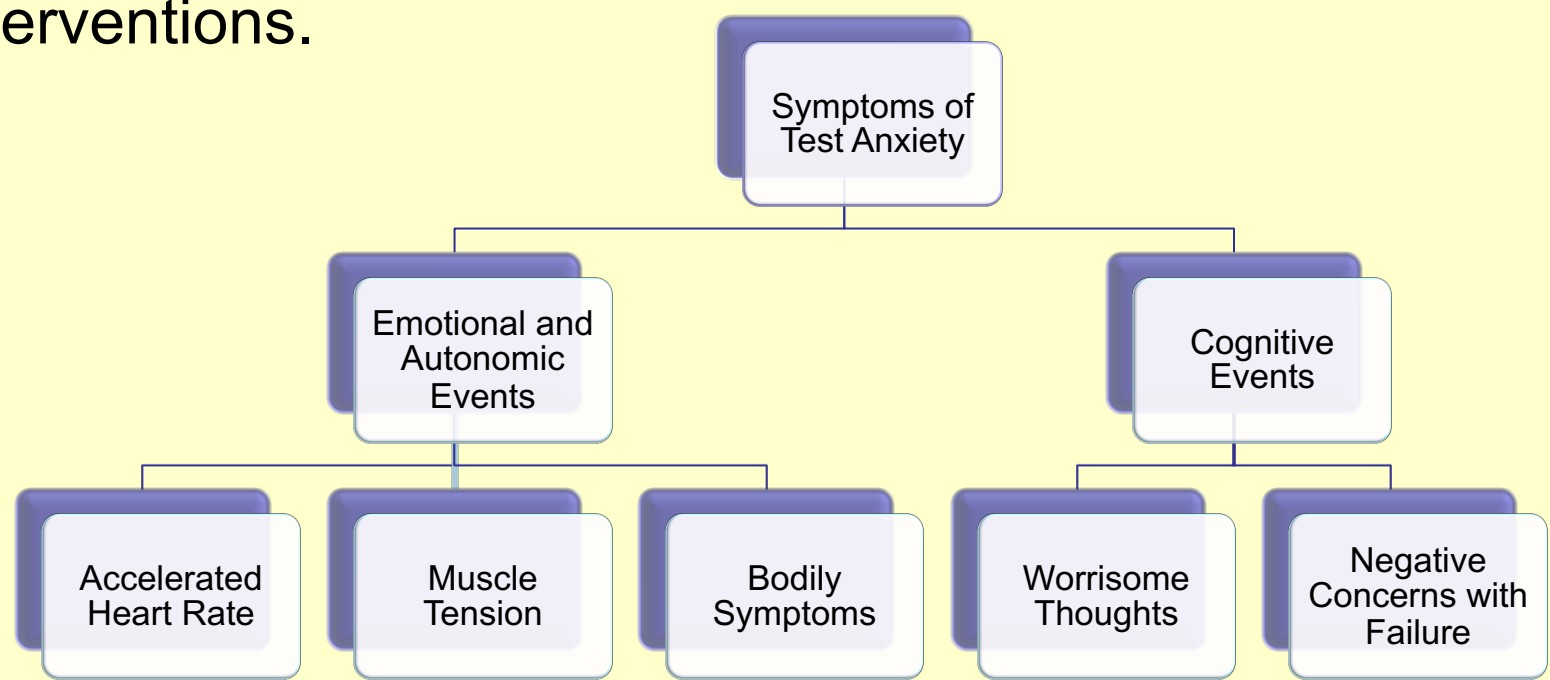


The Effect of Mindfulness Coloring on the Level of Test Anxiety Experienced by Fourth Grade Students

