

# What is the effect of using collaborative learning on student academic achievement?



**Caroline Fish**  
Dr. Shirley Sommers



## Introduction

What is the effect of using collaborative learning on student academic achievement? In the classroom, each student has his/her own background, interests, learning styles, and needs. As teachers, it is our legal responsibility to educate all students. In order to provide all students the equal opportunity to learning, teachers need to differentiate instruction. Teachers can no longer view instruction as one size fits all (Willis & Mann, 2000). In the classroom, teachers can use collaborative learning to differentiate their instruction. Collaborative learning "...is an educational approach to teaching and learning that involves groups of learners working together to solve a problem, complete a task, or create a product" (Pattanpichet, 2011, p. 2). Through collaborative learning, students can work together to guide, support, and learn from each other.

## Literature Review

Researchers Rojas-Drummond & Mazon & Littleton & Velez (2014), found students involved in the Learning Together programme, which implemented collaborative learning, increased the quality of their summaries compared to the students that were not involved in the collaborative learning programme. Collaboration was also found to be effective in increasing student knowledge and skills in studies by Tunnard & Sharp, 2008, Pattanpichet, 2011, and Park & Lee, 2015. The results of the studies showed the children scored higher on their learning tasks while working with a partner (Park & Lee, 2015). According to Shahamat & Mede (2016), their results showed the effectiveness of collaborative learning "...93.47% of students stayed on task while working in groups, 85.86% listened to the group's ideas, 79.34% participated in group discussions, 79.34% encouraged group members, and 84.78% of them exhibited positive attitudes towards working collaboratively" (p. 693). The results also displayed that the students increased their test scores.

## References

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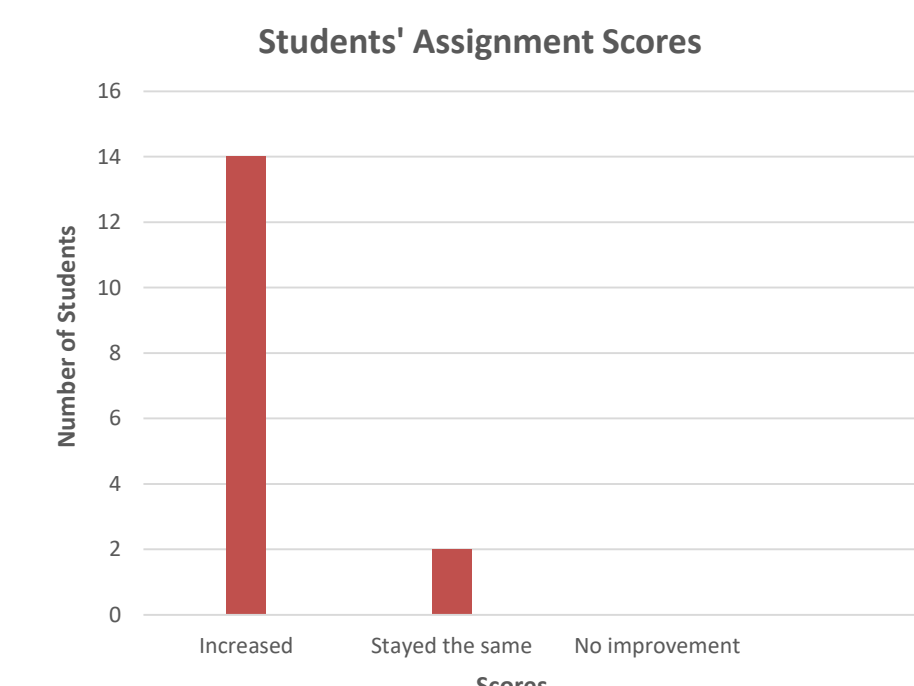
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## Methods

The research methods of the study included quantitative and qualitative methods. Through quantitative research, I was able to analyze if students received higher academic achievement using collaborative learning than working individually. Through qualitative research, I was able to better understand why collaborative learning is an effective or ineffective teaching strategy. The data collection methods were artifacts of students' work, observational data including field notes and a checklist, and lastly a survey. The participants were 16 students in 3<sup>rd</sup> grade from a school district in the Rochester area. The school was a primary school that included grades K-3.



## Results



| Activities  | Group 1 | Group 2 | Group 3 | Group 4 | Group 5 | Group 6 | Group 7 | Group 8 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|
| Both partners participate   | ✗       | ✗       | ✗       | ✗       | ✗       | ✗       | ✗       | ✗       |
| Partners work together  | ✗       | ✗       | ✗       | ✗       | ✗       | ✗       | ✗       | ✗       |
| Partners stay on task   | ✗       |         | ✗       | ✗       | ✗       | ✗       | ✗       |         |
| Partners discuss the answer/content not just quickly answer the questions | ✗       |         | ✗       |         | ✗       | ✗       | ✗       |         |
| Partners support, guide, or assist each other                             | ✗       |         | ✗       |         | ✗       | ✗       | ✗       |         |

### Survey Results

| Survey Questions  | Number of students responded <u>yes</u> | Number of students responded <u>no</u> |
|---|---|--|
| Did you prefer working with a partner?  | 13                                      | 3                                      |
| Did you and your partner work together on the activity?                         | 16                                      |  |
| Did you and your partner talk about the question before answering the question? | 16                                      |  |
| Did <u>you</u> help your partner during the activity?                           | 16                                      |  |
| Did <u>your partner</u> help you during the activity?                           | 13                                      | 3                                      |

## Discussion

After analyzing my results, I was able to conclude that collaborative learning has a positive effect on student academic achievement. 14 of the 16 students' scores increased their assignment scores from working alone to working with a partner. 2 of the 16 students' scores remained the same from working alone to working with a partner. It makes sense that the students' scores either increased or remained the same when the students were working with a partner. While I was observing the students, all the students were participating and working together. I observed the students reading the questions aloud and answering the questions together as a group. Most groups were also discussing the answers and content before they recorded their answers. I observed multiple groups look in the text and discussed possible answers before deciding how they were going to answer the questions. In addition, most groups were supporting, guiding, and assisting each other while completing the assignment. I observed many students point to the part in the text where they found the answer. If one partner did not understand how to answer the question, the other partner explained their thinking to their partner.

This research contributes to the education field because it shows that collaborative learning is an effective teaching strategy to use in the classroom. The students in this study benefited from working with a partner on their assignment. Through working together, the students were able to guide, support, and learn from each other allowing an increase in student academic achievement.