

IMPROVING THE UNDERSTANDING OF LEARNING OUTCOMES THROUGH REAL LIFE SITUATIONS AMONG UPPER PRIMARY TEACHERS

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1. INTRODUCTION

Mathematics is often described as the study of patterns, structures, and relationships using logical reasoning and abstract concepts. It encompasses a broad range of topics, including numbers, quantities, shapes, and arrangements, as well as the rules and principles that govern them.

At its core, mathematics involves the exploration and manipulation of abstract ideas and symbols to describe and analyze patterns and relationships. It provides a precise language for expressing concepts and relationships, allowing for clear communication and rigorous reasoning. Mathematics is both a theoretical discipline, concerned with understanding fundamental principles and abstract structures, and an applied discipline, with practical applications in diverse areas of human endeavor

Learning outcomes typically specify observable and measurable behaviors or achievements that demonstrate mastery of the subject matter. They serve as a guide for educators in designing instruction, assessing student progress, and evaluating the effectiveness of the learning experience.

Teachers achieve learning outcomes in classrooms through effective planning, instruction, assessment, and reflection. Here are steps they typically follow

Curriculum Design and Planning: Based on the learning outcomes, teachers design a curriculum that includes relevant content, instructional activities, and assessments. They align instructional materials and methods with the desired learning outcomes

Instructional Delivery: Teachers employ various instructional strategies to engage students and facilitate learning. They use a mix of lectures, discussions, group work, demonstrations, multimedia presentations, and hands-on activities to help students achieve the desired outcomes.

Collaboration and Professional Development: Teachers collaborate with colleagues to share best practices, resources, and strategies for achieving learning outcomes. They engage in professional development activities to enhance their teaching skills and stay updated on effective

2. NEED AND SIGNIFICANCE OF THE STUDY

The Researcher observed that

During School visit the teacher faced lot of difficulties to understand the learning outcome. The purpose of my action research is to enhance the conceptual understanding of Learning outcomes.

This study helps the teacher how to connect learning outcome to real life situations.

3. OBJECTIVE OF THE STUDY

Teacher able

- To Understand the Learning Outcome through Real Life Situation
- To create context questions for Learning Outcome

4, TITLE OF THE STUDY

IMPROVING THE UNDERSTANDING OF LEARNING OUTCOMES THROUGH REAL LIFE SITUATIONS AMONG UPPER PRIMARY TEACHERS IN WALAJAEAST BLOCK, RANIPET DISTRICT

OPERATIONAL DEFINITION

Learning Outcome

A learning outcome is a statement that describes what a learner is expected to know, understand, or be able to do after completing a learning activity or course

5. LIMITATIONS OF THE PROBLEM

The Action Research has the following limitations:

District: Ranipet

Block : Walaja East

School: Upper Primary Teachers

No. of Teachers:10

Subject: Mathematics

Area of Focus: Enhancing the conceptual understanding of Learning Outcome

6. HYPOTHESIS:

There is no significant difference between the pretest and posttest performance of teachers enhancing the conceptual understanding of learning Outcome

7. SOLUTIONS FOR THE PROBLEM

The following Strategies were used as solutions for Enhancing the conceptual understanding of Learning Outcome

The Researcher

- Explained how to understand learning outcome connect Learning outcome to Real life situations..
- Discussed with teachers

8. METHODOLOGY

Stage 1:

