CHAPTER 1

INTRODUCTION

1.1 BACKGROUND OF STUDY

Mobile System for Learning Arabic as a Second Language provides a medium or tools for children to learn Arabic language easily. This system will enable the users to learn Arabic in their mobile system such as mobile phone, i-Pad, galaxy tab and etc. This will ensure that, Arabic language can be learnt everywhere and every time they need. Literally, Arabic language refers to Quran language, since Al-Quran was revealed in Arabic and it is also a heaven language according to Islam.

Based on Surah Yusof versus 1 and 2, Allah said;

"Alif. Lam. Ra. These are the ayahs of the Clear Book. Surely, We have sent it down as an Arabic Quran so that you may understand."

For Muslim people, Allah has revealed al-Quran and Hadith in Arabic language, in common sense; they are actually many advantages for them to learn Arabic as their communication medium, not only English. When The Lord says, we have sent it down as an Arabic Quran, suppose Muslim regardless nation and races will understand that, they have to learn Arabic language.

Arabic language is very unique and also it's hard to learn in the beginning. Studying and being expert in Arabic language may need long period of time and also need passion. Besides, Arabic Language is very complex for a person who never learns Arabic language before this.

In Malaysia usually, Arabic language happen to be taught in primary and secondary schools, and minor subject in university. [1] From the author's observation, education system in schools should be improved to inculcate interest of Arabic language learning

in students' life. Only minority of people in Malaysia know this language in deep context.

But, the effort of the government to inculcate the interest should be impressed. Based on Syllabus of Arabic in year 1 to year 2 [2], the early childhood has been exposed with Arabic in the way of pictures, sounds and visualization made by teachers. The approach has given an impact to the students since teachers used sound and pictures in class. This is because the nature of the students likes imagination and interesting stuff [3]. But the weakness of this approach is the students not be able to apply what has they learned in class outside of the class, especially in the aspect of communication. This is due to the language used by the others in their surrounding including parents, which do not support children's learning.

Therefore, this effort is purposely made for Muslim Childhood to cultivate and inculcate their interest towards Arabic language through mobile application that can be utilized regardless places and time. This system also will help parents to stay effectively with children in order to support them in learning Arabic, and hence will speed up learning process in schools. Besides, it will also ease the learning of Arabic and make the learning process full of cheer and excitement.

1.2 PROBLEM STATEMENT

Many people want to learn Arabic. In schools, there are several teachers that consistently teach Arabic. Besides, there are actually many books intentionally created to facilitate people in learning Arabic language.

But, there are reasons why people quite slow in learning Arabic. *Al-Kitaab fiil Ta'alum al-'Arabiyya* offers famous method in learning Arabic language, but this fame book is also fail to make people interest in it [4]. One of the reasons is that book does not offer pronunciation. So, it's make a learner feel ambiguous weather what they pronounce is right or wrong.

Besides, the author found that the root problem to be solve is, there is little effort that have been made by people in order to learn Arabic language. Muslim should work hard to learn Arabic language as As-Syahid Al-Imam Hassan al-Banna said:

"Work hard to communicate in appropriate Arabic language because appropriate and correct Arabic language is the symbol of Islam."

Based on the statement by Muhammad al-Bakir, the achievement of Arabic Studies at school is getting lower and weaker especially in aspect of developing and enriching Arabis Vocabularies [5]. This statement made by an expert in Arabic Studies has shown that, in Malaysia, the performances of students in schools are getting weaker by the time. The action taken has to be made since the early stage of children; hence the problem can be reduced in the higher-education in school.

Arabic word also can be classified as a difficult task to be memorized and learned by Malay learners [6]. This statement shows that, among the Malay nation Arabic language is very hard to be learned and may need a longer period of time to be expert than Arabic Nation itself, like an Arabic people in learning Malay Language.

The shortage of experienced teachers, equipments and sources [7], has been contributed to the weakness of Arabic language education system. There are some students that are able to memories the vocabulary, but there are actually more students that struggle forever to learn this language but fails. This is due to some major factors. May be because the personnel attitude and interest of the students that makes it different [8]. Or may come from the methodologies adopted by the teachers whenever conducting their session in class.

According to Bakir (2010), whenever teaching process goes smoothly in a nation, that nation has managed to establish an effective mechanism for its society to achieve stability and progress. This mean, does not a matter whether the subject is hardest subject ever, the mechanism is an important factor to make the students successful in learning the subject.

Hence, the author needs to make this mobile application interesting and user friendly to be used and can solve at least little part of the problems occur. This is to ensure that the early level of people can use the application in order to improve their Arabic language in their communication. The existence of add-in dictionary in the application is an added value to facilitate and ease the way of the learning process. Hopefully, this mobile application can increase the percentage of people that success in learning Arabic and communicate using it.

1.3 OBJECTIVES OF STUDY

This study is purposely to conduct a research on the best way to learn Arabic language using mobile application and to develop system and allow the user to test the final prototype.

For the developments of Mobile System for Learning Arabic as a Second Language, the objective is to develop a system with the following functionalities:

- 1. Able to teach on the basic of Arabic language such as grammar of the language
- 2. Able to show correct pronunciation of the words
- 3. Provide Arabic-Malay or Arabic-English dictionary
- 4. Provide quiz and exercise to test the understanding of the learner

Entity, teachers and system developer have different objective, but always have the same goal which to ensure the students being interested and success in learning Arabic. The author's objective is to build an interesting system that will ease the learning of Arabic for the early childhood of the year of 7 to 9 years old.

Secondly, the author wants to build or create a second approach for the children to learn Arabic, instead of using the familiar approach in schools. As we all know the result of using the first approach, there is not smart to always use that approach. An invention need to be done. The author also wants to use an Android operating system or application to develop this system, since it free and hence and IT developer must take advantages and opportunity to use this freeware application.

1.4 SCOPE OF STUDY

The main objective of this project is to develop an Android Game which will be used in the early stage of schools which is for the year of 7 until the year of 9, to teach Arabic language. Since the game will be designed for the childhood of year 7 until year 9, thus the study need to done on the nature of the early childhood, and the ability of children in this particular age.

The study must also covers on the syllabus in schools, since the system will be synchronizes with the teaching in schools. The author needs to do research in the learning pedagogy that has been used in school in order to offer another effective and efficient learning pedagogy.

The target market of the early childhood also needs to be cover in order to analyze the market of the parents. Since this system will use Android application, a study also needs to be done on the people, whether they use mobile application or not.

Besides that, the author needs to study on the syllabus that needs to be cover in the system, since Arabic Language has many scopes to be learned. The syllabus must be suitable with the students that are 7 years old to 9 years old.

1.5 THE RELEVANCY OF THE PROJECT

The use of android application in aiding the learning process has becoming a trend nowadays. It is believed that the android application's usage in learning had contributed a lot in young children's learning process. In addition to that, there is also fast growth of mobile technology in recent days; this had caused the needs of accessing information anytime anywhere becomes crucial. Therefore, based on this reasons, Let's Learn Arabic is proposed as an android mobile base language learning application that will implement edutainment approach in teaching Arabic as a second language to young children.

1.6 FEASIBILITY STUDIES OF THE PROJECT WITHIN THE SCOPE, TIME AND TECHNICAL

1.6.1 TECHNICAL FEASIBILITY

Since the author will use Android Application or Android Operating System, the familiarity of the system with the author, parents and children is a vital aspect to be checked. The application and the technology must be taking into account to ensure the effectiveness and efficiency of learning Arabic language using this system. The users and the developer must be familiar with the Android application thus it will not be a problem for the users in understanding and using the system.

The developer and the teachers in school must be agreed that the system will be compatible with the syllabus covers in schools.

1.6.2 SCOPE FEASIBILITY

This project is feasible in terms of scope as it focuses on the children aged 7 to 9 years old, whom categorized as the age that can easily learn on something. In addition to that, it is important to teach this group of age about the language as they are the next generation of todays adult. Besides that, if they are not able to master the language well, the language will face extinction soon. Apart from that, the project also focusing on the spelling part of Arabic learning thus makes it more feasible to be conducted.

1.6.3 TIME FEASIBILITY

This project will be developed within three semesters, which comprises of 11 months, starting from February 2012 to December 2012. This project will be developed based on three main phases, which are research phase (comprises of planning, analysis and design phase), development phase as well as testing phase. The research phase will be carried out during the first semester, which is in January 2012 until May 2012 whereas the development of the prototype will be initiated during the second semester, which starts on May 2012. All research-related work will be done during the first semester so that on second semester, focused will only on the development phase. Thus, based on the division of how the project will be developed, this project is believed to be able to be completed within the timeframe.

