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What Is Cooperative Learning?
Elements of Cooperative Learning
Team and Trust Building
Building Self-Esteem
Assessing Cooperative Learning
Grading Academic Work Cooperatively
Cooperative Learning Strategies
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Preface

One of the most significant changes taking place in our schools today is the shift from teacher-centered instruction to student-centered learning. Educators are realizing that most students learn faster and retain information longer if they participate actively in the learning process. Research also indicates that students learn from one another and usually benefit from being in heterogeneous learning situations. Cooperative learning is a result of this paradigm shift from a focus on teacher to student.

Upon hearing about cooperative learning for the first time, many of us say, “Oh, group work. I’ve been doing that a long time.” However, consider the following examples of misconceptions about cooperataive learning:

- One senior high teacher enjoys giving his class a choice between listening to him lecture or getting in groups to read and study the text together. He is pleased that his students always choose to study together, and he congratulates himself on his use of cooperative learning.

As the students group themselves and begin to work, the teacher moves to his desk to read the paper. Once in a while, the students get too noisy and he yells over the roar for them to lower their voices.

- *What is wrong with this classroom story?*
- *How could the teacher form groups differently?*
- *What would happen if he put the paper down and monitored the students?*
- *During cooperative learning, how much should the teacher assist the groups?*

- In an elementary school across town, another teacher tries to apply cooperative learning during a math lesson. The teacher carefully determines which students work well together and she arranges the groups. After explaining the math assignment, the teacher continues to walk around the room and monitor behavior. The room is quiet and all students are working. In some groups, students are discussing the work and solving problems together. In other groups, students sit in close proximity but work separately.
- *What’s wrong with this situation?*
- *Why isn’t independent work done in close proximity considered cooperative learning?*

The purpose of this manual on cooperative learning is to clarify the differences between groups (which have a place in education) and cooperative learning. Each of the components that makes cooperative learning unique is explained and sample lesson plans are offered. Strategies are suggested that offer “scripts” for cooperative learning lessons. Suggestions are made for evaluating the effectiveness of cooperative learning and for grading students cooperatively. A final section contains ideas for faculty collaboration.

Cooperative learning presents the dichotomy of being both very simple and very difficult. Perhaps that is why Edythe Holubec, one of the primary developers of cooperative learning in the United States, advises teachers to “practice cooperative learning daily.” Dr. Holubec also suggests that with time, practice, and experience you will become an expert in the use of cooperative learning. Congratulations, you are on your way!

Goals for Our Students

Students will freely give and receive love and acceptance.

Students will take responsibility for themselves instead of blaming others or making excuses.

Students will communicate their needs and wants clearly instead of whining, throwing tantrums, manipulating, or giving up.

Students will feel and express emotions appropriately.

Students will be part of the solution for any problem.

Students will respect themselves and others.

Students will learn from mistakes and will continue to risk and achieve.

Students will handle conflicts in ways that create winning solutions for everyone involved.

Students will be healthy and happy and will enjoy life.

Goals for Teachers

Teachers will freely give and receive love and acceptance.

Teachers will take responsibility for themselves instead of blaming others or making excuses.

Teachers will communicate their needs and wants clearly instead of whining, throwing tantrums, manipulating, or giving up.

Teachers will feel and express emotions appropriately.

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Faculty Cooperation

Support from Research Studies

What Is Cooperative Learning?

There are three basic approaches to learning: individual, competitive, and cooperative. Each approach is valuable and has

appropriate times and places for use.

There will always be a need for individual learning. In any structured group, teachers recognize the students who cannot fit. Good teachers have always known that some students need individual goals, materials, time schedules, and assistance.

Individual learning may be appropriate for students who are gifted, remedial, or easily distracted. For many Attention Deficit Hyperactive Disorder (ADHD) students, the traditional classroom is too busy. These students usually learn best in a comfortable and quiet space.

When used in the form of games, competition is a valuable tool to develop motivation. Competition at its best is based on “my win does not create a loss for you” in terms of success or grades. In a less positive use of competition, as seen in standardized testing, individuals are compared to others in their norm group.

Cooperative learning implies that students work together in small groups to achieve goals that are beneficial to all. Cooperative learning requires that the teacher and the students work to ensure that everyone participates and everyone learns. Unlike traditional groups, cooperative learning stresses social skills and problem solving through group processing. One might say that cooperative learning is a holistic approach that considers the social and emotional growth of students as well as their academic progress.

Schools, families, and even global interactions require individuals to think creatively and to use problem solving skills to communicate with one another in order to reach mutually beneficial solutions. Equally important, is the ability to move from a “me” society to one raised on a “we will succeed together” concept. To this end, cooperative learning includes work in each of the following areas:

Positive Interdependence *We will do this together.*

Individual Accountability *Each individual is responsible.*

Social Skills *Courtesy and collaboration are major goals.*

Group Processing *We engage in honest and courageous sharing and problem solving.*

The Teacher’s Role

Your job as a teacher in a cooperative classroom is to guide and facilitate the learning experiences of your students. If you do your job correctly, you will work smarter, not harder, as you realize that you can invite but not force your students to learn. You can develop cooperative learning through the following methods:

- Determine class objectives (as you have always done).
- Decide on the size of the groups. Keep in mind that small groups require less social skill and time; larger groups offer more resources to the group.
- Assign students to groups instead of letting students choose groups.
- Arrange the classroom to facilitate easy organization of groups in which group members sit close together. That is, students sit eye-to-eye and knee-to-knee.
- Plan ways to promote dependence of group members on one another.

- Plan ways to assure individual participation, responsibility, and learning.
- Explain the criteria for academic and social success.
- Specify, model, and rehearse desired social and collaborative behaviors.
- Monitor the progress and behavior of groups.
- Intervene and assist when help is needed.
- Close the lesson.
- Give groups time and guidance to process their cooperative experiences.

Your willingness to learn new ways of teaching and managing your classes will have a significant effect on the attitudes of your students. A positive point of view concerning cooperative learning is a key to implementing your role successfully.

Comparing Traditional and Cooperative Groups

On the surface, traditional and cooperative groups look very similar. However, the misunderstandings described in the *Preface* suggest that cooperative learning requires more careful planning, monitoring, and managing. Although traditional groups appear easier to use, the benefits of cooperative learning are worth the additional effort.

<u>Traditional Groups</u>	<u>Cooperative Groups</u>
Each group member takes responsibility for self learning.	Group members are responsible for helping one another learn.
Each individual is concerned with his own grade.	Individual grades and successes are connected to the grades/successes of all group members.
Teamwork is not taught.	Teamwork is taught.
A group leader is chosen.	There is no leader.
Social progress is not emphasized.	Social progress is an important element.
Groups range in size from five to twelve.	Groups range in size from two to six.
Groups are homogeneous in ability.	Groups are heterogeneous in gender, ethnicity, and ability.
One or two students do most of the work.	Each student has a job.
Group goals are not set.	Group goals are set.

An Historical Perspective of Cooperative Learning

Thousands of years ago, the Talmud instructed followers to have learning partners. The Old Testament (Ecclesiastes 4: 9 - 12) says, *“Two are better than one, because they have a good reward for toil. For if they fall, one will lift up his fellow; but woe to him who is alone when he falls and has not another to lift him up...And though a man might prevail against one who is alone, two will withstand him. A threefold cord is not quickly broken.”* In the first century, Quintillion stated that students could benefit from teaching one another.

In the 1700’s, Joseph Lancaster and Andrew Bell used cooperative learning in England and brought the ideas to America when the Lancasterian school opened in New York City. In the 1800’s the Common School Movement in the United States emphasized cooperative learning. Colonel Francis Parker, superintendent of public schools at Quincy, Massachusetts, promoted cooperative learning between 1875 and 1880. John Dewey used cooperative learning groups in 1924.

The theory of social interdependence began in the early 1900’s with Kurt Kafka, the founder of the Gestalt School of Psychology. Kurt Lewin built on Kafka’s work by stating that the tension within a group motivated movement toward a common goal. Morton Deutsch, one of Lewin’s graduate students, developed a theory of cooperation and competition in the late 1940’s. One of his graduate students, David Johnson, expanded the ideas of competition and cooperation, thus developing the theory of social interdependence. The Johnson brothers began their work in 1970 and with their sister, Edythe Johnson Holubec, have continued to train teachers through the 1990’s. For thousands of years, educators, psychologists, and sociologists have investigated results of working together toward a common goal. Research reveals that:

- Cooperative learning is more effective than competitive

learning.

- Cooperative learning can be used with all ages, in every content area, and for any task.
- Cooperation is a human effort that applies to many areas of life, including self esteem, social competencies, psychological health, prejudice, friendships, higher level thinking, and motivation.

Gifted Learners

Concerned parents of academically gifted students often raise questions about the benefits of cooperative learning for their children. These parents often fear that when their children work in heterogeneous groups, they will be unchallenged and will be misused as class tutors for those having difficulty.

Certainly, you want to challenge your more advantaged students and you need to assure parents that the needs of all children are being met. In *Circles of Learning*, David and Roger Johnson and Edythe Holubec tell the story of Sandy Koufax, one of the greatest pitchers in the history of baseball. Their story is a good metaphor to share with parents.

It has been said that Koufax threw such a fast pitch that other players could hear a hum when he threw the ball. By the time opposing players came to bat, they were already intimidated by the speed of his ball. There is no doubt that Koufax was a gifted pitcher.

The authors suggest that there was a way to thwart the talent of Koufax. If David had been the catcher, Koufax would have been forced to slow his pitch in order for David to catch the ball. Putting Roger and Edythe in the infield or outfield would also have affected Koufax’s success.

Sandy Koufax was a great pitcher, but he did not achieve his success alone. His team supported his talent and enabled him to experience his great success.

The authors conclude that achievement comes more readily from cooperation than from competition or individual efforts. They suggest that our most gifted and talented students will probably achieve more by learning to cooperate with others.

There are many other reasons, supported by research, to believe that heterogeneous groups benefit the gifted students. The following ideas may establish peace of mind for you and for the parents of your gifted students.

- Teaching a concept to someone else engages more higher level thinking and in-depth understanding than simply studying for a test.
- Teaching someone else requires flexibility of communication skills. Like teachers, students can learn to apply various modes of communication in order to reach others with diverse learning styles.
- All students have talents. While some may be talented academically, others are talented in sports, music, drama, and art. Trading talents and teaching one another expands the experiences and abilities of all students.
- Teaching one another encourages individual responsibility and development of leadership skills.
- Social awareness and empathy grow when students help one another. In some cases, separating academically gifted students from their classmates has resulted in academic snobbery and lack of “real world” understanding.

- Checking the accuracy of others tends to increase achievement.
- As long as the academically gifted students live on planet earth, they need socialization skills. Even the most isolated professions require some interaction with others.
- Gifted students hold the potential to become powerful future leaders. It is particularly critical for leaders to experience compassion and responsibility for all human beings, not just those with superior intelligence and ability.
- Even the most cooperative classroom will include some competition and some individual learning.
- One of the new movements in education, Accelerated Instruction, suggests that gifted learners benefit from being in heterogeneous groups approximately 95% of the time and in homogeneous groups approximately 5% of the time. In heterogeneous groups, gifted students develop social skills, and in homogeneous groups they work on advanced academic challenges.

You can alleviate parental fears of boredom and lowered grades by assuring the gifted students and their parents that students will not always work in cooperative groups. You can guarantee them that their grades will not be lowered by the poor performance of others.

“At Risk” Students

With the high percentage of students dropping out of school, the population that is considered “at risk” is an important concern in education. At a time when there are fewer unskilled jobs due to technology, we have increasing numbers of under educated young people looking for employment. The end result is often homelessness.

Cooperative learning can help students who are in the “at risk” population to learn more easily and, thus, stay in school longer. A few of the reasons students are unsuccessful in academics and tend to leave school include:

- Feeling unsuccessful and hopeless in school destroys motivation.
- A discrepancy in teaching and learning styles, often seen in the “at risk” population, makes learning more difficult if not impossible for them.
- Lack of family/community support creates the feeling that no one cares.
- Large class sizes lead to isolation and a belief that no one notices or cares.
- Failure in reading/writing contributes to problems in all content areas.
- Gangs promise to fill the “no one cares” void.
- Substance abuse offers a “cure” for the pain of failure, isolation, and hopelessness.

Cooperative learning, which is by no means a magic cure, offers possibilities for encouragement to this discouraged population. Perhaps the key is to begin cooperative learning in kindergarten

and first grade before resistance is so strongly entrenched, and to continue encouraging individuals to cooperate throughout life. As you begin cooperative learning in your classroom, consider the following ideas:

- By working in supportive groups, students who would give up if working alone receive the academic assistance they need. Dr. Madeline Hunter, a leader in education, suggests that the student who is motivated is the one who experiences some success and is motivated to succeed again. On the other hand, failure breeds more failure.
- Cooperative groups offer a place where each student is known and accepted. Working in small groups reduces the isolation and feeling that “no one cares.”
- Base groups encourage students to attend regularly and to stay in school. The group also encourages timely completion of assignments and homework.
- Research indicates that most of the students who are “at risk” are kinesthetic learners. They do not learn easily from lecture formats or from individual research and study. Cooperative learning offers hands-on, interactive learning opportunities.
- Students who are poor readers/writers can be matched with those who can assist them in gaining information and in expressing their ideas on paper.
- Many students do not know that their behaviors are socially unacceptable. Through the emphasis on social skills, students have an opportunity to observe appropriate models and to practice new ways of behaving with others.

- A successful group can fill some of the individual need for belonging, a need too often satisfied by joining a gang.
- As group members become responsible for one another and solve nonacademic issues together, they have opportunities to think of ways (other than substance abuse) to handle stress and pain.
- Celebrating successes encourages school attendance. Learning should be celebrated!
- Responsibility to the group gives a reason to do well and to be in school. Students must see a personal benefit from being in school.