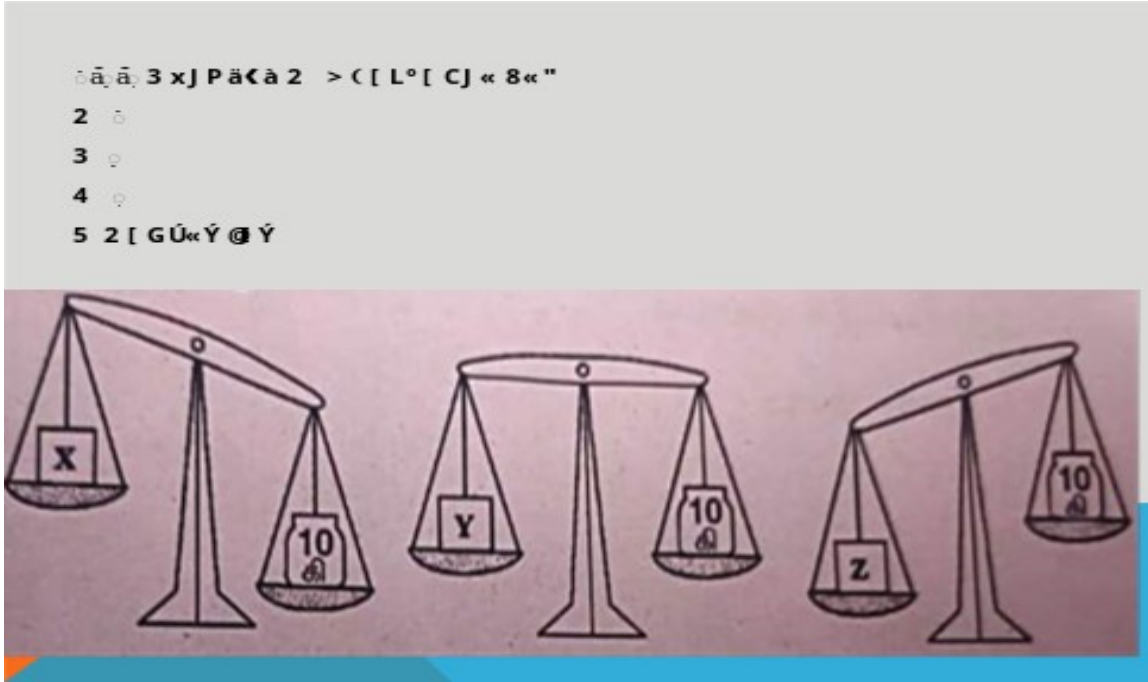
- Pretest Question Paper was prepared by the investigator based on objectives
- Pretest was conducted.
- After the pre test analysis, the investigator found **that** the teachers faced lot of difficulties to understand the learning outcomes.

Stage 2: Material Development

- Based on the analysis of pretest score, the investigator has decided that explain how to connect learning outcome to real life situation. So the investigator decided three activities and these activities helped teachers how to connect learning outcomes to real life situations.

Activity 1 : The researcher gave vegetables like potato, tomato etc., to the teachers and asked them to weigh the vegetables using weighing balance and to sort them into vegetable which weighs more, vegetables which are of equal weight and vegetable which weighs less.

This activity is done to link the learning outcome- using measures related to weights in day to day life. Questions related to measuring weights were discussed.



Activity : 2

The researcher gave different objects such as pencil, pen, box, file, book etc., to the teachers and asked them to guess their length and then measure those objects with scale. They were asked to fill the table given below.

This activity is done to link the learning outcome-

1. converts metre into centimeter and vice versa

வரிசை எண்	பொருளின் பெயர்	தோராயமான நீளம்	சரியான நீளம்	
			சென்டிமீட்டரி ல்	மீட்டரில்