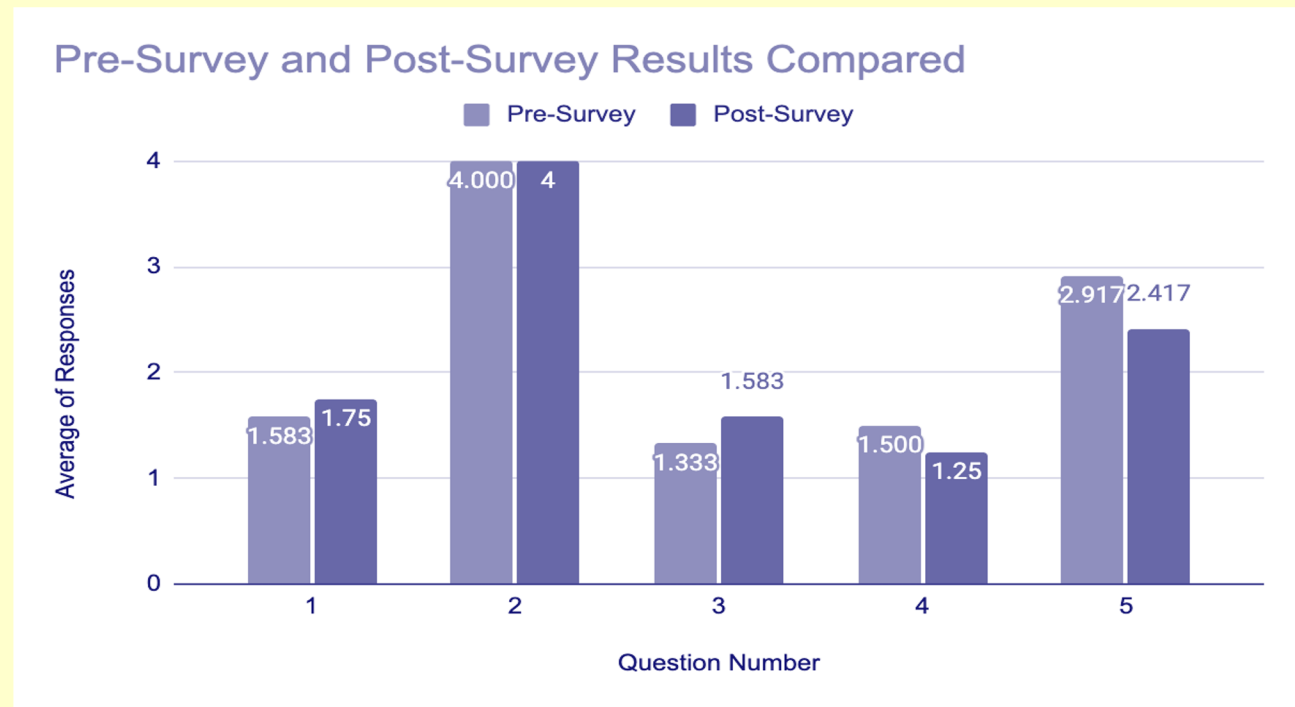
By, Kelsey Rouse

The Problem

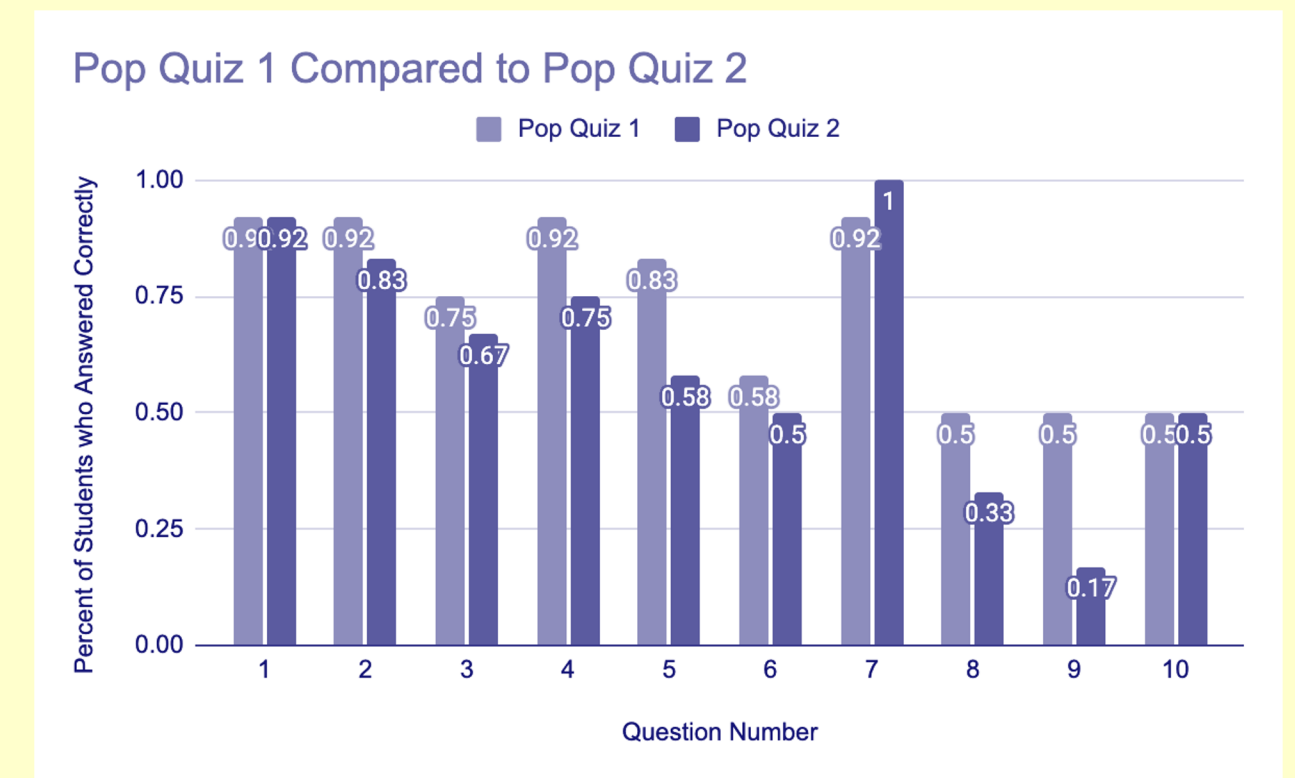
- Test anxiety is a prevalent problem throughout schools that is negatively affecting students' academic performance (Gerwing et al., 2015; Von Der Embse & Hasson, 2012).
- Although it is more commonly diagnosed in secondary and university education students, test anxiety may begin to emerge as early as second grade (Lowe, 2019).
- Although test anxiety is known to affect students' academic performance, teachers are rarely trained on test anxiety interventions.



Results



There was little change between the self-reported results on the pre-survey and post-survey. This suggests that the mindfulness coloring did not significantly affect the level of test anxiety 4th grade students experienced.