Gains and Growth for All Students

Although students may be more resistant to cooperative learning in the upper grades, students of all ages and grades benefit from learning collaborative skills. Some of the skills learned in cooperative learning include the following:

- Controversy and conflict, managed constructively, engage students in self doubt which encourages an active search for additional information. This search leads students to greater mastery of material.
- Cooperation generally reduces anxiety which directly affects psychological and physiological health.
- Critical thinking is promoted through discussion among students, emphasis on problem solving, and verbalization.
- Research indicates that motivation increases when

students discuss ideas and work together.

- Social support encourages management of stress on frustrating tasks. The importance of academic achievement must always be balanced with feelings of security.
- Self-esteem is developed more readily through cooperation than through individual or competitive learning experiences.

Cooperative Learning Groups

There are three types of cooperative learning groups: informal groups, which last a short amount of time and are spontaneously formed; formal groups, which work together on a specific project; and base groups, in which students assume additional responsibility for one another and stay together for a long period of time.

Groups should usually be heterogeneous in areas of ability, gender, ethnicity, and task motivation. It is your responsibility to determine whether or not group combinations need to be well thought out or whether you can spontaneously group students. The type of work and the length of the time together determine how seriously you need to consider the grouping possibilities. The longer students will work together, the more carefully you should consider group combinations.

Informal Groups

Informal cooperative learning groups are temporary, ad hoc groups that last for part of a lesson. Informal groups offer meaningful ways to focus students before learning (what they already know about the subject) and to develop closure at the end

(what they learned). Between the introduction and close of a lesson, informal groups increase interaction and process what they are learning.

Informal groups are made up of two-to-six students. Groups are arranged quickly and ended quickly. When creating informal groups, it is easiest to group two or three students who sit close to one another. Other ways to spontaneously create informal groups include the following examples:

- Count off. If you have 24 students and you want 3 in each group, count off by the number of groups you will have (eight) and combine all the ones, twos and threes.
- Match states and capitals.
- List geographical areas and ask students to choose the areas they want to visit.
- Match characters from the same piece of literature.
- Match math facts such as $2 + 3 = \underline{\quad}$ to be matched with $4 + 1 = \underline{\quad}$.
- Count off with animal names such as lions, tigers, elephants, monkeys, and zebras (include as many names of you need groups).
- Ask students to list a favorite sport (or music group) and have them find others who like the same sport or group.
- Ask different students to hum various tunes and locate others humming the same melodies.

Formal Groups

Formal groups are made up of two-to-six members who stay together long enough to complete a group goal or project. Once the goal is reached or the project is completed, the group relationship ends. Formal groups may last one class period or up to several weeks. Formal groups have two responsibilities: to maximize their own learning and to maximize the learning of all other group members.

It is your job to form heterogeneous groups. It is also your responsibility to ensure individual accountability (everyone doing a fair share of the work and learning the material) and interdependency (everyone working toward a common goal or cause).

When a group does not work well together, that group will need extra guidance from you. First ask the group to seek a solution by themselves. If the group is unable to resolve the conflict, you will join them for additional problem solving. It is also possible to ask the entire class to help a group find ways to work successfully together. Remind the students that:

- Very few people get to work with best friends.
- One very important social skill is to work efficiently and courteously with individuals who are difficult.

One elementary teacher informed her problem group that they had to continue to stay together until they learned to work cooperatively. When new groups were formed, the problem group remained together. Ultimately, although the group members did not like one another, they learned to work with one another.

When creating formal groups that will be together for a longer period of time, arrange groups carefully and avoid putting all your problems together. However, you will also inform students

that by the time the year is over, every student will have an opportunity to work with every other person in the class. Some suggestions for setting up formal groups include the following:

- One common method is to match highest scores with lowest until all are in pairs.
- Match the highest students with half the students in the middle range and the lowest students with the remaining middle half. Thus, groups with differing ability levels are formed, but the diversity within groups is reduced.
- Form groups of three by combining weak, average, and strong students.
- Divide students into categories of high, middle, and low social ability. Triads can be formed with one student from each category.
- Ask students to list three classmates with whom they would like to work. Those students who are not chosen by anyone are the “isolates.” Isolates can then be paired or grouped with students who are supportive. (This method can also apply to forming base groups.)

Base Groups

Base groups are long term groups made up of two-to-four students who get to know one another well over an extended time period. Base group partners take responsibility for one another and encourage one another.

You should assign base groups very carefully with consideration of individual needs as well as ease of communication. Avoid matching best friends and/or worst enemies. Determine which students are unwanted by their peers and match them with base partners who are compassionate, patient, and ready for an

emotional stretch. Responsibilities of base groups include the following:

- Give academic support such as helping one another with assignments and test preparation. Base partners study together, exchange notes and information, and share information covered in class if a partner is absent.
- Encourage one another with routine tasks such as getting to class on time and attending daily. Group members can also check completion of homework and encourage one another to get homework in on time.
- Take a personal interest in one another by listening and offering suggestions for nonacademic problems.
- Congratulate one another and celebrate successes.

In order for base groups to work effectively, you must create a classroom atmosphere of trust and acceptance. Trust-building exercises increase the potential for success. (See *Team and Trust Building* in Chapter 3.) Also, if you are involved in a base group with other teachers, your own experiences of joy and frustration will improve your ability to guide your students. (Can you expect students to accomplish a task you are not willing to do?) Base groups work best if participants commit to all of the following suggestions:

- Make long term commitments (possibly for the entire semester, year, or years).
- Exchange phone numbers, schedules, and times to meet.
- Meet regularly. Groups can meet a few minutes daily, or possibly meet each Monday and Friday.

Group Sizes

In cooperative learning, group sizes vary from two to six. Each size has its own advantages. In general, smaller groups are easier for students because more interaction is possible and less social skill is required. Small groups need less time than larger ones and can work more quickly.

In larger groups, there are more people to generate ideas. There will be fewer group reports to make to the whole class and strategies, such as *Jigsaw*, work well. All groups must sit close to one another (eye-to-eye and knee-to-knee).

- Pairs are easiest to form and require interaction. It is impossible to hide when only two students work together.
- Threes interact three ways and tend to bring issues to the surface. A pair will agree but the third partner may question the agreement by saying, “Yes, but...”
- In groups of four, it is easy to form two pairs for strategies such as *Think Pair Square*.

2

Elements of Cooperative Learning

Positive Interdependence

In order for group activities to be cooperative, students must be convinced that they need one another in order to reach mutually beneficial goals. An attitude of relying on one another helps promote the willingness to work together. Your job is to promote this feeling of responsibility to the group and to help students understand the benefits of team work. The following list gives some examples of activities you can use to establish a mutual goal and create a team attitude.

- Each group member has the responsibility to learn and to ensure that all other group members learn.
- A single product or answer, which all members sign, is created by each group.
- All members of a group must agree upon and be able to explain or justify an answer or explanation.
- A symbol, song, or cheer is created by each group.
- Materials for each group must be shared among group members.
- Each member of the group learns or is responsible for one part of a project or lesson. Parts are combined to create the whole. This is sometimes referred to as a factory line model in which each individual brings one section to the whole project to complete the effort.
- The grade of each individual group member is connected to the grades of everyone in the group. To prevent penalizing the stronger students, offer bonus points. No grade is lowered, and there is the opportunity to earn extra points if everyone succeeds. For example, if everyone in the group earns 90% or better, each group member receives three bonus points.
- Use fantasy such as, *Imagine that you are in a crisis situation*, or *You are detectives, trying to solve a mystery*.
- Use mutual celebration and recognition when a group works well together.
- Nonacademic rewards such as free time, homework excuses, extra recess, library passes, stickers, and stars can be used to reinforce team cooperation.
- Praise students for team work and responsibility.
- The frequency of group meetings and the durability of groups encourages group members to work cooperatively because they must face one another repeatedly and regularly.
- Give each group member a specific role or job to do such as materials manager, noise monitor, or time keeper. When a student takes responsibility for an assigned task, the student contributes to the group (positive interdependence). The student also moves into the area of individual accountability.

Individual Accountability

When you are using cooperative learning, one of your most difficult responsibilities is making certain each individual contributes to the group and that each individual learns the desired objectives. To allow one member of the group to have a “free ride” is to encourage the “rider” to loaf and the other group members to enable. This situation results in group work but not cooperative learning.

How can you make certain that every member of the group does a fair share of the work and masters the content? How can you make certain each individual is accountable both to the group and to self achievement? A few ways to encourage individual accountability include the following:

- Make certain everyone has a job to do by assigning separate roles such as:
 - reader;
 - recorder;
 - presenter or reporter;
 - noise monitor;
 - checker (for understanding and agreement);
 - explainer (to explain your directions to the group);
 - material manager (to pick up supplies);
 - encourager;
 - scout (another name for material manager);
 - time keeper.

- Ask group members to sign or initialize individual parts of a project.
- Ask group members to write individual contributions in different colors.
- Give individual tests or grades (with or without bonus points).
- Randomly select different members to explain what was learned.
- Ask group members to edit one another’s work.
- Ask group members to teach what was learned to someone else.
- Ask group members to use what they have learned on a different task.
- Randomly pick one paper or test to check.
- Keep the groups small (it’s harder to hide).
- Assign a checker to each group who asks questions to assess individual understanding.
- Carefully observe and monitor each group to record the frequency of individual participation.
- Frequently use observation forms that invite students to evaluate how cooperative the group members are. (See sample forms at the end of this chapter.)
- Give frequent feedback to groups and to individual group members and teach them to give feedback to one another.
- Solve problems with groups when cooperative behavior

is not exhibited.

- Teach students to use problem solving techniques and to be solution oriented as they face their own challenges.

Group Processing

Group processing is the element of cooperative learning that is most often forgotten. Yet, it is only when students are given time to observe their behavior and to solve problems together that they truly learn to work cooperatively.

Group processing is reflecting on individual behaviors that are helpful and those that are detrimental, and determining ways to improve. Group processing requires giving students the time and skills to assess how well their groups are functioning and how well they are using their social skills. You must teach and model how to observe and give feedback and how to set aside time required for reflection and problem solving at the end of each cooperative lesson. Through modeling and discussing, students will learn how to give feedback in ways that are both honest and kind.

There are eight steps to complete the entire group processing procedure.

1. Decide what social and collaborative skills to emphasize such as the ability to:
 - a. contribute ideas;
 - b. describe feelings;
 - c. ask clarifying questions;

- d. support and accept others;
- e. encourage others to contribute;
- f. relieve tension by joking;
- g. give direction to the group;
- h. summarize major points;
- i. stay with the group;
- j. give applause and praise to one another.

2. Create or choose an appropriate form for each observation. (See sample forms at the end of this chapter.) Explain the observation form to the observer and to the students.
3. Systematically observe and use a formal observation sheet to gather data on each group. Observations can be done by the teacher, a visitor, or one student from each group.
4. Report behaviors noted during the observation and give feedback to the group as quickly as possible. When giving feedback, take responsibility by saying, *I noticed...*

First describe behavioral strengths and then ask students to analyze the behaviors which could be improved. As you lead students to think of ways to work together more effectively, avoid all criticism by phrasing comments as suggestions.

5. Guide students to process the feedback. Help them examine how well individuals are cooperating. Also, guide students to determine accountability in terms of punctuality, attendance, and completion of work.

6. Help students set goals for future performance together.
7. Once a week, lead the entire class in evaluating and processing cooperative learning.
8. Celebrate with the groups and with the class.

To help you remember to use group processing, you may want to choose one skill to emphasize daily and to use as your topic for group processing. The following ideas are examples of ways to plan group processing as you create your lesson plans.

1. Monday, ask students to write three things the group did well.
2. Tuesday, encourage groups to determine ways they improved.
3. Wednesday, ask group members to tell each individual in the group something each student did to help the group.
4. Thursday, instruct students to fill out observation checklists indicating participation.
5. Friday, lead a whole class discussion about how well cooperative learning is working and list ways to improve.

Student Responsibilities

Students can participate in group processing and can be taught to take responsibility for assessing the group's progress. The following are some ways to encourage student group processing:

- Focus on one member of the group at a time and tell that person one thing he/she did that helped.
- Write positive comments to each group member.
- Complete the following phrases either verbally or in writing:
 - *I appreciate it when you...*
 - *I like it when you...*
 - *I admire you when...*
 - *I enjoy it when you...*
 - *You really help the group when you...*
- Write two things (I, you, we) did well and one way to improve.
- Look each group member in the eye when giving feedback.
- Say, *Thank you* or say nothing when receiving feedback. (See *Class Meetings* in Chapter 3.)
- Summarize the group's behavior and progress.
- Set new group goals based on the feedback. Sample goals include:
 - *We could do better by ...*
 - *Next time I plan to...*
 - *Our group goal is to ...*

Classroom Companies

You can establish classroom “companies” for monitoring cooperative learning. Each company is responsible for checking specific behaviors and giving either fines or bonuses. Use play money and hold an auction at the beginning of each month.

- The Security Company is responsible for monitoring whether students raise their hands and follow directions.
- The Safety Company watches for students leaning back in chairs and playing roughly on the playground.
- The Sanitation Company watches for paper on the floor and organization of students’ desks.
- The Cooperation Company determines whether students are asking permission to talk and are working well together.
- The Hallway Company checks for running in the hall and cutting in line.

Personal Growth

Unless students have the opportunity to evaluate themselves, they may never realize that they are engaging in destructive or inappropriate behavior. One definition of insanity is, “Doing the same thing over and over and expecting different results.” Individuals who never reflect on how well their behavior is working seem to repeat the same mistakes. For cooperative learning to work, students need to think about and discuss their behavior and participate in problem solving.