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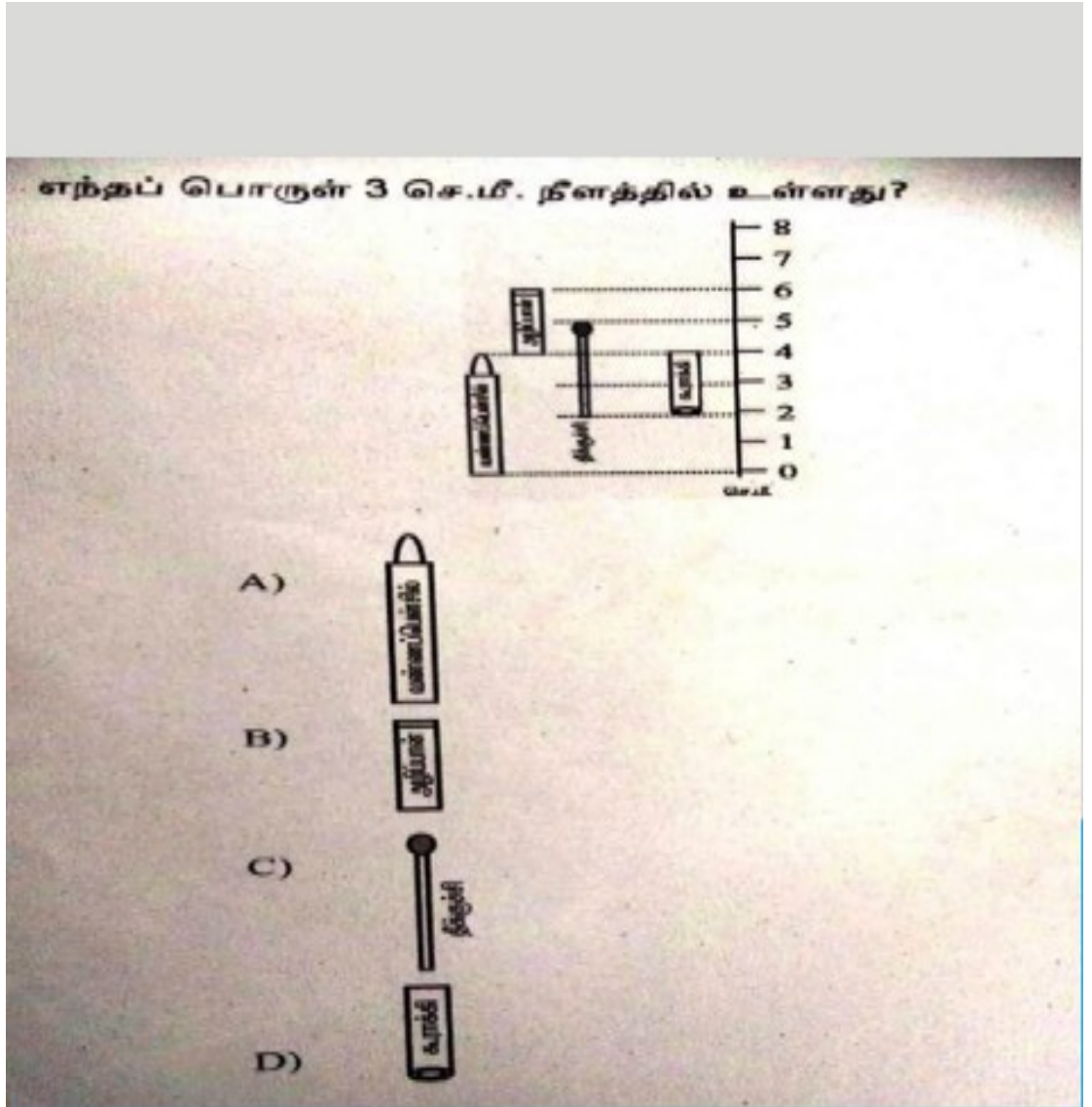
The researcher asked the teachers to fill the table given below by estimating the distance between the place of work and the place of training and asked them to express the distance in kilometre, metre and centimetre. This activity is done to link the learning outcome-

- Estimates the length of an object/distance between two locations and verifies them by actual measurement

Contextual Questions related to the above learning outcomes were discussed.

