

**The Affects of Member Chosen and Teacher Assigned Groups on
Cooperative Learning**

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Introduction

“Can we choose our own groups?”

This is the question that I hear when I begin to introduce a cooperative learning lesson. Students almost always want to work with their friends. My research began with a simple question, “Do students achieve more when they choose their own groups?” or “Is it more beneficial for the teacher to assign groups based on the assumption that students will not be on task if they work with their friends?”

Slavin, Johnson and Johnson have articulated the virtues of cooperative learning. Koh et al. put it best by stating that “Johnson and Johnson (1989) summed up the findings of a plethora of experimental and correlational studies with the conclusion that cooperative efforts lead to enhance[d] productivity and achievement to a greater extent than competition or individualism.” (Koh, Tan, Wang, Ee, & Liu, 2007) In response to the amount of research that has taken place regarding the benefits of cooperative learning I wanted to take my research on cooperative learning one step further, by dealing with the construction of cooperative learning groups.

I read articles that argued either side of my problem, as some vehemently asserted that teacher chosen groups are a necessity when implementing a cooperative learning activity. While others suggested that the social aspect of the cooperative learning activity was invaluable. One particular article’s position on group assignment was distinctly one sided, believing that the “[d]ivision of a class into constituent teams is best conducted by the teacher. Student-chosen groups often result in...ineffectively working teams...Teams should be work groups, not play groups...The teacher building groups creates expectations for success”. (Vermette 1994) Reading that article was contradictory to what I had read in other journal articles dealing with the topic of social constructivism which suggests that social interaction

is necessary for learning as it is thought that “those who talk more learn more”. (Cohen 1998) These two articles provided the framework for my research as my question developed.

The problem that needed to be solved was whether or not student chosen groups resulted in students not being on task and lowering student achievement, or if teacher assigned groups proved to be more equitable in the area of student achievement. In an interview with a fellow teacher researcher at Millbrook High School, Scott Wofford, the idea was stated that if the cooperative learning lesson was structured correctly then either method of group selection would be successful. Meaning that “four elements that should be present for a group to be considered cooperative. The first, positive interdependence....The second, individual accountability....The third, face-to-face interaction... [and] The fourth element, group process.” (Johnson, Johnson, Holubec, & Roy 1984). In this era of high stakes testing I could not in good conscience experiment on my Civics and Economics students for fear of hindering their learning. Therefore, my area of exploration was focused on secondary social studies students in a Law and Justice honors class.

For my research to gain merit I will need to have more evidence. Further research will need to be conducted across a range of social studies subjects and various levels of learners to prove that my findings from this one experiment are not an anomaly. Eventually, this research could reshape how teachers carry out cooperative learning lesson across different curriculums.

Methodology

Data Collection Methods

My initial step in researching whether student chosen or teacher assigned groups achieved more in a cooperative learning lesson was to decide which method of cooperative learning would be implemented. After studying various cooperative learning methods, the jigsaw method best fit my research. Since it

would allow two separate parallel lessons for the same set of students, where the same amount of information was learned, the only variable changed was how groups were assigned. The traditional Jigsaw “technique may be seen as high task on interdependence but low in reward interdependence”, so I decided to make one modification to my lesson. (Slavin 1980) The modification was that students would be responsible for their particular topics, and then teach their group members what they had learned. As a group they would then synthesize all of the information on the civil or criminal justice process and turn in a final graded group sheet. (See Final Group Sheet and Group Member Sheets)

Creating two consistent parallel lessons was important so that results could be compared. The law and justice curriculum provided me two topics that could be used as a cooperative learning activity: the process of a criminal trial and the process of a civil lawsuit. Each process had twelve and eleven steps respectively, ensuring that the amount of information that needed to be learned from both topics would be approximately the same. For each lesson there were two products that needed to be completed by the groups, the first was a chart in which the group needed to put the steps in proper order and second was to use that information and create a poster articulating the entire process. For the first product, students in the groups were randomly assigned three steps in the process that they were studying and they used the internet to research and summarize what occurred in each of the steps. Once group members completed their research, they then taught their group members what happened during their steps in the process. Students then needed to complete the first product by placing the steps in order along with the summaries and each group member completed a replica of the first product for their own notes.

