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**AN INVESTIGATION INTO THE
EFFECTIVENESS OF MULTIPLICATION
TABLE TO IMPROVE MATHEMATICS'
ACHIEVEMENT AMONG LEVEL TWO
PUPILS: CASE STUDY AT SEKOLAH
KEBANGSAAN SUPOK ROBAN, SARAWAK**

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ABSTRACT

The purpose of this action research was to investigate the effectiveness of multiplication table usage to primary school's students. Most of level two students of SK Supok Roban Sarawak having difficulties in answering questions related to multiplication. I used multiplication table method and introduced its diverse uses in solving multiplication-related questions. This research involved twenty Year Four, Five and Six students of SK Supok Roban Sarawak. Pre-test, post test and interviews were used in collecting data. The result of this research showed that multiplication table was effective in increasing students' mastery in multiplication as well as increasing improving their grades in mathematics. An obvious increment could be seen from the grades' comparison between pre-test and post test which was 40% to 85%. It was hoped that teachers and educators can use this multiplication table method as one of teaching strategy in effort of making mathematics is fun to learn and meaningful to the primary schools' students.

Keywords: Multiplication, Multiplication Table, Multiplication Facts, Rote Memorization

CHAPTER ONE

INTRODUCTION

1.0 Introduction

Aristotle defined mathematics as "the science of quantity". After 18th century, definitions of mathematics had widened. Mathematicians and philosophers began to propose a variety of new definitions. According to Cambridge dictionaries Online, mathematics can be defined as the study of numbers, shapes, and space using reason and a special system of symbols and rules for organizing them. According to Elaine J. Hom (2013), math is all around us, in everything we do. It is the building block for everything in our daily lives, including mobile devices, architecture (ancient and modern), art, money, engineering, and even sports.

A clear definition that best describes today mathematics could be found in Van de Walle's book, *Elementary and Middle School Mathematics: Teaching Developmentally (2004)*. He wrote, "Today, mathematics is not about computation, especially pencil-and-paper computation. Mathematics is about reasoning and patterns and making sense of things. Mathematics is problem solving" (p.176).

In Malaysia's primary schools, Mathematics is very important for students to master four basic facts, namely, addition, subtraction, multiplication and division. These four basic facts are usually taught as the first five topics in Mathematics from Year Two until Year Six, other than the characteristics of whole numbers.

CHAPTER 2

LITERATURE REVIEW

2.0 Introduction

This chapter discussed the previous researches and studies conducted by previous researchers that became the guidelines for the researcher. In this chapter, the reviewed articles and journals were closely related to the researcher's case study. Hence, it was hoped that this chapter can provide clear guideline for readers as well as the researcher herself.

2.1 Importance of Multiplication in Learning Mathematics

Why learning multiplication facts should be learnt by our children? Children need to understand the times table and they also need to memorize them. They need to learn early on about the repetition of numbers and the addition of numerous numbers. A teacher could work with them with the basics and as they learn the basics, they could be encouraged to learn times table up to 20×20 .

There were so many strategies in teaching and learning mathematics. According to O'connell and SanGiovanni (2011), teachers should constantly remind that the students should go and learn in a variety of ways. Although some students have very strong memory skills, others struggle to remember simple facts. Some students make sense of mathematics concepts on their own; others struggle to connect meaning in simple expressions like 3×5 .