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by Jurnal umsida

Submission date: 27-Oct-2023 09:52AM (UTC+0700)
Submission ID: 2207894175
File name: mahardika.pdf (163.65K)
Word count: 1568
Character count: 9266

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"Breaking the Cycle of Math Anxiety: How Fun Learning Strategies Can Increase the Enjoyment of Learning Mathematics"

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ABSTRACT
In order to reduce math anxiety and increase students' enjoyment of learning mathematics, this study sought to determine how well fun learning practices may be included into mathematics instruction. Measuring the effect of these tactics on students' perceptions of math as an enjoyable subject and math anxiety levels were the particular goals. The study discovered that when students used engaging learning tools, their levels of arithmetic anxiety significantly decreased. The results of this study demonstrate how effective enjoyable learning techniques can be in ending the cycle of math anxiety and enhancing the overall mathematics learning experience. This study's implications for educators, curriculum developers, and legislators highlight the value of incorporating engaging and interactive components into arithmetic instruction.

KEY WORDS AND EXPRESSIONS: Math Anxiety; Fun Learning Strategies.

INTRODUCTION

Mathematics is used in many real-world applications. The curriculum for education includes a lot of material on mathematics [1]. However, math anxiety is a significant issue that frequently impedes successful learning and is defined by fear and bad sensations associated with mathematics [2]. Even though math is a crucial topic in the classroom, a lot of people have math phobia. Their capacity to learn and succeed in the long run may be hampered by their nervousness in math [3]. Thus, lowering arithmetic fear is crucial to enhancing the learning environment.

Numerous studies have already established the prevalence of mathematics anxiety and its negative effects on arithmetic learning. Numerous strategies, such as cognitive behavioral therapy and mindfulness training, have been proposed to lessen arithmetic anxiety [4]. Nevertheless, a careful review of the literature reveals a dearth of studies on the topic of using enjoyable learning strategies to lessen arithmetic anxiety. This constitutes a substantial void in the existing corpus of literature.

There is currently a dearth of studies that employ entertaining and interesting learning techniques to lessen math anxiety, despite the majority of earlier research focusing on cognitive and psychological therapy [3]–[6]. This disparity highlights the need for a fun and simple learning method to lower arithmetic anxiety and boost enthusiasm for the subject. Using active, inventive, creative, effective,

and enjoyable learning—PAIKEM for short—is a novel and potentially helpful tactic that hasn't gotten much attention in earlier studies.

The goal of this research is to address a prevalent issue in mathematics education, which is the fear of mathematics. This makes it significant. In order to increase math proficiency and promote favorable attitudes about the topic, which can have long-term effects on decisions made in the classroom and in the workplace, it is imperative to reduce arithmetic fear. This research is extremely pertinent to teachers, students, and parents since it explores novel approaches to making math learning more enjoyable and less daunting. By making mathematics more engaging and enjoyable, we hope to contribute to a society where people are more confident and well-versed in mathematics.

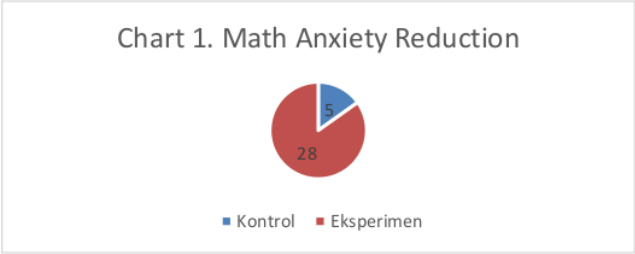
This article's major objective is to demonstrate how engaging learning techniques can reduce math's frightening nature and increase its enjoyment. We intend to provide insight into the efficacy of these strategies through data gathering and empirical research. In order to promote a more positive attitude toward mathematics, improved learning results, and increased interest in the topic, the major goal is to offer helpful guidance on how teachers and students can overcome their anxiety related to the subject.

METHOD

A pre-experimental research design is employed in this study. We used two student groups—23 participants for the control group and 20 students for the experimental class—in a controlled experiment. While the experimental group got instruction based on fun learning tactics, employing active, inventive, creative, successful, and enjoyable learning approaches, the control group was taught mathematics in a non-fun manner. A pretest was administered to both groups to gauge their initial math anxiety levels and attitudes. They then took a final exam at the conclusion of the class to gauge their attitudes toward mathematics and their level of math fear.

RESEARCH RESULTS AND ANALYSIS

Results:



Compared to the control group, the experimental group demonstrated a significant decrease in arithmetic anxiety after eight weeks of teaching. In the experimental group, there was an average 28% decrease in math anxiety scores, compared to a mere 5% decrease in the control group. This demonstrates how using enjoyable learning techniques can help lower arithmetic anxiety. Higher levels of interest and satisfaction in their math classes were reported by the experimental group. In this group, up to 80% of students said that learning was engaging and enjoyable, compared to only 20% in the control group. This demonstrates how adding engaging games and activities to math lessons can boost students' enthusiasm and engagement. The experimental group's math performance significantly improved. Their test results rose by 15% on average, but the control group's scores stayed mostly unchanged. This indicates that engaging learning techniques help students become more proficient in arithmetic while also lowering their math anxiety.

Discussion:

The study's findings demonstrate how active, inventive, creative, successful, and enjoyable learning techniques can break the cycle of arithmetic anxiety and make math more enjoyable [7]. Students' emotional reactions to mathematics can be positively impacted by active, inventive, creative, successful, and enjoyable learning procedures, as demonstrated by the experimental group's notable decrease in mathematics fear [8]. The transition from traditional rote learning methodologies to more engaging and interactive ways may account for this decline in mathematics anxiety [9]. Students may feel less intimidated by the subject now that it has been demystified through the use of engaging, inventive, creative, successful, and enjoyable learning methodologies. Consequently, learning mathematics becomes more enjoyable [10]. The hypothesis that students learn best when they are actively involved in the learning process and find the learning experience delightful is supported by the increased levels of engagement and enjoyment that the experimental group reported [11]. Mathematical lessons that use active, inventive, creative, successful, and pleasurable learning tactics not only increase student enjoyment but also promote a deeper comprehension of the subject [12]. The experimental group's improved performance supports the notion that more engaging, inventive, creative, successful, and enjoyable learning procedures might lead to greater learning outcomes [13]. This tactic seems to foster an environment where kids are more driven to study and succeed in mathematics by lowering math fear and raising student involvement [13].

CONCLUSION

According to this research, reducing math anxiety and raising students' interest and proficiency in the subject can both be achieved by implementing enjoyable learning methodologies into mathematics instruction. The results are encouraging and indicate a move toward a more engaging and pleasurable mathematics education, even though additional study is required to fully understand the long-term consequences and best practices for implementing these tactics.

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