

**FACULTY OF EDUCATION**  
**UNIVERSITI TEKNOLOGI MARA**



**STUDENTS' MISCONCEPTIONS IN SOLVING PROBLEM OF FRACTIONS AMONG FORM 2  
STUDENTS IN SMK SEKSYEN 9, SHAH ALAM, SELANGOR**

**BY**

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## ABSTRACT

The purpose of this research was to determine performance of students in solving problem of fractions and to investigate the misconceptions of students in learning fractions among Form 2 students in Sekolah Menengah Kebangsaan Seksyen 9, Shah Alam. A total of 90 students that came from different classes which were 2 KRK 3, 2 HARMONI and 2 BUDI were participated in this study. The instrument used to assess students' performance of students in topic of fractions. The Shapiro- Wilk test was used to check normality of distribution. Since the distribution was not normal, whenever applicable, all test used will be for non- normal distribution. The overall students' performance in solving problem of fractions based on the analysis was average. The students' performance in solving problem of fractions based on level of mastery was weak. There was no significant difference between students' performance in solving problem of fractions and genders. There was no significant difference between students' performance in solving problem of fractions and classes. From the qualitative data, there were common misconceptions already done by the students. There was significant different between students' level of knowledge toward fractions and classes. Overall, the students can master and less did the misconceptions in topic of fractions if they were be careful in solving problem on it.

## CHAPTER 1

### INTRODUCTION

#### 1.1 Introduction

Mathematics is a field of knowledge that is wide and closely related to our daily life activities. Mathematical education is learning which tested someone's intelligence thinking to solve problems.

In Malaysia, Mathematics is a subject that is compulsory to be learnt by all students with existence of Standard Curriculum for Primary School (KSSR) and Integrated Curriculum for Secondary School (KBSM). The content of syllabus of Mathematics (KBSM) is planned in three areas which are *Number*, *Shape and Space*, and *Relationship*. Research by Zanzali (2000), the area of *Number* needs understanding and the attainment of appropriate skills in counting and calculating. According to Ministry of Education, MOE (2004), one of the elements in the area of *Number* involved the topic of Fractions.

According to Zanzali (2011), Mathematics education give student the chance and information to know what is happening at surrounding. The goal of KBSM content on the area of *Number* enable students to understand how to calculate and estimates, and analyses and also solve problem on the area of number (MOE, 2004). In addition, the syllabus content for area of number such as whole number, fractions, decimals and percentages (MOE, 2004). Researches by Zanzali (2000), state that students already start learning the basic skills in primary school so that secondary school is a continuation from primary school.