



**AN ASSESSMENT ON INTEGRATION
TOPIC AMONG FORM 5 STUDENTS IN
SHAH ALAM, SELANGOR**

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JANUARY 2016

ACKNOWLEDGEMENT

“In the name of God, the Most Gracious and Most Merciful”

All praise to Allah S.W.T. for it is through His Grace and Mercy that I am able to complete this research successfully.

I would like to express my sincere appreciation to my supervisor Madam Hasnah Yusof, for her time, support, guidance and aspiration throughout the process of completing this academic exercise.

In addition, I wish to express my special thanks to the Coordinator of the ED229 Program, Assoc. Prof. Dr. Teoh Sian Hoon for her trust and understanding.

I would like to thank all my colleagues and all my friends of ED2298A for their valuable comments in this process of data analysis.

I thank the students and teachers at SMK Jalan Kebun, Shah Alam, Selangor who eagerly participated in the study. Last but not least, I also want to thank my family members for their continued support, love and encouragement.

Thank You

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ABSTRACT

The objectives of this study were to determine student's performance in the topic of Integration and to identify the distribution of the common errors that often done by students. A total of 90 respondents were selected by using random sampling method. One school in Shah Alam was selected that is Sekolah Menengah Kebangsaan Jalan Kebun. Diagnostic test was used as the instrument of this study. It contains 17 subjective questions. The study also includes interviews of six students that get the lowest scores in the integration topic test. The student's mastery in the aspects of concept and method of Integration was done based on model of Skemp (1987). Besides, in the aspect of solving problems, this study was done based on model of Polya (1957) where it underlined four phase of problem solving. Meanwhile, in the analysis of common error, this study was done based on analysis error of Newman. The results indicated that the overall mean score for achievement of students is 43.87% which is in weak category. From the finding, the correlation between the indefinite integral and definite integral is positive and quite strong with $r = 0.664$. Meanwhile, the highest percentage of correct for strand 6 which is in finding definite integrals of algebraic expression are 71.1% and the lowest percentage correct for strand 8 which is in determining areas under the curves using definite integrals which are 12.8%. The interviews session was conducted and was found that there have three types of errors which are Conceptual Errors, Procedural Errors and Technical Errors.

Keywords : *Integration, conceptual errors, procedural errors, technical errors*

CHAPTER 1

INTRODUCTION

1.0 Introduction

The Malaysian education system is undergoing a process of rapid change in order to maximize its role to develop and produces a generation who are knowledgeable. This is consistent with the national goals to make Malaysia a developed nation by 2020. To achieve these goals, a variety of methods is designed to improve the quality of the education system, as specified by the National Education Philosophy. The National Education Philosophy (NEP) is fundamental to the implementation of the education system in Malaysia that represents a bigger vision to produce individuals who are excellent, and balanced in various aspects of the Malaysian education system. Thus, students and teachers play a big role in the realization of this vision. However, our students have difficulty in mastering mathematics, especially Additional Mathematics.