CHAPTER 2

LITERATURE REVIEW

2.0 BACKGROUND

Islam is the way of life. Nabi Muhammad s.a.w., our Prophet said,

"I am leaving two things that if you hold on to them; you will never be lost forever, namely the Quran and Sunnah."

In the Holly Quran, Allah s.w.t. said in Surah Al-Baqarah versus 208 to 209,

"O you believe, enter Islam as a whole and do not follow the footsteps of devil. Devil is the real enemy for you. But, if you deviate from the path after evidence came, then know that Allah is The Al Mighty and Wise."

When Allah s.w.t say, enter Islam as a whole, many people do not realize that; learning Arabic is one of the important aspects need to be covered by Muslims.

2.1 WHAT IS ARABIC LANGUAGE?

Arabic language has rise to be a major world language since the rise of Islam as a major religion. Arabic is now placed in the ranking of sixth in the world's league table of language and has estimated more than 186 million native speakers [10]. The position of Arabic language in the Al-Quran as the main and only language, has contribute to the ranking, since Muslims people around the world use Arabic language. Arabic language is actually belongs to the Semitic group of languages, since it also includes Hebrew and Amharic which is the main language of Ethiopia.

Arabic dialects can be divided into three categories [11];

- 1. Classical Arabic
 - Is the language from the Qur'an and originally the dialect of Mecca
- 2. Modern Standard Arabic
 - Is usually used in books, television and radio, mosques and also medium of communication between educated Arabs from different countries in events, for example is international conference.
- 3. Local dialects
 - Vary. An Iraqi might have difficulty in understanding Moroccan, even though they speak using the same language.

	Major languages of the world (Number of native speakers)							
1.	Mandarin Chinese	836,000,000						
2.	Hindi	333,000,000						
3.	Spanish	332,000,000						
4.	English	322,000,000						
5.	Bengali	189,000,000						
6.	Arabic	186,000,000						
7.	Russian	170,000,000						
8.	Portuguese	170,000,000						
9.	Japanese	125,000,000						
10.	German	98,000,000						
11.	French	72,000,000						
12.	Malay	50,000,000						

Figure 2.1 [11] Major Language of the World

Figure 2.1 shows that Arabic language is one of the languages that have many native speakers throughout the world. The figure above shows that Arabic owned 6^{th} major language for all around the world and have 186 million of speakers.

2.2 IS ARABIC DIFFICULT?

Learning Arabic language will surely take time and practice, to reach the level of experts is not an easy journey. According to www.al-bab.com, Arabic language is much less complicated than Latin in aspects of grammar and simpler that German.

Arabic words are mainly constructed from three letters root word which conveys basic meaning of the particular words.

For example, k-t-b shows the meaning of writing, but an addition of another words before and after the root words, will produces many associates words such as 'book', 'office', 'library' and 'author'.

Arabic letter has actually 28 consonants and three vowels.

2.3 WHAT MOBILE OPERATING SYSTEM CAN HELP IN LEARNING ARABIC?

Mobile operating system can be defined as the operating system that controls Smartphones, tablet, PDA and other mobile device [12]. The idea of the author is to use android and the operating system for this language learning system. This is because, many Smartphone, I pad, galaxy tab are sold with Android Operating System, which is the most demanded Operating System in the year 2012.

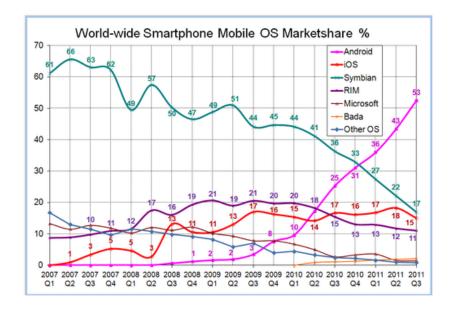


Figure 2.2 [12] Worldwide Smartphone Mobile OS Market share

Figure 2.2 shows that in the year 2011, Android Operating System has gained the highest market share all over the world, hence make Android as the first choice of

operating system for mobile application nowadays. Since its establishment in the year 2007, Android has been successful in inventing its products and it's also free for developer usage.

The reason why the author chooses Android as the operating system for this particular mobile language learning is because it is free and open source. For your information, Android has been developed by a small startup company that was purchased by Google Inc. What Google do for the next step is to update the software again and again. Android can be defined as a Linux-derived OS backed by Google and was released on November 5th 2007. In the year of 2012, there has been an explosion in the number of devices that carry Android OS. As evidence, Android has reach 52.5% of the global Smartphone market share.

Besides that, this system also needs Mobile Assisted Language Learning (MALL) to assist the aspects of language learning. MALL can be defines as an approach to language learning that is assisted or enhanced through the use of handled mobile device. MALL is actually a subset of both Mobile Learning and Computer Assisted language learning (CALL). It will allow students to access language learning materials.

2.4 CHALLENGES FOR LEARNING ARABIC AND LEARNING APPROACH

There are many challenges in learning and teaching Arabic language nowadays. The schools are actually having shortage on experiences teachers, equipment and sources. [13] Teachers that has been graduated from Education Institute, have only little experiences in teaching Arabic since teaching Arabic in a primary schools only have been implemented a few years ago. The teachers in school only used equipments that have been provided in schools that they are actually whiteboard and the chalk. The teachers usually sketch the picture in the whiteboard to attract the students.

The most difficulties of the students are to learn the vocabulary. There are two category of students; one category that are able to memories and second category that will

struggle forever to be expert. Based on the research, this may be due to the personal attribute and interest of the students. This mean, the cleverness on the subject is based on the interest and the level of the students. The second cause is may be due to the methodologies adopted by the teachers whenever conducting their class.

There is a lot of evidence that support the above statement [14];

"Whenever teaching process goes smoothly in a nation, that nation has managed to establish an effective mechanism for its society to achieve stability and progress."

"From a conceptual perspective, the term teaching carries the meaning of introducing things comprehensively, or giving any skill in doing things accordingly or making a person knows or realize about himself, and identifying his specialization, or story aspects and weaknesses."

"Teaching and learning transcend the physical classroom in more than one way."

A study has been made between the study approach in Australia and Malaysia [15]. In Australia, the school use game as a learning approach, unlike in Malaysia. Malaysia still has problems of lack equipments, cultural expectation of both teachers and learners and this nation preserve teachers that has limited background of experiences of studentscentered learning.

Teaching Game for Education (TGFU) is the approach that has been used by Australia education system. Below are the evidences [16]

"The teaching and learning of games in physical education attract a significant curriculum allocation. Werner Thrope and Bunker (1996, p28) suggested that approximately 65% of physical education curriculum time is allocated for games. The way in which we teach games, therefore stands to have significant impact on the lives of the students we teach.

TGFU is an emerging pedagogy in Australia physical educator and borne from a constructive perspective of Kirk and Macdonald in the year of 1948, and its challenge the traditional ways of doing within games in the school education setting.

Light (2002) agrees that some students will remain unconvinced as to the educational value that games can have, averse to physical education based in previous negative experiences. However, many find that the inclusive nature of game-centered teaching is more enjoyable [17] and they often ignored 'complex thinking skill' required in games, as describes by Howarth (2000, p270), can generate genuine interest for students of game-learning approach.

