

A Study of Difficulty Faces by Students in Understanding Real Life Problem Solving in Eight Grade Mathematics

Navita Suhas Sood and Ayisha Ansari

Assistant Professor and S.Y.B.Ed

Nirmala Memorial Foundation College of Education, Mumbai, Maharashtra, India

Abstract: *The idea of teaching and learning through real-life problems follows along with the National Council of Teachers of Mathematics (NCTM) principles of learning and assessment. Students are building on the knowledge they had already gained and putting it toward new applicable life problems. Solving problems based on real life also builds upon all of the process standards. The student is building new mathematical knowledge through problem solving. The student is using reasoning to solve real-life problems*

Keywords: Education

I. INTRODUCTION

The idea of teaching and learning through real-life problems follows along with the National Council of Teachers of Mathematics (NCTM) principles of learning and assessment. Students are building on the knowledge they had already gained and putting it toward new applicable life problems. Solving problems based on real life also builds upon all of the process standards. The student is building new mathematical knowledge through problem solving. The student is using reasoning to solve real-life problems. They will be making connections through what they had learned in class and the problem in front of them. Through journaling, the students also will be asked to communicate what they have learned, and then give a written representation of the ideas of the lesson to me. It is the goal of every teacher to be able to give the kids the knowledge they need to function in the real world. More importantly, it is our ultimate goal to have our students go out into the real world and solve problems they may not have been solved before. In order to do this, they need the ability to use new and unique ways of coming up with solutions. Presenting students with new types of problems will give the students the comfort needed to be an avid problem solver.

1.1 STATEMENT OF AIM

“TO STUDY THE PROBLEM RELATED TO SOLVING THE REAL LIFE PROBLEMS OF MATHEMATICS HOMEWORK OF CLASS EIGHTH GRADE.”

1.2 RATIONALE

The goal of teaching should be to pass on as much usable knowledge as we can to our students. Teachers need to continuously look at their practices to see if what they are doing in the classroom is indeed doing that. This study looks at a new style of teaching in which I explicitly apply mathematics to the students' real world. I looked at some studies in which real-life problems have been used as a major part of a curriculum. I searched for other studies related to students offering suggestions for how they might use math in their own lives. This study provides new insight on to how students think about the application of mathematics. I looked at how real-life problems based on students' lives would impact their learning in comparison to previous studies in which the students have had no input on the problems given. Math journals have been used throughout many classrooms over the years and have been very effective in showing student progress and learning. I looked at several studies that show the effectiveness of the utilization of journals in a math classroom. However, I could not find any studies that have shown students using math journals to apply daily lesson to students' lives. This study takes a look at how students correlating the daily lessons with their

lives might improve the learning and comprehension of the mathematics. It is the goal of this study to find if I gave the students ownership of their education, would their achievement improve. In the changing world, we, as teachers, cannot become complacent with our practices. We have to be able to keep up with that changing world in order to benefit our students. I looked at several changes that have been made previously in classrooms in order to make math more applicable to students. Then I investigated what happened when the students were given ownership of the path of their education.

1.3 OBJECTIVES

1. The study makes an attempt to understand the difficulties faced by the students while solving mathematics homework on real life examples.
2. The study provides the solution to the mathematics teacher to make their students interested towards mathematics.
3. The study focuses on the difficulty faced by a Maharashtra board student in solving maths real life problem.
4. The study provides a suggestion to the various difficulties in solving the mathematics homework.
5. The study focuses on the application of mathematics and teaching of application of mathematics to make the subject more interesting.

1.4 SCOPE OF STUDY

1. The study is related to class eight student.
2. The study involves the solving of mathematics problems.
3. The study involves the students of Shri Jamnadas Adukiya high school.
4. The study is related to the Maharashtra board students.
4. The study is related to Mumbai city area.

1.5 LIMITATION OF THE STUDY

1. The study is related to only class eight student and not others.
2. The study involves only the solving of mathematics problems and no other.
3. The study involves only the students of Shri Jamnadas Adukiya high school and no other.
3. The study is only related to the Maharashtra board students and no other board's students.
4. The study is only related to Mumbai city area and no other areas.

