

## ED 3780

### Part E: Cooperative Learning

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## Cooperative Learning Overview

Cooperative learning is a well-researched teaching/learning strategy. Much of the research has been around since the early 1970s. Roger and David Johnson, brothers and professors from the University of Minnesota, have been contributing to the field for nearly 30 years. Also, Robert Slavin, from Johns Hopkins University, has also done a lot of research that supports cooperative learning as a solid strategy. Spencer Kagan has made cooperative learning more accessible by creating many teacher materials and making c.l. much more classroom friendly. His “structural approach” will be the main focus of the materials in this handbook because of its ease of use.

Here are just a few reasons why cooperative learning is an important strategy to use in our classrooms:

- two-thirds of students interviewed come to school because it’s a chance to meet with and talk with other students (according to John Goodlad, *A Place Called School*)
  - but. . .**
  - “70 percent of classtime is spent listening to teacher talk” (John Goodlad)
  - and. . .**
  - 90 percent of the people who are fired the first year of employment are fired because of the inability to get along with their co-workers.
- “I will pay more for the ability to deal with people than any other ability under the sun.” (John D. Rockefeller)
- To meet the learning styles of our students, they must be allowed to touch, share, and verbalize (Jean Piaget)
  - Tell me: I’ll forget.
  - Show me: I’ll remember.
  - Involve me: I’ll learn.
- If the future of our world truly does belong to the youth of today, then it is imperative that educators reexamine the goal of education for their students. F.D.R. says it best:
  - “Today we are faced with the pre-eminent fact, that, if civilization is to survive, we must cultivate the science of human relationships—the ability of all peoples, of all kinds, to live together and work together, in the same world, at peace.”*
- Although this statement was made in the 1940s, it still holds true today.

## Cooperative Learning Introduction

**Definition:** Cooperative learning is an instructional strategy to encourage student achievement of **both** academic and social skill objectives in a non-competitive, collaborative learning environment.

Cooperative learning, when well-structured, is characterized by the following aspects and results:

- Aspect-1: The creative of a classroom atmosphere where individual contributions benefit a group product.
- Result-1: Individual self-esteem is enhanced.
  - A-2: An organization of the learning process which involves the acquisition of academic and social skills as specific objectives.
  - R-2: The learning of academic objectives in a way that helps students to better relate to each other in a positive, constructive manner both in and out of the school environment.
  - A-3: A caring climate in the classroom where the progress of all students is valued by their group and their classmates.
  - R-3: Students on all levels of achievement are willing to risk.
  - A-4: The utilization of students' natural desires to interact with their peers.
  - R-4: All students in a group are encouraged to participate by the way the lesson is structured.
  - A-5: Learning is "student centered" rather than "teacher centered."
  - R-5: Students begin to feel responsible for their own learning.
  - A-6: The application of multiple learning structures results in learning success for students with different learning styles.
  - R-6: The classroom does not become routine and repetitive.
  - A-7: Students are constantly given opportunities to verbalize knowledge of objectives with each other.
  - R-7: Studies show that students of all academic abilities deepen their understanding of a concept when it is verbalized.

### Cooperative Learning is **Not**:

- A. The only true way to teach. It is another valuable tool.
- B. Unstructured group projects with individual assignments.
- C. Easy for the lazy teacher or the lazy student.
- D. Quiet and outwardly controlled.
- E. Totally predictable, because people are so different.
- F. Easy to jump into. You should start slowly with simple lessons and structures.
- G. Done without careful planning.
- H. Cooperative learning without the teaching of social skills.
- I. Cooperative learning without processing the learning as part of the lesson.
- J. High students tutoring low students.
- K. Does not free the teacher from the need to direct teach, evaluate, grade, debrief, intervene, and conclude; but, all of the above processes can be shared with the students in time with some training on their part.

## Five Elements of Cooperative Learning

To be called cooperative learning, **all** five of these elements **MUST** be present in the lesson; otherwise, you have group work. Although group work can be fine, well-structured cooperative learning is the ideal. You will find that your classroom and students will function better when all these elements are present.