2.5 SYLLABUS OF LEARNING ARABIC IN SCHOOLS

According to the syllabus in schools, there is some limitation each year of studies. Below are the evidence [18];

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ي والعبارات البسيطة. والعبارات البسيطة. الكلمات والجمل والعبارات البسيطة. والعبارات البسيطة. الكلمات والجمل والعبارات البسيطة. الكلمات المعنية بين كلمات والعبارات البسيطة. الملدوسة من على قراءة الكلمات <u>Boblifi</u> Memberi atau menjawab sapaan asas dengan melalui attiviti didkhibur seperti lakonan. <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT1E1</u> <u>B4DT</u>	Menutur ayat mudah (الجملة		التحيات ثم يمثلونها .	والترحيبات .	الكلمات والجمل		
B6DL1E1 Метьей гаtu menjawab Sapaan asas dengan bahasa badan yang sesuai melalui aktiviti didikhibur seperti lakonan. الكلمات والجمل البسيطة واستخدامها. 12.5 القدرة على ترديد الجلمل البسيطة. التحيات وإجراء الحوار البسيطة واستخدامها. 9.3 ترديد الكلمات والجمل والعبارات البسيطة واستخدامها. 9.4 9.3 </td <td></td> <td></td> <td></td> <td></td> <td>والعبارات البسيطة.</td> <td></td> <td>11-7.000</td>					والعبارات البسيطة.		11-7.000
Boblie العبارات البسيطة. الأنشطة المتوعة المشوقة. Beblie العبارات البسيطة. الأنشطة المتوعة المشوقة. Memberiau menjawab sapaa asas dengan bahasa badanyang sesuai melalui aktiviti didik hibur seperti lakonan. 8) ترديد الكلمات 8,2 Bubiliti melalui aktiviti didik hibur seperti lakonan. والجمل والعبارات 12,1 البسيطة واستخدامها. Bubiliti Menyalin ungkapan (شيط) dengan kemas dan betul. 12,1 البسيطة واستخدامها. 12,1 Menyalin ungkapan (شيط) dengan kemas dan betul. - يطلب المعلم من التلاميذ الحوف. - يطلب المعلم من التلاميذ العلوات 9 PBS ustas: - PBS ustas: مستعينا بالصور وبطاقات الحروف. مستعينا بالصور وبطاقات الحروف. - الحروف. - PBS ustas: - PBS ustas: - الحروف. - الحروف. - الحروف. - PBS - الحروف. - الحروف. - الحروف. - past. - الحروف. - الحروف. - الحروف. - public - الحروف. - الحروف. - الحروف. - public - الحروف. - الحروف. - الحروف. - public - الحروف. - الحروف. - الحروف. - الحروف. - الحروف. - الحروف. - الحروف. - public </td <td></td> <td></td> <td></td> <td>4,2 – القدرة على التمييز بين كلمات</td> <td>4) التمييز بين</td> <td></td> <td></td>				4,2 – القدرة على التمييز بين كلمات	4) التمييز بين		
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B6DL1E1 Memberi atau menjawab sapaan assa bengan bahasa badan yang sesual melalui aktiviti dikhibur seperti lakonan. 9, ترديد الكلمات 8,2 التحيات التحيات التحيات واجراء الحوار المرابات B4D1E1 Menyafin ungkapan (ugkapan bahasa badan yang sesual melalui aktiviti dikhibur seperti lakonan. - 12,1 - 12,1 المرابات المرابات واجراء الحوار الإسطاح واجراء الحوار الحوار واجراء الحوار الحوار واجراء الحوار الحوار واجراء واجراء الحوار الحوار واجراء واجراء </td <td></td> <td></td> <td></td> <td>الأنشطة المتنوعة المشوقة.</td> <td>والعبارات البسيطة.</td> <td></td> <td></td>				الأنشطة المتنوعة المشوقة.	والعبارات البسيطة.		
للمستوية المعلم من المحالي المعلم من التلاميذ التحيات وإجراء الحوار المعلم من التلاميذ التحيات والمحل والعبارات المسيطة واستخدامها. [20] تراعة الكلمات المسيطة واستخدامها. [20] تراعة الكلمات المعلم من التلاميذ التحالي المعلم من المعلم من التلاميذ التحالي المعلم من المعلم من التلاميذ التحالي المعلم من المعلم من المعلم المعلم المعلم المعلم من التلاميذ التحالي المعلم من المعلم من المعلم المعلم من المعلم من المعلم المعلم من المعلم المعلم المعلم المعلم المعلم المعلم المعلم المعلم المعلم من المعلم المعلم المعلم من المعلم من المعلم المعلم من المعلم من المعلم من المعلم من المعلم المعلم المعلم من المعلم من المعلم من المعلم من المعلم المعلم المعلم المعلم معلم المعلم من المعلم من المعلم المعلم من المعلم مل معلم معلم من المعلم مل معلم معلم ململم ملم معلم معلم							
Memberi atau menjawab sapaa nasas dengan bahasa badan yang sesuai melalui aktiviti didik hibur seperti lakonan. قراءة التحيات وإجراء الحوار الليونين والجسلات البيسطة واستخدامها. قراءة التحيات وإجراء الحوار التوالات البيسلات البيسلات البيسلية واستخدامها. 12,1 قراءة الكلمات البينهم. قراءة التحيات وإجراء الحوار التوالات البيسلية واستخدامها. 9 B4DTE1 Menyalin ungkapan (شيار) dengan kemas dan betul. - use of the equility of the equilit	B6DI 1E1	التكنولوجيا	- يطلب المعلم من التلاميذ	8,2 – القدرة على ترديد الجمل البسيطة.	8) تردید الکلمات		
للماعة لماع من الخاري البسيطة واستخدامها. B4DTIE1 Menyain ungkapan (عارة الكلمات. Menyain ungkapan betul. Menyain ungkapan (عارة الكلمات. Menyain ungkapan (عارة الله العالم من التلاميذ T, EB-2 MAC 2012 MAC 2012 MAC 2012 MAC 2012 13-12: MAC 2012 MAC 2012 MAC 2012 MAC 2012 MAC 2012 MAC 2012 MAC 2012 MAC 2012 MAC 2012 MAC 2012	Memberi atau menjawab				والجمل والعبارات		
B4DTIE1 Menyalin ungkapan (معارات) dengan kemas dan betul. 12) قراءة الكلمات. (عارات) ((عارات) ((عارات) (((((((((((((((((((bahasa badan yang sesuai	والاتصالات					
م المعاد وسهلا (عدرك) معاد المعادية على نطق الأصوات المعلق صوبي "ت" و "أ" و (عدرك) (عدرك (عدرك) (عدرك) (ع	seperti lakonan.	الحجارة					0
27 FEB-2 MAC 2012 الحروف الحجائية العمل وسلمان الحروف الحجائية الحروف. - PBS السهلة. > التدريب في كراسة العمل	(عبارات) Menyalin ungkapan	<u></u>			12) قراءة الحلمات.		9
7) نطق أصوات الحروف المختلفة. مستعينا بالصور وبطاقات [] الحروف الهجائية PBS - الحروف. المحائية. السهلة. > التدريب في كراسة العمل	dengan kemas dan betul.		-			أهلا وسهلا	
صفحة: 12-12 الحرو ^ض العجانية - PBS السهلة. > التدريب في كراسة العمل				-			
السهلة. > التدريب في كراسة العمل			لحروف.	-1	الحروف الهجائية		
					السهلة.		
مفحة 14-15.							
			بفحة 14–15.	o			

Figure 2.3 [18] Arabic Syllabus for year 1

The syllabus shows that, in year 1, the students will be focusing on introduction of Arabic Pronunciation and introduction to the letter. This means that, for the system the developer need to focus on the introduction of Arabic letter, simple words and pronunciation.

Below is the syllabus of Standard 2 Arabic Education System;

B1DL2E1 Menyebut bunyi huruf hijaiyyah berdasarkan pengetahuan sedia ada.	الإبناع والإبتكار - مرحلة الإعداد	– يسمّع التلاميذ إلي أصوات الحروف القريبة	2،2 - القدرة على تعيين بين أصوات الحروف المختلفة المسموعة.	2) التمييز بين أصوات الحروف الهجائية.		
B2DL1E1 Menyebut bunyi huruf hijaiyyah yang	التجارة 	بالحروف المدروسة: ل،ي،و،س،ھ،ر،ف،ط،	5،2 – القدرة على نطق أصوات الحروف: (ل،ي،و،س،ھ،ر،ف،ط،ق) نطقا صحيحا.	5) نطق أصوات الحروف الهجائية.		
difokuskan: (ل،ى،ى،،،،،،،،،،،،،،) dengan bimbingan. B1DL1E1		ق والتلاميذ يرددونحا. - يطلب المعلم من	1,1 - القدرة على الاستماع إلى أصوات الحروف: (ل،ي،و،س،ه،ر،ف،ط،ق) من	1) الاستماع إلى		
Mendengar dan mengajuk pelbagai bunyi seperti bunyi haiwan dan alam persekitaran.		التلاميذ نطق أصوات الحروف المسموعة	الأصوات المحيطة والقريبة من التلاميذ مثل: أصوات الحيوانات ونحوها.	الأصوات القريبة المناسبة لأصوات	روضة	1
		والتعيين بينها. - يسمّع المعلم التلاميذ	2،2 – القدرة على تعيين بين أصوات الحروف المختلفة المسموعة.	الحروف. 2) التمييز بين أصوات	الحروف	4-6 JAN 2012 صفحة: 1-3
		الأصوات المسجلة ويطلب منهم محاكاتما	5،1 – القدرة على محاكاة أصوات الحروف: (ل،ي،و،س،ھ،ر،ف،ط،ق).	الحروف الهجائية. 5) نطق أصوات		
		وترديدها. PBS - > التدريب في كراسة العمل		الحروف الهجائية.		

