to feel comfortable with each other and willing to participate.

To create the necessary bonds, you can turn to activities that do not deal with lesson content but do promote student interaction. Teachers sometimes feel that activities like these are without much academic merit. They may seem like too much fun to be meaningful. Remember, however, that the purpose is often to help bond students and to motivate them. A short activity that hooks student interest or uses an enjoyable technique to bring students together and make them feel more at ease with each other can be worthwhile. Clarify with students why they are doing what they are doing, and show them the link to learning. In the end, you may turn a classroom of separate individuals, who have few meaningful connections, into a group of young people who have deepening concerns about each other.

To find rapport-building techniques, the library and bookstore are places to start. Books on cooperative games give a bank of ideas from which to draw. To get you started, a few specific ideas are offered here.

Formations

The goal of this activity is to have all students use their bodies to form one particular shape. Give students a time limit, and do not allow them to talk during the activity. It is interesting to note that early use of this activity tends to yield competition for what students see as the prime positions of importance. For example, in forming a triangle, everyone wants to be one of the points. If you see this going on, allow students to struggle a bit. Then draw a dot on the chalkboard and ask students if this is a triangle. Then add another dot and finally a third dot. Point out that the formation is not actually a triangle until the sides are formed. Just as there are no small parts in forming a triangle, there are no small parts on a team. Every player is important. Every role is significant. Follow up by having students form their groups and discuss what this awareness means to them. Reinforce the concept that everyone is important to the success of a team's performance.

Shipwrecked

Tape a line long enough for the entire class to stand on, with each person standing sideways. Ask them to quietly find a place on the line. Explain that the class is on a ship that is going down, and they are lining up for the lifeboats. The catch is that they have to line up in a certain order or everyone won't fit.

Then tell students to move along the line until they are lined up from tallest to shortest. They cannot step off the line and touch the floor or anything else. They can only touch each other. Demonstrate that if they lift one foot to move it, when the foot goes back down, it must be on the line. The goal is to move into position as quickly as possible. After all, the ship is sinking. As many members of the class as possible must be saved.

As students fall off, they help watch for other victims. The number left on the line when heights are in order is the class's world record, and everyone returns to the line for another attempt to beat it. This time a new order is requested. Some suggested creative categories for lining up are: birthdays; alphabetically by first name, middle name, or last name; and locker numbers.

Beach Ball

An inexpensive beach ball can illustrate to students the effectiveness of working together toward a goal. Students try to keep the beach ball in the air, counting as the ball is hit. The only rule is: counting starts over again if one person hits the ball twice in a row or if the ball touches the floor. Counting can take place by 1's, 2's, metrics, or whatever measurement you want.

Once the activity starts and the rule is broken, the class has set its own world record, which is the last number called out. It is the world record that they now need to beat. After several starts and possibly some considerate critiquing of their skills, stop and ask for strategies or alternatives that will help them reach a higher world record. Typical suggestions are: hit it softly, move closer or move farther apart, use finger tips only. Keep track of the record, and on another day, see if the class can beat it.

Some class discussion during and following this activity helps students understand its purpose. Point out to students that there is no "I" in "team." When they keep the ball in the air, they are working together as a team. The efforts of all contribute to the success of the group. Ask students if anyone knows of a perfect basketball player, perfect speller, perfect daughter, perfect teacher, or any other perfect person. Even Walter Peyton, Magic Johnson, and teachers make mistakes. The Super Bowl player who misses the pass doesn't get kicked off the team. Instead teammates say, "Shake it off," and they encourage each other. Even the best player still needs everyone else on the team. These principles apply to keeping the ball in the air and to working together toward team goals in class.

People Search

The "People Search" requires participants to move about the room and talk with each other while gathering answers to questions. Give students a list of statements beginning with, "Find someone who ..." Participants create informal clusters of two or more students as they try to find answers and gather signatures of the people who answer the questions. This activity is useful as an icebreaker, when students are first getting to know each other. It encourages students to meet new people and enter into new groups. Note that this activity can also be adapted to use when teaching lesson content. You could use it as a prelearning strategy or for review by adapting the search to text content.

Developing Team Identity

When teams are going to work intensively together, they need to become comfortable with each other. Even students who have developed rapport within the classroom need to bond with the specific individuals who are part of their team. Establishing team identity increases pride, connectedness, and commitment. Time should be given to establish identity whenever a new team is formed. Common techniques for building team identity include:

- Choosing a team name.
- Creating a team handshake.
- Developing a team cheer, logo, motto, banner, etc.

Exploring Lesson Content

Once students have developed rapport with each other, both in the class and on a team, they are ready to use cooperative learning strategies that deal with lesson content. Cooperative learning experts have identified many structures that work. Some of these are described below.

Brainstorming

Here is an excellent way to assess the prior knowledge of your students. It can be used with the whole class or teams.

Ask students to think about something and then brainstorm about it. The accepted rules of brainstorming require that the time be brief, all ideas be accepted, spontaneous sharing occur, discussion be minimal, and ideas be written down. Lists can be made, mind maps drawn, and pictures and graphics used. There is no limit to the creative side of brainstorming.

Popcorn Responses

With this simple activity, you can get a quick overview of student knowledge and understanding. Have students "pop" up to give a piece of information or an impression. Continue as long as students have comments to make or until you have gotten the responses you want.

Human Graph

This activity can take as little as five minutes or as long as an entire class period, depending upon