When a group is not functioning well or when an individual

in a group is not contributing adequately, it is very difficult for students to discuss the issues. It is much easier for students to grumble in private and refuse to process honestly with the group. When you hear grumbling or tattling, you know you have an opportunity to teach students the difference between confronting and attacking.

Attacks are aimed at the personality and the character of the individual. Attacks hurt. Confrontations describe behavior that is occurring and share how the behavior feels to other group members. Learning to confront (i.e., share) with honesty and kindness helps develop personal integrity and strengthens interpersonal skills. Some of the ways students grow through processing honestly include the following ideas:

- Personal benefits come from self examination.
- Problems (either personal or group) which are examined are less likely to recur.
- Honest sharing through group processing promotes interpersonal skills.
- Processing shifts the attention of the group from a focus on the task to the relationships of students.

Celebrations

When a group is working well, you can reinforce positive behavior by acknowledging the group’s successes and celebrating. Being recognized is far more important to most students than a grade or reward. Establish both small group and whole class celebrations in order to continue positive behaviors. Positive behavior that is ignored or taken for granted tends to fade away.

Make certain that celebrations are truly earned and that students choose ways to celebrate in advance.

Problems

Although group processing is a very important element in cooperative learning, there are many obstacles which must be overcome.

<u>Processing Problems</u>	<u>Possible Solution</u>
There is not enough time in the day for processing	Do a quick assessment such as thumbs up/down. Process now and finish work later.
Processing is vague; meaningless such as, <i>You did OK.</i>	Give groups specific questions and require specific responses such as, <i>It would help us if you would bring your own supplies to the group.</i>
Students stay uninvolved in the process and do not share.	Ask for a written report from each student. Give the uninvolved student a job such as being a recorder during group processing time.

Social Skills

It is an unfortunate reality that many students do not have appropriate social and interpersonal skills. The good news is that students can and will learn more socially acceptable behaviors. In order for cooperative learning to work, you need to teach appropriate interpersonal and social skills to students. Interpersonal and group social skills can be

developed with the following activities:

- Write the name of the skill to be learned and practiced on a T chart. (See *Develop a T Chart With the Students* later in this chapter.)
- Hold class meetings to problem solve. (See the description of a class meeting in Chapter 3.)
- Choose a skill to emphasize during each group process.
- Give group bonus points for demonstrating or using the targeted skill.
- Encourage students to depend on other group members instead of you by using a *Two Before Me* system i.e., students ask two students for help before they interrupt you.
- Give students play money which must be paid to the teacher if the group cannot resolve an issue.
- Develop leadership skills:
 - get the group started and organized;
 - give directions;
 - get the group back on task;
 - generate additional answers;
 - summarize.
- Teach skills for forming groups:
 - move quietly and quickly;

- stay with the group;
- use quiet voices;
- use names, eye contact;
- accept all members of the group.
- Teach group functioning skills:
 - share ideas;
 - ask for facts;
 - encourage everyone to participate;
 - ask for help;
 - express support;
 - explain;
 - describe feelings;
 - check for understanding;
 - criticize ideas/not people;
 - form a group position;
 - extend answers;
 - probe for understanding;
 - take turns.

Cooperation in the Classroom suggests the following acronym, LEARN:

Listen
Encourage
Ask for help
Remain on task
No free rides

Responding to Signals

Cooperative learning, because of the increased noise level in the classroom, requires even more respect for listening to your directions than in a traditional setting. Before beginning each cooperative learning lesson, emphasize the collaborative skill of responding to signals. It is sometimes very helpful to have an auditory signal that will be heard above the cooperative learning conversations. Once students are listening, lower your voice to a soft volume. This is called *pace and lead*; you pace or match the volume of the classroom and then lead the students to a softer tone.

Let students participate in determining the signal or signals to be used when you want attention. Use a variety of signals such as the following suggestions:

- soft bell;
- helium balloon;
- quiet hat to wear;
- traffic light (red, amber, green);
- stop sign;

- hand signals (traffic cop signal);
- V for victory signal;
- *If you can hear me clap once.*
- *If you can hear me touch your nose.*
- play music;
- strum a guitar;
- clap two times; students respond with three claps.

Get Attention with All Modalities

Some students are so dependent on their preferred learning style that they tend to disregard instructions in other modalities. For example, a visual student may not process *listen* or *sit still* but will tune in to, *look at page 66*. The following are examples of signals for each of the major modalities:

Kinesthetic *Return to your desks.*

Visual *Look at the overhead.*

Auditory *Listen to directions.*

Adding hand gestures and written instructions to each of the verbal suggestions strengthens the message for students who are visual or kinesthetic.

Use a Noise Monitor

Create a round surface that displays numbers from 1 to 5 and an arrow that can be rotated to the appropriate noise indicator. Connect each number with one noise level.

- 1 = be totally quiet, give total attention
- 2 = talk softly
- 3 = use class discussion voices
- 4 = relax with voices for playing a game in the room
- 5 = use outside voices

You can ask students, *Is the room at the appropriate volume?* Commercial noise monitors can be purchased at Radio Shack.

Develop a T Chart With the Students

A Looks Like/Sounds Like Chart can be permanently displayed on a bulletin board or can be hastily drawn on the chalkboard. Each time a new social skill is introduced, use the chart to guide students to a concrete understanding of the desired behavior.

<u>Looks Like</u>	<u>Sounds Like</u>
	<ul style="list-style-type: none"> • Present one social skill to the class at a time such as taking turns. Examples of skills include: <ul style="list-style-type: none"> - listening; - being courteous; - taking responsibility for self; - taking turns talking;

- moving quietly into groups;
- being friendly to new students.
- Ask students to name how the appropriate social behavior looks. For example, *What does it look like to take turns?* List ideas under "Looks Like." If students have difficulty understanding, ask, *If a deaf person came in our room and we were taking turns, what would the deaf person see?*
- Ask students to describe how taking turns sounds. List ideas under "Sounds Like." Once again, ask students, *If a blind person came in while we were taking turns in groups, what would the blind person hear?*
- Role play and rehearse the behavior. Before presenting the idea to the class, discuss and rehearse the skill with problem students privately. (See *Teaching a New Behavior*, below.)
- Continue reviewing and rehearsing one skill at a time until the class demonstrates understanding by using it.
- Use the Looks Like/Sounds Like chart to teach all new social skills.

Procedures for Teaching a New Behavior

Before presenting a new behavior to the whole class, rehearse the new behavior with your difficult students privately. Be sure to explain and model the behavior.

1. Privately and individually, ask each problem student for assistance in teaching the class. Explain, model, and rehearse the social skill with each problem student.

2. Explain, model, and rehearse the new behavior with the whole class.
3. Role play both positive and negative behaviors using the problem students to assist you.
4. Rehearse the positive behavior in groups before beginning the lesson.
5. Observe students for the desired behavior.
 - a. Acknowledge the desired behavior by noting students who are practicing the new skill, rather than drawing attention to the ones who are not.
 - b. You can offer non-academic bonus points for compliance until the skill is understood and used.

Teaching Students to Resolve Conflicts

In order for students to succeed, not only at school but also in work and personal relationships, they need to be able to resolve conflicts in constructive ways. As a teacher, you will encourage students to:

- Communicate what they feel and want (expressive language).
- Listen to the feelings and desires of others (receptive language).
- Trust others and be trustworthy.
- Remain courteous even when engaged in controversies.
- Resolve conflicts in ways that are beneficial to everyone involved.

Dispute Resolution Model

The following dispute resolution model is one which you may want to teach students to use. Initially, you will need to be a mediator. If you take time early in the year to guide students in conflict resolution, students will be able to apply the principles of the model later in the school year without your assistance.

Explain to the students in conflict that each one will have an opportunity to talk and to be heard. Guide the students, as they take turns talking and listening.

1. Tell the first student, *State what you want, how you feel, and why you feel the way you do.*
 - a. *I want the book.*
 - b. *I feel frustrated and panicky about time.*
 - c. *I need the book to finish my assignment before 3:00 so I can go to football practice.*
2. The person involved in the conflict restates what was heard in order to make certain that the communication was received accurately.
 - a. *You want the book now.*
 - b. *You're frustrated because you're running out of time.*
 - c. *You want to get the work done now so you can to go practice.*
3. The first person either confirms or clarifies the communication.
4. Roles are reversed and the same sequence takes place.

5. Ask students if they are willing to find a solution to the conflict.
6. Three possible solutions are suggested by the students involved in the conflict.
7. Students decide which is the best solution for both of them.
8. Students shake hands to confirm their mutual agreement.
9. Congratulate the students on their “win-win” solution.

Stages of Learning Collaborative Skills

According to Edythe Johnson Holubec, there are four stages that students go through as they learn new collaborative skills. Recognizing the stages of skill development will help you continue when students become resistant.

1. In the beginning, students are interested in the novelty of the idea and will comply with what you instruct them to do and say.
2. As you continue to stress social skills, students begin to feel “phony,” and resistance sets in.
3. Continued encouragement from you will bring the students to a mechanical acceptance and use of the new skills.
4. With continued use, the skills become natural and students begin to use the social, collaborative skills with sincerity.

Addressing the Resistant Student

There will always be a few students who do not participate in a cooperative learning group. These are usually the students who do not work well in any learning situation. However, some students prefer to work alone.

Generally, you should respect the learning styles of students and respect the student's wishes. On the other hand, you may ask the student to spend some time in a cooperative group in order to learn the important skills of working together. You may tell the student that cooperation is a skill employers look for when hiring new workers. Encourage the resistant student with any or all of the following suggestions:

- Use a variety of strategies. As beneficial as cooperative learning is, you will want to use other approaches also.
- Sometimes, allow the student to choose whether or not to work with the group.
- Assign the student a favorite job or responsibility that highlights strengths the student brings to the group.
- Let the student know that his skills and input are needed by the group.
- Attach value to group work. Socially, it is important to know how to work with different people; even those we don't particularly enjoy.
- Group members do not have to like one another but they have to work together until they can collaborate peacefully. This is an important life skill.
- In the real world of work, very few people get to work with their best friends.
- Hold individual conferences with the student to let the

student know you hear and accept all feelings.

- Use an imaginary coat rack outside the door on which to hang egos or negative attitudes.
- Ask the student to run the negative tapes (inside his/her head) and then erase them.
- Ask the group to problem solve with the student.
- Select a student representative to listen to the complaints of other students and communicate the problems to you.

3

Team and Trust Building

Before you promote positive interdependence, individual accountability, social skills, and group processing, you want to develop an atmosphere of trust in your classroom. Undoubtedly, you are the most critical factor in this development. Your attitude, consistency, and advocacy of students create a feeling of trust.

With your attitude and demonstration of trust as the foundation, there are strategies and activities that assist students of all ages in learning to become trusting and supportive team members.

Each of the following activities can be used for grades K - 12. Modify these activities to fit the needs and interests of your students.

Three Step Interview

Three Step Interview is a good way for students to get to know one another prior to working in groups. Because each student tries to discover two things that no one knows about a new partner, you can use the activity at any time of the year.

1. Ask students to find someone they do not know or do not know well.
2. The interview question is, *Tell me two things no one in the room knows about you.*
3. The tallest person will be A and A will interview B.
4. Pairs trade interview roles and B interviews A.

5. At the signal, each pair joins another pair.
6. The tallest person in the group of four introduces his/her partner by saying, *I'd like for you to meet _____. Something you don't know about my partner is _____.*

Shared Drawing

Two of the initial collaborative skills students need in order to succeed in cooperative learning are sharing responsibilities and accepting one another. Preparation toward these skills will help make your first cooperative lessons go more smoothly. *Shared Drawing* is designed to demonstrate these collaborative skills in a way that is fun and nonthreatening. The activity, which will not be graded in any way, makes it easier for students to share and accept one another than if they begin with an academic lesson. All ages, even adults, enjoy this activity.

1. Divide students into pairs and give each pair one piece of paper and a different colored marker for each partner.
2. Read a poem or short story such as Shel Silverstein's poem, *Bear In There*. Ask students to listen carefully so they will be able to recall as many details as possible.
3. After listening to the poem, partner A begins drawing what he/she can recall from the poem.
 - a. Student A draws in one color only.
 - b. Student B watches and encourages student A.
 - c. You will time student A for one-to-two minutes.

4. At your signal, student B takes over and adds to the drawing student A began.
 - a. Student B draws in a different color.
 - b. Student A is allowed only to encourage student B and may not criticize the additions.
5. Continue to time students and ask partners to take turns adding to the drawing. Each partner continues to draw in his/her own color.

Blind Trust Walk

Put students in pairs before walking to lunch or special areas. Ask one student to walk with eyes closed or covered and the other to serve as a guide. It is the guide's responsibility to make certain the blind partner arrives safely and with as little insecurity as possible. On the return walk to the classroom, reverse roles.

Discuss feelings and reactions with the students after returning to the classroom. Lead students to realize the importance of trust while working in cooperative learning groups.

Stay on the Log

To demonstrate the positive interdependence necessary for team building, tell students that each group of approximately five students must cross an imaginary river by walking across a narrow log. If anyone in the group falls off the log, the whole team must jump in to save the group member. Winning teams are those who get all group members across the river safely.

1. Create a space for the imaginary river and lay a strip of paper across the space to represent a log. The log should be approximately six-to-eight inches wide and long enough for five students to stand on shoulder-to-shoulder.
2. Ask the first group to stand on the log in any order.
3. After the students are on the log, instruct them to rearrange themselves in a certain sequence. You may want to use different instructions for different groups. Some ways for students to rearrange themselves include lining up according to:
 - a. birth months;
 - b. height (not by weight);
 - c. the proximity of each student's home to school;
 - d. size of family.
4. In order for students to move around on the log, it is necessary for them to:
 - a. communicate;
 - b. develop a plan;
 - c. assist one another.
5. To change the level of difficulty, make the log wider or more narrow.