معيار الأداء	الملاحظة	الأنشطة المقترحة	معيار التعلم	معيار المحتوى	الموضوع	الأسبوع
B2DL2E1	الإبداع والإبتكار	– ينطق المعلم صوبي	2،1 - القدرة على تعيين أصوات الحروف	2) التمييز بين أصوات		
Menentukan bunyi dengan menyebut huruf hijaiyyah yang difokuskan:	- مرحلة التمهيد والتفكير	(ر/ل) ثم يطلب من	بأشكالها وحركاتها المختلفة المسموعة.	الحروف الهجائية.		
njaryyan yang dilokuskan. (ل،ى،ى،ى،،،ھەر،ف،ط،ق) yang didengar	ويدير	التلاميذ ترديدها.	(ل،ي،و،س،ھ،ر،ف،ط،ق)			
الحركات berdasarkan التصيرة/الطويلة)	التجارة	- ينطق المعلم الكلمات	5،1 – القدرة على محاكاة أصوات الحروف:	5) نطق أصوات		
س-ساحة /ل-العلوم/ق-:Čontoh حقيبة	- التقاعل	مستعينا ببطاقات	(ل،ي،و،س،ھ،ر،ف،ط،ق).	الحروف الهجائية.		
B3DL1E1		الحروف والصور ثم يطلب	5،2 - القدرة على نطق أصوات الحروف:			
Mengulang perkataan yang didengar.		من التلاميذ ترديدها.	(ل،ي،و،س،ھ،ر،ف،ط،ق) نطقا صحيحا.			2
		- PBS	3،1 - القدرة على الاستماع إلى الكلمات		روصة	2
		> التدريب في كراسة العمل	والجمل وترديدها .	3) الاستماع إلى	الحروف	9-13 JAN
		صفحة 4–5.		الكلمات والجمل	22	2012
			5،2 - القدرة على نطق أصوات الحروف:	البسيطة.		صفحة: 4-5
•						1
mengikut bimbingan.	التكنولوجيا	قراءتما وترديدها .	9،2 — القدرة على قراءة الكلمات والجمل			2
B5DB1E1 Membaca dan memahami ayat mudah	المعلومات	– يقرأ المعلم الأرقام	مع تعيين الحروف الأولى والوسطى والأخيرة			3
(الجمل السيطة) dengan betul tanpa bimbingan.	والاتصالات	والأعداد ثم يطلب من	فيها.			
B3DB1E1		التلاميذ قراءتما وترديدها.	9،4 - القدرة على القدرة على قراءة			16-20 JAN 2012
Membaca perkataan dan menentukan huruf		- PBS	الكلمات والجمل المدروسة مع مراعاة النبر			صفحة: 6-7
hijaiyyah yang terletak di awal, di tengah dan di akhir perkataan dengan		> التدريب في كراسة العمل	والتنغيم.			
betul.		صفحة 6–7.	4،1 – القدرة على الاستماع إلى الأرقام	4) الاستماع إلى		
B3DB1E3 Membaca perkataan			والأعداد المدروسة (11-19) وترديدها.	الأرقام والأعداد		
dengan intonasi dan tekanan suara (النير والتنغير)				.(19-11)		
yang betul. B3DL2E1			7،1 – القدرة على نطق الأرقام والأعداد	7) نطق الأرقام		
Mengulang dan menyebut nombor dan			المدروسة وترديدها .	والأعداد (11-19).		
bilangan (11-19) mengikut susunan.			7،2 - القدرة على نطق الأرقام والأعداد			
معيار الأداء	الملاحظة	الأنشطة المقترحة	معيار التعلم	معيار المحتوى	الموضوع	الأسبوع
B1DT1E1	الإبداع والإبتكار	– يبين المعلم للتلاميذ	9،1 – القدرة على قراءة الكلمات والجمل	9) قراءة الكلمات		
Menulis huruf hijaiyyah berdasarkan pengetahuan sedia ada	– ملاحظة فعالة لجمع المعلومات.	كيفية كتابة الكلمات	المدروسة .	والجمل البسيطة .		
pengetahuan sedia ada. B2DT1E1	بمع معودات.	بشكل صحيح.	11،2 - القدرة على كتابة الحروف المتصلة	11) كتابة الحروف.		
Menyambung huruf hijaiyyah yang difokuskan:	التجارة	- يوزع المعلم الحروف	كتابة صحيحة.			
(ل،ي،و،س،ھار،ف،طۇر) dengan betul mengikut bimbingan	- الشجاعة في مواجهة	الهجائية على التلاميذ ثم	12،1 - القدرة على نسخ الكلمات والجمل	12) كتابة الكلمات		
bimbingan. B3DT1E1	موجعهم الاحتمالات .	يعرض الصور ويطلب من	المدروسة .	والجمل البسيطة .	روضة	4
Menyalin dan menulis perkataan dengan bimbingan	– حسن الاعتبار .	بعضهم تسميتها والبعض	6،6 - القدرة على تسمية الأشياء والصور .	6) نطق الكلمات	الحروف	05 07 1411
B4DB1E2	التكنولوجيا	الأخر رفع حروفها.		والجمل البسيطة .		25-27 JAN 2012
Membaca dan memahami ayat mudah	المعلومات	- PBS > التدريب في كراسة العمل	9،2 القدرة على قراءة الكلمات والجمل	9) قراءة الكلمات		صفحة:8-10
(الجمل البسرطة) dan menentukan huruf hijaiyyah	والاتصالات	 التدريب في دراسه العمل صفحة 8–12. 	مع تعيين الحروف الأولى والوسطى والأخيرة	والجمل البسيطة .		
yang terletak di awal, di tengah dan di akhir			فيها.			
perkataan mengikut bimbingan.						
						1

Figure 2.4 [18] Syllabus of Arabic in Standard 2

Figure 2.4 shows the syllabus of students in Standard 2. The developer of the system will develop a game following this syllabus.

2.6 MULTIMEDIA COURSEWARE

One way of applying interactivity element in the learning process is through the usage of multimedia courseware. According to [19], multimedia courseware is defined as a software package that used as a supplement, or a program that can replace the traditional course activities. It is also called instructional or educational as they can be used as the integral part in the delivery of the courses for school children [20]. In short, courseware is a tool that plays the role of the teacher, in which it is interactively presented during the learning process [20].

Most of the courseware developed nowadays was already equipped with lots of interactivity element within it [21]. The advancement in technology made the learning process through multimedia courseware become easier and enjoying than the conventional method learning process.

One of the evidence for the previous statement would be from the courseware called "Virtual Courseware For Earth and Environmental Science" that is available on the Internet [22]. This courseware had helped students in learning science subject through an interesting and enjoying way, within short amount of time [23]. These are few feedbacks received from the users.

According to Rachel Miller,

"Not only did they learn a great deal about Earthquake science, but they had a wonderful time doing it...." [23]

Not only that, this courseware also complimented by Jill Tucker,

"... They learned more about earthquakes then we could have taught them in a week."[23]



Figure 2.5[22]

Figure 2.5 shows the screen shot for "Virtual Courseware for Earth and Environmental Science" courseware [22].

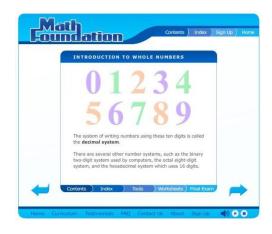


Figure 2.6[24]

Another courseware available on the net is "Math Foundation", as showed in **Figure 2.6**. It is a courseware that helps in learning Mathematics. It provides easy explanation regarding mathematical theories [24]. There were a lot of interactivity elements in the courseware, such as the sounds, the colorful and clickable figures, as well as the voice's instruction from time to time [24]. A lot of good feedbacks received from society, some of them are as follows:-

Sandra Thurber stated that,

".. It's so helpful and easy to understand.... I believe this program could help anyone!" [25] and Rosemarie had mentioned that,

"...I've always had problems with math, especially with fractions - but your program made them very easy for me to understand." [25]

2.6.1 ARABIC MOBILE APPLICATION

There are few Arabic learning courseware available in the market but in a small amount of number. One of them is "Learn Arabic". The courseware is equipped with simple interface and sound of pronunciation as well as game elements [26]. The screenshot of the courseware is as in **Figure 2.7**.



Figure 2.7[26]

Another Arabic learning courseware that available in the market is "Online Arabic Course". The courseware comes with a book and a CD [27]. The courseware is claimed to be effective as it helps improving the user's Arabic language skill [27]. It was based on the testimonials received from their users.

