

## BORANG PENGESAHAN STATUS TESIS\*

JUDUL: THE DEVELOPMENT OF A MOBILE ARABIC EDUTAINMENT COURSEWARE

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**THE DEVELOPMENT OF A MOBILE ARABIC EDUTAINMENT COURSEWARE**

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**This report is submitted in partial fulfillment of the requirements for the  
Bachelor of Computer Science (Interactive Media)**

**FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY  
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2008**

## DECLARATION

I hereby declare that this project report entitled  
**THE DEVELOPMENT OF A MOBILE ARABIC EDUTAINMENT  
COURSEWARE**

is written by me and my own effort and that no part has been plagiarized  
without citations.

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## **DEDICATION**

**Specially dedicated to my beloved parents, family, my dearest supervisor  
and my supportive friends..**

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First of all, Alhamdulillah and a very thankful to lord of Allah's blesses for the successful completion of my PSM and all the hard time I had through out the semester. I would like to express with my deepest gratitude to myself, because of all effort that I had give in this PSM and to both of my parents, whose support me from behind and comforted me when I am depress.

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Finally, I hope that all my efforts during the PSM, will gain my ability to proceed implementing the application in next semester, and maintain a good performance, both in EQ and IQ because there is no speed limit in pursuit of excellence.

## **ABSTRACT**

Arabic Edutainment Mobile Courseware is an Arabic Communication Language learning material that uses mobile phone as a medium for transferring information. This application is made for pupils especially 10 year olds who are studying in primary schools. It is also suitable for beginners that are starting to learn this foreign language. This an application has three main modules (1) teach complete sentences,(2) teach hours and minutes and (3) teach pairs sentences. In addition, illustrations and translations are provided to assist the learning process. Besides that, simple animation and sound are used to improve users understanding. Upon completion of this mobile courseware, the student should able to (1) write simple complete sentences, (2) read numbers, hours and minutes in Arabic and (3) use suitable pronouns and pair sentences in the language. The courseware is developed using Adobe Flash CS3 in two dimensions, 2D environment. It is divided into tutorial and quiz. The tutorial covers three topics. Topic one and three cover daily life illustrations while topic two covers time. When using this application, background music is played to avoid students of getting bored. At the end of this courseware, students can test what they have learned by taking the quiz.

## **ABSTRAK**

Arabic Edutainment Mobile Courseware ialah bahan pembelajaran Bahasa Arab komunikasi yang menggunakan telefon bimbit sebagai medium penyampaian maklumat. Aplikasi ini dicipta khas untuk murid-murid berusia 10 tahun yang mempelajarinya di beberapa sekolah dan bagi mereka yang baru sahaja mahu mengenali bahasa asing ini. Aplikasi yang berkonsepkan edutainment ini mempunyai tiga topik utama iaitu mempelajari ayat lengkap, mempelajari jam dan minit serta mempelajari menyebut ayat berpasangan. Ilustrasi bergambar dan terjemahan membantu pembelajaran. Selain itu, animasi yang ringkas dan suara mampu mengukuhkan lagi pemahaman pengguna. Tujuan utama aplikasi ini memberi sedikit pengetahuan mengenai Bahasa Arab serta membantu mereka berkomunikasi ringkas dalam bahasa ini. Ia dibina di dalam persekitaran dua dimensi, 2D. Aplikasi ini terbahagi kepada dua bahagian iaitu pembelajaran dan kuiz. Pembelajaran mempunyai tiga topik. Topik satu dan tiga mempunyai gambarajah-gambarajah kehidupan seharian manakala topik dua pula memaparkan jam interaktif. Semasa melayari aplikasi ini, mereka akan diceritakan dengan muzik latarbelakang. Muzik ini dapat mengelakkan pengguna tidak berasa bosan tatkala melayarinya. Pengguna sebaiknya melayari pembelajaran sebelum bermain kuiz. Kuiz pula terdiri daripada enam soalan berpandukan ketiga-tiga topik tersebut.

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## **LIST OF ABBREVIATIONS**

<b>USFA</b>	<b>United States Fire Administration</b>
<b>CAI</b>	<b>Computer Aided Instruction</b>
<b>CSCL</b>	<b>Computer-supported Collaborate learning</b>
<b>CDROM</b>	<b>Compact Disc Read Only Medium</b>
<b>DVD</b>	<b>Digital Video Disc</b>
<b>IQ</b>	<b>Intelligence Quality</b>
<b>EQ</b>	<b>Emotional Quality</b>
<b>UCD</b>	<b>User-centered Design</b>
<b>LCD</b>	<b>Learner-centered Design</b>
<b>OS</b>	<b>Operating System</b>
<b>3D</b>	<b>Three Dimension</b>
<b>PC</b>	<b>Personal Computer</b>
<b>HCI</b>	<b>Human Computer Interaction</b>
<b>PETRONAS</b>	<b>Petroliam Nasional Bhd</b>
<b>FUAT</b>	<b>Final User Acceptance Testing</b>



## CHAPTER I

### INTRODUCTION

#### 1.1 Project Background

Transferring technology for mobile device (handset) is started. Nowadays, we see everybody have their own handset although they are kids. So, we can manipulate the device as a medium of education and learning processes. Learning from mobile device makes the process of education technique more flexible and interesting. Either students do not need to go to computer center or bring their heavy notebook anywhere to learn something. Those make difficult and bored. The alternative way, students can learn an education anywhere and anytime with bring their mobile device only. So they can learn something new syllabus or makes revision.