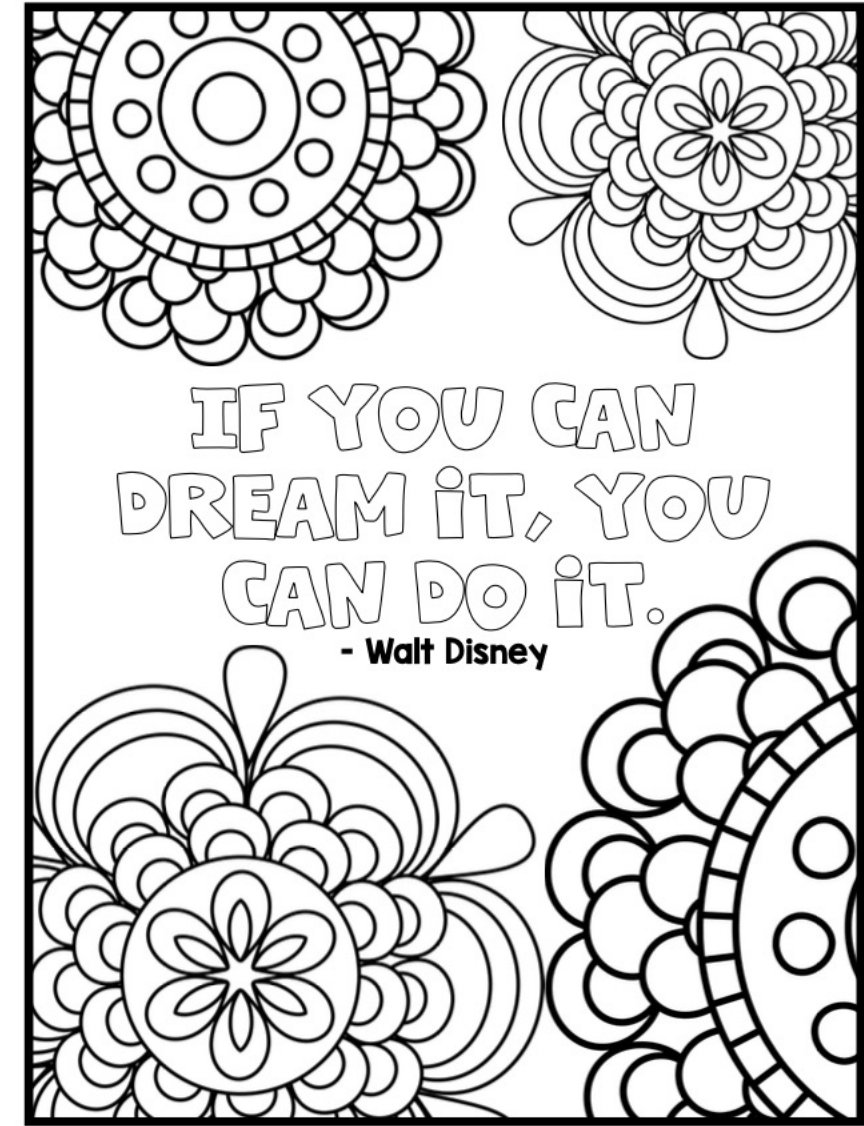
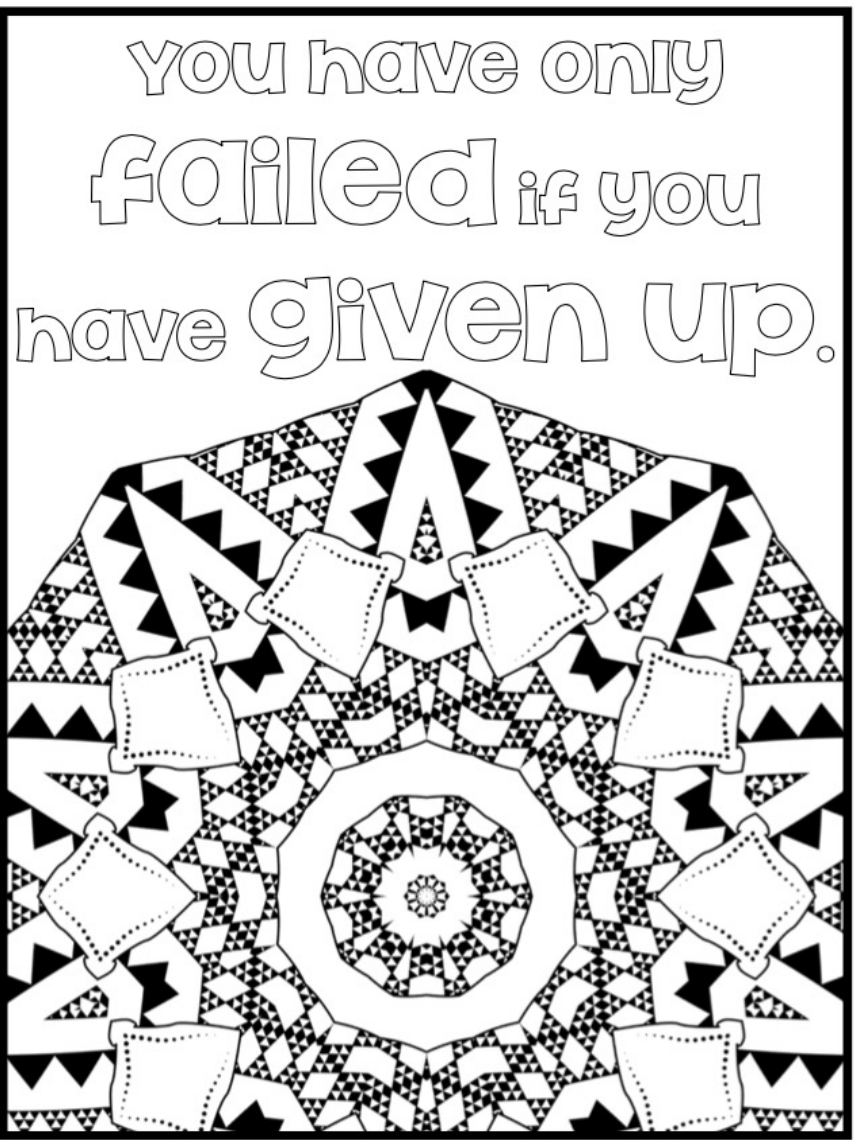