Syahirah, in her testimonial stated that,

"It helps me in improving my writing and reading skill in Arabic" [28]

While on the other hand, Razif responded with,

"I really like learning through this courseware because the courseware makes me feel happy and excited in learning Arabic" [28]

Vocabulary انا: I am : ana ا خائف : kha-if خائف : afraid فرنچان : happy : far7an يَر دان : cold : bardan -مُعْتَم : unhappy : mughtam - sleepy : na3san : تعسان - tired : ta3ban : ثغنان جَو عان : jaw3an : جَو عان مَريض : marid : - thirsty : 3atchan : مَطشان متزوج : married : mutazawwij EXERCISES SOLUTION DICTION COURSE VOCAB. 7

Figure 2.8 shows one of the *Learning Arabic Course's* interfaces.

Figure 2.8[28]

Therefore, based on the examples above, it can be clearly seen that multimedia courseware can assist in the process of learning, including Arabic language. Hence, it is important to develop such application for Arabic learning purposes, because it does not only help in making the learning process become fun and easier, but at the same time will help in shortening the time of learning the language.

2.7 MOBILE LEARNING (M-LEARNING)

The author will focus on develop multimedia courseware using mobile application. It is nowadays a new approach being implemented in learning tool development, due to the advancement of mobile communication and technology. The improvement made in mobile devices allows it users to access information needed upon his or her preferences [29]. As a result, there is huge emergence of mobile learning applications into the market, as it enables the users to learn through "on the go" basis. Based on the study made by [30], mobile learning can be defined as any educational provision where the sole or dominant technology is handheld or palmtop devices.

Fischer stated in his review that "the challenge in an information-rich world is not only to make information available to people at any time, at any place, and in any form, but specifically to say the right thing at the right time in the right way [30]". In addition to that, Motiwalla [31] mentioned that m-learning should be used in conjunction of existing learning style and need to be developed to support existing educational models.

Mobile learning application contributed a lot in learning process as the portability of the application allows the user to learn anywhere without hassle [31]. For instance, "Wheels on The Bus" is a mobile learning application that available in iphone, ipad as well as android devices for children. The application won several awards and received few acknowledgements such as 2010 Parents' Choice Gold Award Winner – Parents' Choice Foundation, Winner of 'Best Children's App' KAPi Award, during 2010 International CES as well as listed in the top 10 educational application on Apple AppStore since January 2009[32]. All of these achievements proved that mobile learning application can be as best as or even better in terms of learning tool for children. This is one of review made by one of the application's user,

Michelle commented on "Wheels on The Bus's website that,

"Best children's interactive, learning application."[32]



Figure 2.9 shows one of the screenshots of this application.

Figure 2.9[32]

Another m-learning's application is "Kids: Let's Learn Colors", an application developed for Iphone [33]. The application teaches children about colors through a fun and exciting way. The example of this application's screenshot is showed in **Figure 2.10**.



Figure 2.10[33]

Even though most children do not own any mobile devices yet, it does not prevent them from learning through mobile application. They still can access the application from their parent's devices. If Arabic learning tool be applied in mobile devices, it will allows Arabic learning process can be done anywhere, and the issue of less time allocated for the subject can be solved as students can still learn or revise about the script outside of the class.

2.8 EDUTAINMENT APPROACH IN LEARNING PROCESS

Edutainment or Education Entertainment is a term that refers to the implementation of entertainment element in education. There are a lot of entertainment elements exists and one of them is gaming environment.

Rogers & Shrappan stated that,

"Play is a very serious matter.... It is an expression of our creativity; and creativity is at the very root of our ability to learn, to cope, and to become whatever we may be"

Game or play is a child's job but few measures need to emphasize as there will be drawbacks in which it may leads to "too much fun". If this happens, less input will be gained by the children [25]. Therefore, creating meaningful tasks as well as fun environments is crucial because it will make students take the learning process seriously thus motivating them to do the difficult tasks [25].

In the study made in [19], it stated that children around 6-7 years old prefer edutainment element in learning Arabic Language. As most of the game based applications are featured with lots of interactivity elements, this will help in inculcating the children's interest towards learning the language. Apart from that, it will also motivate them in further learning the script as there is rise of their curiosity level about the script, which resulted from playing the games [19].

One of the examples of application of edutainment concept in children's learning is the "Text Twist 2" [34] application that available for android devices. It is one of the most popular words games. Players need to build or spell a word, based on the alphabets given, within the time frame [34].

There are few positive feedbacks from the users, such as :-

Melanie stated that,

"Love this game! I used to play this on the computer, but now I always have it with me!" [34]

This is the few screenshots for the application, as shown in Figure 2.11.



Figure 2.11[34]

Another example of mobile game based application is the "Science Millionaire Game" [35]. The players need to answer science-related question, in order to win the million [35]. By having this kind of environment, the children will be motivated in trying and answering the questions, thus will causing the process of learning about science was indirectly done by the children. **Figure 2.12** shows the screenshots for the application.



Figure 2.12[35]

Therefore, based on the statements, as well as the examples given, it would be best if mobile application for Arabic learning is developed so that children can easily learn the language.

CHAPTER 3

METHADOLOGY

3.1 SYSTEM DEVELOPMENT LIFE CYCLE

System Development Life Cycle (SLDC) can be defined as a framework that will shows and explains the step involves at every stage of a software development project.

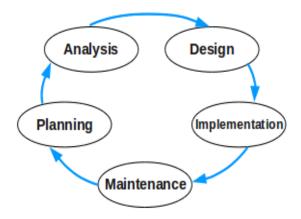


Figure 3.1[36] System Development Life Cycles

It involves five stages in the development process. The steps are as the following;

- 1. System Planning and Investigation
- 2. System Analysis
- 3. System Design
- 4. System Implementation (Programming, Testing and Documentation)
- 5. System Maintenance

3.1.1 Rapid Application Development (RAD)

The author decides to use this model because it uses iterative prototyping method and it is suit to the project that have time constraint and much work to do, although the author will develop the system in three semesters. It seems so much work to do during the whole year to complete the system.

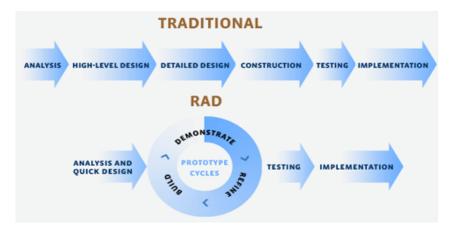


Figure 3.2 [35] Rapid Development Life Cycle

Rapid Application Development (RAD) has four main phases. There are base on the following:

- 1. Analysis and Quick Design
- 2. Prototype Cycle
- 3. Testing
- 4. Implementation

The main reason why the author uses this method is because of the flexibility. RAD allows a quick requirements gathering process and development of the system prototype. Besides that, the author will be able to complete working system within time frame.

3.2 PLANNING AND DATA GATHERING

Before the author starts the project, first thing that need to be done is the planning on what is the suitable topic that wants to be bringing forward. Research has been conducted to survey the market and the demand of the users, and also what is the learning environment needs.

The objectives of the project need to be clarify and must be realistic and achievable. This is to ensure the topic proposed is relevant and marketable and can give advantages to the society. Author has decided on tools that will be used, which is Android programming and Java Script.

The Gantt chart has been developed to keep track on the activities that have to be done by the developer and ensure that developer still within the time.

The activities in the Gantt chart must be done within time, or else it may cause the system will not finish in within the time that is required.

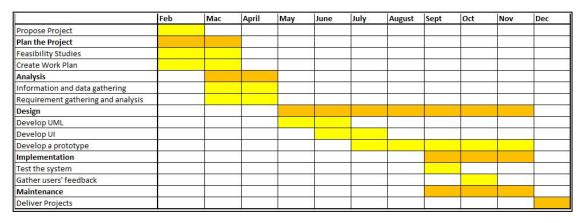


Figure 3.3 Developer's Gantt chart

3.3 ANALYSIS

After the data have been compiled, the author needs to analyze the data and determine whether the systems proposed meet the user requirement or not.

To ensure the quality of Arabic Language and the main elements such as grammar, vocabulary, and the best way to present the learning system, the author has choose Ustaz Ahmad Pisol, an expert in Arabic Language in UTP to be a second supervisor, purposely to supervise on the usage of Arabic Language.

3.4 DESIGN

After analysis has been made, the author needs to design the overall structure of the project. Then, the system is built and this design will be based on result an analysis.