Before and after each lesson students took a survey. The purpose of the survey was to: gauge their attitude on cooperative learning as whole, their attitude toward teacher assigned and member chosen groups, and to learn the students’ typical interaction in a group setting. Students were required to complete a pre-survey; this enabled me to see how student attitudes changed from one activity to the next

so the change in their attitude could be analyzed across the entire study, not just one segment. Added to the post-survey were two open-ended questions that allowed students to share their own thoughts on how the cooperative learning lesson went, specifically dealing with the method of how groups were chosen.

The final step in conducting my research was a quiz at the end of each lesson to assess how much students had comprehended during each lesson. Each quiz was approximately the same length, eighteen and seventeen questions respectively. The purpose of the quizzes was to give me quantitative data regarding the levels of achievement between teacher chosen and member chosen lessons.

Data Analysis Methods

The first step in my analysis was to look at the student surveys. There were four surveys total, no surveys were identical, but both pre and post surveys had overlapping questions. The questions that were the same for the corresponding surveys allowed me to analyze the trend in student's attitudes in regards to the method of how groups were chosen. Questions that were not the same provided me with evidence of how students viewed each specific lesson regarding their achievement and attitudes.

The second step was calculating the results of the student quizzes. Students' quiz results were lined up next to each other, knowing that the number of questions were not the same, a simple formula ($\#$ incorrect on the first quiz - $\#$ incorrect on the second quiz = a positive or negative number) was used to calculate the results. If a student ended with a positive number, it meant that the student learned more in teacher assigned groups; if the results ended with a negative number it meant that the student learned more from the member chosen groups. The final piece was to not look at the achievement of individual students, but the class as a whole. Individual student results were then added up to see if the end number was negative or positive, therefore stating what type of group assignment was the most beneficial to the entire class.

Findings

No clear pattern was discerned from just looking at student scores on the quizzes. Nine students comprehended more when groups were member chosen, eight students exhibited a higher level of comprehension in the teacher chosen format, and five showed the same amount of comprehension during both lessons. With the quantitative data being so close it is difficult to distinguish which method of group assignment is more beneficial. However, when the differences in the totals from each lesson were combined to look at the class achievement as a whole, the students exhibited a higher level of learning during the member chosen lesson. Even though the quantitative data is relatively inconclusive, the surveys concerning students' attitudes are decidedly one-sided.

Students' attitudes concerning the method of assigning groups were overwhelmingly favored member chosen groups. In both the first and second pre-survey only one student disagreed with the statement that they felt more comfortable and are able to learn better in member chosen groups. In the first pre-survey all students, besides one were either neutral or agreed that they learn more when groups are member chosen. However, in the second pre-survey, when students were asked if they learn more in teacher assigned groups the results were much more scattered, with only five out of the twenty-six agreeing.

During the post-survey students still exhibited further support for member chosen groups. All students answered either neutral or agreed that groups members worked very well on the given task in a member chosen setting, juxtaposed to how they answered the same question in a teacher assigned setting, as only seventeen answers were either neutral or agreed with that same statement. A more telling response was to the responses for question seven on each post-survey asking if the student preferred that the group assignment had been carried out in the other option. After the member chosen lesson, all responses

disagreed or were neutral with the statement that they would have preferred that the teacher had assigned groups. Whereas after the teacher assigned lesson, all responses agreed or were neutral about the statement that they would have preferred the lesson to have been member chosen.

The open ended questions at the end of each post survey allowed me to gain insight regarding the positives and negatives of member chosen and teacher assigned cooperative learning lessons. Some of the positives that students stated in regards to the member chosen groups were that “I got to learn more about my friends and their work ethic for the next project” and that “you know everyone’s strengths and weaknesses”. I did learn from my students that there are some negative aspects to member chosen groups such as “Since I chose my group. I didn’t really get to know my other classmates better” and “choosing someone I knew wouldn’t do the work”. After reading the positives and negatives of the lesson I realized that in future member chosen cooperative learning lessons, perhaps students would choose group members differently now that they had a chance to reflect on their decisions concerning their group members.

The responses to the open ended questions from the post-survey for the teacher assigned lesson aligned with the results to question seven on the same survey. A student stated the fact that he/she “didn’t know the people in the group well and didn’t know how to work/the best way for us to work together” while another was not pleased that his/her group “didn’t really interact very much”. There were very few positives to the teacher assigned lesson, as the surveys and the responses to the open ended questions exhibited.