Refers to [www.parlimen.gov.my/opindex/pdf](http://www.parlimen.gov.my/opindex/pdf), Malaysian Government had advised public to learn Arabic Language. This statement proves with allocate the language education in primary and secondary school also in higher education institutions. Arabic Language becomes one of the most important international languages. Islam religion must learn this language because it also Holy Qurans' language. Arabic Language is difficult to speech and understanding the meaning. The difficulty makes pupils can not understanding the language and fell bored to proceed to another levels and its branches.

The users can review the courseware anytime anywhere they want until they understand the topic correctly. The addict of Malaysian that makes handset as their “best friend” and feel trouble without it is suitable be used as a medium for learning. So, we need to research about pupil’s behaviors to find the best techniques of learn Arabic Language among Malaysian’s students. This electronic learning also decreases manpower’s of teaching. Teachers can give their students as an assignment (learn new topic). Sometimes teacher can not cover all topics because they involve with other commitment.

## **1.2 Problem Statement**

Arabic Language is difficult subject to learn by pupils. Too many wordy make them feel bored and can not focusing very well in this subject. Sometimes they are missing certain sub topic. Most children are interested and attracted with colorful interface and cartoon visualization.

In Malaysia, e-learning coursewares are sold in the market for educational platform, industrial platform, business platform and so on. However, the coursewares have few weaknesses and problems. The application only can be learned in certain places. It cannot be accessible from anywhere such as canteen, bus, playground and class. Different pupils have different IQ. Some pupils can learn very fast while the rest need repeated explanations. Sometimes teachers can not ensure all their students understand the topic. Although, e-learning is a medium of learning technology but it still can not help weak students. M-learning application can solve their inconvenience to understand critical subject especially Arabic Language.

### **1.3 Objective**

Purpose to state the objective is to ensure the project working clearly and would not have problem in the process of the application development. Below are the objectives of the project:

- To design an interactive mobile application for learning Arabic Language.
- To develop an m-learning application according to the design specification target users.
- To test the usability of the application by conducting user acceptance.

### **1.4 Scope**

The scope of the project is divided into three specific areas: Specific Users, specific platform and specific functionality. Each area is describes as below:

#### **1.4.1 Specific User**

The target users of this project are level 1 primary school students especially ten years old pupils, standard four pupils. The application is also suitable for anyone who wants to start learn Arabic that is called beginner.

#### **1.4.2 Specific Platform**

Review from <http://www.adobe.com/devnet/devices> state that Nokia and Sony Ericsson's brands have Flash Lite application. While other handsets such as Verizon Wireless, BREW and KDDI do not have in local current market. Flash Lite has several

versions such as Flash Lite 1.0, Flash Lite 1.1, Flash Lite 2.0, Flash Lite 2.1 and Flash Lite 3.0. Researcher had made survey that Flash Lite 2.0 is the best choice because most of Nokia handset uses the version. Flash Lite 2.1 is upgrade from Flash Lite 2.0. It does not have any special function then previous version. Unfortunately Flash Lite 3.0 only uses by Nokia or Sony Ericsson developers to build their own application.

Researcher had collected data about Nokia's handset which model are support Flash Lite. Table below describes important information about them:

**Table 1.1: Nokia mobile phone that support Flash Lite 2**

Model	Screen Size	Official Prices (RM)	Supports
Nokia 3230	176 x 208 pixels	280	Flash Lite 1.1 and 2.0
Nokia 5200	128 x 160 pixels	600	Flash Lite 1.0 and 1.1 and 2.0
Nokia 5300	240 x 320 pixels	690	Flash Lite 1.0 and 1.1 and 2.0
Nokia 6260	176 x 208 pixels	N/A	Flash Lite 1.1 and 2.0
Nokia 6300	320 x 240 pixels	860	Flash Lite 1.0 and 1.1 and 2.0
Nokia 6620	N/A	N/A	Flash Lite 1.1 and 2.0
Nokia 6630	176 x 208 pixels	780	Flash Lite 1.1 and 2.0
Nokia 6670	176 x 208 pixels	N/A	Flash Lite 1.1 and 2.0
Nokia 6680	176 x 208 pixels	880	Flash Lite 1.1 and 2.0
Nokia 6681	176 x 208 pixels	N/A	Flash Lite 1.1 and 2.0
Nokia 6682	176 x 208 pixels	N/A	Flash Lite 1.1 and 2.0
Nokia 7390	240 x 320 pixels	750	Flash Lite 1.0 and 1.1 and 2.0
Nokia 7610	176 x 208 pixels	N/A	Flash Lite 1.1 and 2.0
Nokia N70	176 x 208 pixels	930	Flash Lite 1.1 and 2.0
Nokia N90	352 x 416 pixels	1275	Flash Lite 1.1 and 2.0

References: [http://www.adobe.com/mobile/supported\\_devices/handsets.html](http://www.adobe.com/mobile/supported_devices/handsets.html)

### 1.4.3 Specific Functionality

Table below shows the modules that will be covered in the project.

