The Basic Principles of Cooperative Learning Structures

PIES
P – Positive Interdependence (Students depending on one another to accomplish a COMMON GOAL – You help me, I help you, We get the job done!)
I – Individual Accountability (Each student is held accountable for his/her part in the structure. The structures simply don’t work if all members of the team do not participate)
E – Equal Participation (ALL students participating the same AMOUNT)
S – Simultaneous Interaction (ALL students participating at the same TIME)

The cooperative learning structures allow you to become a facilitator of learning, but here are a few things you should check before executing lessons that involve cooperative learning structures.

- Classroom management must be in place before introducing a structure. You can use structures to teach students rules and procedures, but you should at least have your quiet cue established, practiced, and ready to work during the structures.
- You need to have your students in groups, preferably groups of four. If there is an extra student, they can be a “twin” to someone who is in a group of four. This is to eliminate anyone being a “third wheel” in a discussion. This way, no one is left out!
- These groups need to be heterogeneously grouped. Please consider gender and ability and make sure that each group has an appropriate blend!
- It is critical that you introduce the cooperative learning structures without content. This way, the students actually spend time learning the structure. This will save valuable class time for the teacher throughout the school year. If it is taught well, the students will not need directions each time the structure is used. The teacher should be able to simply say the name of the structure, and the students should know what their responsibilities entail during that structure.
- A timer will come in very handy!

Each of the following Cooperative Learning Structures were developed by Spencer Kagan. More information about Kagan’s cooperative learning structures can be found at www.kaganonline.com, or by calling 1-800-WEE-COOP.

Round Robin
1. Students sit in a circle.
2. Teacher poses a question or topic for brainstorming. “Name a type of horse.”
3. The teacher then sets a timer.
4. Students rotate around the circle saying 1 possible answer each time (without duplicating previous answers. “Pinto, Mustang, Tennessee Walking Horse, Palamino”
5. Students are to continue brainstorming until the timer goes off.
6. The teacher listens to responses throughout the structure, and clarifies for understanding if necessary.
*Students have the option to “pass” 1 time during the entire structure.

**Round Table**
*Same as Round Robin except this one is silent and students write their responses down on 1 piece of paper that is passed around the group.

**Telephone**
1. Students are in groups of four and are numbered 1-4.
2. Teacher calls one number out. These students exit the room and work on something quietly in the hallway.
3. While the missing members of each group are in the hall, the teacher begins teaching new content that has not previously been addressed.
4. The remaining members take notes as the teacher is teaching.
5. The teacher tells the remaining members 3-5 questions that will be on a “test.”
6. The missing members return to their groups to be taught by their peers.
7. The missing members take a test on the information that they just learned. The grade that they make is the grade for the entire group.
*If a student is not pleased with the grade that his/her teammate made, they may take it on their own to try for a better grade.

**Numbered Heads Together**
1. Students are in groups of 4 and are numbered 1-4.
2. Teacher poses a question.
3. Groups huddle together and come up with a common answer.
4. Teacher calls out a number (1-4).
5. The student with that number stands up.
6. The teacher allows each standing student to share the answer that their group came up with.
*This repeats until the questions are finished.

**Carousel (A variation of Numbered Heads Together)**
1. Students are in groups of 4 and are numbered 1-4.
2. Teacher poses a question.
3. Groups huddle together and come up with a common answer.
4. Teacher calls out a number (1-4).
5. The student with that number remains seated while his/her teammates move to the next group. A new group will come and be seated with each of the students whose numbers were called.
6. The student whose number was called shares his/her answers with their “new group.”
7. The “new team members” then share what they had as their answer.
*This repeats until the questions are finished
Stir-the-Class (Another variation of Numbered Heads Together)
1. Students are in groups of 4 and numbered 1-4.
2. Each group is standing shoulder-to-shoulder around the room in a big circle, leaving a few feet between each group.
3. Teacher poses a question.
4. Groups huddle together and come up with a common answer.
5. Teacher calls out a number (1-4).
6. The student whose number was called steps out of his/her group, turns to the right, and goes to stand in front of the next group.
7. When the student gets to the next group, they share the answer that their original group came up with. Then the other group members share the answer that they had. The student then gets in line (shoulder-to-shoulder) and becomes a part of the new group.
*This repeats until the questions are finished.

Pairs Compare
1. Students are with a partner.
2. Teacher poses a topic or question that would spark a brainstorming session and sets a timer.
3. Students take turns providing possible answers to go on their “list.”
4. When the timer goes off, the partner groups pair up with another partner group.
5. The two groups share what is on their lists. As they share, if they hear something that is not on their original list, they add it. By the end of the sharing session, both groups will have a list that contains the same items.