Although the quantitative analysis attained from the quizzes was largely inconclusive for a single study, the results of the survey and open ended questions showed that students prefer to work in member chosen groups.

Discussion

This study will affect my own teaching practices. I will continue to be a teacher researcher and conduct further research on this topic and hopefully come to a more concrete conclusion. In the future, I will use the same lessons but flip the group assignment methodology. Also, I will employ a pre-test to have a baseline for how much knowledge my students already have in the particular area we are studying. As for carrying out cooperative learning lessons in class, I will allow my students to choose their own groups. If this is the method in which students feel most comfortable learning and therefore comprehend information better, I will continue to use it.

A Professional Learning Team or PLT is a group of five educators that meet weekly to discuss strategies used in the classroom and share best practices. This is where my study will have the greatest implications because the PLT will adjust some of their methods as they move forward. Specifically dealing with how each of them carries out cooperative learning lessons. The PLT will begin to stress defined roles in group work so that there is a fundamental shift from the division of labor to structured cooperative learning.

Over the past several months I have kept a research journal which has allowed me to reflect on my daily activities as a teacher and to study my own teaching and students. Looking through my lesson plans and my journal I began to realize that every unit lasted for five school days and on day one of the unit I would always do the same thing, a lecture to introduce the topic and notes on the important concepts. Day two of the unit would be the same cooperative learning activity using the End of Course exam coach books and going to the computer lab to create PowerPoint presentations to share with their classmates. The third day of the unit would be used to finish up all the knowledge that students needed to know in preparation for the unit test. Days four and five would be dedicated to comprehensive reviews, games and

then a cumulative semester test. It was not until a student asked another what we were going to do the day after the test and the other responded that it was the first day of the unit and we always take notes on the first day. I reflected on this statement because I had thought that I was doing a decent job of breaking down a ninety minute period into several thirty minute chunks to maintain students' attention; what it made me realize was that I was falling into a "unit rut" and my class was becoming too predictable. I want students to think that my classroom is an unpredictable place where they know what the topic for the day is going to be, but do not know how it is going to be taught. My students also taught me how helpful my journal can be by observing and learning about my students. This was the first time since my undergraduate education courses where I observed my students and their behaviors in a systematic fashion. I had forgotten how useful a tool simply observing them is. I learned that I should observe my students from a different perspective than of the teacher, by writing down my observations and reflecting on them later. This method helped me "listen and comprehend" to what my students were saying instead of just hearing them talk about my lessons.

Next Steps

I have realized some of the mistakes I made during my first research experiment and that I have learned from them and become a better teacher researcher because of it. Over the next semester I would like to carry out this experiment again with a few modifications and see if the results vary with a different set of students. Some changes that I am going to make to the cooperative learning process would be to have expert groups to ensure all information would be correct when students return to disseminate information to their original groups. I will also try and create the lesson so that it can be completed in one ninety minute period so that the groups remain in sync. It was difficult to integrate students that were not present during the first day of the assignment or having students absent the second day of the lesson and

their groups not having access to their information. The most important next step for me, though, is to continue my learning as an educator, continue my studies and to not stop researching.

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Jigsaw Student Pre-Survey 1

Period:

Directions: There are several statements concerning the “Jigsaw” activity you will experience. Tell the degree to which you agree with each by circling the appropriate comment.

1. When I'm in a group, I work and learn better.

Strongly Disagree Disagree Neutral Agree Strongly Agree

2. When the teacher chooses the group I feel that I get to know my classmates that I do not normally talk to better.

Strongly Disagree Disagree Neutral Agree Strongly Agree

3. When I get to choose my group members I feel more comfortable and therefore am able to learn better.

Strongly Disagree Disagree Neutral Agree Strongly Agree

4. Overall, when doing group work, I feel that I learn more when I get to choose my own group members instead of being assigned a group.

Strongly Disagree Disagree Neutral Agree Strongly Agree

5. Do you often rely on other members of the group to do the work for you?

Strongly Disagree Disagree Neutral Agree Strongly Agree

6. When in groups, do you trust your group members to do a good job?

Strongly Disagree Disagree Neutral Agree Strongly Agree

Jigsaw Student Survey 2

Period:

Directions: There are several statements concerning the “Jigsaw” activity you will experience. Tell the degree to which you agree with each by circling the appropriate comment.