**Table 1.4: Modules of the Project**

No.	Module	Description
1	Introduction for the beginning of the language and sub-topic	Introduction of how to use this application.
2	Explanation of each component (Tutorial)	Introduce new Arabic words with their graphic illustration
3	Drill and Practice skills	Evaluate their understanding.

### 1.5 Project Significance

Researcher trying to solves problem among students that they are bored with traditional learning, reading books. They need to bring heavy books to learn something. In new era, there is alternative way to learn knowledge such as e-learning. However, e-learning must use computer or laptop and internet. New revolution of technology nowadays helps people to learn something knowledge with using mobile device. They can learn anyway and anytime as long as wanted to do. Besides that, Arabic is be more important in Malaysia. Government had advised public to learn Arabic. In primary school, now Arabic is be one of syllabus. As it is the new subject for pupils to learn, developer need to apply the language in mobile application. M-learning technique can help them to learn Arabic easily means they can learn the subject more interactive, anyway and anytime.

Developer will collect the information and think the best application that suite to target user. Design of interface must following the criteria and referring the user behavior. Design interface is the big problem to solve because it needs concentration to

make research and to obtain the expected output. Furthermore, developer needs to generate an application suite with Malaysian. From survey, there are many coursewares had developed for international standard, most use English to teach Arabic.

Hope that the expected output will motivate target users to learn Arabic and understand the topics effectively. Users will have interest to learn the language and can memorize the knowledge better than usual.

## **1.6 Conclusion**

The expected output is an application that is designed specially for pupil's primary school; mobile devices with user-friendly interfaces and easy user-interaction for pupils to understand. It has the combination of learning and visual for a more entertaining and effective interesting. Pupils will feel interest in learning Arabic Language in a new way where they can access rich media resources including animation, sound, picture and text. As we know Arabic Language is wordy and considered as a stiff and boring subject to many of school pupils, the colorful interface of multimedia might do the attract for them to gain a little more interest in this subject. Knowledge can be more effective absorption than manual teaching or e-learning.

As the conclusion, this project is developed to help pupils increase their knowledge and protect them from lose each chapter. Develop m-learning for this subject is a new one in Malaysia. Hope that, pupil's standard one will interest with the application. Time between 15 to 20 minutes is suitable for learning application.

## **CHAPTER II**

### **LITERATURE REVIEW AND PROJECT METHODOLOGY**

#### **2.1 Introduction**

Methodology is defined as body of method, rules, and postulated employ by a discipline, a particular procedure of set procedures, the analysis of principles or procedures of inquiry in a particular field. Project Methodology is the client's project is completed according to plan, accurately, and on time. In that phase it will actually describe the activities that may do in every stage of works.

To define appropriate standards and best practises, the researcher uses the ASSURE model as the methodology of the project. The ASSURE model is an ISD (Instructional Systems Design) process that was modified to be used by teachers in the regular classroom. While, the Instructional Systems Design process is one in which teachers and trainers can use to design and develop the most suitable learning setting for their students. This process can be used in writing lesson plans and in improving teaching and learning. The ASSURE model incorporates Robert Gagne's events of instruction to assure effective use of media in instruction. The ASSURE model is helpful for designing courses using different kind of media. This model assumes that instruction will not be delivered using lecture or text book only. It allows for the possibility of incorporating out-of-class resources and technology into the course materials.

## **2.2 Domain**

The domain of this project is categorized under Information and Communication Technology (ICT) in Education and Learning because the project is related to one of the syllabus standard one student, Arabic Language. Arabic Language is a very important subject to be learnt and understood by students. The subject which consists a lot of reading and memorizing, require a lot of patience and interest in a pupils.

### **2.2.1 Accelerated Learning**

Learning faster has really been a focus of education. Sometimes pupils get bored and give-up. Sometimes it can learn easily in the same time. Accelerated learning can classified as anything that helps take in more information quickly while improving understanding, this might include speed reading. Else, anything that helps retain large amount of information quickly such as memory techniques, anything that helps quickly sort through large amounts of material so that you can find out what is really important and useful, techniques that help to analyze and evaluate problems quickly, techniques that help reduce the required hours and hours of practice, reduces or eliminates trail and error learning and also helps to make learning more just-in-time.

According to Lozanov, Suggestology is an organized way of augmenting natural learning. It builds on those methods that allow us to learn most effectively and efficiently, emulating some of the ways we learned as a young child. Suggestology recaptures that natural learning process and accelerates the understanding and retention of content. Today's Accelerated Learning is multifaceted, encompassing a wide variety of methods and techniques. An effective Accelerated Learning program may include new findings in multiple intelligences, learning styles, neurosciences and cognitive psychology. But to be true to Dr. Lozanov's original intent, it must take into account the basic beliefs, theories, assumptions and core elements.