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# The Implementation of Group Interactions to Encourage Cooperative Learning: Cultivating an Environment That Simulates Participation Outcomes

Lauren Cowles  
*Illinois Wesleyan University*

Jeanne Koehler, Faculty Advisor  
*Illinois Wesleyan University*

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# Implementing Group Interactions that Encourage Cooperative Learning: Cultivating an Environment of Participation

Lauren Cowles and Jeanne Koehler\*  
Secondary Education, Illinois Wesleyan University

## Abstract

Cooperative strategies have been studied in secondary education classrooms for the past few decades. However, this study seeks to explore cooperative learning techniques and how these techniques connect to student participation. This topic is important to the educational field, but it is particularly important to social sciences because of its emphasis on student involvement in the learning process through the informal exchange of intellectual ideas and co-construction of knowledge. To explore cooperative learning related to participation, I developed several lessons that involved cooperative learning, asked students to complete an inventory on their preferences for cooperative learning, and asked them to provide feedback on the lessons in which cooperative learning was integrated.

## Research Question

### Core Question:

Within a high school Social Studies classroom, how do I best implement group interactions that encourage student participation and increase overall engagement?

### Self Study Key Concepts:

My study explores four key areas of collaborative learning:

- Student Preferences for Collaborative Learning
- Establishing Groups for Collaborative Learning
- Collaborative Learning and Test Preparation
- Challenges of Collaborative Learning

## Literature Review

### Overview:

- Cooperative learning encompasses several central elements including positive interdependence, individual accountability, face-to-face promotive interaction, appropriate use of collaborative skills, and group processing (Tsay and Brady, 2007).
- Studies on cooperative learning have indicated a positive relationship with both student achievement and student attitudes toward learning (Tsay and Brady, 1989; 1989; 2007).
- Tottin et al. (1991) provided support that “cooperative learning not only helps achieve higher retention, but also encouraged students to become more motivated to take greater responsibility for their own learning and participate in class discussions” (Tsay and Brady, 80).

### Heterogeneous vs. Homogenous Groups:

- Webb et al. expounds, “on the one hand, in a heterogeneous group, high ability students can serve as guides for their less capable peers, restructuring their own knowledge in order to appropriately help, and the low achievers learn from the explanations given by the high achievers” (Rozenszayn and Assaraf, 124).
- Leikin and Zaslavsky (1999) found that students should be placed into heterogeneous groups in which student’s exhibit varying levels of ability (Rozenszayn and Assaraf, 139).
- Leikin and Zaslavsky (1999) found that “while students of lower ability prefer to work with stronger students who can help them during the learning process, higher ability students prefer to work in homogeneous groups (Rozenszayn and Assaraf, 139).

### Group Size:

Studies conducted by Johnson and Johnson (1999), Rennie et al. (2003), Shachar and Sharan (1994), and Slavin (1996) indicate that collaborative learning in small groups is efficient only if five major components are present: Interdependence between group members, collective responsibility, reciprocity, social cooperation skills, and social processes (Rozenszayn and Assaraf, 125).

## Methodology

Qualitative self-study that seeks to discover how cooperative learning techniques influences student participation levels.

### Participants:

- Three US History classes.
- Fourth period (22 students, 21 juniors, 1 senior, seven with individual education plans).
- Fifth period (23 students, all juniors, and no individual education plans).
- Seventh period (26 students, 24 juniors, 2 seniors, and one with individual education plans).
- Student demographics: 69 white students, 1 African-American student, and 1 multiracial student.

### Lessons:

Cooperative learning and group work techniques were incorporated into lessons over the course of a fourteen week period. Student participation was observed and student feedback documented.