1. When I’m in a group, I work and learn better.

Strongly Disagree Disagree Neutral Agree Strongly Agree

2. When the teacher chooses the group I feel that I get to know my classmates that I do not normally talk to better.

Strongly Disagree Disagree Neutral Agree Strongly Agree

3. When I get to choose my group members I feel more comfortable and therefore am able to learn better.

Strongly Disagree Disagree Neutral Agree Strongly Agree

4. Overall, when doing group work, I feel that I learn more when the teacher chooses my own group members instead of choosing group members myself.

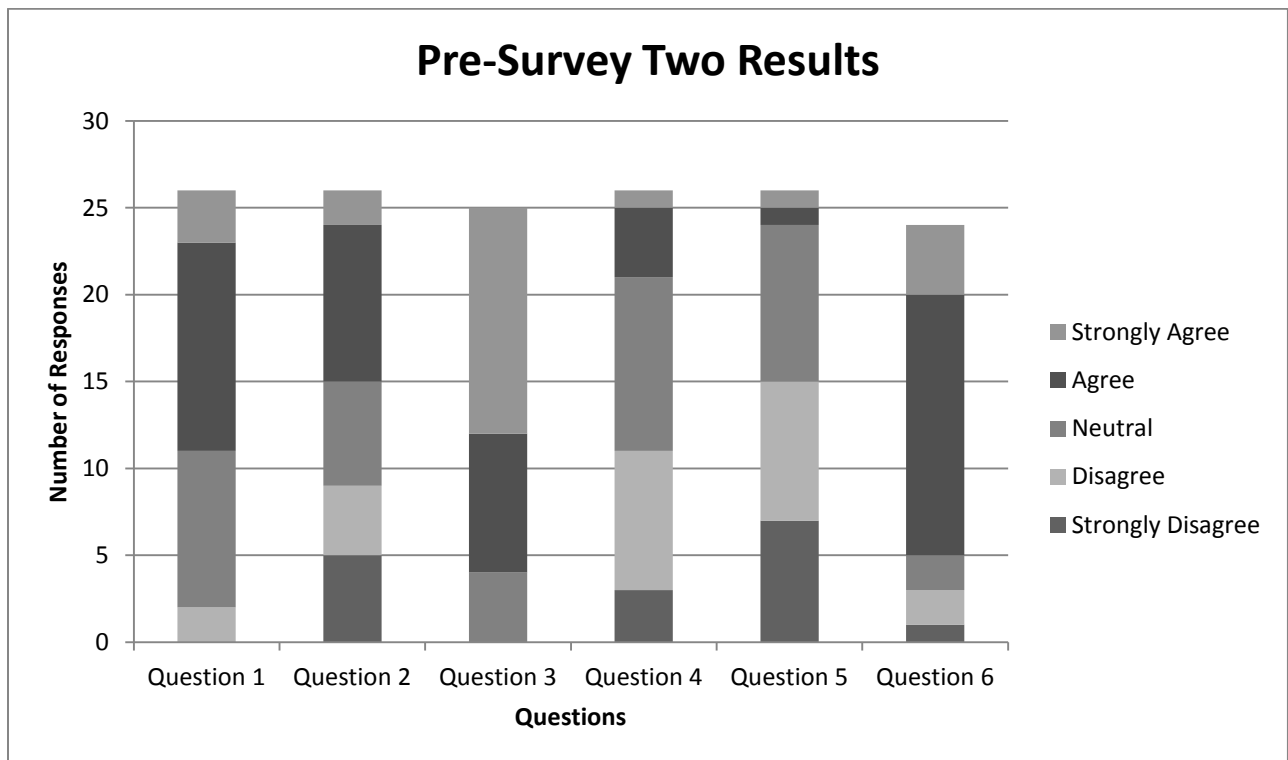
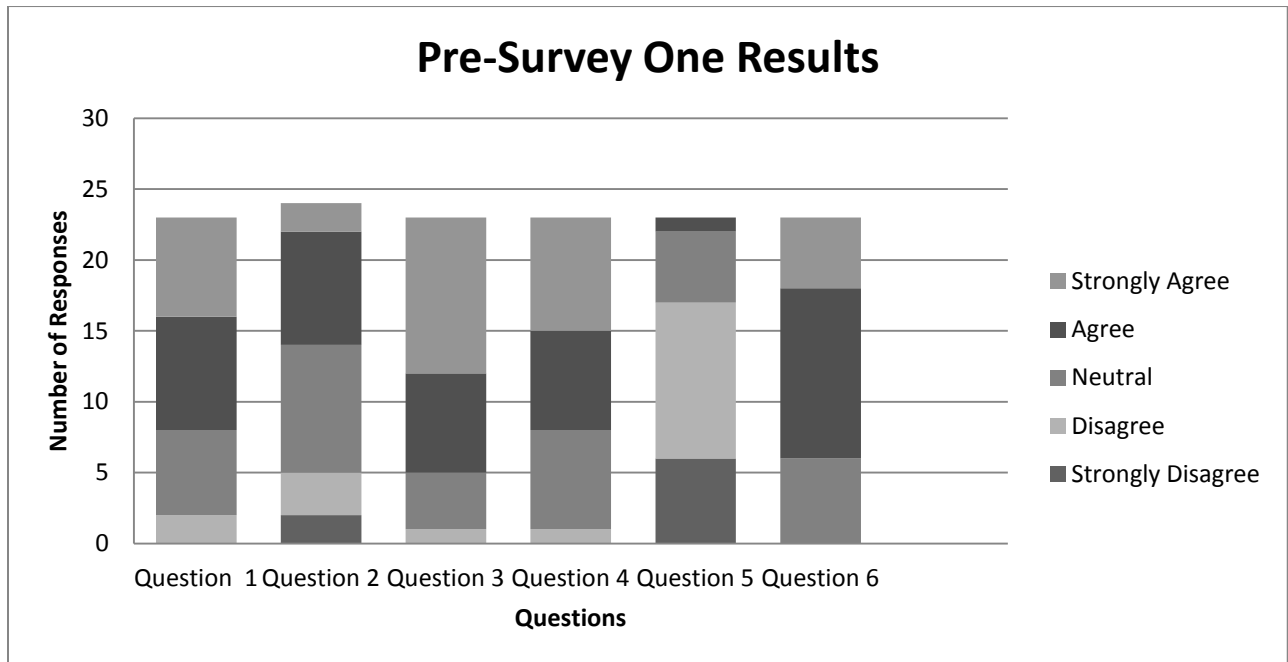
Strongly Disagree Disagree Neutral Agree Strongly Agree