Group Identification

The more quickly students develop a feeling of “our group” the easier it will be to elicit positive interdependence. This positive identity encourages the “all for one and one for all” attitude needed for cooperative learning.

- Groups can design a group symbol, banner, or coat of arms.
- Groups can write mottoes, songs, cheers, and chants .
- Some groups may even create a group communication made up of a “new” language and/or nonverbal group signals.

Secret Pals

To increase friendship in the classroom, consider creating secret pals.

1. Have a class meeting on Monday for students to draw names of secret pals. (See *Class Meetings* below.)
2. Brainstorm with the students to create a list of appropriate things that can be done for a secret pal. Examples include:
 - a. leaving kind notes in the pal's envelope;
 - b. greeting the pal every morning;
 - c. sharing something with the pal;
 - d. leaving a treat for the pal;
 - e. working together on a project;

f. making a point to smile at the pal each day;

g. eating lunch with the secret pal.

3. After brainstorming, ask each student to write five things he/she is willing to do. (Kindergarten and first graders may draw pictures or dictate ideas to you.)
4. As students do thoughtful things each day, they put a check beside the idea that was used. Checking off ideas helps prevent forgetting the secret pal.
5. During the class meeting on Friday, students guess who their secret pals were.

Class Meetings

Class meetings provide a way to invite students to communicate with one another in positive ways and to problem solve. As with cooperative learning, there are tricks to making the process work effectively.

Each class meeting includes giving compliments to one another, solving problems, and planning events. One class meeting each day is ideal. At a minimum, you should hold three meetings a week. Remember the following important points.

- Trust and communication grow when students meet regularly.
- When students have to wait too long to discuss items they have written on the agenda, they get discouraged and disinterested.
- When conducting a class meeting, you should not

lecture or control the meeting.

Location

It is important to sit in a circle for class meetings. You may want students to sit on the floor or move their desks/chairs into a circle.

- If you want students to move chairs and/or desks, take time to train them so there will be as little noise and confusion as possible.
- It may be necessary to practice moving into a circle for several days.
- After students are experienced at moving quietly, use a timer to speed up the process.
- Do not allow students to bring "things" such as pencils, erasers, or paper clips to the class meeting.

Structure

In order to avoid confusion and even anarchy during class meetings, one authority suggests implementing a structure.

- Go around the circle twice calling on everyone who wants to share.
- Begin and end at the same place in the circle each time to avoid accusations of unfairness.
- As you go around the circle, you may want to ask students to pass a beanbag instead of raising hands. Only the person who has the beanbag may speak.

Format

In addition to structure, use a set format for class meetings.

1. Begin each class meeting with compliments. (See giving and receiving compliments below.)
2. After compliments, refer to items written on the agenda. (See the agenda below.)
3. Following problem solving with items on the agenda, ask the class to think of one fun event for the class to do.
4. Students usually do not want a class meeting to be over. In order to end each class meeting easily, you may want to schedule it just before lunch or recess.

NonVerbal Communication

Some teachers encourage students to use nonverbal hand signals to communicate feelings during class meetings.

- Agreement can be expressed by making a fist and raising it up and down.
- Disagreement can be indicated by moving both hands back and forth across the desk or lap.
- When the class has a serious problem that involves strong emotions, use a cooling-off time before holding the meeting.
- Older students may need as much time as three days to cool off (but no longer). Elementary students may need only one day. Kindergarten students may need only one hour.

- Explain to students that people do not solve problems effectively when they are upset, angry, or frightened. The purpose of waiting is for students to calm down so problems can be discussed rationally.

Giving Compliments

Giving and receiving compliments are skills you will teach students. In the beginning, giving and receiving compliments may seem unnatural to students.

- Students hear many more negative comments than positive ones. One study indicates a ratio of 500 negatives for every 16 positives.
- Teach students to be specific. Compliments are given for: accomplishments, helpfulness, and sharing.
- Teach students to avoid shallow and superficial compliments such as, *I like your shirt*.
- During the first meeting, ask each student to give one compliment to be certain each one knows how to do it.

Receiving Compliments

As you are teaching students how to give compliments, you will also teach them to say *thank you* after receiving a compliment.

- Receiving compliments is uncomfortable for most of us.
- A healthy way to respond to a compliment is to look the sender in the eye and say, *Thank you*.
- Unhealthy ways to respond to compliments include

acting silly, denying the compliment, or boasting.

Logical and Natural Consequences

Another skill students learn in a class meeting is the use of logical consequences vs. punishment.

1. Teach logical/natural consequences, by asking students what happens in each of the following situations.
 - a. If you stand in the rain – you get wet.
 - b. If you stay up late watching TV – you are sleepy the next day.
 - c. If you don't eat breakfast – you get hungry before lunch.
2. Extend students' thinking into classroom experiences by brainstorming and discussing logical consequences for the following situations.
 - a. If you write on a school wall – ?
 - b. If you don't finish your work – ?
 - c. If you hit others – ?
 - d. If you interrupt the teacher – ?

Creating the Agenda

Another important aspect of class meetings includes the "agenda." The agenda is a list of topics to be discussed during class meetings.

- A designated section of the chalkboard may be reserved for creating an agenda.
 - A clipboard with notebook paper and a pen is another way to offer students the opportunity to write problems they wish to discuss.
 - Students who want to suggest ideas will write their names and brief descriptions of the problems they want to discuss.
 - If students delay the beginning of class to write agenda items, indicate more appropriate times to post ideas.
 - Sometimes a solution is agreed upon which does not really work well in actual practice. When this happens, put the issue back on the agenda for more discussion and problem solving.
 - If you put issues on the agenda, take ownership of your feelings and desires by stating, *I feel...*
2. Ask the person who wrote the issue to suggest a solution.
 3. Ask the group if the suggestion is acceptable to the class. If the majority vote agrees with the suggestion, go to the next item.
 4. If the writer of the item has no solution, or if the suggestion is not acceptable to the class, go around the circle two times asking for suggestions.
 5. Write every suggestion exactly as it is given.
 6. Read all suggestions to the class.
 7. Ask for a vote on the suggestions. Students may vote only one time.
 9. When the vote is finished, ask the student or students for whom the solution was suggested when the solution will be carried out. Offer choices such as:

- a. today or tomorrow;
- b. during free time or after school;
- c. alone or with help;
- d. in the classroom or on the playground.

Using the Agenda

The following are some suggested ways to handle items written on the agenda.

1. Determine who wrote the first item and ask if it is still a problem.
 - a. In many cases, problems written on the agenda will no longer be important. When this happens, go to the next item.
 - b. If the item on the agenda is still a problem for the student who wrote it, ask the student to explain the issue.

Class Rules

Class rules are much more likely to be observed and respected if students participate in writing them. Following a class meeting, post the class rules under the heading:

We Decided...

Sample Class Rules

Keep the rules broad enough so that many specific behaviors are included. For example, being respectful includes listening, taking turns, participating, and smiling at one another. One class rule may be enough to cover all bases.

Examples of showing a lack of respect would be shouting out answers, pushing in line, making rude remarks, and smirking.

The problem with a specific rule, such as always raising hands, is that often you want students to be spontaneous. Sometimes you want them to ask partners for help. Especially in cooperative learning, there are many times when you want students to participate without raising their hands.

Keep class rules simple and reduce the number to no more than five at a time. Always involve the students when creating class rules. You and your students may want to consider some of the following examples.

- Follow directions.
- Be courteous to yourself and all others.
- Respect your own property and the property of others.
- Listen when others are speaking.
- Be ready to learn!
- Give 100% (to whatever you are doing, thinking, playing, etc.).
- Use courtesy at all times.
- Do your best. Keep on trying.

- Support one another in all ways.
- Treat others the way you want to be treated.

4

Building Self-Esteem

Encouragement Feast

An *Encouragement Feast* can be used in a class meeting or any time you feel that students in your classroom need positive reinforcement and encouragement. Used regularly, students will develop better feelings about themselves and one another.

1. One student at a time is "It." All others take turns saying, *One thing I like about you is...*
2. After everyone gives one compliment to "It" another student becomes the focus of encouragement.
3. Continue until everyone has been "It."
4. If time is an issue, you may want to divide into smaller groups or choose a different student to be "It" each day.

Hold an *Encouragement Feast* at least once a week. If problems arise in the classroom, take a break from academics and have a meeting to handle the needs of the students.

Circle Talk

On days when the energy level seems to be low in your classroom, stop and have a circle talk to allow students to describe what they are feeling/thinking.

- Ask students to sit in a circle to talk about, *What's up for you?*
- Without becoming so personal that your problems are a burden for your students, model ways to share what is 'really up' for you.
 - When you and the students share things that are real, individuals become vulnerable.
 - You and your students can risk being vulnerable if you have established an environment of trust in your classroom.
- Ways to model being vulnerable while remaining professional include the following examples:
 - *I feel anxious about teaching new materials.*
 - *When you talk during my lesson, I feel hurt.*
 - *I'm excited and happy about ..."*

Know your students well before using *Circle Talk*. Precede this activity with background in *Looks Like/Sounds Like* and *Encouragement Feasts*.

Envelopes

Combine *Envelopes* with art and encourage an informal writing activity as you build friendship and self-esteem.

1. Ask students to decorate the flap side of envelopes with their names and tack the envelopes to a bulletin board.
2. When the teacher or other students want to acknowledge a student, they will write a note and mail it

in the person's envelope.

3. Make certain all students receive some encouraging mail in their envelopes.
 - a. Write acknowledgments to each student in your class.
 - b. Encourage students to write to a different student each day.

Self-Esteem Boxes

Unlike *Envelopes*, which depends on others to give positive messages, *Self-Esteem Boxes* are designed to promote self appreciation. The goal is to guide students to fill their own inner needs for approval and recognition.

1. Use the analogy of a treasure box to explain the value of building self-esteem.
 - a. Students put only positive messages in their treasure boxes.
 - b. Negative self-talk is not allowed.
2. Students write things they treasure about themselves on small pieces of paper.
 - a. Students can add to their treasure boxes when they think of something new that they treasure about themselves.
 - b. Students can also add to their boxes when someone else gives them a compliment.

3. On days when students are not feeling positive about themselves, they can read the remarks in their treasure boxes.
4. Students are the keepers of their individual treasure boxes.

Love Bags/Care-About-Me Bags

Love Bags encourage students to be responsible for knowing what helps them feel better and for asking for what they want. How much misery could be spared if teachers and students had permission to ask for what they want! Instead, most individuals expect others to read their minds and are resentful and surprised when their needs remain unmet.

1. On small pieces of paper or index cards, ask students to write ways others can help them feel loved or cared about. Kindergartners and first graders may need to draw pictures. Offer many examples to help students think of appropriate ideas such as:
 - a. Eat lunch with me.
 - b. Help me with my homework.
 - c. Rub my neck for a few minutes.
2. Offer examples that would not be appropriate.
 - a. Give money to me.
 - b. Do my spelling test for me.
 - c. Make my dad be nicer.

3. Ask each student to write ten ideas and put them in individual bags.
4. When feeling discouraged, a student may ask anyone in the class to pull an idea out of the student's *Love Bag* and meet the chosen request.

If you teach secondary students, you may want to screen requests before using the bags in class.

No Put-Down Zone (NPDZ)

Even students with strong feelings of self worth sometimes feel fragile. What a wonderful gift to say to students, *You are safe in this classroom. When you need a little special consideration, you can signal the rest of the class. If we understand how you feel, we will be especially thoughtful to help you feel safe and respected.*

- When students feel safe, they learn more easily.
- Safety in the classroom means students are not going to be embarrassed or put down in any way.
- An NPDZ sign can be posted in a section of the classroom. When a student feels threatened by the teacher or by other students, the student can move to the NPDZ area.
 - One alternative is to give each student an NPDZ sign to keep in his/her desk.
 - A student who needs to feel more secure or who needs special consideration or kindness, places the NPDZ sign on his/her desk.

- A student who forgets and puts someone down will be encouraged to compensate with one of the following actions:
 - Respond to two requests from the offended student's love bag.
 - Write, *Three things I like about ___ are...*
 - Become a NPDZ monitor.
 - Behave in a way that will 'make up' for the hurt.

Insisting that a student apologize or give compliments teaches insincerity. It is preferable to offer choices of ways for making amends.

100% Bulletin Board

Teachers often display students' work. Usually, we choose the very best art work, math paper, or written assignment. The bulletin board is often full of work with excellent grades. However, sometimes a student makes a very good grade on an assignment that was really easy for that student. On the other hand, a paper with a 'C' may represent tremendous effort on the part of the student.

Perhaps, rather than stressing the best grades, we should stress the best efforts made by students. Perhaps we should also let the students make the choice.

To reinforce intrinsic (internal) motivation, ask each student to display the work that represents the best effort. *I gave 100%!*

Referral for Student Recognition

Being sent to the principal or school counselor signifies trouble for most students and teachers. Try a new concept for office referrals. Surprise everyone! Send students for recognition instead of for punishment. (See a sample referral form at the end of this chapter.)

- Use a referral form to send a student to the office for recognition.
- Make advance arrangements with the principal. Appropriate acknowledgments include:
 - a note to the student from the principal;
 - a note to the student's parents or grandparents;
 - mention of the student during announcements;
 - an article in the school paper;
 - displaying the student's picture on a bulletin board;
 - a school certificate;
 - lunch with the teacher/principal/best friend.

5

Assessing Cooperative Learning

Most students prefer cooperative learning over lecture because it offers variety and social interaction. Teachers usually realize that students spend more time on task when involved in cooperative learning than with either individual or competitive learning.

However, unless you can document the effectiveness of cooperative learning in terms of reaching instructional objectives, you will be vulnerable to those parents and administrators who are critical of doing things a new way.