### Positive Interdependence

When students in cooperative learning groups begin to realize that they "sink or swim" together, they quickly learn that they must depend on each other's knowledge, skills and support in order to complete their assignment, task, or project. Among the many ways to structure positive interdependence some are: (1) team goals: students being responsible for every member of the group learning the material or completing a project, report, mural, etc.; (2) shared materials or information; and (3) assigned roles in the group (such as: checker, encourager, recorder, etc.); and/or (4) the development of a sense of mastery and pride within the group.

### Face-to-Face Interaction

The many positive outcomes from cooperative learning groups are due to the interaction and verbal exchanges that happen for students when working in carefully structured learning groups. There is about 15 times as much student discussion over subject matter in cooperative learning groups compared to the traditional classroom. In paired discussions half the class is talking and the other half are also involved because someone is speaking directly to them, rather than what happens when one student in the traditional classroom is talking or answering a question that the teacher has asked.

### Individual Accountability

Cooperative learning teams are not successful unless every member has participated, learned, and understood the material. It is important to assess individual learning and make each member accountable for his or her contribution. There are many ways to structure individual accountability: tests, color coding each member's part, using structures like Numbered Heads Together, Jigsaw, talking chips, paraphrasing, etc.

### Social Skills

Few students have the necessary interactive skills they need to be successful in cooperative learning groups. It is essential that social skills are taught as part of the curriculum, and that students be motivated to use these skills so that their groups/teams can function effectively. Some of the critical social skills include listening, sharing, encouraging each other, taking turns, using I-Messages, negotiating conflict and respecting individual differences.

### Processing

Processing is the time taken to discuss the content learned, how well the group worked together, what social and critical thinking skills were used, and how group members felt. Process questions need to be asked after each group activity, to bring a closure and understanding of what has been learned and what occurred during the group's work together. **Processing has been proven to double the retention** of facts and concepts contained in an academic lesson. It is a vital part of a cooperative lesson, yet should also be a part of ANY lesson.

## Summary of What Cooperative Learning Means

Cooperative learning: More than a teaching strategy, more than an instructional technique. Cooperative learning is an entirely different way of viewing the educational process of schools, reshaping them into communities of caring in which individual students take responsibility for the learning of their classmates and respect and encourage each other's diversity. Cooperative learning has the potential to completely transform all aspects of your classroom and of your school so as to promote the sharing of power, responsibility, and decision-making throughout. (Current issues, ¶ 8)

From: Sapon-Shevin, M. & Schniedewind, N. (1992). If cooperative learning's the answer, what are the questions? *Journal of Education*, 174(2), 11-36. From the Academic Search Elite database.

## Social Skills

As was stated in the previous section, teaching of social skills is a vital element to cooperative learning. Kagan (1992) states "...when students move to complex cooperative projects, they need help in learning how to listen to each other, resolve conflicts, set and revise agendas, keep on task, and encourage other" (p. 4:5). Furthermore, he states "There is a variety of ways of fostering the development of social skills, including modeling, defining, role-playing, observing, reinforcing, processing, and practicing specific social skills" (p 4:5).

Teachers can teach social skills in very systematic ways without taking away vast amounts of curricular time. Several ways include having a skill of the week/month, creating bulletin boards that reinforce the skills, assigning roles in groupwork, and practicing the skills in groups and having feedback on those skills through self-, peer-, or teacher assessments.

Students need the "skills to work together" not only in the classroom, but in the "real world." By providing them skills to work on specific problems, students will be able to incorporate this ideas into their life-long learning schema.

The following lists will give you ideas about some social skills and "lifeskills" students need to learn. This is not an exhaustive list. Many teachers use these ideas directly in their classroom/student management. Instead of telling the student what he or she did wrong, many teachers simply ask, "What social skill or lifeskill did you not honor?" This puts the behavior squarely on the student's shoulder. However, to use this effectively, you must first teach what these skills are.

