Structuring Complex Cooperative Learning Activities in 50-Minute Classes

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Given the power of learning-centered teaching, faculty can be coached to structure cooperative activities wisely and well, even within 50-minute class periods where there is a perception that complex group work is difficult. In addition to giving some basic advice on team formation and classroom management, this chapter provides examples of five complex cooperative learning structures—Jigsaw, Send-a-Problem, Cooperative Debates, Guided Reciprocal Peer Questioning, and Bingo—that can be conducted within 50-minute classes. The specific literature-based examples are complemented by examples in a variety of other disciplines, making them seem doable to more faculty.

As Bob Dylan sang so hauntingly in the 1960s, “The Times They Are A-Changin.” Even in academia, where change is notoriously slow, faculty members are becoming increasingly aware, particularly with the broadening pool of incoming students, that business as usual will not result in significant learning gains. Barr and Tagg’s (1995) influential Change magazine article, “From Teaching to Learning—A New Paradigm for Undergraduate Education,” started a healthy movement toward rethinking the nature of teaching and learning. Subsequent books such as Weimer’s (2002) Learner-Centered Teaching and Fink’s (2003) Creating Significant Learning Experiences, as well as numerous articles, provided useful models and convincing research. Bransford, Brown, and Cocking’s (2000) How People Learn made it difficult for even the most lecture-committed faculty member to ignore research with
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Sample Graphic Organizer

This chapter will briefly describe how to sequence complex cooperative learning approaches used in 5-minute classes.

Specific Examples of Complex Cooperative Learning

Learning-Centered Approaches

The Transition to More Sophisticated Learning

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problems, students are responsible for a specific part of a problem. In addition, they are responsible for the overall solution. In the activity, each group of a cooperating class, students evoke multiple phases of information to complete the problem solving process. The following represents a process for problem-solving activities that require students to work together to solve problems.

Bridge: A game used as a review for exams.
(structured game based on bingo; raises questions, creates
questions, and beliefs for recall; peer coaching; creates
blocks in students' minds; provides practice for the material.)

Cooperative Learning: A way to develop ideas and
relationships among students in order to achieve a group's
goal. It is based on the premise that the cooperative learning
environment is a unique type of learning environment designed
to enhance students' confidence, social skills, and academic
achievement.

Applying Cooperative Learning

Learning-centered approaches are more complex cooperative approaches that allow students to work together in small groups to solve problems. These approaches are based on the premise that the cooperative learning environment is a unique type of learning environment designed to enhance students' confidence, social skills, and academic achievement.

Sample Cooperative Learning Activity in 5-Minute Classes

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Students are given the opportunity to learn by teaching. Place the report out.

The primary focus of our project is an effective teaching strategy. It also involves
challenging ideas and providing useful feedback. To achieve these goals, we need
students to engage in meaningful discussions and to develop their communication
skills. This will help them to better understand the material.

Cooperative Learning

The report outlines the benefits of cooperative learning and provides strategies for
implementing it in the classroom. Cooperative learning helps students to
work together effectively and to develop critical thinking skills. It also
promotes a positive classroom environment.

In my English Literature class, we use cooperative learning to
enhance our understanding of the text.

Cooperative Learning

Cooperative learning involves students working together in small groups to
complete a task or achieve a common goal. This approach has been shown to
be effective in improving student achievement and promoting social skills.

Conclusion

In conclusion, cooperative learning is a valuable tool for enhancing
student learning. It provides opportunities for students to collaborate and
share ideas, which can lead to a deeper understanding of the material.

References

Cooperative Learning: Transforming Education for Children at Risk.


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Shigemichi Cooperative Learning Activities in 5th-Grade Classes

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Bingo

Bingo offers a game format easy to adapt to many teaching needs. Bingo sheets can be created using the "Table" option on most word processing packages. Alternatively, Sugar (1998), of the Game Group, has developed a set of reusable materials for a variation of Bingo called QUIZO. Bingo, often classified as a "frame game" or a "matrix game" is easily adapted to virtually any teaching scenario. When carefully structured and paced, the game can be played successfully in 50-minute class periods.

I use Bingo to get students to review material for the midterm or final examination. I coach them on designing and submitting appropriate questions, an ongoing process throughout the semester or half semester.

Most students need to be coached on question writing. Learning to pose viable, cogent questions is a valuable skill. For example, a Nobel prize-winning physicist, Isidor Rabi, credits his mother with prompting him to value the questions she asked above the answers he gave. When he returned from school, she would never ask him what he learned that day. Instead, she would ask, "What good questions did you ask today?" (Barelli, 1988, qtd. in Costa & O'Leary, 1992, p. 59). Students tend to make their questions too rigid for the Bingo format. They need to allow for some wiggle room (e.g., not, "Name the characters in Ernest Gaines's A Lesson Before Dying," but "Name three important characters in A Lesson Before Dying").

I have students submit two types of questions: factual ones, that I can use speed up play, and open-ended ones, which result in in-depth learning. The student who submits the question becomes the "arbiter" of acceptable answers, not me. Thus, students post questions to a web page in the following format:

<table>
<thead>
<tr>
<th>The Question:</th>
<th>Define plagiarism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student's Name:</td>
<td>John Doe</td>
</tr>
<tr>
<td>The Answer:</td>
<td>To steal or pass off the words or ideas of another as one's own, without crediting the source.</td>
</tr>
<tr>
<td>Source:</td>
<td>Student Handbook, p. 77.</td>
</tr>
</tbody>
</table>

I carefully review all the questions, returning for revision any that are inappropriate. Before the game, I add any significant questions that will help students learn critical material. I then rank order the questions within the two categories (factual and open-ended) so that the most valuable questions will occur early in the play.

To use the questions during play, I enlarge the fonts to prepare transparencies or to project slides. At the top appears the question and the person submitting it. Space between the student's name and the answer that follows it allows the answer to be easily covered or added later in a PowerPoint slide.

I purchase needed supplies: Skittles or M&Ms for the markers (seasonal markers can be candy corn or Valentine hearts), and candy bars—large and snack sizes—for the prizes (healthier prize alternatives are bags of pretzels, cocoa packets, ballpoint pens, etc.).

To play the game, I pair students, forming a trio if there are an uneven number of participants. Although most students know the object of Bingo (five markers in a row in any direction) and the rules of play, it is important to explain the procedures so that anyone unfamiliar with Bingo will not feel compromised or inept. Each pair receives markers and two-colored worksheets (as an example, green for the factual; gold for the higher-level open-ended questions) where they record their answers and if they were right or wrong. They can also note the space where the marker is to go. A worksheet, which is abbreviated here, looks like this:

### Factual Questions

| Pair or trio (responding to a question about William Faulkner's A Rose for Emily): |
|----------------|----------------|----------------|----------------|
| The Question: | Define plagiarism | The Answer: | To steal or pass off the words or ideas of another as one's own, without crediting the source. |
| Answer | Right or Wrong? | Space |
| 1) rat poison | Right | B2 |
| 2) |

The teacher then poses the questions in sequence within each category, giving sufficient time based on their complexity. To make the game participant-centered and to allow students to receive feedback on the viability and fairness of their questions, I have the student who submitted the question call "time" and then decide what alternative answers are acceptable.

Pairs with correct answers place a marker on the designated square (e.g., B3 or G1). The square is determined by having the pairs in turn draw a Scramble tile or a homemade variation (B, I, N, G, O) and roll a die (they roll again if a six emerges or teachers can purchase ten-sided die with only five numbers at novelty shops).
Cooperative Learning Activities in 20-Minute Classes

Conclusion

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