The purpose of this chapter is to look at ways to assess the effectiveness of cooperative learning in your classroom.

Observations and Feedback

As students work in cooperative learning groups, you will systematically gather information by observing the quality of their work together. You may keep a tally of points for specific behavior, use anecdotal records, create checklists or use rating scales. After students are comfortable working together, you may ask one student in each group to observe group members and give feedback. As you give feedback to students, you are modeling in preparation for the times when students will give feedback to one another. Some guidelines to remember include:

- Model ways to give feedback without attacking.

- Take responsibility for feedback by saying, *I noticed...*
- Describe specific behaviors instead of personalities. For example, say, *While watching your group, I noticed several people who left the group.*
- Begin with positive feedback.
- Make one or two suggestions for the group to consider.

Academic Interviews

Another way to assess the quality of the cooperative group experience is to interview each group separately concerning the academic content being covered. The interview process consists of four basic steps, as follows.

1. Begin by asking a question of one member of the group.
2. Ask each of the other group members to add to or extend the answer.
3. Ask each group member one specific question and give others an opportunity to extend each answer.
4. Continue the process until all questions are answered, or until you are confident that each member of the group understands the skill or lesson being taught.

Interviews to Assess Collaboration

It isn't enough for students to learn the academic content. You also want to assure yourself that students are learning appropriate collaborative and social skills and that they are truly learning to solve problems. Time devoted to interviewing each group will be well spent in terms of assessment of collaborative growth. When assessing group collaboration, you should:

1. Choose one social/collaborative skill (such as encouraging one another).
2. Ask one member of the group to describe how well the group is using the skill.
3. Ask each of the other group members to either extend or disagree with the response.
4. Ask each group member one specific question and give others an opportunity to extend each answer.
5. Continue until you are confident that the group is sharing honestly.
6. Lead the group to set new goals and to problem solve.

If Cooperative Learning Isn't Working

“Anything worth doing is worth doing poorly.” At least at first, be willing to make mistakes and to allow students to be less than perfect. After all, you probably make a few mistakes when teaching in conventional ways and, chances are, your students are less than perfect no matter what teaching approach you use.

However, if you find cooperative learning very difficult and challenges continue, ask yourself the following questions:

- Are my groups too large? (Smaller is easier.)
- Are students really close together (eye-to-eye and knee-to-knee)?
- Have I modeled and have we practiced the desired social/collaborative behaviors?
- Have I used a T chart to explain desired behaviors?
- Have I kept cooperative tasks short and easy (5 to 20 minutes)?
- Have I monitored and worked with groups that are experiencing difficulty?
- Am I teaching students to problem solve?
- Have I given groups specific feedback?

6

Grading Academic Work Cooperatively

Another assessment question involves cooperative learning and grading. How can you grade cooperatively and not penalize your gifted students? How can you assign a group grade and not inflate the assessment of a student who is academically weak? This chapter presents several strategies to ensure fair, accurate individual grades.

Developing Rubrics

As you move from individual and competitive instruction into applied learning through cooperative projects, you need a new way to evaluate students' work. When the tasks of groups cannot be graded with traditional, paper-pencil tests, develop a list of expectations. Along with the stated expectations, you need a way of describing both the quality and quantity of the desired behaviors. This list, known as a rubric, becomes the criteria for giving feedback to students and for grading subjective assignments.

Webster says a rubric is, *something under which a thing is classed, an authoritative rule, a rule for conduct*. In other words, a rubric is a statement of the expected behaviors or outcomes and what the rules will be for determining qualities of excellence. (Sample rubrics are included at the end of this chapter.)

Role plays, projects, speeches, experiments, and creative efforts

are examples of activities that are difficult, if not impossible, to grade traditionally. These lend themselves to rubrics.

- One example of a project which is appropriate to grade with a rubric is a *Reader's Theater*. A *Reader's Theater* is a dramatization written from a regular story. The story line and vocabulary remain the same but the words of the characters are rewritten in the form of a play. Background information is read by a narrator.
 - A sample rubric at the end of this chapter indicates that the criteria for assessing a Reader's Theater include: use of eye contact, voice clarity, voice volume, quality of reading, quality of acting, and whether acting is convincing.
 - Each item is assessed using a 0 - 10 rating scale with indicators of *usually*, *often*, or *never* as guides.
- Rubrics can be developed to determine social grades for collaboration within groups. Taking turns, participating, asking clarifying questions, and sharing are examples of social behaviors that can be rated or assessed on a behavioral rubric.
 - Samples of rubrics to assess collaborative skills are also found at the end of this chapter. One rubric is designed for a self-assessment. The second is to be used to assess the group's skill at cooperation.
 - Items assessed on the two sample rubrics include, organization of the project, how well group members are working together, how wisely group members are using their time, whether group members are using six-inch voices, creativity of the project, and whether all group members are making fair and equal contributions.
 - On the two sample rubrics for assessing

collaborative behavior, each item to be considered is followed by a rating scale ranging from one to four.

- During work on a group project, each member of the group and the teacher fill out the rubric for group behavior on a regular basis.
- Occasionally, each group member applies a self evaluation rubric.
- All rubrics are used as feedback to the group.

Collaborative Grading of Academics

When students become comfortable and trusting of one another and group processing is both honest and considerate, you may want to begin using cooperative grading over academic tests and assignments. There are many ways to grade collaboratively without penalizing the better students or inflating the grades of less capable students.

- Give quizzes with individual grades plus bonus points. If everyone in the group achieves minimal competency (i.e., 70% mastery) add two or three points to each person's grade.
- Give a cooperative learning grade based on social behavior (5% of the total grade) and add it to the individual academic grade (95% of the total grade).
 - Involve the class in developing a rubric (list of criteria) naming the desired social behaviors and indicating how they will be rated.
 - Make certain all students are aware of the behaviors that are included in the social behavior grade.

- Give nonacademic group points toward a group treat or group celebration. For example, 550 points earn a celebration determined at an earlier time.
 - Include the class in determining what the reward or celebration will be.
 - It may be helpful to offer a list of suggested rewards or ways to celebrate and ask the class to choose from ideas that are acceptable to you.
- Combine individual grades and a group average.
 - Grade each member's work individually.
 - Determine a group average.
 - Average each individual's grade with the group average.
- Combine individual grades with group collaboration.
 - Give each student two copies of the test.
 - Using one copy, each student takes the test individually and independently.
 - After everyone has finished, the group collaborates and compares answers.
 - Any changes are made on the second copy of the test.
 - Each student staples his copy of the group collaboration test to the copy he did independently.
 - Grade each individual test. Grade each test again using the changes on the collaboration copy.

- Average the results of the individual test and the collaborative test together for the final grade.
- Taking the lowest grade in the group, give individual grades plus bonus points ranging in value.

70 - 75	=	1 point
76 - 80	=	2 points
81 - 85	=	3 points
86 - 90	=	4 points
91 - 95	=	5 points
96 - 100	=	6 points

 - Using the scale above, if the lowest grade in the group is 83, every member of the group receives three bonus points.
 - If the lowest grade in the group is below 70, no one gets bonus points. If group members complain, remind them that no one lost points.
 - It is possible for students to receive over 100 points on the test.
- When a group works together on a project such as a report, presentation, essay, or model, a group grade can be given for the single product.
 - Create a rubric that indicates what items or performances will be assessed on the project and the quality expected for different grades.
 - When giving the same grade to everyone in the group for a joint project, it is very important to create a rubric to assess equal distribution of the work, sharing, and participation.

- Ask individual students to frequently evaluate their own participation and to share personal self-assessments. Group members can then give one another feedback on the accuracy of each self-assessment. (See a sample self-assessment rubric at the end of this chapter.)
- Group members can apply a rubric to evaluate the participation and collaboration of the entire group. All group members will share their assessments and give feedback to one another. (See a sample group-assessment rubric at the end of this chapter.)
- You can also use the group rubric to assess distribution of work and to give feedback to each group.
- Ask students in the group to problem solve with one another and with you to make certain everyone earns the group grade.
- If you and the group determine that the work load is not being fairly handled, problem solve with the group to determine a fair way to grade the project.
- It is easier to monitor how well group members are distributing the work load during the activity than to try to determine and justify a fair grade after the group project has ended.

When to Use a Different Criteria

You may want to develop a different criteria for certain individuals in the group. Students for whom a different standard of success may be appropriate include those with: limited intelligence, serious learning disabilities, language dominance

problems, poor vision/hearing, severe emotional problems, or serious health conditions. Consider the following important issues as you plan your group assessment:

- It benefits the student with problems to be in a heterogeneous cooperative learning group.
- Working with a disadvantaged group member creates a valuable learning experience for all group members.
- Although one of the goals of cooperative learning is for students to help one another, it is not reasonable for students to become totally responsible for a group member with severe learning problems.
- You need to assist groups as they work with their disadvantaged group member. One way to assist them is to create an individual criteria when appropriate.
- It is important for the disadvantaged student to experience some success. For the student who is trying and is unable to be successful, an “A” might be measured by a lesser amount or a lowered quality of work.
- To maintain group morale and support, it is also important to modify a situation that seems impossible to them.

Alternative Assessment

Using cooperative learning in your classroom offers an opportunity to add new assessments to your old practices. Concepts such as portfolio assessment, authentic assessment, outcome-based evaluation, and performance-based assessment fit well with cooperative learning. All of these terms fall under the

category of alternative assessment.

Although you will not discard paper-pencil tests, you will be expected to implement other measures, as well. This section offers a brief description of some alternative ways to document the effectiveness of your classroom.

Assessment generally refers to collecting information with which to judge how well a program or teaching approach is working. Assessment does not necessarily require a grade. Evaluation refers to judging the value of achievement and generally includes a grade or rank. It is possible to assess without grading, but it is impossible to evaluate and grade without assessing.

Since some students get tense about being graded, you may want to clarify when you are simply assessing (and asking students to assess) how well cooperative learning is working. As a rule of thumb, assess constantly; evaluate (grade) infrequently. In determining ways to assess learning in your classrooms, consider some of the following terms and definitions.

- Total quality management is a concept developed by W. Edward Demming. TQM is a model which focuses on improving the process rather than the outcome. The goal is to inspect and improve the process until all problems are removed and a perfect “product” is achieved every time.
 - Teachers and students are assigned to teams (faculty cooperative learning teams).
 - Team members determine the process of the learning experience and establish a guide for quality assessment.
- Performance-based assessment expects students to actively demonstrate what they have learned through a procedure or skill. For example, in writing class, students write instead of taking a test on punctuation

and grammar.

- Examples of types of tasks that fit with performance assessment include compositions, video projects, science experiments, debates, role plays, and surveys.
- To assess the task, you need a rubric for evaluating the desired performance.
- The criteria in the rubric must be clearly explained to students prior to the performance.
- Authentic assessment includes performance but must be demonstrated in real life or in a real life simulation.
 - Just as you need a rubric with criteria for evaluating performance tasks, you need one for judging the quality of authentic learning.
 - Students must understand in advance what the criteria assessment will be.
- One other term that is being used in connection with alternative assessment is outcome-based assessment. Generally, this term refers to determining what students should be expected to do (i.e., perform) at the end of their public school experience.
 - Traditionally, objectives are established for each grade level, and students are taught with these objectives in mind.
 - In outcome-based assessment, educators look at the final outcomes and design the curriculum and the objectives to assure final mastery.

Portfolios

Portfolios are becoming increasingly important in education. A portfolio is a collection of work over a period of time that demonstrates both the progress of learning and what the student has mastered.

- A Portfolio can be a sturdy, colored folder dedicated to samples of a student's work in specific content areas. A Portfolio can look like a photograph album with a combination of pictures and written assignments collected over a period of time. File boxes or accordion folders can also be used as portfolios.
- Begin the process by creating collection folders for the accumulation of work. Collection folders can be created by allowing students to decorate manila folders.
 - Each student's collection folder is stored in a hanging file attached to the door of the classroom, or in a metal or cardboard file container.
 - Daily work which has the potential for portfolio inclusion goes into each student's collection folder.
 - Skill pages and objective work that you plan to send home weekly are not included in the collection folder.
 - At the end of a grading period, each student chooses one or two samples from each subject in the collection folder to include in a *show-piece folder/portfolio* that goes home.
 - Parents keep the contents of the *show-piece portfolio* and return it empty for the next grading period.
- You may want to use traditional paper-pencil tests and assignments for solid grades and reserve projects and demonstrations for portfolios.

- Use assignments that can be objectively evaluated to determine your actual grades. Send these papers home weekly.
- Use alternative measures to demonstrate the changes students are making as they learn and include these items in portfolios.
- Folders of group members can be filed together and handled by the group's materials manager.
 - Group projects that are in the process of being cooperatively produced can be stored in separate cooperative learning collection folders until projects are completed.
 - It may be necessary to make copies of the completed projects for group members' individual portfolios.

Students, with guidance from you, determine what items go into their *show-piece portfolios*. One of the major advantages of using portfolios is that when students examine, review and consider the value of the work they have done, the assessment itself contributes to their learning.

7

Cooperative Learning Strategies

The following ideas contain “scripts” or specific steps to use in cooperative learning. In some cases, positive interdependence and individual accountability are built into the process. In others, you will need to determine ways to ensure that all the elements of cooperative learning occur. After becoming familiar with the strategies, create adaptations and combinations that fit the needs of your students.

Beside the title of a few strategies, you will find suggestions for appropriate grade levels. If no grade is indicated, the strategy can be used, with adaptations, at all levels. The maturity of your students may be different from the norm. Use your judgment about each idea. (See sample lesson plans at the end of this chapter.)