வரிசை எண்	பணிபுரியும் இடம்	பயிற்சி நடைபெறும் இடம்	சரியான நீளம்		
			கிலோமீட்டரி ல்	மீட்டரில்	சென்டி மீட்டரி ல்
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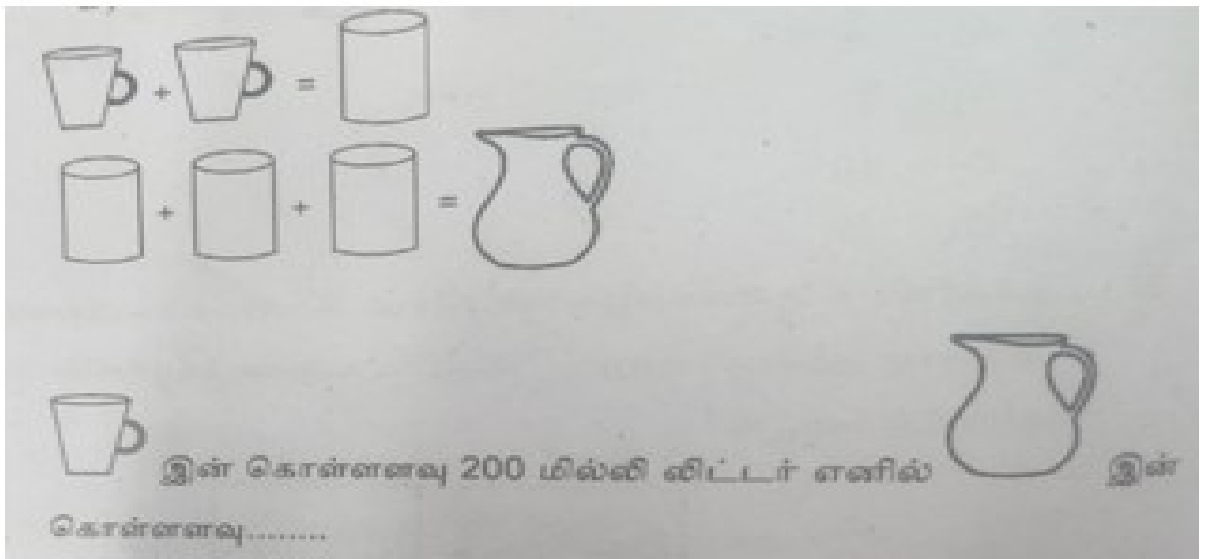
Activity : 3

The researcher gave different objects such as tumblers, water bottle, soft drink bottles of different capacity etc., to the teachers and asked them to guess their capacity. They were asked to fill the table given below. They were also asked to express the volume in litre and mililitre. This activity is done to link the following learning outcome in daily life.

1. Estimates the approximate volume of liquid and verifies them by actual measurement
2. Solves problems involving daily life situations related to volume

Contextual Questions related to the above learning outcomes were discussed.

வரிசை எண்	பொருளின் பெயர்	தோராயமான கொள்ளளவு	சரியான கொள்ளளவு	
			லிட்டரில்	மில்லிலிட்டரில்
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அ) 500 மில்லி லிட்டருக்கும் குறைவு

ஆ) 1 லிட்டருக்கும் 2 லிட்டருக்கும் இடைப்பட்டது

இ) 500 மில்லி லிட்டருக்கும் 1 லிட்டருக்கும் இடைப்பட்டது

ஈ) 2 லிட்டருக்கும் அதிகம்

Stage 3:

In the training, the investigator discussed the following contents:

How to understand learning outcome and how to connect learning outcome to real life situations.

Stage 4:

➤ Post-test Question Paper was prepared by the investigator based on objectives its related strategies which is similar to pre-test.

➤ Posttest was conducted.

9. TOOL FOR THE STUDY/RESEARCH TOOL:

Pre-test tool:

The investigator identified five learning outcome and

Post- test tool:

Post- test tool was prepared with the same questions of pre-test but the teacher to teach the questions and the investigator to observe the teaching

10. DATA COLLECTION:

Teachers were subjected to the pre-test and responses were collected. All the responses are measured and item-wise gaps were found.

After adopting suitable strategy, the post-test tool was prepared

All the items in pre-test and post-test are question type in nature and the correct response was awarded 2 and wrong response was awarded 0. The maximum possible score is 10 and the minimum score is 0.