Find Someone Who  *This one is great for ANY worksheet!
1. Students are given some type of worksheet.
2. Students go around the room trading papers with one friend at a time. After a student puts an answer on their’ friend’s paper, they sign their name next to it. If the “receiving” student feels that the answer is wrong, they have to find the friend who gave them the answer and have a dialogue in order to find the correct answer.

Jigsaw  *This one works well when there are 3 concepts being taught at once!
1. Students are divided into 3 “expert” groups (A, B, and C). In these groups, the students will be given information from the teacher on paper (or assigned to read a certain section from the book). The students take turns reading the information and checking for understanding until they become an “expert” who can teach the information to someone else.  *EACH OF THE EXPERT GROUPS ARE LEARNING DIFFERENT INFORMATION FROM THE OTHER TWO GROUPS!!!
2. Students number off in their groups.
3. New groups are formed by putting matching numbers together. For example, number 1 from groups A, B, and C will now form a new group. Number 2 from groups A, B, and C will form another group.
4. In their new groups, each expert shares and teaches what he/she learned in their expert group.
Stand & Share *This one is used for whole group sharing in an efficient manner.
1. After students have worked with partners or a group to brainstorm a list or provide specific answers, the teacher calls a number or a partner from each group to stand. *If the students work in partners, it is probably good to do a quick round of Pairs Compare before doing a Stand & Share.
2. One person from each group stands.
3. One person begins to share information from their group. As this person shares, the other groups’ representatives listen for things that are also on their list. If something is shared that is on their list, they cross it off.
4. The other groups’ representatives are given an opportunity to share items that are left (that weren’t crossed off). This eliminates duplicate answers being shared.

Mix & Match
1. A set of cards are created with “matching” information or items. For example, if the class has 20 students, there might be 10 cards with spelling words on them, and 10 other cards with the 10 definitions that match those spelling words on them.
2. Each student gets one card.
3. The teacher calls out, “Mix.” The students begin to walk around the room, trading cards (continuously) until the teacher calls out “Match.”
4. When the teacher calls out “Match,” the students look at the card in their hand, turns the card to face their friends, and begin walking around the room looking for the match to their card.
5. Once students find their match, they stay with them (side by side), holding their cards for all to see.
6. At the end of the first round, the teacher reviews all of the possible matches.
7. This repeats as many times as needed.

Interview
1. Students are in partner groups. One student is A and the other is B.
2. Teacher provides a question or a list of questions for the students to ask one another.
3. Teacher announces which student goes first.
4. Teacher allows time for the other partner member to respond.
5. Teacher prompts the other partner to ask their question.

Inside/Outside Circle
1. Students are divided into two groups – Inside & Outside. The Inside group stands in a circle facing the walls of the room, creating the “Inside Circle.” The Outside group then goes and stands (facing) a person in Inside Circle, making an “Outside Circle.”
2. Each student has a card in his/her hand with a question on the front and the answer on the back.
3. Teacher announces which “circle” will go first. For example, the teacher calls out “Inside Circle, go first.” The students who are in the inside circle show their question card to their outside circle partner. The outside circle partner answers, and the answer on the back is shown. Then the outside circle partner shows their
question card to their inside circle partner. The inside circle partner answers and then the answer is shown to them.

4. Teacher calls out directions for the group to rotate. Note: Always move in the same direction -- either to the right or left… but stick with one direction! An example of this would be the teacher saying, “Inside Circle, move to the right 2 spaces.”

5. This continues until the students have had exposure to all or most of the questions in the circle.

Rotating Review
1. The teacher hangs posters around the room with questions or topics.
2. Students are divided up into groups of 4. One person in the group acts as the scribe (this person will need a marker).
3. Students are placed at different posters around the room.
4. The timer is set. (On the first “round,” the timer should be set for a little longer.)
5. The students are to read the question. As they respond to the question, the scribe writes down what the group says.
6. When the timer goes off, each group rotates to the right
7. As groups arrive at a new poster, not only do they have to read the question, but they have to also read the previous groups’ responses. If they do not understand a response, they put a question mark beside the answer. Then, they begin to respond to the question, but they are not allowed to duplicate answers that were previously given.
8. This continues until every group has visited each poster.

Guess the Fib
1. Students work individually to come up with 2 truths and 1 fib.
2. Students work with partners to share the truths and the fib and their partner tries to guess the fib.