BASIC COMPONENTS IN CREATING CONTENTS FOR MATHEMATICS SUBJECT USING DIGITAL WAYANG KULIT: A CONCEPTUAL MODEL

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A project submitted to Dean of Awang Had Salleh Graduate School of Arts and Sciences
in partial fulfilment of the requirement for the degree
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ABSTRAK (BAHASA MALAYSIA)

Penyelidikan ini bertujuan untuk membangunkan model konseptual yang menggambarkan bagaimana pendekatan multimedia boleh digunakan untuk meningkatkan pengajaran dan pembelajaran mata pelajaran Matematik di sekolah rendah serta mengekalkan warisan budaya iaitu Wayang Kulit dalam kalangan generasi muda. Prototaip akan dibangunkan untuk menunjukkan bagaimana kandungan mata pelajaran Matematik tahun satu di sekolah rendah dapat dipindahkan ke dalam bentuk multimedia. Prototaip ini dibangunkan dalam bentuk Wayang Kulit digital untuk menyajikan kandungan berdasarkan sukatan pendidikan matematik dengan menggunakan watak-watak dalam Wayang Kulit.

ABSTRACT (ENGLISH)

This research intends to develop a conceptual model that illustrates how multimedia approaches could be used to enhance teaching and learning of a Mathematics subject in primary school as well as to preserve *Wayang Kulit* in younger generation. A prototype will be developed to demonstrate how the content of a standard one Mathematics subject in primary school could be transferred into multimedia form. The prototype is developed in a form of Digital *Wayang Kulit* to present the contents based on the syllabus of Mathematics education using the actors of *Wayang Kulit*.

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LIST OF ABBREVIATIONS

SKHAR	Sekolah Kebangsaaan Haji Abdul Rahman
WK	Wayang Kulit
DWK	Digital Wayang Kulit

CHAPTER 1

INTRODUCTION

1.1 Introduction

Mathematics is an important subject for science and technological careers (Nor, A., M., Z., et al., 2009). Primary School Mathematics Curriculum aims to develop pupils' understanding of the concept of numbers and basic computing skills (Ministry of Education, 2001).

According to Zurina, M. (2005), multimedia technology has reform the current education system and is successfully implemented for its advantages and capabilities. In this modern era of information and technology, the traditional teaching and learning although still applicable could be enhanced by using the modern tools such as multimedia to improve students' understanding and appreciation of mathematics education in school.

Pupils are seen to be more motivated when using multimedia. Teachers have stated that multimedia enables pupils to work at a different pace, and some packages can be tailored to the pupils' needs. Teachers have also suggested that they regard pupils as learning co-operatively when multimedia is used (Slack, 1999).

According to Wahju, W. (2011), the function of 'Wayang' can be compared to a picture book. It enables the children to adopt many distinct characters and to act out moods, conflicts and imaginative fiction in a safe environment. Moreover, there is a close relation between imagination and the ability of thinking.

The contents of the thesis is for internal user only

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