



The Effectiveness of Computer Assisted Mathematics Bar Model for Secondary School Students

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Introduction

Mathematics for class 1–6, the first Singapore Math program, was published in 1982. In 1992, the second edition of Mathematics was revised to include more problem solving, with particular focus on using model drawing as a way of approaching solutions. The new mathematics curriculum led to dramatic improvements in math proficiency. In 1984, Singapore scored 16th out of 26 nations in the Second International Science Study (SISS). In 1995, the nation's students were placed first in the Trends in International Mathematics and Science Study (TIMSS). This survey, conducted every four years, is designed to provide reliable data on how math and science achievement in the U.S. compares to that in other nations.

In 2006, Singapore again revised the mathematics curriculum, this time placing greater emphasis on developing mathematical concepts and fostering the ability to apply them in mathematical problem solving situations. In addition, the new guidelines were framed to

1. Emphasize computational skills along with more conceptual and strategic thinking.
2. Cover topics in-depth and are can sequenced grade-by grade.
3. Concepts in one grade and in later grades at advanced level.
4. Students master prior content, not repeat it.
5. encourage representing problems mathematically, using reasoning, and communicating mathematical content.

The goals of bar model

- * Application of knowledge and skills
- * Using of math language
- * Foundation mathematics building
- * Increases mathematics of a positive attitude

* Appreciation of the power of mathematics

Research Objective

The objective of this study is to find out the effectiveness of computer assisted Bar Model method in solving mathematical problems for secondary school students .

This study carried out to identify the effectiveness of computer assisted bar model to solve the mathematical problems for secondary school students at Navalihal government high school chikodi belagavi Karnataka . This experimental research done through pre test and post test .was carried out to see the effectiveness

Computer Assisted Bar Model to solve mathematic problems . There are 30 questions answered by the students in the pre test and post test. The Pre Test need to be answered by the students before the Workshop and the post test is after the Workshop ends. The findings of the pre test and post test were analysed the result of the test to see the differences between the pre test and post tests results, the average changes and the average percentage changes. Therefore, T-test was used to analysis the data.

Finding & Discussion

Table 1

	N	M	SD	t
pre	50	16.1	6.2	17.86
post	50	27.0	5.8	

Total 50 students are used for analysis for data shows the. the mean of the students in pre and post is 16.1 to 27. Indicates the 50 number of pupils involved in this study, which were 50 students selected for Pre test and Post test from year 8th class. This finding shows that the Bar Model method was effective for the students

Table 1. One Sample T-Test

From the result of pre test and post test, the researcher analyse that by using method of finding t value, the students can give more concentration and attention in the topic discussed. Visual representative show a clear picture of the problem and a clear understanding for the students. Students can answer the questions according to the questions need correctly by using bar model.

Conclusion

As a conclusion, mathematics Bar Model representative questions affect students academic achievements. Students can easily convert mathematics questions to bar models and this this gives students can easily solve difficult mathematical problems. This can help the students mathematics subject becomes easy .

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