### *Basic Social Skills:*

- |                                              |                             |
|----------------------------------------------|-----------------------------|
| 1. Everybody helping                         | 6. Following directions     |
| 2. Helping students do things for themselves | 7. Staying in own area      |
| 3. Listening                                 | 8. Using quiet voices       |
| 4. Sharing resources                         | 9. Keeping parts to oneself |
| 5. Staying on task                           | 10. Responding to signal    |

### *Advanced Social Skills*

- |                                     |                                     |
|-------------------------------------|-------------------------------------|
| 11. Treating others with respect    | 21. Playing own role                |
| 12. Consulting group before teacher | 22. Paraphrasing                    |
| 13. Solving problems cooperatively  | 23. Asking questions                |
| 14. Explaining                      | 24. Sharing feelings                |
| 15. Praising                        | 25. Encouraging others to talk      |
| 16. Displaying leadership           | 26. Disagreeing in an agreeable way |

- |                                            |                                      |
|--------------------------------------------|--------------------------------------|
| 17. Sharing and contributing               | 27. Giving everyone equal time       |
| 18. Giving directions without being bossy  | 28. Compromising                     |
| 19. Encouraging                            | 29. Correcting                       |
| 20. Checking others' understanding of work | 30. Summarizing                      |
|                                            | 31. Solving problems without arguing |

Johnson, R.T. & Johnson, D.W. (1993). *Circles of learning*. Edina, Minnesota: Interaction Book Company.

## Lifeskills

INTEGRITY: To act according to a sense of what's right and wrong

INITIATIVE: To do something because it needs to be done

FLEXIBILITY: To be willing to alter plans when necessary

PERSEVERANCE: To keep at it

ORGANIZATION: To plan, arrange, and implement in an orderly way; to keep things orderly and ready to use

SENSE OF HUMOR: To laugh and be playful without harming others

EFFORT: To do your best

COMMON SENSE: To use good judgment

PROBLEM-SOLVING: To create solutions in difficult situations and everyday problems

RESPONSIBILITY: To respond when appropriate, to be accountable for your actions

PATIENCE: To wait calmly for someone or something

FRIENDSHIP: To make and keep a friend through mutual trust and caring

CURIOSITY: A desire to investigate and seek understanding of one's world

COOPERATION: To work together toward a common goal or purpose

CARING: To feel and show concern for others

Kovalik, S. (1994). *ITI: The model: Integrated thematic instruction*. Kent, WA: Susan Kovalik and Assoc.

## Teaching Social Skills

There are many ways to teach social skills. (1) You can teach skills that specifically address a classroom problem. (2) You can have a "skill of the week." (3) You can create a bulletin board that discusses social skills. (4) You can create "Looks Like, Sounds Like, Feels Like" charts with your students. (5) You can also assign roles that correspond to specific social skills. (6) You can break the skill into specific parts.

1. Addressing a specific problem:
  - Getting off task-----teach staying on task
  - Not listening to each other-----teach listening skills
  - Class too noisy-----teach quiet voices

2. Skill of the Week
  - Focus on a specific skill
  - Teach it, use it, and give feedback on its use
3. Bulletin Boards are a great way to reinforce student behavior and learning. A social skills bulletin board provides an on-going visual reminder.
4. By creating a “Looks Like, Sounds Like, Feels Like” chart with the students, you can reinforce what each social skills entails. Example: As the teacher you ask the students, if I am looking for listening, “What will I see?” “What will I hear?” and “How does it make you feel when people are listening to you?”

#### Listening

Looks Like	Sounds Like	Feels Like
heads together eyes looking people nodding leaning forward smiling	talking one at a time encouragement good idea uh-huh yes!	great I'm important people care I'm smart we're friends

5. Assign roles that correspond to specific social skills. Kagan (1992) has 12 roles that he has “hooked to” social skills. They are
 

▪ encouraging others	Encourager
▪ praising others	Praiser
▪ celebrating accomplishments	Cheerleader
▪ equalizing participation	Gatekeeper
▪ helping	Coach
▪ asking for help	Question Commander
▪ checking for understanding	Checker
▪ staying on task	Taskmaster
▪ recording ideas	Recorder
▪ reflecting on group progress	Reflector
▪ not disturbing others	Quiet Captain
▪ efficiently distributing materials	Materials Monitor
- (6) This way breaks the skill into specific parts.
 