Students' mean score on Pop Quiz 1 was 73%. On Pop Quiz 2 students' mean scores decreased by 10% to 63%.

The qualitative observations illustrated the male students' behaviors decreased after the mindfulness coloring intervention. Perhaps mindfulness coloring negatively impacted them.

Purpose of the Study

- The purpose of this study was to gather further information on mindfulness coloring as a test anxiety intervention for fourth grade students and investigate its influence on students' academic performance.
- This research study investigated, whether mindfulness coloring activities effect the level of test anxiety that fourth grade students experience.
- The intent of the activity was to reduce test anxiety in students by helping them to focus their concentration on a different activity, regulating their breathing, and producing a calm environment prior to the test.



Implications

- Further research should be done with a larger and more diverse sample of students.
- Students of different ages should also be studied, to investigate whether mindfulness coloring might be a more effective test anxiety intervention for students of a certain age.
- There may be a difference in the effectiveness of mindfulness coloring as a test anxiety intervention between male and female students.
- Mindfulness coloring may not be an effective test anxiety intervention, and other test anxiety interventions should also be studied.

Methodology

- This study used a mixed methods approach to gather both quantitative and qualitative data to find evidence of whether mindfulness coloring effects the level of test anxiety experienced by fourth grade students. A convergent parallel design was utilized, where both the quantitative and qualitative data were collected simultaneously.
- Week 1:
 - Students took math Pop Quiz 1 without any test anxiety intervention.
 - After finishing the quiz, the students completed the pre-survey where they self-reported on their level of test anxiety during Pop Quiz 1.
- Week 2:
 - Students were trained in mindfulness coloring. They first were taught what mindfulness was and then were instructed on how to do it. Students participated in three lessons of mindfulness coloring and took short quizzes after two of the lessons to familiarize students with using mindfulness coloring as a test anxiety intervention.
- Week 3:
 - Students completed another mindfulness coloring activity prior to taking math Pop Quiz 2.
 - Students took math Pop Quiz 2 which had the same formatting as math Pop Quiz 1 but included different numbers.
 - After the intervention and quiz, the students completed the post-survey where they self-reported on their level of test anxiety during Pop Quiz 2. The post-survey was identical to the pre-survey.
- Qualitative Observations
 - Qualitative data was gathered throughout the entirety of the research study using observations.
 - Observations were analyzed and sorted into themes by the frequency of behaviors or actions.