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The Effect of Team-Building Interventions on Group Cohesion and Academic Performance

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The Effect of Team-Building Interventions on Group Cohesion and Academic Performance

Abstract

The present study investigates the effect of group cohesion on academic success in undergraduate students in a semester-long group project. Students in Research Methods classes form small groups at the beginning of the semester and conduct experiments with their teammates throughout the course. Oftentimes, professors do not include any team-building interventions in their class sessions. However, research shows that a sense of group cohesion enhances group performance across various settings (e.g., on sports teams). The more cohesive a group feels both socially and professionally, the more likely they are to work together towards shared goals. This research aims to test whether interventions that are meant to enhance group cohesion in a classroom setting impact perceived and actual group and academic performance. At the beginning of the semester, two sections of Research Methods in Behavioral Science received a pretest survey to determine their baseline cohesion. Throughout the semester, students in the experimental class participated in three team-building interventions that involved answering three personal reflection writing prompts to fill out at home and bring to class. This technique is known as Personal-Disclosure Mutual-Sharing (PDMS). On the intervention days, each group met and had a discussion in which they shared their personal answers with the group. The control group only received surveys throughout the semester that measured their cohesion. After the groups complete their projects at the end of the semester, each participant will fill out a posttest survey rating perceptions of cohesion within their group; in addition, we will collect students' final grades to determine if the interventions had any significant effect on their performance. We expect that groups who participate in the interventions will have a greater perceived sense of cohesion with their team members, which will ultimately improve their academic performance.

Keywords

Social psychology, group cohesion, performance

Disciplines

Educational Assessment, Evaluation, and Research | Educational Methods

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Background

Group projects are a fact of life for students and professionals alike, but who tends to have the most success in these projects? Do group activities enhance cohesion among group members and improve class performance?

Previous research has focused on different types of team building exercises, such as personal-disclosure mutual-sharing, among athletic teams (PDMS) (Dunn & Holt, 2004). Similar studies have been conducted in order to implement team building activities within athletic groups, but not as much research has explored the use of these activities within academic groups.

Because previous research with team building activities among athletic teams has shown positive results, we investigated the effects of these activities in the classroom. We wanted to determine whether group activities during a semester-long group assignment would lead to greater perceived cohesion and actual academic success.

Hypotheses

Students who participate in team-building interventions will have:

1. higher perceptions of group cohesion
2. higher grades on their collaborative group project in the Research Methods course

Method

Participants consisted of 40 Chapman University undergraduate students enrolled in Research Methods of Behavioral Sciences classes. 22 students were in the experimental class, and 18 students were in the control class.

All participants completed a pretest which included questions about their perceived group cohesion level at the beginning of the semester. The experimental group participated in three interventions throughout the semester meant to enhance group cohesion, and a checkpoint survey to assess personal involvement and team cohesion. The control group only completed the checkpoint surveys. Both groups will complete a posttest at the end of the semester, and we will collect the final grade of each participant for their group project.

Results

- An independent samples *t*-test was conducted at baseline to compare the initial expected group cohesion in each class. It was found that the experimental group ($M = 4.05$, $SD = .705$) expected to have significantly more cohesion with their groups compared to the control group ($M = 1.95$, $SD = .911$), $t(36) = -7.965$, $p = .000$.

- Figure 1 represents an independent samples *t*-test that was conducted to compare the team cohesion means of the experimental and control groups at each of the three checkpoints. There was no significant difference between the means at any of the three checkpoints ($t(34) = .255$, $p = .80$; $t(32) = .466$, $p = .644$; $t(29) = .962$, $p = .344$). As shown in Figure 1, the control group had slightly higher team cohesion means at each checkpoint, but not enough to be a significant difference.

