

16 The Use of Pairs in Cooperative Learning

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Let's face it, when you place students in cooperative-learning groups, lots of things can go wrong. Among the possibilities are:

- *Confusion*: Students don't know what to do because they didn't follow the directions.
- *Off-task*: Students don't stick to the topic or worse yet, they talk about the weather.
- *Unequal Participation*: Some people dominate, some remain quiet.
- *One-way Communication*: Students don't listen and respond to each other.
- *No Division of Labor*: Some people don't pull their own weight or let the group down.
- *Perfunctory Examination of the Issues*: Students are done before you know it, breezing through the assignment in the fastest way possible.

Experienced practitioners of cooperative learning know how to minimize these problems but their occurrence is still too frequent. In groups, it takes time to work out the several issues that delay the onset of learning and productivity. As many know, these issues are often referred to as forming, storming, and norming, and time and patience are required to let them happen.

Pairs are not immune to these problems and issues, but their ability to work through them is usually more rapid and less painful. It's hard to *hide* in a pair. It's also hard to get *left out* in one.

The communication network is simpler and there are more chances to work out conflicts.

There is a practical side to the use of pairs, as well. Pair activity tends to be less time-consuming and requires less movement of furniture. (Even a lecture hall can easily accommodate pair-learning activities.) In addition, pairs can more easily negotiate times to meet outside of the classroom.

The major disadvantage of pairs is the lack of several perspectives that exist in larger groupings. Therefore, one of the important goals in designing cooperative learning in pairs is to heighten an active exchange of viewpoints, information, and skills.

Ten Basic Activities in Pairs

I have developed a handy list of ten basic things you can ask students to do in pairs that begin the process of active learning:

1. **Discuss** a short written document together.
2. **Interview** each other concerning partners' reactions to an assigned reading, a lecture, a video, or any other educational activity.
3. **Critique** or edit one another's written work.
4. **Question** a partner about an assigned reading.
5. **Recap** a lecture or class session together.
6. **Develop** questions together to ask the instructor.
7. **Analyze** a case problem, experiment, or exercise together.
8. **Test** each other.
9. **Respond** to a question posed by the instructor.
10. **Compare** notes taken in class.

Of course, more complex assignments are also possible.

Five Structured Activities in Pairs

There are many ways to structure pair activity. Here are some of my favorites:

Active Knowledge Sharing

Overview: This a great way to draw students immediately into the subject matter of your course. You can also use it to assess the knowledge level of students, while at the same time, do some team building. It would work with any class and with any subject matter.

Procedure:

1. Provide a list of questions pertaining to the subject matter you would be teaching. You could include some or all of the following categories:

- words to define (e.g., “What does ambivalent mean?”)
- multiple choice questions concerning facts or concepts (e.g., “A psychological test is valid if it: a) measures an attribute consistently over time; b) measures what it purports to measure.”)
- people to identify (e.g., “Who is George Washington Carver?”)
- questions concerning actions one could take in certain situations (e.g., “How do you register to vote?”)
- incomplete sentences (e.g., “A _____ identifies the basic categories of tasks you can perform with a computer program.”)

2. Create pairs and ask them to answer the questions as well as they can.

3. Then, invite them to mill around the room, finding other pairs who can answer questions they cannot. Encourage students to help each other.

4. Reconvene the full class and review the answers. Fill in answers unknown to any of the students. Use the information as a way to introduce topics of importance in the class.

Learning Starts With a Question

Overview: The process of learning something new is more effective if the learner is in an active, searching mode rather than a passive, receptive one. One way to create this mode of active learn-

ing is to stimulate students to delve into or inquire into subject matter on their own without prior explanation from the teacher. This simple strategy stimulates question asking, one key to learning.

Procedure:

1. Distribute an instructional handout of your own choosing. [You may use a page in a textbook instead of a handout.] Key to your choice of material is the need to stimulate questions on the part of the readers. A handout that provides broad information but lacks details or explanatory backup is ideal. An interesting chart or diagram that illustrates some knowledge is a good choice. A text that's open to interpretation is another good choice. The goal is to evoke curiosity.

2. Ask students to study the handout with partners. Request that pairs make as much sense of the handout as possible and identify what they do not understand by marking up the document with questions next to information they do not understand. Encourage students to insert as many question marks as they wish. If time permits, form pairs into quartets and allow time for pairs to help other pairs.

A physics teacher, for example, might distribute a diagram illustrating how potential energy converts to kinetic energy by showing a circus diver leaping from a 50-foot pole. Students work with partners to review the illustration and determine questions (i.e., “When exactly does the potential energy become kinetic energy?” “What is the basic difference between kinetic and potential energy?”).

3. Reconvene the class and field questions that students have. In essence, you are teaching through your answers to student questions rather than through a preset lesson. Or, if you wish, listen to the questions all together and then teach a preset lesson, making special efforts to respond to the questions students posed.

The Power of Two

Overview: This activity is used to promote cooperative learning and reinforce the importance and benefits of synergy, that is, that two heads are indeed better than one.

Procedure:

1. Give students one or more questions that require reflection and thinking.

Here are some examples:

- How do our bodies digest food?
- What is knowledge?
- What is "due process?"
- How is the human brain like a computer?
- Why do bad things sometimes happen to good people?

2. Ask students to answer the questions individually.

3. After all students have completed their answers, arrange them into pairs to share their answers.

4. Ask the pairs to create a new answer to each question, improving on individual responses.

5. When all pairs have written new answers, compare the answers of each pair to the others in the class.

Jigsaw Learning In Pairs

Overview: Jigsaw learning is a widely-practiced technique in which each student learns something which, when combined with the material learned by others, forms a coherent body of knowledge or skill. While Jigsaw learning can be utilized with different-size groups, pairs are an ideal choice.

Procedure:

1. Choose learning material that can be broken into parts. A segment can be as short as one sentence or as long as several pages. (If the material is lengthy, ask students to read their assignments before class.)

Examples include:

- A multi-point handout
- Parts of a science experiment
- A text that has different sections or sub-headings
- A list of definitions
- A group of magazine-length articles or other kinds of short reading material

2. Divide the learning material into two segments. Assign each

member of the pair one of the two segments and ask him or her to read and learn the material assigned.

3. After the study period, reconvene the pair.

4. Ask the partners to teach each other what they have learned.

Or give the pair a set of questions or a task to do that requires the separate knowledge of each partner.

5. Reconvene the full class for review to ensure accurate understanding.

Pair Review

Overview: This strategy gently challenges students to recall in pairs what was learned in each of the topics or units of the class. It is an excellent way to help students revisit the content you have covered.

Procedure:

1. At the end of a class, present students with a list of the topics you have covered. Explain that you want to find out what they remember about the topics and what they have forgotten. Keep the atmosphere informal so that they do not feel threatened by the activity.

2. Form pairs and ask partners to recall what each topic was about and as many things as they can remember about it. Ask questions such as:

- What does this topic refer to?
- Why is it important?
- Who can give me an example of what we learned about this topic?
- What value does this topic have for you?
- What were some of the learning activities we experienced with each topic?

If little is recalled, handle their forgetting humorously or place the blame on yourself for not making the topic "unforgettable."

3. Continue in chronological order until you have touched upon all the course material (or as much of it as you have time and student interest).

4. As you proceed through the content, make any final remarks you wish.