Group Forming–

  - Move quickly and quietly to and from groups
  - Stay with your group
  - Make sure each role is carried out
  - Use eye contact
  - Include each other
  - Divide labor

- Set-up, clean-up, share materials

#### Communication–

- LISTEN to each other
- Share your opinions/reasons
- Ask for help, give help when asked
- Paraphrase
- Extend others' ideas
- Ask questions

#### Decision-Making–

- Make a plan before doing the task
- Disagree in an agreeable way
- Get many ideas before deciding
- Use a variety of ways to decide
- Show respect for minority views
- Summarize all ideas before deciding
- Work toward consensus

(C) Global Learning Communities  
Cooper and Boyd, 1993

*Tribes* (1995) offers seven steps in “Teaching Collaborative Skills”, also known as social skills. They are

1. Engage students in identifying the need for the skill.
2. Teach the skill.
3. Practice the skill regularly, and have students give feedback on how well it was used.
4. Transfer the responsibility to the tribes (small groups) to remind each other to use the skill.
5. Ask reflection questions (processing) about the use of the skill in the groups, class, at home, etc.
6. Point out times when you notice people using the skill well.
7. Notice and celebrate when the skill is “owned” as a natural behavior in the classroom (p. 98).

## Why Process?

Processing is a vital tool for cooperative learning; however, recent research shows that it is just as vital in other learning situations. Here are just a few reasons why it is important to process:

1. Helps students focus on the academic and social skills of the lesson, not just the task.
2. Hearing the ideas of other groups and people broadens one's thinking.
3. Help students to assess their skills and the activity.
4. Reflecting on one's learning broadens one's understanding.
5. Further develops students' listening and oral language skills.
6. Provides the teacher with information of how students viewed the activity and what they learned.

## Processing Possibilities

1. Have students pair up to share what they have learned. Then have random students tell what happened in their pair.
2. Have students create a riddle or poem about what they learned.
3. Ask students to illustrate (no words allowed) the main thing they learned.
4. Pair groups to share what they learned and to discuss how they worked together within their individual groups. They may problem solve ways to improve group interactions.
5. Form new groups with one representative of each working group to discuss what they have learned.
6. Have groups present their product to another group. The group presented to then presents the product they heard about.
7. Ask groups to sum up their experience, both social and academic, in five key words or phrases.
8. Ask groups to write a summary of their experience in the group. Make a newsletter of all the summaries or pieces of each.
9. Have groups act out (charades) what they learned.
10. Do the 1-3-6 activity. Each person writes what he or she learned, then joins with 2 others. Discuss and combine the learnings of the 3 people. Then join with another group of 3 and do the same thing. Report out to whole class each final statement.

## Overview of Selected Cooperative Learning Structures

Each of these structures are “content-free.” There are hundreds of these structures; it is up to the teacher which one will work best for the curriculum he or she is teaching.

Structure	Brief Description
Roundrobin	Each student in turn shares something with his/her teammates.
Corners	Each student moves to a corner of the room representing a teacher-determined alternative. Students discuss within corners, then listen to and paraphrase ideas from other corners. (Best to have students write their selection down so that they do not go where their friends are.)
Numbered Heads Together	<ol style="list-style-type: none"> <li>1. Students number off.</li> <li>2. Teacher asks a question.</li> <li>3. Students confer in their groups about the answers.</li> <li>4. Teacher then calls a number and that student in each group must stand and answer the question if called on.</li> </ol>
Pairs Check	Students work in pairs within groups of four. Within pairs, students alternate - one solves the problem while the other coaches. After every two problems the pair checks to see if they have the same answers as the other pair.
Three-Step Interview	Students interview each other in pairs, first one way, then the other. Students then share with the group the information they learned in the interview. (Works well with curriculum, but can also introduce each other to the class.)
Roundtable	Each student in turn writes one answer as a paper and pencil are passed around the group. With “Simultaneous Roundtable” more than one pencil and paper are passed at the same time.
Inside-Outside Circle	Students stand in pairs in concentric circles. The inside circle faces out; the outside circle faces in. Students can use flash cards or can respond to teacher questions as they rotate to each new partner. Good review strategy.
Think-Pair-Share	A problem is posed by the teacher. The students individually think about solutions. They share information with a partner. Then, there is a whole class discussion.