Quick and Easy Ways to Start

When you first begin to use cooperative learning, you will be wise to be gentle on yourself and your students. Consider each challenge as a learning opportunity. Some general suggestions include:

- Keep groups small (two or three).
- Choose members of each group carefully.
- Build enthusiasm for working together by selling students on the idea.
- Do one cooperative activity each day.

- Keep the activity short in the beginning (five to ten minutes).
- Determine (with students) the appropriate behavior for working with others.
- Model and practice appropriate behaviors.
- Avoid group projects; keep each task simple.
- Avoid group grades until cooperation is well established and students are working well together.
- Make do-able changes, small steps, at first.
- Anticipate difficult students and deal with resistance as soon as it appears. (See the section on the resistant student in Chapter 2.)
- Give clear, simple instructions verbally and in writing.
- Be a risk taker.
- Be willing to learn from mistakes. Cooperative learning, like any new task, becomes easier with practice, practice, practice.
- Monitor groups and give feedback and guidance constantly.

The following ideas are *Quick and Easy* to use when cooperative learning is new. When you are comfortable with these ideas, add more complicated strategies. Begin slowly, develop the social/collaborative skills, and be patient with yourself and your students. Following are some quick and easy activities.

- Close a lesson by asking students to *turn to your neighbor* and explain an idea you have just taught, explain the assignment, or summarize the lesson.

- It is easy to form reading groups with a reader, a recorder, and a checker.
- Before showing a video or movie, form groups of three. Ask groups to determine what they already know about the subject and to develop questions about what they want to learn. (See *K-W-L* in this chapter.)
- Use pairs to drill one another before a test.
- *Buddy Reading* works well in the primary grades. Buddies take turns reading aloud to one another. Remember, you will have pairs mumbling all around the room.
- Ask students to compare homework results. If answers differ, students explain their processes and decide which answers are correct.
- Some students benefit from having writing buddies with whom to exchange ideas. In some cases, a student with dysgraphia (handwriting disability) may discuss ideas with a partner who writes the ideas on paper.
- In groups of three, students go to the board and work math problems together. One student predicts the correct way to work the problem. The checker makes certain everyone agrees, and the writer records the problem.
- When working in groups of three at a computer, one student is the keyboard operator, another is the reader, and a third checks for understanding. Each day the roles are rotated.
- Pairs can complete worksheets together. One person reads the first item on the worksheet and suggests an answer. When both agree on the answer, the writer

writes the answer. Partners then reverse roles.

Paired Reading (Grades 2 - 12)

Paired Reading is a sophisticated form of *Buddy Reading* and is appropriate for older elementary and secondary students. Benefits include increased practice with the text, peer interaction with ideas, and peer support in reading. *Paired Reading* is a cooperative learning strategy.

1. Pair students and model appropriate seating (eye-to-eye and knee-to-knee) and volume. Rehearse with one pair before beginning the strategy with the entire class.
2. Within pairs, both partners read silently for approximately ten lines.
3. Partners stop and ask one another whether they have read anything of importance.
4. When both partners agree that material is important, one or both jot down significant ideas to share with the whole class.
5. After discussing and/or writing, pairs continue to read silently for another ten lines.

Think-Pair-Square

If you ever ask your class a question and notice that the same few students raise their hands while the others appear disinterested, you will enjoy *Think-Pair-Square*. Once students talk to one another about your question, hands begin to go up and participation increases. This strategy encourages

communication, thinking, and participation.

1. Form pairs to begin the strategy.
2. Offer a choice of appropriate questions to the students. For example, *What should responsible government teach its citizens?* or, *How can we govern our classroom fairly?*
3. After choosing a question, students think silently about possible answers for approximately 20 seconds before sharing in pairs.
4. Each partner shares.
5. At a signal, each pair joins another pair and the four form a square to share responses.

The strategy can be changed to *Think/Pair/Share* by asking pairs to share with the entire class.

Free Recall Strategy

This strategy, sometimes called *Guided Reading Procedure*, is helpful for content area reading. The major value of *Free Recall* is in the organization and manipulation of ideas following recall. For the student who is a tactile or kinesthetic learner, physical movement of ideas aids in the recall process.

1. To set a purpose for reading, ask the students to read or listen in order to recall everything they can.
2. The teacher and/or students read a short section of the story or chapter.
3. The teacher writes all ideas on the chalkboard,

overhead, or sentence strips. Do not be concerned with sequence or organization at this time.

4. After all ideas have been written down, guide the students as they organize the ideas into proper sequence or into categories.
5. Students read the passage silently to confirm their ideas and to add to or alter the organization.
6. Continue the process over the next section. If the passage or chapter is long, alternate with other reading strategies.

Cooperative Learning Approach

1. After modeling the strategy several times with the whole class, assign responsibility for the steps to cooperative learning groups.
2. Direct the steps and allow the writing and organizing of ideas to be done by students in their cooperative learning groups.
3. Ideas within the cooperative learning groups can be written on strips of paper or on index cards.

Directed Reading Thinking Activity

The value of *Directed Reading Thinking Activity (DRTA)* is in making predictions before reading each section. Requiring students to make predictions encourages the use of context clues and establishes a purpose for reading. You can increase the power of this strategy by guiding students as they check the accuracy of their predictions after the reading.

1. Begin by asking for predictions about the first section of the story or chapter based on the title, pictures, and opening paragraph. Confirming the predictions becomes the purpose for reading. Suggestions from *Thinking in Context* by Hyde and Bizar include:
 - a. *Today, I am looking for good thinkers, not right answers.*
 - b. *Think like detectives and look for clues from the story to predict what will happen next.*
 - c. *Be prepared to support your predictions with evidence from the story.*
2. Students make predictions about the first section before reading. Make certain their predictions are based on information or clues from the story. Do not accept wild, “off-the-wall” guesses.
 - a. Ask students to place a “stop” card at the place you want them to stop.
 - b. Those who get to the “stop” card early may reread the section.
 - c. Students may also write a prediction about the next section on the “stop card” while waiting for the others to finish.

3. Students read each short passage to *prove* whether or not their predictions were correct.
4. Establish a connection between the predictions and the actual events in the selection. *Was your prediction correct? If so, how do you know? If not, why? Was any part correct?*
 - a. Occasionally, ask a student to read aloud the section that proves the prediction was correct.
 - b. Make certain students know it is acceptable to make a wrong prediction, as long as the prediction was based on context or picture clues.

Cooperative Learning Approach

1. After modeling the strategy for the whole class, create cooperative learning groups that work together to make group predictions, read, and check the accuracy of their predictions.
 - a. Small groups using *DRTA* write predictions on individual pieces of paper or index cards.
 - b. Different groups share their predictions before reading.
2. Read within small groups, using the most appropriate oral reading strategies.
3. After reading, the whole class discusses and evaluates the results of the predictions.

K-W-L Strategy

K-W-L is excellent for content reading. This strategy can be used for individual, small group and whole class instruction. It is easier to learn new material if students first access their schema (what they already know) and set purposes for learning (what they want to gain). (Refer to the *K-W-L* Frame on the next page.) *K-W-L* uses three major concepts:

1. **K-What You Know**
 - a. Brainstorm with students to create a list of what they already know about the subject.
 - b. Write all ideas on the board, leaving room to write questions and new information.
2. **W-What You Want to Learn**
 - a. Guide the students to determine purposes for reading. The goal is to connect new information with existing knowledge.
 - b. Ask, *What do you not know or fully understand about the subject?*
 - c. Write questions generated by the students on the board next to their original ideas. If possible, use a different color chalk.
3. **L-What You Have Learned**
 - a. Instruct students to read a passage to find answers to their questions.
 - b. Write new information on the board next to each question. Again, use a new chalk color if possible.

- c. Guide students to compare old information with new insights.

Cooperative Learning with K-W-L

1. *K-W-L* works beautifully with a mixture of direct teaching and cooperative learning.
 - a. Direct the students to state what they already know as you write ideas on the board, overhead, or chart.
 - b. Write ideas from the whole class about what they want to know about the subject.
 - c. The class reads in cooperative groups.
 - d. Assign one question from *What do you want to learn?* to each small group.
 - e. Small groups work together to determine whether the questions were answered and what was learned.
 - f. Small groups report conclusions about what they learned to the whole class.
2. Another alternative is to direct cooperative learning groups to work together on all three steps.
3. If you are fortunate enough to have computers in your room, assign one cooperative learning group to each computer and let the groups do each of the three steps in a different font.

Round Table (Grades 3 - 12)

The purpose of *Round Table* is to identify problems to be discussed at a later time. Problems which are of interest to students will be used in *Send a Problem* (see below).

1. Form groups of three or four.
2. Gather one marker and one piece of chart paper for each group.
3. Give students topic choices that are appropriate for the grade level.
4. The class chooses a topic to explore and groups begin to think of problems related to the topic.
5. Each group member writes one problem related to the topic.
 - a. The person holding the chart paper is #1 and begins the process by writing one problem.
 - b. Each student reads his/her problem to the group (in case other group members cannot read the student's writing).
 - c. In a clockwise direction, the chart paper and marker are passed to the next group member.
 - d. Each individual reads previous responses silently, writes a new problem, and reads it aloud to the group.
6. Allow groups to add problems until everyone has had an opportunity to write at least one.

Send a Problem (Grades 3 - 12)

The purpose of *Send a Problem* is to think of solutions to the problems generated in *Round Table*.

1. Display charts or pieces of chart paper (from *Round Table*) around the room.
2. Groups read their problems to the class.
3. If various groups write the same problem, cross out all but one example.
4. After all problems are read and duplicates are eliminated, ask each group to come to consensus about which problem it wants to explore in depth.
 - a. As each group decides on a problem, cross the problem off the chart.
 - b. Once a problem has been chosen, other groups must choose different problems.
5. Using manila folders, write one problem on the outside of each folder. Each folder will contain as many pieces of paper as there are groups.
6. Give each group the folder with the problem it chose. It is now the job of the group members to seek solutions to their problem.
 - a. Group members brainstorm and write solutions on the first piece of paper inside the folder.
 - b. For this activity, one group member will be the recorder and write all ideas from the group's brainstorming activity.

7. At a signal, each group places the piece of paper with its solutions at the back of the folder and passes the folder to the group on the right.
8. Each group now holds a new folder with a new problem.
 - a. A different student acts as recorder as the group brainstorms solutions to the new problem.
 - b. At the signal, each group places ideas at the back of the folder and passes the folder again.
9. After each group has written solutions for each problem, the folders are returned to their original groups.
 - a. Original groups read all previous solutions.
 - b. Groups choose the best two solutions.
 - c. Best solutions are shared with the whole class.

Jigsaw Strategy (Grades 2 - 12)

The *Jigsaw Strategy* is a cooperative learning activity in which students become responsible for reading, understanding, and teaching sections of material to other students.

The benefits of the *Jigsaw Strategy* include: giving students the opportunity to interact meaningfully with reading material and giving students responsibility for teaching the ideas to other members of the class. Individual accountability is high for this cooperative learning strategy. Use the following steps to implement the *Jigsaw Strategy*.

1. Arrange the room to allow for easy interaction by students.
2. Organize groups of three.
 - a. Do not allow students to organize their own groups.
 - b. Organize heterogeneous groups with mixtures of ability levels.
3. Within groups of three, assign three short sections to be read. Refer to the reading sections as A, B, and C.
 - a. Ask all the A's to meet together in one part of the room, all the B's in another, and C's in a third area.
 - b. Within the new A, B, C groups, ask students to get in pairs and use *Paired Reading*. (Refer to *Paired Reading* at the beginning of this chapter.)
 - c. Each person must read, discuss and master the content of the text well enough to return and teach the section to the original group.
4. After reading and mastering the material, students join their original groups to teach their respective A, B, or C reading sections.
 - a. All the A's must teach the original group members about the section assigned to the A group.
 - b. Other group members must teach sections assigned to them.
5. The teacher tests the class to determine if every group member adequately taught his/her assigned section.

Academic Controversy (Grades 3 - 12)

In *Academic Controversy*, students are expected to: read, discuss, think critically, communicate with others, and arrive at consensus. This strategy offers an opportunity for students to practice criticizing ideas without criticizing individuals.

1. Using a controversial issue that is of interest to students, locate or develop reading material showing both sides of the issue.
2. Arrange students in groups of four.
3. Within each group of four, determine partners who will read and discuss one side of the issue.
 - a. One pair in each group will read, discuss, and prepare a presentation for the positive side of the issue.
 - b. The other pair will read, discuss, and prepare a presentation for the negative side.
4. When each pair is ready, it presents its point of view to the opposing pair.
 - a. While one pair is presenting its side, the listening pair may take notes and ask questions.
 - b. The listening pair does not argue or contradict what is being said.
 - c. When one pair is finished presenting its point of view, the other side presents its opposing view. Again, there is no argument or discussion.
5. Both sides switch roles. The pair that presented the positive aspects of the issue will now present the

negative side. The pair that was against the issue must now prepare a presentation indicating the positive side.

- a. As roles are reversed, the pairs rely on notes taken as they listened to the other side of the issue.
 - b. Both pairs must present the opposing side of the controversy as convincingly as they did their original positions.
6. After hearing and presenting both sides of the controversy, the two pairs must evaluate all points and arrive at consensus.
 7. Final agreements from each group of four are shared with the whole class.

Best Choice Answer (Grades 2 - 12)

When answering questions in small groups, many students are content to allow one student to do most of the thinking. When this happens, the first answer suggested is accepted and little in-depth thinking occurs. The value of *Best Choice Answer* is that the strategy requires each small group to think of three possible, logical answers to each question. Critical thinking is thus encouraged and participation by all group members is strengthened.

1. The teacher selects a short story or reading passage and prepares several questions which are open to different interpretations and responses.
2. Form groups of three. Each student in the group is assigned a distinct job.
 - a. One student is the reader.