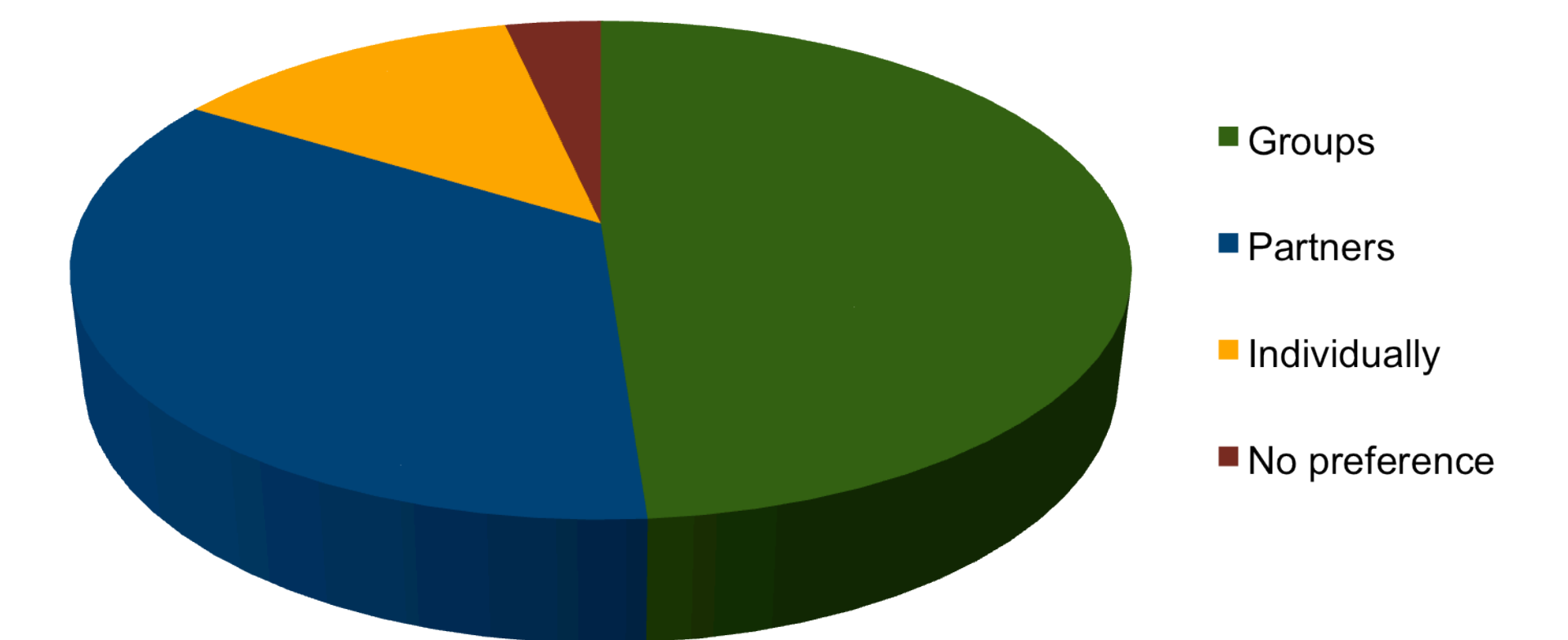
### Data:

The research described in this self study was collected from observational field notes of daily classroom activities, journal reflections on daily teaching experiences, evaluations completed by external observers, lesson plans and reflections on implementation of these lesson plans, and everyday classroom records, including student’s academic work and assessments of the same, for which consent was granted.

## Findings

After initiating a week of half lecture style instruction and half cooperative learning implementation into the curriculum, students completed a cooperative learning inventory which provided insight into the techniques students thought were most effective for their own learning. The cooperative learning inventory asked if you prefer to work in groups, with a partner or individually on work assigned in class?

Combined Averages of Three US History Classes



### Heterogeneous vs. Homogeneous Grouping

With homogeneous groups for cooperative learning:

- Participation was not as effective as heterogeneous grouping.
- The low ability students got frustrated.
- The high ability students did not collaborate and worked independently.