Find Someone Who	A worksheet is created by the teacher which reads, "Find Someone Who..." then has a series of questions. Individuals each have a copy of the paper. They roam around the room and find people who know the answer to the question. The owner of the paper writes the answer in the designated spot, and the answerer signs his/her name.
4S Brainstorming	A group brainstorming activity to build a lot of ideas. The four "Ss" are: speed, supporter, synergy, and silly.
Turn for Review	This game is useful as a review. The teacher creates a list of 16 questions that the team must answer. Using the game board, the students answer each question by the person who is responsible for that question as it comes up.
Guess the Fib	Students state two unbelievable facts and one believable fib. They announce all three as facts, and it is the job of the team (or other teams) to guess which one is the fib. This can be done as an ice-breaker if the facts and fib relate to the individual person.
Send a Problem	Students in teams author a question (problem) on one side of the card and include the answer on the other side. They then send the problem to the next team. The teams respond. This can be done several times.
Jigsaw	Each student on a team becomes an "expert" on one topic by working with other members of other teams. Upon returning to their home team, each expert teaches the group; all students are assessed on all aspects of the topic.

## Managing Small Groups—Teacher Responsibilities and Concerns

1. Make assignments before moving to small groups. Make sure groups understand purposes, tasks, responsibilities. Clarify purpose of task through a handout or overhead (i.e. something visible, tangible).
2. Vary/experiment with size of groups; generally, 4 members is an ideal size. Be quick, orderly, and creative in assigning groups.
3. Assign group roles -- recorder, spokesperson, gatekeeper, summarizer, clarifier, attention getter, etc. Roles should be a balance of task and maintenance functions. Change the roles so everyone gets an opportunity to try several roles. Keep in mind that not all cooperative learning groups/activities need roles.
4. Trust needs to be established early among students and with teacher. Be willing to be part of a group or to change group make-up when personality conflicts occur. (This is an ideal time to teach appropriate social skills.)
5. Time task assignments; monitor and guide that time by observing each group and helping groups stick to time allowed. Have options or alternatives for groups that finish early.
6. Allow for team/peer evaluation; members evaluate each other, and themselves in light of their cooperation, task accomplishment, degree each contributed, etc. Individual accountability for grades can be varied with group grades.
7. Encourage peer tutoring and viewing each student as a valuable resource in the learning experience.
8. Establish rules or guidelines with the students for efficient and effective group work. Post rules on a chart or use an overhead with a handout. (Example: when moving to another seat, do not wander aimlessly about -- go to seat quickly and quietly.)
9. Remember to process the small group activity for feedback and evaluation. Process the task, and include how the group managed the task. "Did this activity work? How could it have been better? What problems did you have? What did you enjoy most about the group experience?" etc.
10. Be patient and don't get discouraged if "time" seems less manageable at first or all the groups don't gel immediately. Act confident that this strategy can work and be willing to make adjustments. Remember that learning to work together in groups is a process that develops over time.

## Observing, Monitoring, and Intervening

### Why Observe?

1. To see what students are **applying/using/integrating** as academic concepts and social skills/values.
2. To determine if one should **intervene**.
3. To gather information for **processing** what students are learning and practicing.
4. To determine what, how, or if one needs to **restructure** the lesson.

### Monitoring

This needs to fit your style...

- use a tally sheet
- actual tallying of behaviors
- points for a group
- use student observers
- write specific behavior strategies and look for them
- reflect and evaluate after c.l. sessions

### Why Intervene?

1. To encourage students to discuss their work (academic and social) together.
  - Help students to think about and manage their own actions by asking open-ended questions.
  - Turn the problem or situation back to the group to resolve.
2. If the group has tried to solve a problem and cannot seem to do it...
  - Teach an academic or collaborative (social) skill.
  - Help group members see a need for the skill.
  - Label and define the needed skill.
  - Encourage the practice of the skill.
3. To reinforce the use of academic or social skills.
4. To control a potentially hurtful situation.

