Negative Experiences Effects on Student Learning

Chantelle Kimura

University of Hawaii- West Oahu Kapolei, HI 96707

Abstract

The overall goal of this study is to determine how a student's experiences with math can affect their performance, as well as how those experiences can affect your adulthood.

Teachers who let students walk away from math when it becomes too frustrating, show that they understand students sometimes need some space from math. This allows students to feel trusted and safe in their learning environment, as well as taking responsibility for their own learning (Champagne, 2021)

Research from *The Role of Instructors in Creating Math Anxiety in Students from Kindergarten through College* show that only 7 percent of students had positive experiences with mathematics in their school years. Students who have had negative experiences with math have a history of holding onto that anxiety for years, which can hinder the learning process (Jackson, C. D. & Leffingwell, 1999).

Introduction & Research Question

Understanding the relationship between how a student feels\during the learning process and how that can affect their learning can be a great tool for teachers and parents to use to improve their children's overall academic learning process (Skinner, Louie, & Baldinger, 2019).

In this study, we look at the relationship between how a student experiences learning math and determine what ways teachers and parents can positively reinforce math to benefit student learning.

If students can view learning to be a positive explorative experience, then they will be able excel in their understanding of mathematics because teachers and parents are allowing students the opportunity to let them explore their thoughts, the process, make mistakes, and find ways to improve their thinking.

Research Focus

This research study focuses on:

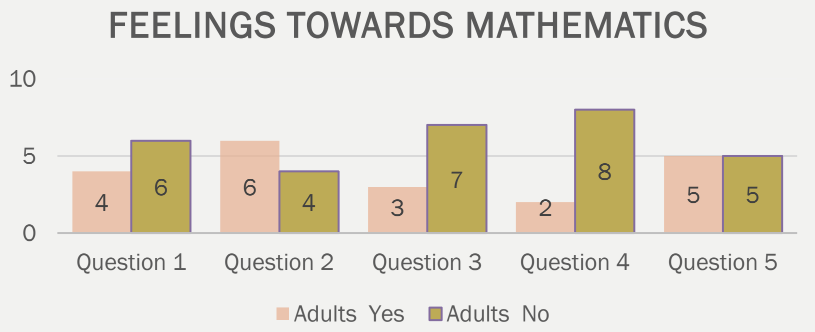
- How students feel about math
- How negative experiences affect student learning
- What teachers and parents can do to reinforce a positive learning experience

Ten adults responded to a 5-question survey. This survey consisted of questions related to their feelings towards mathematics, experiences they've had, and teacher interactions they've encountered. The data collected shows how ten adults from various backgrounds and age groups, have experienced mathematics in their elementary through high school/college years and how it had affected their overall feelings towards math as an adult.

Results

Survey Questions:

1. Do you enjoy math?
2. Did you have a negative math experience in k-12 that affects your overall feelings/performance towards math today?
3. Did teachers reinforce positive learning (i.e., explore thoughts, making mistakes/errors being okay, finding ways to improve thinking process)?
4. Were you given mental breaks when you became frustrated?
5. Did you feel safe to make mistakes/errors in your mathematics learning environment?



Discussion

Based on the survey results, learners who did not feel safe in their learning environments from elementary school through college, still currently have negative feelings towards math in their adult lives.

Most adults do not enjoy mathematics and in relation, most adults believe they have had a negative experience with math that still has an affect on their feelings towards mathematics in their adulthood. These negative experiences have had a lastly impression with these adults which they also believe has affected their overall performance with math.

By creating a safe and trusted learning environment, students are more inclined to perform positively academically.

Conclusions

- Creating a positive and open learning environment will help promote a safe and trusted classroom that students can excel in academically
- The experience that children have with learning mathematics reflects on how they feel towards mathematics throughout their adulthood

References

Skinner, A., Louie, N., & Baldinger, E. M. (2019, April 1). Learning to see students' mathematical strengths. NCTM Publications.

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Contact

Chantelle Kimura

ctkimura@hawaii.edu