

Universiti Teknologi MARA

**User Interface Design of Learning Courseware
for Learning Disability Children**

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Thesis submitted in fulfillment of the requirements for
Bachelor of Science (Hons.) Business Computing
Faculty of Computer and Mathematical Science

July 2012

ACKNOWLEDGEMENT

I am very thankful to Allah, The Most Gracious and Most Merciful, for His bless and giving me the strength, health and opportunity to complete my final year project. This project is a fulfillment for the course CSP 650. I would like to express my great appreciation to Dr Fariza Hanis binti Abd Razak for her patient guidance, enthusiastic encouragement, constructive suggestions and useful critiques of this research work. I would like also to thank Dr Fariza Hanis, for her advice and assistance in keeping my progress on schedule. Her willingness to give her time so generously has been very much appreciated. My grateful thanks also go to Madam Mudiana binti Mokhsin @ Misron, my thesis coordinator, and Dr Syaripah Ruzaini binti Syed Aris as my proposal coordinator. Special thanks to Ministry of Education because giving me the permission to do my research in selected school. I would also to extend my thanks the staff of Sekolah Kebangsaan Raja Muda (Integrasi) for enabling me to visit Special Education classes to observe their daily activities and allowing me to conduct my research. I would like to give my worth to my family who inspired, encouraged and supported me for every trial that comes and also giving me not just financial, but morally. Not to forget to my friends who have helped me out. Finally I would like to thank UiTM that has given me the opportunity to pursue my dream and capabilities.

ABSTRACT

Learning Disability (LD) can be defined as those people who have trouble using certain skills such as reading, writing, listening, speaking, reasoning and doing math and thus have lower performance in academic areas compared to other normal children at the same age. From the previous research, the usage of learning courseware is proven to be effective in helping LD children to improve their performance at school. However, lack of learning courseware being developed for them and the user interface design of available learning courseware are not developed based on their needs. This research will recommend appropriate user interface design of learning courseware for LD children. Observation was done with LD students to identify the usability issues of available learning courseware. The usability issues identified are information presented in single presentation format, static images, lack of interactivity and unsuitable input device for interaction. Meanwhile interview was done with special education teacher in order to identify suitable user interface design of learning courseware for LD children. From data analyzed, the suitable user interface design are information presented in multiple presentation format, activities provided in game form, provide sound effect to attract attention, use voice-over narration for reading activity, simple text, animation, allow participation and interactivity, and include music. Programmers, software developers and designers can use the recommendation to develop learning courseware that suit LD children and help special education teachers to choose learning courseware that has suitable user interface design as teaching tools for LD children. However, this research is only limited to primary school students of SKRM (I) who aged 7-13 years old who diagnosed with LD.

***Keywords:** Learning Courseware, Learning Disability, Multimedia Elements, Usability, User Interface Design

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CHAPTER 1

INTRODUCTION

1.0 Overview

This chapter focuses on research background of this research study. It is the first phase of this research which is problem identification. This chapter identified and focused on the research aim, research questions, research objectives, scope, significance and research design.

1.1 Introduction

School is a place for children to develop their social skills and self-image. Parents expect their children to perform well in their academic performance. School performances of the children affect parents' images of their children. Sometimes, it is normal when some children achieved low academic performance and struggled with their homework. Parents are willing to invest in anything for their children to achieve success in academic area include spend a lot of money to buy educational software for their children to have best educational materials.

Technology is implemented in many areas. Educational area is not excluded. Arise of evidences of positive impact of technology in educational areas increased the numbers of computer programs developed for students. In addition, educational software are used at school as additional learning materials instead of books. The growth of demand for educational software makes software companies foresee financial benefits that they can gain from this market. On the other hand, there are also software companies that developed free educational software and distribute through the Internet. This software is known as freeware.