With heterogeneous grouping for cooperative learning:

- Significantly more student participation levels for all students.
- High ability students seemed to comprehend and apply the material better when working with their lower ability peers.
- Low ability peers benefited from their interactions with high ability students.

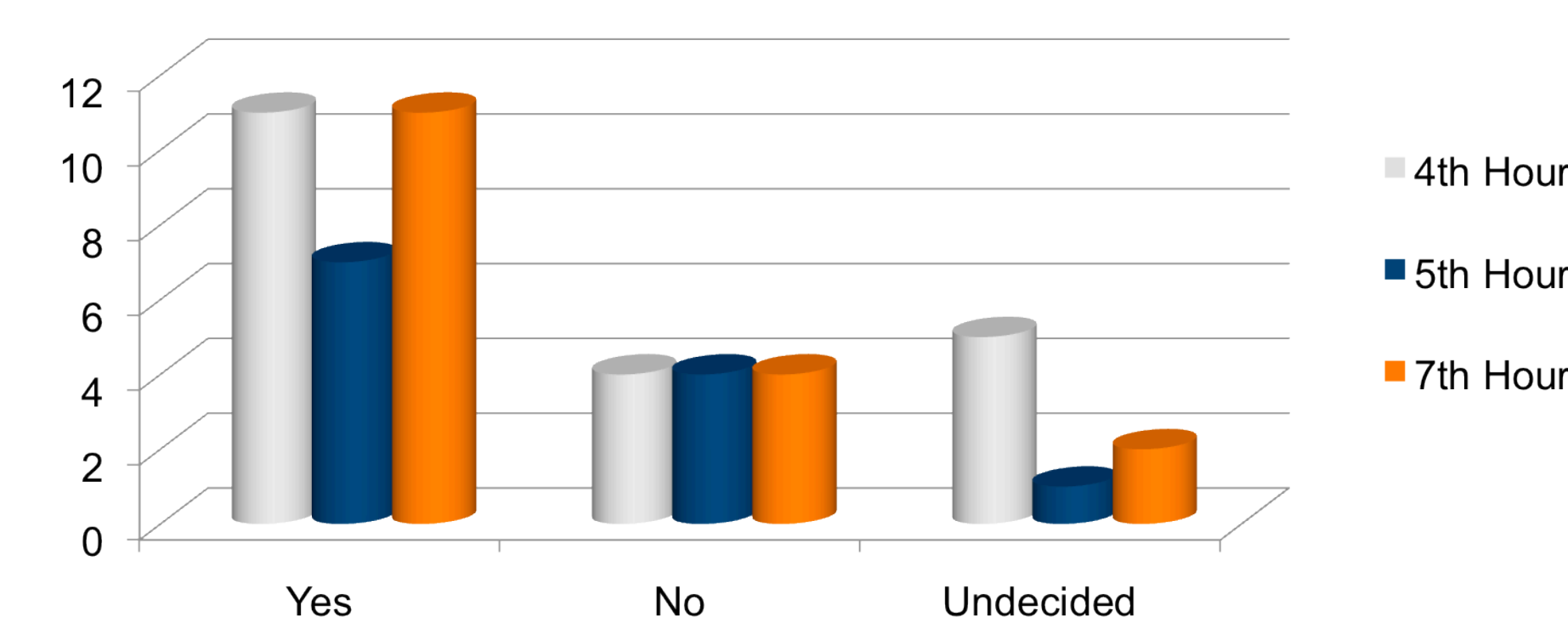
### Small Groups vs. Large Groups

Small groups tended to be more effective than larger groups because they:

- Encouraged more student collaboration
- Enhanced the overall quality of the participation and interaction among students.

## Graphical Data Analysis

“Did you think group presentations were a constructive way to review test material?” (Exit Slip)



## Conclusions

The findings of this self study provide considerable support that cooperative learning techniques, especially those centered on heterogeneous groupings, are connected to student participation. Results from the study support the notion that cooperative learning is indeed an active pedagogy that works to foster higher participation levels among students in classroom environments.