1.6 SAMPLING METHOD USED BY RESEARCHER

The researcher used the **probability method** of the sampling in the probability sampling the **cluster sampling** is used.

1.7 TOOLS OF RESEARCH USED BY RESEARCHER

The researcher used questionnaire method because: 'questionnaire' is a commonly used and frequently abused tool for gathering a variety of data. a questionnaire may include of a series of questions pertaining to psychological, social, educational, or any such issues which are sent to an undivided or a group, with the aim of obtaining relevant data on the topic of research.

II. MAJOR FINDINGS

1. **Individual differences:** The research reveal individual differences in students' perspectives on the usefulness of math homework. Some students may perceive significant benefits from homework, while others may find it less valuable. This finding would highlight the importance of considering diverse student perspectives in designing math homework assignments.
2. **Confidence in math skills:** The students' ease in solving real-life math problems reflects a level of confidence in their mathematical abilities. This confidence can contribute to their overall motivation and engagement in mathematics, leading to further success and enjoyment in the subject.

3. **Emphasis on reasoning and critical thinking:** The finding highlights the importance of fostering reasoning skills and critical thinking in mathematics education. Students who value the justification of their answers are likely to engage in deeper understanding, analysis, and evaluation of mathematical problems and concepts.
4. **Knowledge retention:** The findings suggest that math homework is beneficial for students in terms of knowledge retention. The research might show that practicing mathematical concepts through homework assignments helps reinforce understanding and improves long-term retention of mathematical skills.
5. **Increased motivation and engagement:** When math problems are contextualized in real-life scenarios, students are more likely to be motivated to learn and engage with the subject. The connection to practical applications helps them recognize the value of mathematics and its relevance to their lives.
6. **Different learning needs:** The diverse perspectives on the time consumption of mathematics homework suggest that students have varying learning needs and preferences. Recognizing these differences, teachers can provide differentiated assignments or support tailored to individual students, ensuring that they have the necessary resources and guidance to complete their homework effectively.
7. **Creating a positive classroom culture:** The finding emphasizes the importance of creating a positive classroom culture where all students feel comfortable expressing their ideas and participating at their own pace. Fostering a supportive and collaborative learning environment can promote student engagement and a sense of belonging.

III. CONCLUSION

According to the interpretation and responses - mathematics homework is useful for students, they can solve mathematics problem based on real life problems easily, they can justify the final answer in Mathematics, they think that mathematics homework is useful for them, they believe that if problems of mathematics are related to real life, then this will make mathematics more interesting, they think that mathematics homework is time consuming while some of them think that it is not time consuming, every student likes to answer in their mathematics class, every student understands their mathematics class and some do not understand when the teacher teaches mathematics, mathematics should be thought through activities, they think that mathematics is useful in day to day life, students are little confused about solving the mathematics sums related to real life, students do not require time to solve mathematics homework and some require time to solve mathematics homework, most of the students do not hate solving mathematics word problems that are based on real life problems and some hate solving mathematics word problems that are based on real life problems, mathematics word problems should not be excluded from mathematics, students are interested in knowing mathematics out of the class, most of the students do not try to memorize all the sums without understanding the concepts, most of the students used to like mathematics in 7th standard as compared to 8th standard, most of the students believe in solving mathematics word problems, they are not afraid of mathematics homework, they solve mathematics word problems by copying it from the friend's notebook and some do not copy mathematics sums from the friend's notebook.

IV. SUGGESTION FOR FURTHER RESEARCH

I have carried on the research in the school, in class 8th I suggest some others can do it in the colleges in higher classes. Various other methods can be explored to do this research in an effective way.

V. BIBLIOGRAPHY

- [1]. scribbr.com
- [2]. Shodhganga : a reservoir of Indian theses @ INFLIBNET.
- [3]. Google Scholar.
- [4]. Research Methodology: Choices, Logistics, and Challenges (hindawi.com). Sampling Methods | Types, Techniques & Examples (scribbr.com).
- [5]. Research tools and techniques (adphealth.org).
- [6]. Data Collection | Definition, Methods & Examples (scribbr.com).
- [7]. content (wits.ac.za).