DESIGN AN INTERACTIVE LEARNING MODEL: USING PERSUASIVE TECHNOLOGY TO LEARN CHILDREN ARABIC ALPHABETS

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A project report submitted in partial fulfilment of the requirements for the award of the degree of Master of Science (Information Technology - Management)

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JULY 2013
I dedicate this project to my beloved parents and my beloved husband, thank you for the moral support you have given me throughout my academic life.

To my respected supervisor, Dr. Aryati Bt Bakri

To my beloved country, Palestine

To all my brothers and sisters

To all my friends
ACKNOWLEDGMENT

First and foremost, all praise and thanks are due to Allah, and peace and blessings be upon his Messenger, Mohammed (Peace Be Upon Him). Next, I would like to express heartfelt gratitude to my supervisor Dr. Aryati Bt Bakri for her constant support during my study at UTM. She inspired me greatly to work in this project. Her willingness to motivate me contributed tremendously to our project. My thanks also to Mr. Mahadi Bahari, who help me and give me his advice and guidance in the period of Dr. Aryati absence in Hajj. Special thanks to my parents who cheered me on from the beginning of my study. Thanks very much for my dear husband who helped, encouraged me and provide a suitable environment for study. Last but not least, I am grateful to my beloved family and all my friends for their warm encouragements and supports.

Besides, I would like to thank the authority of Universiti Teknologi Malaysia (UTM) for providing me with a good environment and facilities such as Computer laboratory to complete this project with software which I need during process.
ABSTRACT

The rapid development of courseware technology has achieved a supportive impact in the field of education. Using interactive learning in the courseware is a more hands-on, real-world process of relaying information to children. Despite interactive learning motivates children to explore and learn effectively, there is still a need to exploit it in teaching children Arabic alphabets. The aims of this project are to understand the concept, steps, principles and impacts of interactive learning using Persuasive Technology in the learning process then design an interactive learning model to teach children who aged between 18 months and 4 years old Arabic alphabets. In order to reach this aims, Persuasive Technology was used to understand the children’s behaviour and encourage them to learn Arabic alphabets since target age. An interactive learning model was proposed by integrating four different means of technology to support the learning process which are; Flashcards, Persuasive Design, Cognitive Theory of Multimedia Learning (CTML) and Multimedia Principles. The effectiveness and usability of this model was evaluated by developing Arabic alphabets courseware and distributed it between numbers of young children. The effectiveness was assessed through pre and post testing while the usability testing based on five factors of usability which are; motivation, learning, memorability, performance and effectiveness. These factors were assessed by using a questionnaire for the children’s parents who have observed their children behaviour and answered the questions. Furthermore, a video observation was recorded to ensure the accuracy and reliability of the results. Analysing this information showed that, the interactive learning model can influence effectively in persuading young children to learn Arabic alphabets and this model provides an alternative way to motivate young children to learn Arabic alphabets before learn the IQRA technique.
ABSTRAK

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CHAPTER 1

PROJECT OVERVIEW

1.1 Introduction

The rapid evolution of the technology world over the past two decades has dramatically changed the learning practices as computers becoming more invaluable tools for teaching and learning Arabic language. The importance of Arabic Language is tied to being the language of the Qur’an and Muslims around the world are highly encouraged to understand the Qur’an language to facilitate its reciting.

According to Hasan (2006) IQRA is one of the faster learning methods that has been introduced by Ministry of Education in Malaysia as the process of teaching and learning the Qur’an at primary schools since 1995. Due to the complicated nature of Arabic language; where the entire meaning of the word or the phrase can be changed for a minor difference in the pronunciation and typing, there is a need for an effective tool to encourage young children to learn Arabic alphabets before starting learn IQRA method.

Interactive learning is a more hands-on, real-world process of relaying information to children. Interactive learning empowers children to explore and they are invited to participate in the conversation, through technology. Interactive learning helps children pay more attention during the lesson, and are able to pick up more information. It is also considered to be more fun, and usually more successful to
develop children minds and increase their abilities to learn easier and memorize quicker.

1.2 Problem Background

Early childhood is the most life stages density with respect to brain development. Thus, the child alert and nutrition appropriate ways essential for development during the first three years of his life. Child's brain, specifically in those years, is more sensitive to the effects of the external environment. And affect a child's development rapidly growing intellectual, social and emotional. This helps to develop in ensuring that the child reaches his full potential and be a productive element in a rapidly changing global society.

Whenever the child was alert early his pace of development and learning increased. It is worth mentioning that the language and intellectual development of the things that is particularly important during the period ranging from six months and the first three years. When children spend early years of their lives in an environment with less alert or less support in both emotional and physical, the development of the brain is affected, leading to growth retardation intellectual capacity, social and behavioural (Media Centre, 2009).