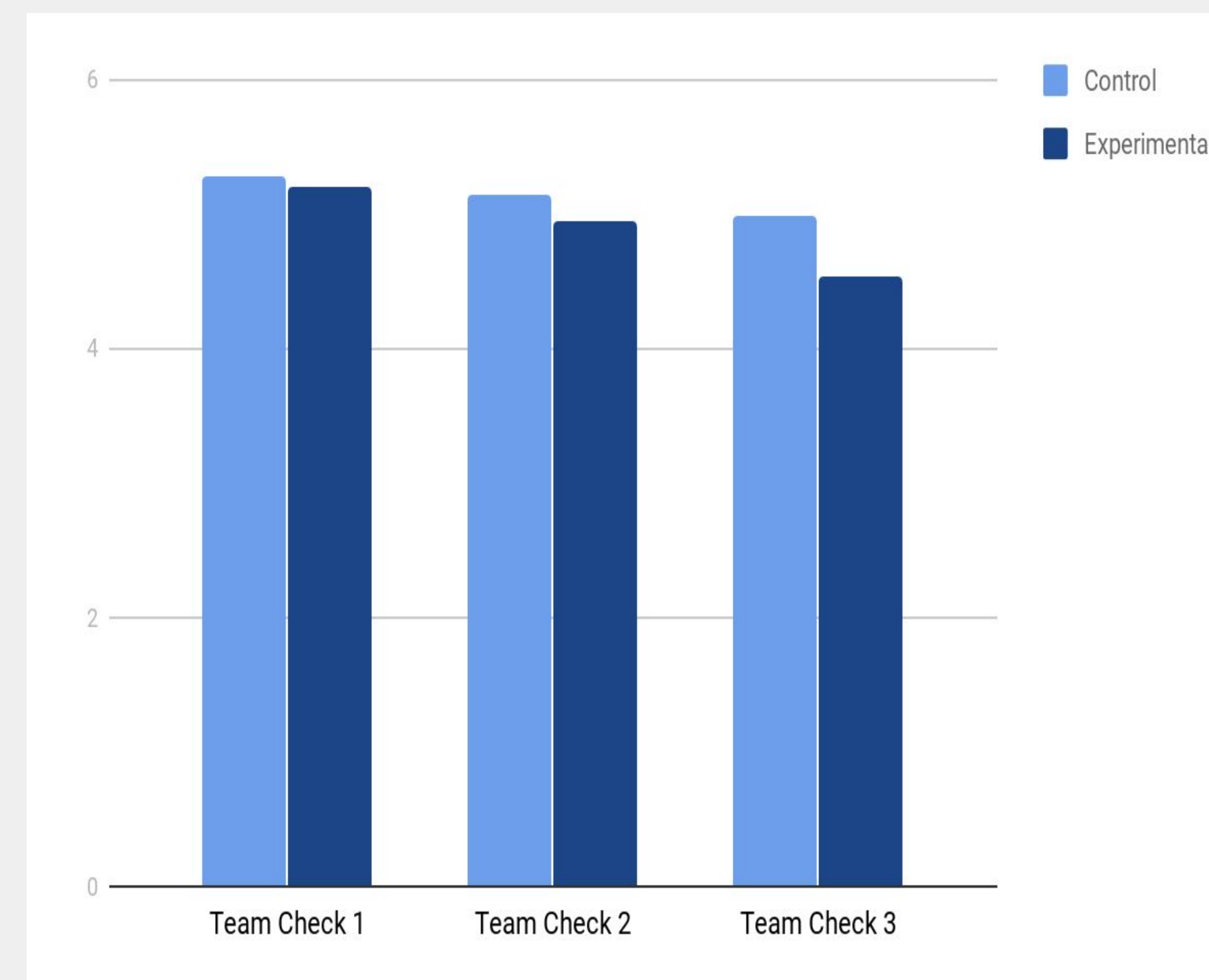


Figure 1. Mean levels of team cohesion between control and experimental groups

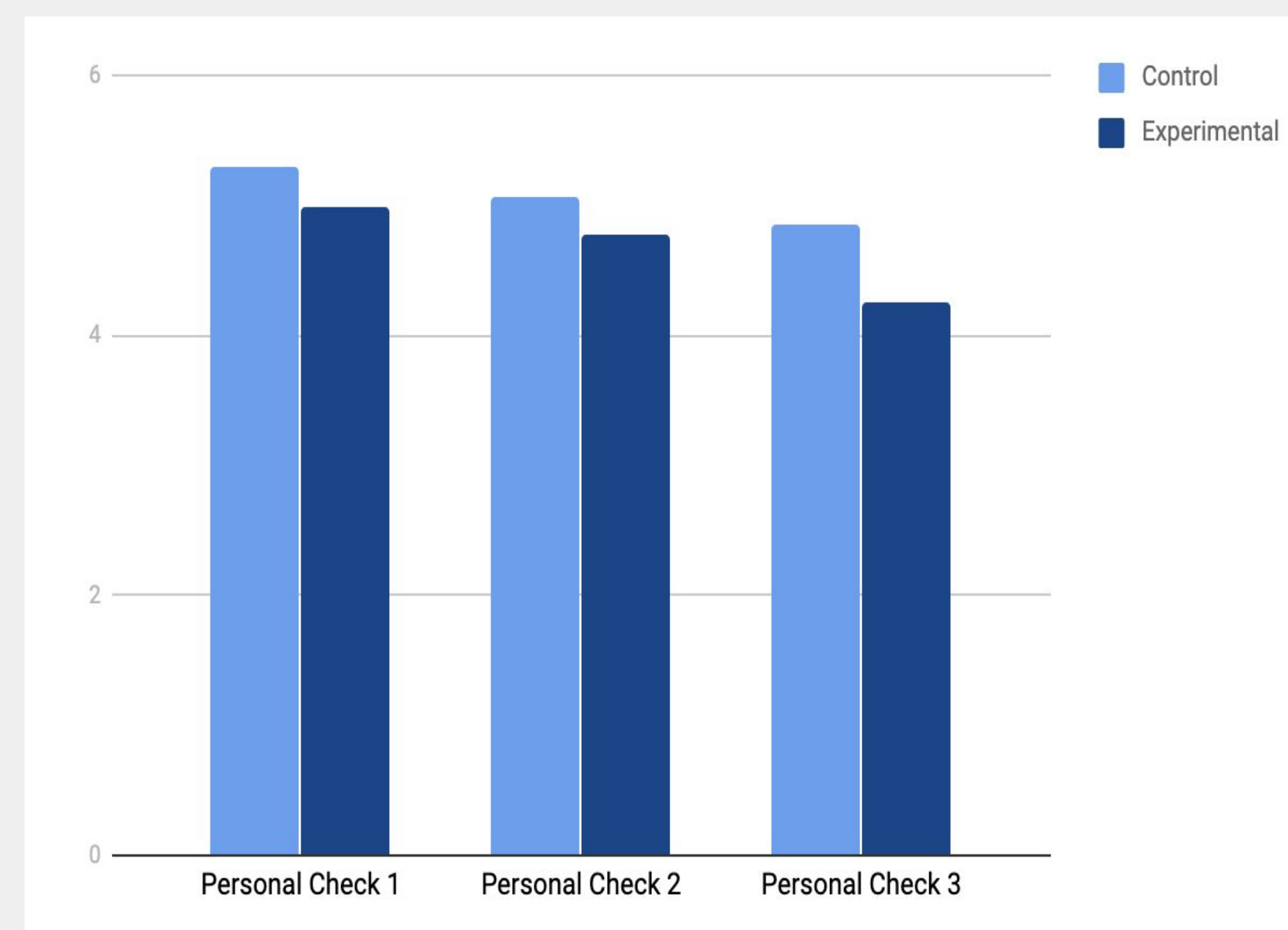


Figure 2. Mean levels of personal involvement between control and experimental groups

- Figure 2 represents an independent samples *t*-test that was conducted to compare the personal involvement means of the experimental and control groups at each of the three checkpoints. There was no significant difference between the means at any of the three checkpoints ($t(34) = .797$, $p = .431$; $t(32) = .721$, $p = .476$; $t(29) = 1.22$, $p = .232$). As with the team cohesion, the control group also had slightly higher personal involvement means at each checkpoint, but not enough to be a significant difference.

Discussion

Contrary to previous research, we did not find a statistically significant effect of group interventions on perceived cohesion.

At baseline, the experimental group expected to have significantly more cohesion without any knowledge of the purpose of the study. This finding suggests differences between the experimental and control groups before the interventions took place.

The limitations of this study include the small sample size and the use of different professors for each group. Having different professors for the control and experimental group meant that the classes would be doing different activities and hearing different lectures throughout the semester, which is not ideal and could have contributed to differences between the groups that were not influenced by the interventions. Replications of this study should include classes taught by the same professor in order to control the environment further. Lack of statistically significant data may also be contributed to small sample size.

Conclusion

It can be concluded that interventions that are meant to enhance cohesion in a classroom setting may not have an effect on perceived cohesion. Further research is needed to test whether cohesion significantly improves performance in a classroom setting. It is recommended that future studies utilize more controlled environments and a larger sample size to possibly see more significant results.

References available at the following link:



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