Below is the activity diagram that has been design by the developers. The users will be parents and the children.

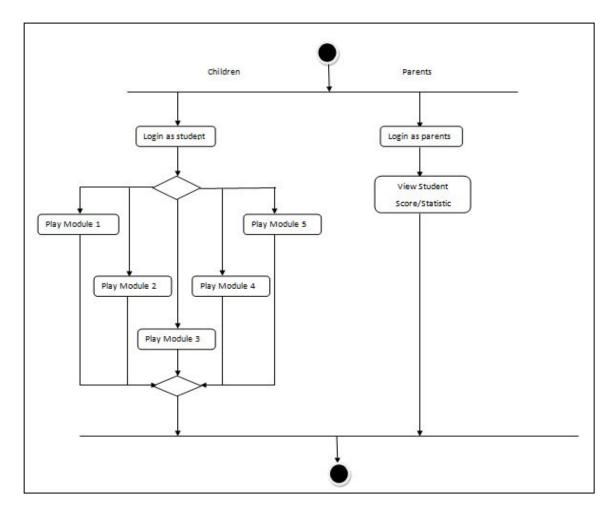


Figure 3.4 Activity Diagram of the System

This activity diagram shows two types of user which is parents and children. The parents will be allowed to monitor the performance of the children. The children will be allowed to play the modules of the game.

Below is the use case diagram of the system to get more overview;

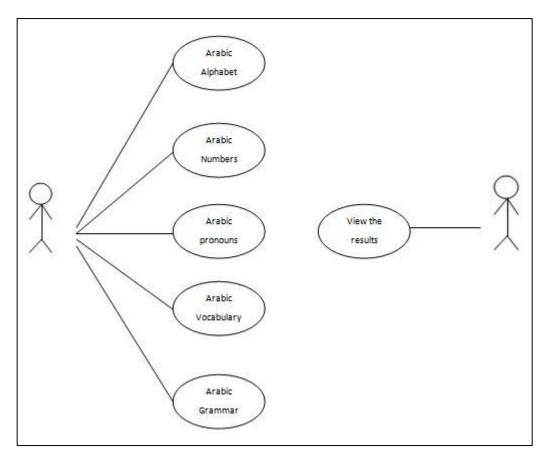


Figure 3.5 Use case diagram of the system

The above figure shows the use case diagram of the system. The users are allowed to choose which modules they preferred. They have opportunity to learn first before they test their understanding through the quizzes provided. At the end the user will be informed about their marks that they got throughout the quizzes.

The system will cover on five aspects which are:

- 1. Arabic Alphabet
- 2. Arabic Numbers
- 3. Arabic Pronouns
- 4. Arabic Vocabulary
- 5. Arabic Grammar

This system will also be compatible with the school syllabus.

3.5 **PROTOTYPING CYCLE**

At this stage, the author will continuously improve, construct and demonstrate the prototype until it fulfills user requirement.

3.5.1 Tools

This project will be developed by using these tools:-

A. Software

• Eclipse IDE

It is a multi-language software development environment which comprises of an integrated development environment and an extensible plug-in system [37]. It can be used to develop this project. It is also a free and an open source software [37].

• Android Development Tools Plugin

Android Development Tools (ADT) is a plugin for Eclipse IDE [38]. It is designed to give a powerful and integrated environment to build Android applications [38].

B. Hardware

• Computer (Dekstop/Laptop)

Computer is needed in order to develop the application. Any computer can be used, as long as it has been installed with Eclipse IDE as well as ADT software.

Android Device

The android device that is going to be used is Samsung Galaxy Wonder (W I8150). This model is chose because of the wide display it has, which is 3.7 inches. Besides that, this model has 512MB of memory in which is believed to be able to run the application smoothly [39].

3.6 TESTING

After meeting the user satisfaction for the developed prototype, author can start to make a test on the prototype. By making a test on the prototype, author will realize the improvement that can be considered into the prototype. However, testing and verification stage will be a continuous process throughout the projects.

The working prototype from the development phase will be used to be tested by the end users. The application is planned to be tested by the teacher as well as the school children, in order to test whether the application succeed to overcome the problem in existing learning style or not. The output of this phase will be the usability results.

In conclusion, Figure 3.6 shows the phases and its targeted output.

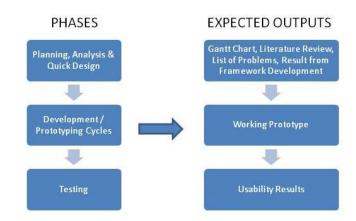


Figure 3.6 Expected Outputs

3.7 IMPLEMENTATION

The author will implement the system first before it can be used by the users.

CHAPTER 4

RESULT AND DISCUSSION

4.1 INTERVIEWS

In order to study the children's behavior, as well as parent's perspective on current Arabic learning and teacher's explanation on current Arabic learning style, a few interview sessions had been conducted among **5 parents**, **5 students and 2 Arabic Language teachers** (J-QAF) to further understand the problems as well as to know their view on the proposed idea concept. The result of the interviews will be further explained in this chapter.

Interview method was chose instead of survey or questionnaires due to the **limitation of age of the main respondents**, which are the students. As the students aged from 7 to 9 years old, there is a big probability where they could not understand the questionnaires or the survey questions. Therefore, interview method was selected so that a better understanding of the problem can be carried out.

4.1.1 INTERVIEW WITH PARENTS

This interview was conducted on April 8th, 2012 to 6 parents whom have children studying in primary school. 2 of the parents are the housewives while the rest are working parents.

The interview questions are inquiring the parents on their children's Arabic skill performance, the parent's knowledge on current Arabic learning style and parent's opinion on the learning through game concept. The result of the interview shows that all of the parents are aware with their children's performance in Arabic Language but only 3 out of 6 knows how the language was taught at school. Besides that, all of the parents are agreed with learning through game concept as they believe it can help in attracting children's interest towards the learning process.

*The details of this interview can be referred in Appendix2.

4.1.2 INTERVIEW WITH STUDENTS

This interview was conducted on April 9th, 2012 to 6 students; age varied from 7 to 9 years old.

The interview questions are inquiring the students on their Arabic language skills; the student's feeling on current Arabic learning process and student's interest towards playing games, either on computer or on mobile phones. The result shows that most of the students are not really interested to learn the language as 3 out of 6 students say that they are not interested to the script, due to their lazy attitude as well as the plain way of Arabic learning in class. Apart from that, the five of the students were giving a positive responds when were asked about their feeling towards playing mobile games. In addition to that, 2 out of the 6 students do own the mobile phones on their own while the rest were using their parent's or sibling's to play mobile games.

*The details of this interview can be referred in Appendix3.

4.1.3 INTERVIEW WITH ARABIC LANGUAGE TEACHERS

This interview was conducted twice, on May 3rd, 2012 as well as May 2nd, 2012. Both of the teachers came from different schools.

The questions asked during the interview sessions were revolving around how the Arabic Language program takes place during the learning sessions. Apart from that, teacher's view on current flow of Arabic Language program also asked, together with the details on how the spelling and vocabulary part was taught to the students. The result of the interview shows that both teachers are not satisfied with the time allocation for the learning session, as there are too much to teach, yet less time allocated. Not only that, the teacher also said that they need to come out with extra work to prepare on learning materials in order to attract student's attention towards their lesson. Arabic learning process was explained in detailed, especially in spelling part during the interview.

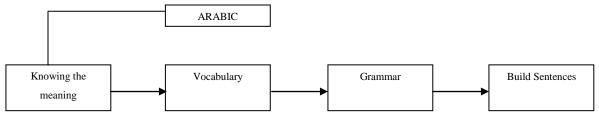


Figure 4.1 Arabic Language Learning Process

Figure 4.1 shows the steps taken to teach Arabic Language to the students. It starts with the process of learning and knowing the characters and meaning, and once the student remembers all the characters, the process will continue to the second phase, which knows vocabulary process. After that, once the student able to recognize Arabic words, the process continues to learn the simple grammar and proceed with building simple sentences in Arabic.

4.2 **PROPOSED SOLUTION**

4.2.1 LET'S LEARN ARABIC

Let's Learn Arabic is a mobile based language education game application that allows children to learn Arabic language through gaming environment. This application is aimed to be used by the primary school students, aged from 7 to 9 years old as there is a crucial need of teaching them the language, compared to the other group of ages.

Let's Learn Arabic will be equipped with lots of interactive features and functions so that the learning process becomes more exciting and enjoying. Children will indirectly learn about the language while playing the games. Game environment is selected to nurture the interest of learning Arabic among the children, as well as indirectly motivating them in learning the language.