- b. Another student is the recorder.
 - c. The third student is called the prompter and has the job of making certain all members can tell *why* an answer is considered the best.
3. The reader in each small group reads the text as the others listen and follow along.
 4. The reader shares the questions with the group.
 5. Each group member must contribute a possible answer to each question.
 6. The recorder writes three responses to each question (one response from each group member).
 7. After thinking of three answers for each question, the group evaluates and chooses the best response for each question.
 8. Members of the group must agree unanimously on the best answer and must be able to tell why it is the best based on evidence in the selection.
 9. The prompter makes certain each of the three group members can tell why the final choice for each question was made.
 - a. Best answers chosen by each group are shared with the whole class.
 - b. Select students at random to explain why their group's choices were the ones they considered the best.

Cash in a Chip

One suggestion for encouraging students to take turns talking is to give each member of the group five chips, tokens, or coins. Each time a group member makes a contribution, he/she must cash in a chip. When a student's chips are gone, that student must remain silent until all other individuals have spoken and made contributions. When all group members have played all five of their chips, they take their chips back and begin again.

The value of this idea is in helping students become aware of those who talk all the time and those who never say anything. This strategy works well when the social skills being taught are taking turns, contributing ideas, or using good listening skills.

Cooperative Learning Lectures

Teaching by lecture is a result of John Locke's belief that the untrained mind is like a blank sheet of paper waiting to be filled and formed. Many teachers continue to use the lecture format for the following reasons:

- Lecturing is a way to communicate large amounts of information to many students in a short period of time.
- Material can be presented that is not available to students in other ways.
- Lecturing may save time for students who would have to secure many resources to obtain the information.
- The interest of students may be aroused, particularly if the lecture is delivered by someone who is honored and respected.
- Lecturing is appropriate for auditory learners.

Research indicates that lecturing compares poorly with group discussion as a learning model. Most students have difficulty attending for longer than five to ten minutes. Even students who start with enthusiasm and interest tend to become confused and bored. Note taking decreases as the lecture continues, and students who are not auditory learners do not receive much benefit.

Although many advocates of cooperative learning shun the lecture format, there are ways to make lectures meaningful and beneficial to all students. The principle involves breaking the lecture into short sections and giving students an opportunity to interact with one another concerning the information. The same principle applies to the use of movies, videos, and computer programs. To use lecture effectively, remember the following strategies:

1. Prepare students for the lecture (video, etc.) by using advance organizing of the topic.
 - a. Working in pairs, students discuss what they already know.
 - b. Pairs also establish expectations about what the presentation will cover.
2. Deliver the first section of the presentation. Most adults can concentrate for approximately 10 to 15 minutes. For younger students and those with short attention spans, delivering five minute lectures is better.
3. Stop and ask student pairs to become involved with the information in one of several ways.
 - a. Students can discuss material in pairs and then as a whole class.
 - b. Students can write brief, individual summaries and compare with their partners.

- c. Young students can draw pictures showing what they recall.
3. Deliver the second part of the lecture.
4. Stop and give students another opportunity to interact with the information. Another option for paired interaction includes:
 - a. asking students a discussion question;
 - b. expecting each student to think of an individual answer;
 - c. giving pairs time to share their responses and compare them;
 - d. asking pairs to develop a new answer that is better than the two individual ones;
 - e. calling on pairs randomly to share their answers.
4. Continue to alternate lecture and interaction until the end of the presentation.
5. Ask students to spend approximately five minutes discussing a summary question at the end of the presentation.

Discovery Strategy

One of the best ways to motivate students is to ask them to hypothesize and then carry out scientific experiments to test their beliefs, as follows:

1. After posing a question and forming a class hypothesis, divide students into pairs and give them the needed materials to carry out an experiment.
 - a. Student pairs collect data concerning the experiment.
 - b. Students compare the new information with their original hypothesis.
 - c. Each pair shares results of the experiment with the class.
2. Extend learning by asking students to name the factors that made a difference in the experiment. Pairs then repeat the experiment in ways that test which of the factors made a difference.

Cooperative Note Taking

Notes taken during a lecture, film, or video presentation are very important in understanding the ideas being presented. Using the notes for review additionally benefits long term retention of what is learned. Students with incomplete notes benefit from cooperative note taking.

1. Two students agree to take notes for the purpose of learning new material. Younger students draw pictures in place of written notes.
2. During a break, each partner summarizes his or her notes to the other, who adds to or corrects the information.
3. Students ask one another questions such as, *What do you have so far? What are the three main points?*

4. Research indicates that joint sharing results in rehearsing the material and processing information, which leads to better recall.

Read and Explain Pairs

Partners work together to read and explain information to one another. Material read and shared is easier to understand and recall than material read individually. The goal is for both students in the pair to become experts on the reading material and to formulate a single summary.

In order to adapt the strategy for kindergarten and first grade, read to them and ask them to summarize in pairs.

1. Both students read or listen silently for one paragraph or one page, depending on the length of the pages and the ages of the students.
2. Each student summarizes what was read to the other partner.
3. Partners must agree on a summary statement about what was read.
4. Move to the next paragraph and repeat the procedure.

Cooperative Research (Grades 2 - 12)

Cooperative Research is a useful strategy for helping students organize cooperative research groups. When teaching a thematic unit, different subjects related to the same topic are assigned to heterogeneous groups. Groups research the topics as follows:

1. Each group examines its assigned subject and divides the material into as many parts as there are group members.
2. Individual group members research mini-topics on the group's subject.
 - a. Each group member researches one small part.
 - b. Individual parts are shared with the group.
 - c. The group synthesizes the mini-topics into a group report or presentation.
3. Each group gives its presentation to the whole class.

2. As each student researches his/her own paper, the student looks for material that will help the partner.
3. Pairs work together to write the first paragraph for each paper.
4. After writing opening paragraphs together, students complete compositions independently.
5. Before turning in the individual compositions, pairs edit both papers together. One way to teach students to edit is to use CUPS:

C = Check each paper for proper **C**apitalization.

U = Check papers for correct language **U**sage.

P = Check for **P**unctuation.

S = Check for accurate **S**pelling.

Cooperative Writing (Grades 3 - 12)

Pairs can be useful for helping one another flush out ideas for written compositions, look for research information, and peer edit.

1. Pairs of students, with one good reader in each pair, are given writing assignments.
 - a. Partner #1 shares ideas for writing.
 - b. Partner #2 takes notes and probes for details and understanding.
 - c. From the notes taken by Partner #2, an outline of Partner #1's ideas is jointly developed.
 - d. Roles are reversed with partner #2 sharing ideas and partner #1 taking notes, questioning, and assisting with outline development.

Co-op Cards

Although it can be used for more difficult concepts, this strategy is designed to help pairs of students master information requiring rote memory.

1. Each student prepares a set of flashcards.
 - a. On the front of each card, the student writes a question or problem.
 - b. On the back of the card, the student writes the answer.
2. Partners trade cards. One student becomes the tutor

and the other is the tutee.

3. The tutor reads and shows the tutee his/her first question and answer.
4. The tutee traces the answer, if needed.
5. The tutor again shows and reads the question (but not the answer) and asks the tutee for the answer.
6. The final time, the tutor asks the question without showing the tutee the card.
 - a. If the tutee answers correctly, s/he gets to keep the card.
 - b. If the tutee answers incorrectly, the tutor keeps the card and continues to prompt the tutee.
7. Roles of tutor and tutee are reversed.

Memory Strategy

Student pairs can be used to assist one another with rote memory. Examples of skills which involve memorization include: addition and subtraction facts, multiplication and division facts, irregular spelling words, vocabulary words and their definitions, and states and capitals. There are three keys that make memory work easier.

1. One is to create an association or memory aid. Associations can be stories, pictures, songs, or movements that are meaningful to the student making the association.
2. The second is to mentally visualize or *see* the fact being

learned and the association.

3. The third key is to stop and review after every three items. Stopping is hard to remember but very important to do. If a student has not mastered the first three associations, adding more information creates confusion.

Using the *Memory Strategy* cooperatively involves the following steps:

1. Guide pairs of students to create flashcards for the facts to be memorized.
2. Student A gives his/her flashcards to student B.
 - a. Together, the students think of a memory aid or association to connect with each card.
 - b. Student B asks student A to *see* the first flashcard and the memory aid.
3. Student B continues to drill student A on two more flashcards. Each time, student A *sees* the card and the memory association.
4. After three flashcards, student B reviews student A. If student A recalls the facts and the associations, student B continues with three more cards.
5. If student A does not recall the first three flash cards, s/he needs more review before adding new information.
6. Partners reverse roles with student A teaching and reviewing student B.

Explaining Homework

Cooperative learning groups can be used to make certain each group member understands the homework assignment.

1. When explaining the homework assignment, add clarity and reinforcement by using cooperative learning groups. Assign roles of: scout, explainer, and accuracy checker.
2. Designate a homework folder for each group.
3. A scout from each group picks up the group's homework folder and hands out materials to group members.
4. After you have given the assignment to the whole class, the explainer in each group reviews and clarifies your directions to the cooperative group.
5. The accuracy checker verifies that the explainer's directions are correct and provides assistance if needed
6. If the explainer and the accuracy checker do not agree, the teacher clarifies the assignment for the group.

Explainers and checkers can be used to clarify directions for class assignments, as well as for homework.

Turning In Homework

One of the biggest problems with assigning homework is getting students not only to do the assigned work but to turn the work in at the right time. Cooperative groups can be used to encourage one another to get homework done and returned:

1. Scouts from each group deliver special pens used only for checking homework in their groups.
2. Groups check homework answers together before turning the homework in to you.
3. To avoid tempting these students without homework or with incomplete homework to copy, ask students to draw a line after their last completed problem before checking answers.
4. In their groups, students take turns explaining parts of their homework and comparing answers.
5. If the students have different answers, they must work together to determine who has the correct answer and why it is correct.
6. Group members are encouraged to make changes using the special pens reserved for making homework corrections.
7. If a group cannot agree on an answer, the group may go to another group for assistance.
8. After each member of the group makes as many changes as desired, the scout puts all homework into the group's folder and turns the folder in to you.

Question and Answer Pairs

Following assigned reading, pairs alternate asking and answering questions. Students who do not read or write will use the strategy orally after listening to you read. When using *Question and Answer Pairs*, students do the following:

1. Pairs read or listen to material. Each partner writes individual questions over major points.
2. One student in each pair asks the other student a question.
3. The second student answers the question and asks the first student to either correct the answer or to elaborate.
4. The second student in each pair asks his or her first question and, after hearing the partner's answer, either makes corrections or elaborates on the response.
5. Roles continue to alternate as the teacher moves from pair to pair to give feedback and ask additional questions.

- lays eggs;
- breathes air;
- covered with scales or a bony plate.
- cape = a piece of land:
 - connected to a mainland;
 - surrounded by water on three sides;
 - wider where it attaches to the mainland than farther out in the water.
- fish = a type of animal:
 - lives in water;
 - breathes through gills;
 - covered with scales;
 - lays eggs.

Concept Strategy (Grades 3 - 12)

Concepts are abstract ideas involving specific characteristics. For example, an island is a piece of land surrounded by water on four sides. Consider some additional examples of concepts.

- peninsula = a piece of land:
 - attached to a mainland;
 - surrounded by water on three sides;
 - more narrow where it attaches to the mainland than farther out in the ocean.
- reptile = an animal:
 - cold blooded;

One way to create interest in concepts is to assign topics to cooperative groups. After explaining and modeling ways to formulate the concept definitions, give cooperative groups an opportunity to create their own definitions and concept charts, which will be used to teach others.

1. Assign a different topic to each group. Each group has a reader, a recorder, a presenter, and a marker (who checks off characteristics for each sample item).
2. Supply each group with appropriate research information, chart paper or large newsprint, and markers.

3. After reading the research on the group's topic, each group creates a definition of the concept which the recorder writes at the top of the chart paper.
4. A chart is developed below the definition.
 - a. The top of the chart lists characteristics related to the concept.
 - b. The left side of the chart lists a minimum of three examples of the concept. Following the examples, the group writes a non-example, which is very similar but lacks at least one of the characteristics. Notice the following sample of a concept chart on peninsulas.

Peninsula

Definition: A peninsula is a piece of land that is: attached to a mainland, surrounded by water on 3 sides, and more narrow where it attaches than farther out in the water.

	Attached to Mainland	Surrounded by Water on 3 Sides	Narrow Where It Attaches
<u>Examples</u>			
<u>Florida</u>			
<u>Italy</u>			
<u>Tip S. America</u>			X
<u>Baja California</u>			
<u>Tip of Africa</u>			X

- c. Florida, Italy, and Baja California have all three of the characteristics needed to be peninsulas.
 - d. The tip of South America and the tip of Africa are both attached to a mainland and both are surrounded by water on three sides. However, they are not more narrow where they attach to the mainland than they are farther out in the water. Therefore, they do not fit the definition or concept of peninsulas.
5. As each group teaches its concept, the presenter reads each sample followed by every characteristic written on the chart.
 - a. If the sample includes a characteristic, the marker in the group puts a check mark under the description of the characteristic.
 - b. If the sample does not include one of the characteristics, the marker puts an X in the space.
6. As each group presents its concept, students fill out individual desk copies of the chart which is being taught. Individual copies of the chart are very important since most students learn more easily by being actively involved.

Problem Solving

One of the major benefits of cooperative learning is problem solving. With guidance from you, students learn to follow a problem solving model that leads to acceptable solutions. By allowing students to solve small problems in the classroom, you are preparing them to solve more significant real-life problems.

Teach problem solving with the following strategies.