5. Do you often rely on other members of the group to do the work for you?

Strongly Disagree Disagree Neutral Agree Strongly Agree

6. When in groups, do you trust your group members to do a good job?

Strongly Disagree Disagree Neutral Agree Strongly Agree



Jigsaw Student Post Survey 1

Period:

Directions: There are several statements concerning the “Jigsaw” activity you just completed. Tell the degree to which you agree with each by circling the appropriate comment.

1. When I’m in a group, I work and learn better

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
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2. Our group worked very well on the given task.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
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3. I felt more comfortable working with my group since I was able to choose them.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
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4. Interaction with group members helped me understand the material

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
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5. I worked harder/better because the group’s grade depended on me.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
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6. I got to know a different classmate better through this activity.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
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7. After this activity, I would have preferred it if the teacher had assigned the groups.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
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8. I learn better from friends, rather from people that I do not know that well.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
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What were some positive experiences you had from being able to choose your own group? (Answer on the back)

What were some of the negative aspects about choosing your own group, if any? (Answer on the back)

Jigsaw Student Post Survey 2

Period:

Directions: There are several statements concerning the “Jigsaw” activity you just completed. Tell the degree to which you agree with each by circling the appropriate comment.

1. When I’m in an assigned group, I work and learn better

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
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2. Our group worked very well on the given task.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
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3. When the teacher assigns the groups I feel that I work harder than if I am working with groups that I was able to select.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
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4. Interaction with group members helped me understand the material

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
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5. I worked harder/better because the group’s grade depended on me.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
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6. I got to know a different classmate better through this activity.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
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7. After this activity, I would have preferred it if I was able to choose my group.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
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8. I learn better from friends, rather from people that I do not know that well.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
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What were some positive experiences you had from teacher assigned groups? (Answer on the back)

What were some of the negative aspects about the teacher assigning the group, if any? (Answer on the back)