Apart from that, this application will also be applied on the mobile devices, android devices in specific as it will allow young children to learn the script anywhere they want. In addition to that, this portability feature also will help in solving the time constraints

issue in the current Arabic learning style. Even though this application does not cover the entire Arabic's learning process, it is aimed to help Arabic learning process become much easier.

Let's Learn Arabic concept can be clearly understood from Figure 4.2 and Figure 4.3.

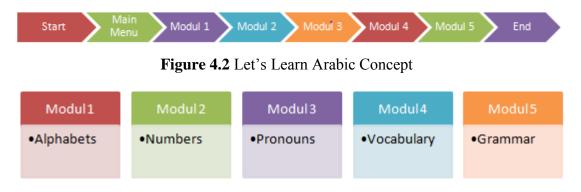
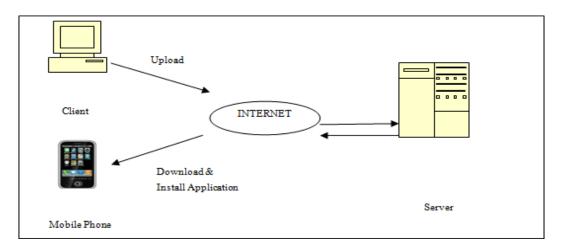


Figure 4.3 Module Architecture

4.2.2 SYSTEM DESIGN

The system's design is further explained within this section. It comprises of the system architecture, the UML diagrams which includes the use-case diagram, sequence diagrams as well as the flowcharts. This section continues with the storyboards of Let's Learn Arabic.

4.2.2.1 SYSTEM ARCHITECTURE



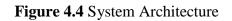


Figure 4.4 shows the system's architecture. Let's Learn Arabic will be uploaded to the server and user is able to download the application once the application finished uploaded. Then, user needs to install the application within user's mobile devices to run the application.

4.2.2.2 UML DIAGRAMS

4.2.2.2.1 USE CASE DIAGRAM

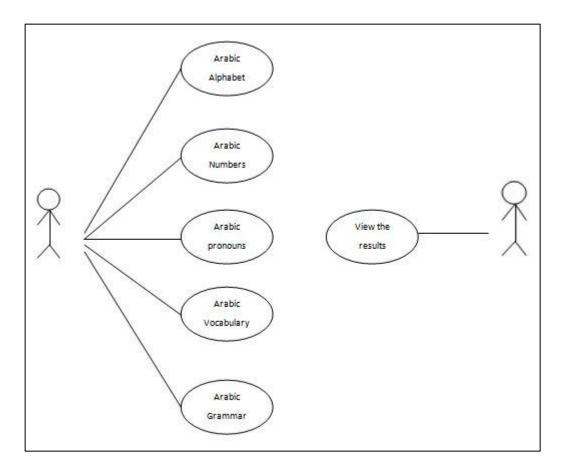


Figure 4.5 Use Case Diagrams

Figure 4.5 shows the use case diagram for the system. User is able to play five modules in the application. And each module has it different stages. The author includes 3 levels of stages in the application as for examples in the **Figure 4.6**

1 st Stage	2 nd Stage	3 rd Stage
 Simple words Given hints 10 questions 10 lives 	 Middle-length words Lesser hints 20 question 10 lives 	 Harder words No hint 30 questions 10 lives

Figure 4.6 Stages of Games

4.2.2.2.2 SEQUENCE DIAGRAMS

The sequence diagrams were drew based on functions. It shows the objects participate in the use-case in **Figure 4.6**.

4.2.2.3 SYSTEM FLOWCHART

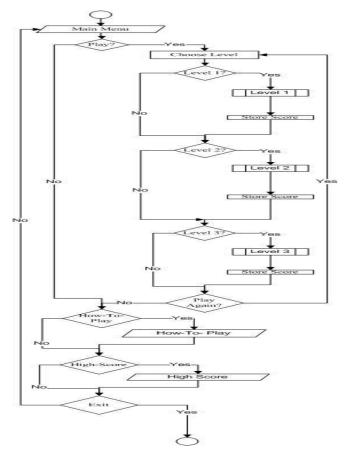


Figure 4.7 Whole System Flowcharts

Figure 4.7 shows the system's whole flowchart for Module 1 which is learning Arabic alphabets. The Level 1, 2 and 3 for Module 1 will be showed in Figure 4.8, 4.9 and 4.10 respectively.

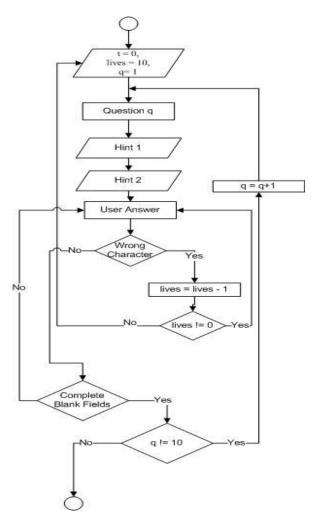


Figure 4.8 Level 1

Figure 4.8 shows the system's flowchart for Level 1of Module1. For this stage, only 10 questions were asked and user will be able to see two hints. The score will be calculated base on the time taken to complete the level. If the lives are equal to zero and user does not complete 10 questions, user needs to restart the level.

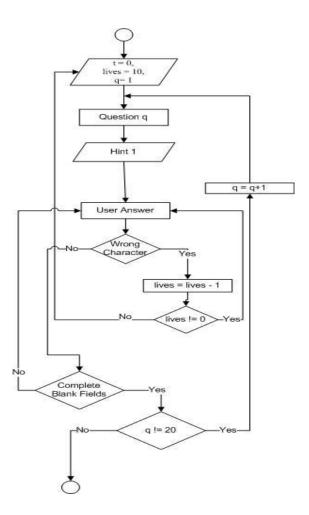


Figure 4.9 Level 2

Figure 4.9 shows the system's flowchart for Level 2 Module 1. For this stage, 20 questions were asked and user will be able to see only one hint. The score will be calculated base on the time taken to complete the level. If the lives are equal to zero and user does not complete 10 questions, user needs to restart the level.

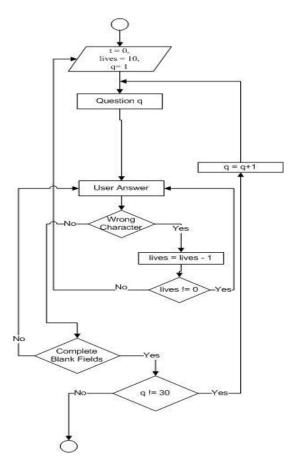


Figure 4.10 Level 3

Figure 4.10 shows the system's flowchart for Level 3 Module 1. For this stage, 30 questions were asked and user does not provided with any hints. The score will be calculated base on the time taken to complete the level. If the lives are equal to zero and user does not complete 30 questions, user needs to restart the level.

4.2.2.2.4 STORYBOARDS

4.2.2.2.4.1 MAIN MENU

ARABIC WORLD	
User ID:	
Password:	
	ок

Figure 4.11 Login Page

Figure 4.11 shows that the children need to login to the site to play the game. This is to ensure that the mark is recorded and the parents would know the performance of their children in learning Arabic.

ARABIC WORLD	
Standard :	
	ок

Figure 4.12 Choose Standard

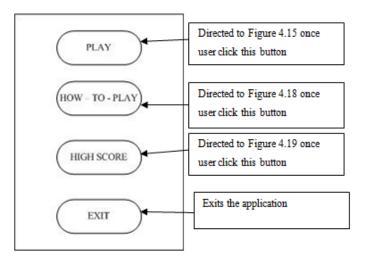
Since the system will provide the system Standard 1 until Standard 3, the user must choose their categories. This is to ensure that the children play the game within and suitable with their age.

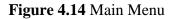
ARABIC WORLD		
	Modul 1	
	Modul 2	
	Modul 3	
	Modul 4	
	Modul 5	

Figure 4.13 Modules

This game will provide 5 modules for each standard. So, children must choose their own module. Each module will covers on the different syllabus.

When user clicks on Module 1, it will appear as **Figure 4.14** below. It will be the same for every module, but the content will not be the same.





