MEMORY RETENTION & ATTENTION SPAN

APCapstone

INTRODUCTION

Recent research found that adolescents spending more time on social media report having ADHD-like behavior (Chettaoui et al., 2022 and Leite et al., 2021). These studies concluded that increased SMU can lead to ADHD-like behavior such as attention deficiency, affecting students' memory retention and performance.

This research aims to determine if pop-it fidget are effective on increasing academic performance and memory retention on high school students.

HYPOTHESIS

It was hypothesized that pop-it fidget may improve short-term cognitive memory retention but have negative or neutral impact on their academic performance.

Control group ⟶ 15

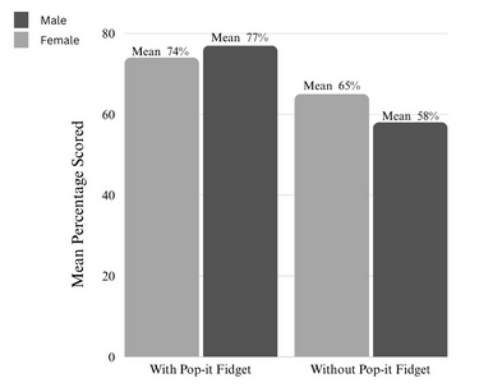
Experimental Group ⟶ 15

METHODOLOGY

The Standardized T-test method was used for this study. This method determined the difference between two groups (control and experimental) and required a minimum of 30 participants. The data analysis was done using descriptive statistics analysis through Excel.

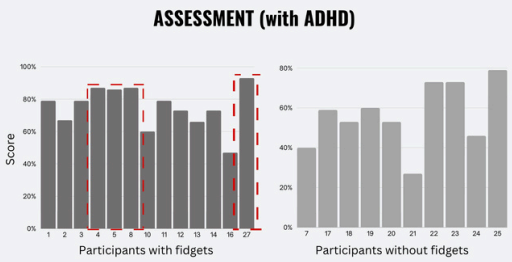
FINDINGS

Great Depression Assessment



Guys with pop-it fidgets scored M = 19%, more than those without fidgets. Girls with pop-it fidget scores M = 9% more than those without fidgets.

Great Depression Assessment (with ADHD)



In order to see the effect of pop-it fidgets on students who reported ADHD, the data above shows that the students with fidgets had higher scores on the assessment than those without fidgets.

DISCUSSION

The results from the Great Depression assessment showed somewhat of a positive correlation between pop-it fidgets and academic performance. Both guys and girls who used pop-it fidgets scored mostly between 60%-87%, while the control group—without fidgets—scores ranged 30%-70%.

Now when we looked closer, the data showed that students with ADHD who had pop-it fidgets had higher academic performance. About 7 participants scored more than 60% whereas those without pop-it fidgets only had 3 participants score above 60%. Furthermore, only those with fidgets were able to score above 80% (participant 4, 5, 8, 27). Thus, the finding show a positive correlation between pop-it fidgets and academic performance for those with attention deficiency

CONCLUSION

This study consisted of many limitations. Most of this study was conducted digitally, each participant using their own devices to complete the surveys, tasks, and assessment. While the scores gathered were calculated accurately, the scores themselves could have been inaccurate through cheating. Future research can conduct an experiment on paper instead of digital survey, to test if results stay consistent.

The results of this study can spur education systems and educational advisors to incorporate pop-it fidgets as a possible remedy for the negative effect of SMU. The results concluded that pop-it toy improve academic performance. **Therefore, this study can inform students and educators of intervention to help curb the cognitive effects of SMU—attention deficiency and memory retention—on their performance.**