Children since six months are glowing to explore technology around the home and they are possessed by sound and music, and love interactive musical instruments. According to DR. Leon Straker's, children start using computer as per reports at present in three years, they can play games, access Internet, watch YouTube and even download music.

Longitudinal Studies demonstrated that children who enrolled kindergarten programs excelled on their peers who did not attend kindergarten in Intelligence
Quotient (Ceci, 1991), measures to adapt psychological and behaviour (Anderson, 1992), the educational attainment of reading, writing, math, language and spelling (Entwisle et al., 1987) and in the repetition rate and return of some grades. Indeed, the positive impact of the enrolment in kindergartens in the lives of these students exceeded the teenage; longitudinal studies revealed the positive impact of kindergartens in increase the graduation rates, improve the employment opportunities and engage in the labour market (Schweinhart et al., 1993). Therefore, the attention of pre-primary education stage become one of the modern global trends, as not take advantage of this stage or weakness may lead to losses and negative consequences on the child's personal life and education, thus economic losses to the state. Hence, the care of the kindergarten objectives, and its programs, was begun globally.

The stage of early education finds more attention from the governments in the developed countries and many of developing countries such as Saudi Arabia, Jordan, Palestine and others. For instance, the kindergartens in Saudi Arabian aim to build the capabilities of the child in linguistic, moral, physical, religious, .ect. In this stage, children learn the Arabic alphabets and numbers; they learn how to pronounce and write them. Furthermore, the children learn some of short Sura of the Quran in order to configure the Islamic direction based on uniformity which corresponded to encroachment. In addition to accustom the child to etiquette, facilitate the acquisition of Islamic virtues and care of the child’s moral, mental and physical development according to the requirements of Islamic law.

On the other hand, the Early childhood care and education (ECCE) in Malaysia starts to teach children Malay and English alphabets in the age of five years, a later age in children's education. For Islamic education, children should join Islamic Kindergarten which teaches children only read Arabic alphabets in the age of five years. On the other hand, the Ministry of Education in Malaysia has been introduced IQRA method in primary schools since 1995 for learning the Qur'an. According to Hasan (2006) some teachers in primary school said that the implementation of teaching IQRA method in National Schools has many weaknesses.
which results in a number of students being unable to read the Qur'an, even after six years in primary school.

Furthermore, the teaching as persuasion metaphor recognizes that learning involves more than integrating new knowledge; it involves the intention to change one’s belief. Therefore, the responsibility for change is putted on the learner, not the teacher by the teaching as persuasion. Students willingly decide to change their beliefs by bringing together individual ideas of students against those new concepts that teachers are trying to convey (Sinatra and Kardash, 2004). Alexander et al. (2002) argues that the veracity of persuasion depends on the importance of the issue, and the strength or credibility of the arguments, evidence, or examples presented.

Whereas, Arabic language is very important for Muslims around the world because it is the basic language of Islam sources, the Qur’an and the Sunnah (Zubair, 2012). Thus, it is essential for Muslims to learn Arabic language in order to understand the Qur’an, the Sunnah and other literature on religious topics available in Arabic language. Thus, Muslims are very seriously to teach Arabic language to their children since childhood, in order to facilitate their recitation of the Qur’an (Khan, 2012).

1.3 Problem Statement

In order to address key issues as mentioned at previous sections, the main question that has been highlighted in this research is:

“How can interactive learning be applied using Persuasive Technology to design an effective model to teach young children Arabic alphabets?”.
1.4 Project Objectives

The objectives of this study are listed below:

I. To apply Persuasive Technology as an interactive learning method that persuades young children to change their behavior in order to learn Arabic alphabets.

II. To design an effective learning model that integrates Persuasive Technology to motivate young children learn Arabic alphabets.

1.5 Scope of Study

The scope of this project has been identified to ensure that this model is suitable to use.

1.5.1 Target Audience

The target users for this project are the children aged between 18 months to 4 years old. It is because children in this age are starting to learn more about things around them.

1.5.2 Research Scope

The research scope is focusing on identifying an appropriate technology to design an interactive learning model for teaching and learning children Arabic alphabets in order to facilitate reading and reciting the Quran.
1.6 Significant of Research Study

The main contribution of this project is to ensure that the deliverance of the information together with the interactive learning can motivate young children to learn Arabic alphabets effectively.

This project can provide an interactive learning environment to young children to motivate them to learn Arabic alphabets effectively before learn using the IQRA technique. Besides, it also can help parents at home because some parents are not familiar with the suitable method to teach their children to read and pronounce correctly. In addition, this project can also be used at preliminary school as an aid learning tools in classroom.

1.7 Chapter Summary

This chapter presented an overall overview about the main points of this project. The problem background and statement have been discussed. The project objectives, scope and importance have been described.
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