Teacher performance

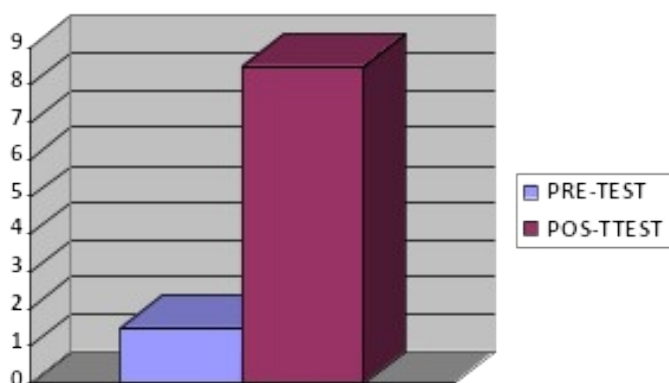
Sl. No	Teacher Name & Address	Pretest	Posttest
1	JAYA SUDHA MANGALAMBAL AIDED MIDDLE SCHOOL WALAJA	1	8
2	JAYAKUMARI S AMS GANGATHARA NAVALPUR	1	10
3	P.GIRIJA SRI KRISHNA VIDYALA AMS RANIPET	1	6
4		1	10

	SATHISH GANDHI MISSION VIDYALAYA WALAJA		
5	KAVITHA MANGALAMBAL AIDED MIDDLE SCHOOL WALAJA	2	8
6	DEEPA LAKSHMI M MUNICIPAL MARKET SCHOOL WALAJA	2	8
7	REVATHI MMS ANNA NAGAR	2	10
8	SUDHA PUMS THENKADPANTHANL	2	8
Total		12	68
Average		1.5	8.5

11. DATA ANALYSIS

11.1 PRE-TEST AND POST-TEST AVERAGE SCORE ANALYSIS

TEST	AVERAGE
PRE-TEST	1.5
POS-TTEST	8.5



Pre-test and Post-test average scores are 1.5 and 8.5

There is significant difference between the pretest and posttest performance of teachers enhancing the conceptual understanding of Learning outcomes

12. CONSOLIDATED RESULT

The following results are arrived based on the analysis:

There is significant difference between the Average score of pre-test and post-test performance of teachers to enhance the conceptual understanding of Learning outcomes

13. FEED BACK

The Intervention has made the teacher to

- Understood the techniques to understand the learning outcomes
- Eagerly interacted with investigator and cleared their doubts.

Felt that the given strategies are useful and helped them to understand learning outcomes

14. IMPLICATIONS

This Action Research has motivated the teachers to understand learning outcomes by using various strategies and also improved their teaching effective.

Definitely, the teacher to teach various strategies for differentiating to understand learning outcomes The Students equipped themselves to get the interest in mathematics and which help them to improve their higher order thinking skill

15. DISSEMINATION

Action Research

- Can be disseminated to Middle School teachers in Walaja West Block.
- Can be disseminated to other blocks of Ranipet/Vellore/Tirupattur District.
- Can be disseminated to others district through internet.

16. INFERENCES

From the Action Research, it was inferred that when teachers build confidence in students. It is important for teachers to employ strategies that optimize the effectiveness of discussion to benefit students at all developmental levels.

The teacher must convey the message that a variety of answer are appreciated. The teacher must use the techniques to teach mathematical key terms and the students gain confidence,

17. REFERENCES

- H E Huntley's, [The Divine Proportion: A study in mathematical beauty](#), ISBN 0-486-22254-3 is a 1970 Dover reprint of an old classic.
- [New Visual Perspectives on Fibonacci Numbers](#) by K Atanassova, V Atanassova, A Shannon and J Turner, World Scientific (Oct 2002)

- introduces the idea of two intertwined Fibonacci-type series (2-Fibonacci series), recurrence trees and Gray codes,

18.ANNEXURE

PHOTOS



Teachers do the activity in training program



Students do the activity in School



The Investigator Visited school and asked questions



One Student in MMS Walalja did well in finding mass in weighing machine

QUESTIONNAIRE

Answer the following questions

Design activities for the following learning outcomes in daily life

- 1. Converts metre into centimeter and vice versa**
- 2. Estimates the length of an object/distance between two locations, weight of various objects, volume of liquid etc., and verifies them by actual measurement**
- 3. Solves problem involving daily life situations related to length, distance weight and time involving four basic arithmetic operations.**
- 4. Read clock time in hour and minutes and expresses the time in a.m and p.m.**
- 5. Relates to 24hr clock with respect to 12hr clock**