### Intervention of Academic Cooperative Activities

Intervene...

1. to further understanding of an academic concept.
2. to develop or encourage social skills.
3. to give specific feedback to an individual or to a group.
4. to give a hint if a group is stuck for a long time or shows signs of great frustration.
5. if a group is on the wrong track, doesn't know it, and you do not want them to take the time to discover the problem themselves.
6. to assess skills or to promote individual accountability.
7. for safety.
8. to give information to the whole class.

**Intervention Style**

- Label exactly what behavior you're seeing and what you expect to see.
- Tell the group you expect them to decide how to change behavior.
- If needed, provide two options to help change behavior.
- Label that the group must decide what to do.
- Monitor for one minute while they change behavior.
- If no change, structure more...
  - provide only one behavior.
  - consider a “no talking” time for the group.
  - split group up to observe other groups.
  - have other groups assist with observation.
  - use standard behavior management plan (e.g. work after school, In School Suspension(ISS), call home)
  - shut down group for a short time.

## Edward DeBono's Six Thinking Hats

DeBono's Six Thinking Hats is both a cooperative learning strategy as well as a thinking skill. It is placed in the handbook here as bridge between the two.

The following information is adapted from Edward DeBono's (1985) book, *Six Thinking Hats*. One of the main difficulties of thinking is that we try to do too much at once. Emotions, information, logic, hope, and creativity all crowd in on us. It is like juggling with too many apples. The concept of thinking hats allows the thinker to do one thing at a time. He or she becomes able to separate emotion from logic, creativity from information, and so on. Putting on anyone of the six thinking hats defines a particular type of thinking.

### Values of Using Six Thinking Hats

**Role Playing:** The hats allow us to think and say things that we might not otherwise think and say without risking our egos. Wearing the clown costume gives you full permission to play the clown.

**Attention Directing:** The six hats allow us to direct attention to six different aspects of the matter.

**Convenience:** The symbolism of six different hats provides a very convenient way of asking someone, including yourself, to switch gears.

**Rules of the Game:** The six thinking hats establish certain rules for the game of thinking.

DeBono, E. (1985). *Six thinking hats*. Boston: Little, Brown & Co.

## Six Hats, Six Colors

### White Hat

- White is neutral and objective
- The white hat is concerned with objective facts and figures.
- It avoids interpretation or opinion.
- The wearer of the white hat imitates a computer.

### Red Hat

- Red suggests anger, joy, and other emotions.
- The red hat gives the emotional view, personal reaction.
- The wearer of the red hat voices feelings or intuition about the matter.

### Black Hat

- Black is gloomy and negative.
- The black hat covers the logical negative aspects of why an idea won't work.
- The wearer of the black hat points out risks, dangers, faults in design.

### Yellow Hat

- Yellow is sunny and positive.
- The yellow hat offers positive, constructive thought on the benefits and value of an idea.
- Yellow hat thinkers are optimistic and speculative.

### Green Hat

- Green symbolizes abundant, fertile growth.
- The green hat indicates creativity, new ideas, and a search for alternatives beyond the obvious.
- The wearer of the green hat is open to many options.

### Blue Hat

- Blue is the color of the sky, which is above everything else.
- Blue hat is concerned with control and organization of the thinking process.
- The wearer of the blue hat decides which questions need answering, which problems need solving, which other hats need to be worn; plans; and is responsible.

## HAT SUMMARY CARD

Statement starters that may help you play your role.

**Black: Weakness**

A negative point about that is...

One thing wrong with that is...

**Yellow: Strengths**

A good point about that is...

One benefit about that is...

**White: Information**

One fact I know...

A piece of information I need is...

To get the information I need, I'd...

**Green: New ideas**

One idea I have about that is...

It might be possible to...

**Red: Feelings**

That would make me feel...

I have a feeling that...

**Blue: Thinking about thinking**

First I'd do some \_\_\_\_\_ hat thinking.

The next step would be...

Here's a summary of my thinking:...