1. When problems arise in your classroom, it is your job to articulate the situation to students in a manner that they can understand and discuss.
 - a. A sample problem is, *Some members of cooperative groups are neglecting to complete their share of the work.*
 - b. Another example of a classroom problem is, *How will the class celebrate when 500 bonus points have been earned?*
2. Allow cooperative groups 5 to 15 minutes to brainstorm all possible solutions.
 - a. Brainstorming includes every suggestion without discussion or evaluation.
 - b. Brainstorming does not eliminate any idea and is called “green light thinking.”
 - c. While brainstorming in small groups, each member of the group can write all suggestions or a recorder can write ideas for the group.
3. After ideas have been generated in groups, stop the brainstorming and ask groups to spend approximately 10 to 15 minutes evaluating each idea on the list.
 - a. Students weigh the pros and cons of each idea.
 - b. Teach students to critique each idea without embarrassing any student who made a suggestion.
4. Ask each group to choose their two best ideas to present to the whole class.

5. Write each *best solution* from each group on a chart or on the chalkboard.
6. With the class, develop a criteria for evaluating each idea. Types of criteria include:
 - a. the idea requires little extra time;
 - b. the idea is cost efficient;
 - c. the idea respects school or classroom policies.
7. As each idea is considered, rank the idea from one to ten using each criteria. The idea with the highest total becomes the class solution.

	criteria 1	criteria 2	criteria 3	TOTAL
Idea #1				
Idea #2				
Idea #3				

Four-Step Value Clarification (Grades 6 - 12)

When leading students to clarify their beliefs, you need to emphasize that the values and opinions of all students are to be respected. The purpose of this strategy is to encourage students to think about, not to change, personal values and beliefs. Arriving at consensus is *not* the goal of this lesson.

It is your job to suggest a controversial issue that is of interest to your students. Examples of issues to consider include:

extending the school day or year, using drug dogs in schools, developing new reporting systems, teaching safe sex, handling cheating in school, or including new students. In groups of four, students share each of the steps. They are not to discuss, interrupt, or argue with one another. Each step requires approximately 30 seconds for each student.

1. In the first step, each member of the group expresses a belief or opinion about the issue you have presented.
 - a. Caution students to express beliefs without giving rationales or justifications.
 - b. Starting with the first student in each group, sharing moves in a clockwise direction.
2. In the second step, each student offers a rationale for the opinion expressed in step one.
3. Step three requires each student to think of a criticism someone else might make to the opinion the student expressed in step one.
 - a. Each student thinks of criticisms for his/her own opinion.
 - b. Students do not criticize the opinions of others.
4. In the final step, each student defends the original belief from the criticism suggested in step three.

Estimating Faces

One of the skills students need in math is the ability to estimate. Students who are too young to estimate in inches or centimeters can use paper clips or their own fingers and hands. Use

Estimating Faces as follows:

1. Give each student a large piece of paper and markers or crayons. Later, you will pass out rulers or other measuring devices.
2. Model each step with students and make certain each understands it before moving to the next item to measure.
3. Give each student a mirror and ask each one to write his/her size estimates for each of the following facial features (without actually measuring):
 - a. length of face from the top of the head to the bottom of the chin;
 - b. width of face just above the ears;
 - c. length of forehead from the top of the head to the top of one eye;
 - d. width and length of each eye;
 - e. width and length of the nose;
 - f. distance from the bottom of the nostrils to the top of the mouth;
 - g. width of the mouth (smiling);
 - h. length from the top of the head to the top of one ear.
 - i. length and width of each ear.
4. After completing the estimates, pass out rulers and ask students to draw their own faces according to the estimates they made.

- a. Students may find that their estimates are not too flattering and want to change them.
 - b. Insist that the fun is seeing the faces just as they were estimated. No one can be wrong about an estimate.
 - c. If you grade the activity, compare the drawing against the estimates.
5. When drawings are completed, ask students to work in pairs to help one another measure facial features accurately.
- a. Partners will use the same list for actual measurements that was used for estimating.
 - b. Correct measurements are written next to the estimated ones.

Sequence Strategy

Years ago, a young teacher gave a group of first graders the following directions: *Cut pictures from magazines that begin with the letter 'B.' Paste them on pieces of construction paper. Punch a hole in the top of each picture. Run strings through the holes and tie the pictures to clothes hangers.*

All of the directions were stated at one time and the teacher was frustrated to discover that the children quickly began asking what to do next.

When giving directions for an activity that is to be done in a particular sequence, you save time and energy if you explain, model, and monitor each step before moving to the next, as follows:

1. Explain and demonstrate the first step.
 - a. Students do step one as you monitor. Ask partners to check one another for understanding.
 - b. If there is confusion, stop and reteach the first step before continuing.
2. Explain, model, and monitor each of the steps that follow, clarifying as you go through the sequence.
3. If the sequence is one that students need to learn for themselves (such as the steps of long division), lead them through by asking questions.
 - a. *What do we do first?*
 - b. *What comes next?*
4. Finally, students recall the sequence independently.

Simultaneous Explanation Pairs

Instead of asking the whole class a question and calling on one student to answer, pose your question and wait for every individual to formulate an answer to share. By asking students to share with one another, you increase involvement and reduce passive behavior:

1. After hearing the question, each individual thinks of an answer and explains it to another student.
2. Small groups of students determine a group answer which each individual in the group must explain to a member of another group.

3. Pairs, formed from members of different groups, must agree on a joint answer after listening to one another.

Closing a Lesson Cooperatively

At the end of class, give students four or five minutes to summarize and discuss the information learned. Ask students to list the five most important things learned and to formulate two questions over the lesson.

Asking students to write a one-minute summary at the end of each lesson is another way to close the lesson. Individuals can share summaries with partners and add missing ideas.

Your Ticket Out (Grades 2 - 12)

One way to close a lesson and keep students thinking throughout the class is to tell them that their *ticket* out of class is to create a group list of things they have learned and to write any questions the group may have.

1. The group brainstorms what they have learned together.
2. Each individual in the group must write all ideas learned on a ticket or piece of paper. If a student is dysgraphic and cannot write fast enough to keep up with the group, allow the student to:
 - create a shorter list;
 - copy the list from someone in the group;
 - write only key words instead of sentences;
 - tell what was learned.

3. As students leave or change classes, you collect a ticket from each one.

Numbered Heads

When students are in their groups, establish who will be student number one in each group by asking students to determine who has: the next birthday, the biggest hands, the longest hair, or the most siblings. When student number one is established, students count off in a clock-wise direction.

1. After presenting a question, ask groups to put their heads together and arrive at an answer which all can agree upon.
2. Call out a number and ask all students with that number to raise their hands. In a class of 24 which is divided into groups of four, there will be six of each number.
3. Call on one or two students whose hands are raised. Individual accountability is encouraged since students never know what number you will call.

Review with Pictures

After students have studied a major theme such as community, explorers, plant growth, or fractions, ask each group to work together to draw a symbolic picture indicating what they have learned. For example, a huge machine with many working parts might represent the way a community of workers should coordinate goods and services.

Problems/Solutions to Cooperative Learning

Unfortunately, no matter how well you use any strategy, students will find a way to present challenges. The following ideas have been used successfully by other teachers. Keep experimenting and adapting until you find solutions for your unique group of students.

<u>Problem</u>	<u>Possible Solution</u>
Students argue.	Keep group activities simple and short.
	Praise individuals and groups who are working well together.
	Assign students to groups wisely.
	Assign group roles.
	Assign a group observer who gives feedback.
	Ask the group to problem solve.
	Ask students who are having trouble to suggest ways the group can help.
	Ask other groups to make suggestions.
A student prefers to work alone.	Teach, model, and rehearse each social skill.
	Occasionally, let the student work alone.

Some students can't keep up with the work.

Acknowledge the student's struggle (show understanding).

Offer bonus points.

Give positive reinforcement.

Develop a contract for the student.

Create a role that allows the student to shine.

Design a group experience in which the skills of the resistant student are needed.

Modify a student's assignment .

Ask the student to tutor or help others.

Give written as well as verbal information to students.

Give the slower students advance preparation by asking them to read the material at home.

Give slower students an outline of major ideas.

Adjust the amount or the task for the slower student.

Provide slower students with modified tests or worksheets.

Provide students different ways to function such as giving

	a checklist for gathering ideas to a recorder who is a poor writer.		Ask students to rehearse six-inch voices.
Some groups finish early.	Provide extension or enrichment activities which are tied to the topic.		Use a nonverbal cue such as holding up a hand or blinking the lights to remind students to lower their voices.
	Ask students to illustrate their work.		Assign one student in each group the job of Noise Monitor and ask the student to hold up a sign or a flag to remind others to speak quietly.
	Ask students to write a poem about the topic or write a new ending to a story.		
	Encourage critical thinking by asking students to develop a quiz.		Buy a noise monitor from Radio Shack.
	Ask groups that finish early to help other groups or individuals.		Reward and reinforce groups that are working quietly.
	Expect two groups who finish early to review one another.	Students cannot hear one another give reports.	Buy a voice projector with a small microphone for students to talk into.
Some groups finish last.	Decide whether it is important for the group to finish the work or to stop.		Insist on good audience skills.
	Intervene early to help the group finish on time.		
	Allow students to finish for homework.		
	Ask a successful group to assist.		
There is too much noise.	Review using quiet voices on a T chart.		

8

Faculty Cooperation

If cooperative learning is good for students, it must be good for educators, also. In fact, if we can't cooperate, we will have a hard time expecting our students to do so.

A cooperatively structured school consists of cooperation within the classrooms and collaboration among teachers in and out of the classroom. Much of the success of cooperative learning in the classrooms depends on the commitment teachers make to support one another.

Faculty Base Groups

Base groups (support groups) include two-to-five teachers and administrators whose goal is to improve instructional expertise and to promote the professional growth of one another. Groups are small and heterogeneous. Above everything else, base groups are safe places where concern, laughter, support, and celebration take place.

1. Base groups encourage each teacher and administrator to gain as much professional expertise as possible.
2. Groups offer suggestions and support for using cooperative learning in the classroom.
3. Base groups function as forums for problem solving.
4. Celebrating shared success is a major function of a base group.

Base groups will probably be formed by teachers working at the same grade levels. However, in schools with mixed-grade classrooms or those with a school-wide emphasis on themes, it may be beneficial to create base groups of teachers from various grade levels.

Base groups are long term groups that commit for a minimum of one school year. Members of base groups meet regularly to plan, help one another prepare, and evaluate lessons plans together. At the end of each meeting, each teacher or administrator will leave the meeting with something concrete to facilitate improved instruction for students.

Collaborative Teaching

Many teachers believe they are collaborating or team teaching when one teacher shows a movie to both classes and gives the second teacher a break. While there are times when this is a considerate gesture, it is not collaborative teaching. Real team teaching begins with co-planning and co-preparation and ends with shared responsibility for the students in both classrooms.

Collaborative teaching involves two or more teachers working simultaneously with students toward mutually determined goals. This type of teaming is especially important in mixed-grade classes and in classes where special education students are included in regular education learning activities. The possibilities are numerous and can be designed to meet the individual needs of the teachers involved. Several ideas are offered here along with the challenge to think of more ways to teach as teams.

1. All teachers present the same subject at the same time on various levels of difficulty to small groups (an example of homogeneous grouping as a way to meet diverse ability levels).
2. Each teacher becomes responsible for a learning center developed around a common theme. Students rotate

from one center to another.

3. Each teacher prepares a special mini-lesson. Students either rotate to each teacher or choose the mini-lesson of choice.

Following the instruction, base group members jointly evaluate the success of the co-planning, co-preparation and co-teaching experience. Group processing includes: assessing what procedures worked well and which need to be altered, problem solving, and setting new goals for future work together.

Formal Faculty Groups

Formal groups assume the role of task groups. Every school faces unique challenges that are appropriate for teachers and administrators to address in formal groups. The groups are formed, not for the duration of the school year but for as long or as short a time as needed to implement changes.

Responsibilities of formal groups (task groups) include:

- collecting information about the particular problem the group is addressing;
- making certain all solutions are considered;
- compiling the best ideas from all perspectives;
- suggesting possible solutions to the faculty as a whole.

Once a solution has been determined, the formal group can either continue with the responsibility of implementation, or form a new formal group to carry out the proposed solution.

Informal Faculty Groups

During faculty meetings, ad hoc decision-making groups have two major responsibilities. They consider suggestions made by various formal groups and decide whether to accept the suggestions. They also decide whether to add their own modifications.

Each informal group discusses ideas and shares its group decision with the entire faculty. After a full faculty discussion, a final decision is made.

In addition to making decisions, informal groups are useful any time a faculty meeting requires additional input and discussion. In other words, when a faculty meeting requires participation, ask to discuss the issues in small, informal groups.

Final Consideration...

Never doubt that a small group of thoughtful, committed people can change the world; indeed it is the only thing that ever has.

Margaret Mead

Support from Research Studies

Since the 1800's, researchers from the areas of education, sociology and psychology have been interested in the results and benefits of competition and cooperation.

Year	Researcher	Type of Work
1800's	Treplitt	researched competition
1889	Turner	researched competition
1903	Mayer	researched competition
1929	Maller	wrote, <i>Cooperation and Competition: An Experimental Study in Motivation</i>
1936	Mead	wrote, <i>Cooperation and Competition Among Primitive Peoples</i>
1937	May & Doob	wrote <i>Competition and Cooperation</i>
1050's	Sherif	studied the impact of cooperative interaction on relationships between black and white college students
1961	Colman	published a study of results of competition in American schools
1963	Miller & Hamblen	reviewed 25 studies

1967	Madsen	developed games to compare the preferences of children to cooperation or competition
1969	Cook	studied competition in three summer camps
1070's	Johnson, Johnson & Holubec	published <i>The Social Psychology of Education</i>
1974/75	Johnson, Johnson & Holubec	published <i>Learning Together and Alone</i>

The results of these and over a hundred studies reveal the strengths of cooperative learning.