

The Effects Of Team-Based Learning On Student Achievement In Science

Background

This capstone projects looks at whether student achievement in science can be improved through a team-based approach. Students in the traditional classroom are dependent upon the teacher for their learning. The team-based setting will put instruction, guidance, and support in the hands of the students, with the teacher playing the role of a guide and facilitator. Providing a team-based learning environment will improve the students' achievement and comprehension in science.

Data Collection and Analysis

Research Questions	Data Source		
Does team-based learning improve students' comprehension?	Quiz & Test Grades	Observational Records	Pre & Post Test
Will students teach and learn from their peers in a team-based classroom?	Quiz & Test Grades	Observational Records	Student Surveys
Is student engagement improved with the use of team-based learning?	Student Surveys	Observational Records	Semi-structured Interviews

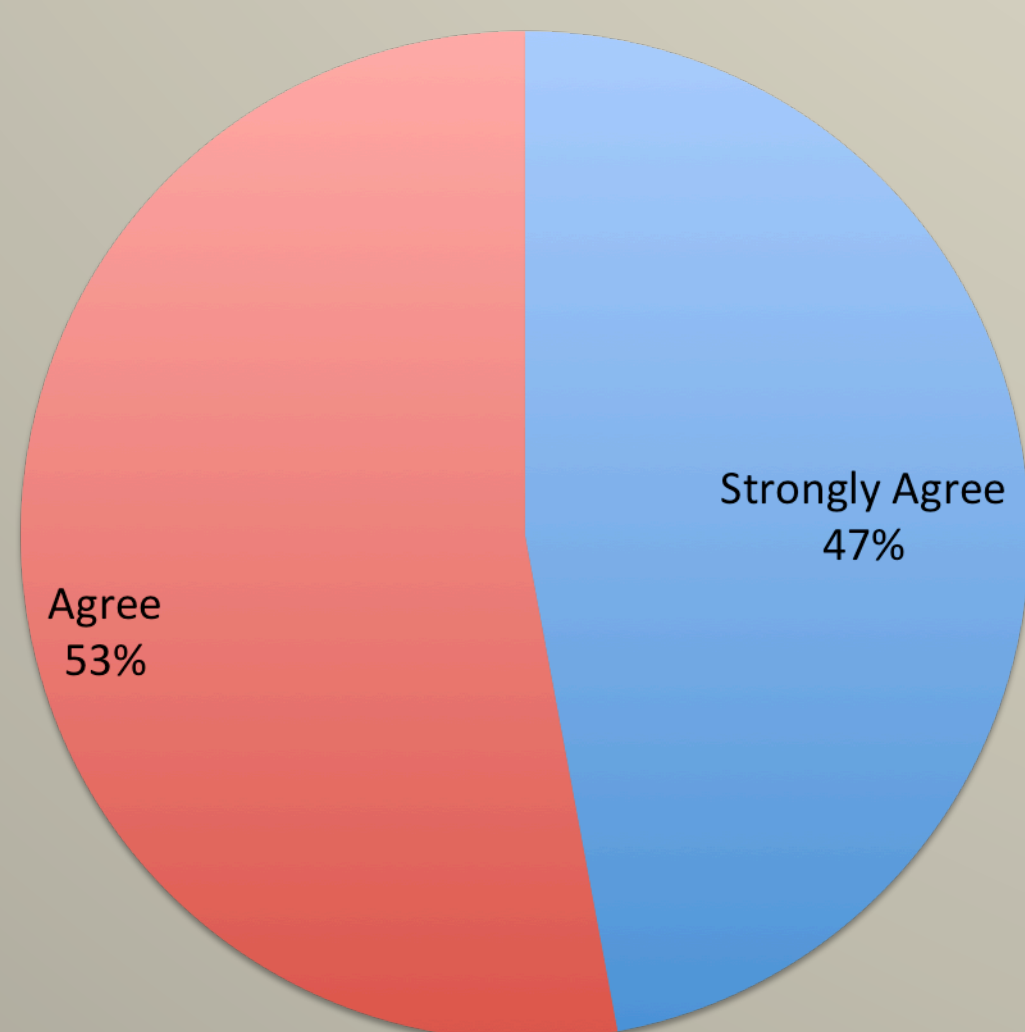
Treatment

Students worked in teams for one unit to complete assignments, labs, note taking, and quizzes. Students were required use their teammates as a resource prior to their teacher addressing questions. Biweekly quizzes were given to students; these were taken individually and as a group. Students' participation on their team was dependent upon their completion of nightly homework.

Results

The results from the team-based teaching and learning were inconclusive. The data showed an improvement in students' quiz grades, however, the comparison group's test grades showed a greater percent gain. Team-based learning had a positive impact on student engagement, and students demonstrated a willingness and desire to use this method in future lessons.

It was easier to learn the material in science when working on a team. N=15



Class Size	Period	Pre-Test Average	Post-Test Average	Percent Gain
15	Treatment	32%	82%	71%
15	Comparison	49%	92%	85%



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