4.2.2.2.4.2 **SELECT LEVEL**

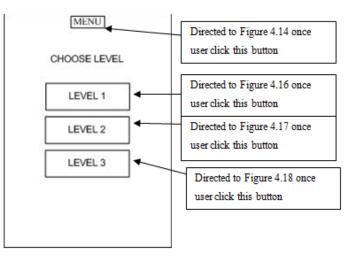
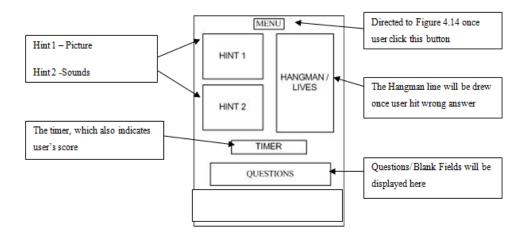
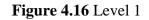


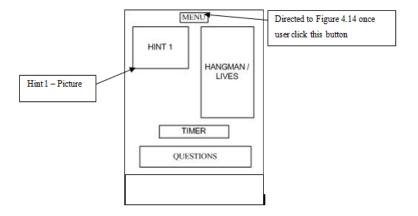
Figure 4.15 Select Level

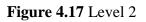
4.2.2.2.4.3 LEVEL 1





4.2.2.2.4.4 LEVEL 2





4.2.2.2.4.5 LEVEL 3

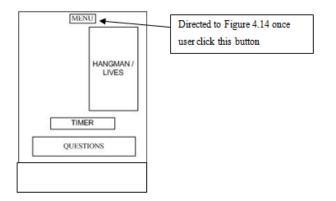
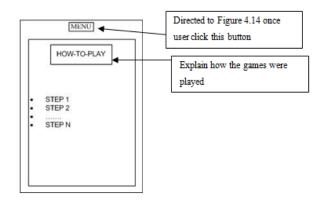


Figure 4.18 Level 3

4.2.2.2.4.6 HOW-TO-PLAY





4.2.2.2.4.7 HIGHSCORE

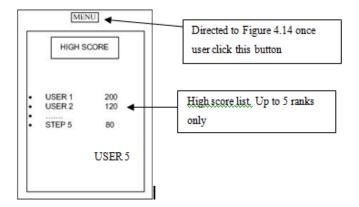


Figure 4.20 High Score

4.3 SYSTEM INTERFACE DESIGN

Below are the interface designs that have been developed by the author. Even though it is not complete, the author has put some of the basic functions in the interface.



Figure 4.21 Main Menu

User can choose either they want to learn first by clicking on "Belajar Bahasa Arab", or proceed to the quizzes by clicking on "Kuiz Bahasa Arab". If you want to exit from the game, click "Keluar".



Figure 4.22 Choose Lessons

User are required to choose Lesson 1 by clicking "Pelajaran 1", or Lesson 2 by clicking "Pelajaran 2", or Lesson 3 by clicking "Pelajaran 3". If you want to go back to Main Menu, click "Kembali ke Menu Utama."



Figure 4.23 Learning Alphabet

When you click on Lesson 1, the apps will show the alphabet of Arabic. You can reverse and proceed by clicking "Sebelumnya" or "Selepasnya". If you want to go back to Lesson Menu, click "Kembali Ke Menu Pelajaran".



Figure 4.24 Learning Numbers

In Figure 4.24, when the user chooses to learn Numbers, the apps will show the Numbers 1 until 10 with the aid of picture. User can proceeds to the lesson by clicking "Seterusnya" and go back to the previous by clicking "Sebelumnya."



Figure 4.25 Learning Place

Figure 4.25 shows learning Arabic for certain places with the aid of picture. User can proceed the lesson by clicking "Seterusnya" and reverse the lesson by clicking "Sebelumnya."



Figure 4.26 Quizzes of Alphabets

Figure 4.26 show that user can choose the possible answer through the list provided by the apps. Refer to next figure.

Learning)	0 +1 0 1949
Alif	
Ba (ALE AND	
To	
Se de la	
Jim	
Ho	
the	

Figure 4.27 List of Possible Answer

Choose your preferred answer and the quizzes will give you the total mark at the end of your quizzes.



Figure 4.28 Popup Windows for Correct Answer

When your answer is correct, the system will appears the popup windows with sounds telling that your answer is correct and congratulate you. You can proceed the quizzes by clicking "OK".



Figure 4.29 Popup Windows for Wrong Answer

If your answer is not correct, it will show you the popup windows with the sounds and tell you the correct answer. You can click "OK" to proceed.

CHAPTER 5 CONCLUSIONS AND RECOMMENDATIONS

5.1 CONCLUSIONS

In the nutshell, Let's Learn Arabic is relevant to be developed as a way to help Arabic learning process, especially in spelling phase. To achieve that, the application is designed with several multimedia elements, thus parallelized with the objectives of helping children learn Arabic language interactively. It is believed that the multimedia element in the system is capable to attract young children interest towards Arabic, thus motivating the children in learning the language enthusiastically.

Not only that, the interviews made to the teachers on Arabic learning style allows the current Arabic learning style can be understood in depth, thus achieving the first objective of this project. Besides that, usability study need to be carried out to the user once the prototype was fully developed in order to test the effectiveness of the application. In short, it can be concluded that Let's Learn Arabic are relevant to be developed as the prototype's design as well as project's activities does align with the project's objectives.

5.2 RECOMMENDATION

- 1. To add more syllabuses to the application integrated with the school curricular.
- 2. Enhance it to be more interesting and fun for the sake of children.

3. Market this product in Malaysia or sales the idea because there are no Malay-Arabic Mobile Application yet in Malaysia.

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APPENDICES



APPENDICES

APPENDIX 1

Result of the interviews made for the parents

Question 1: Do you have any children studying at primary level.

RESPONDENT	ANSWER
Parent 1	Yes.
Parent 2	Yes.
Parent 3	Yes.
Parent 4	Yes.
Parent 5	Yes.

Table 1

Question 2: Do you satisfy with your children's performance in Arabic skill? (Read/Write/Spell)

RESPONDENT	ANSWER
Parent 1	No. I think it's because his lazy attitude that caused his
	poor performance in that subject.
Parent 2	Yes. I am really satisfied with her performance since she
	can read, write and spell in arabic without a problem.
Parent 3	Yes. He masters the language very well. He can read the
	language at a very young age.
Parent 4	No. He knows the characters, but quite slow in reading.
	Maybe it's because he's a boy that caused such slow
	response?
Parent 5	Yes. She likes the subject very well. Even her writings
	are better than mine!

Table 2

Question 3: Do you know how Arabic being taught at school?

RESPONDENT	ANSWER
Parent 1	No. How would I know since my son never told me
	about this subject at home.
Parent 2	No.
Parent 3	Yes. Since me myself a teacher, I think I have the idea
	on how it was taught in school.
Parent 4	No. I don't have any idea.
Parent 5	Yes. She told me once about the Arabic leraning
	programme.
	Table 2

RESPONDENT	ANSWER
Parent 1	Yes, I guess.
Parent 2	Maybe?
Parent 3	Yes, since my son can easily master the language
	without having me to re-teach him at home.
Parent 4	I don't know.
Parent 5	Yes. I am very satisfied with the way her teacher taught
	her.

Table 4

Question 5: Have you in any way teach your children on reading or writing Arabic personally at home?

RESPONDENT	ANSWER
Parent 1	No. I depend on the teacher at school to teach him
	because me myself don't have the strong skill to teach
	him the language
Parent 2	Yes, sometimes I checked on his work books to check
	about his homework.
Parent 3	Yes. Only once in a while.
Parent 4	No. He never asked me to help him out.
Parent 5	No. I hope she learnt very well at school since I don't
	have a lot of knowledge about the language as well.

Table 5

Question 6: Do you own a hand phone/ smart phone?

RESPONDENT	ANSWER
Parent 1	Yes, a Nokia handphone.
Parent 2	Yes, an Iphone.
Parent 3	Yes, an android phone.
Parent 4	Yes, a Sony Erricsson handphone.
Parent 5	Yes, a Nokia handphone.

Table 6

Question 7: Do you let your children play with your phone? If you do, what are the things that your children do with your hand phone?

RESPONDENT	ANSWER	
Parent 1	No. He has his own phone to play all those games.	
Parent 2	Yes, sometimes. He loves to play the angry bird games.	
	He is very enthusiastic whenever Angry birds were	
	mentioned. That game influenced him a lot.	
Parent 3	Yes, but I set a limitation for them to play around with	
	my phone. They use the phone to play games, such as	
	Angry Birds, Puzzle games. They download the games	
	on their own, without asking my permission. All I know	
	my credit was already reduced and there's a new	
	application installed.	
Parent 4	No. If I let them play with this device, they will not stop	
	from playing games within it. Therefore it's best for me	
	not to allow them to play on my device.	
Parent 5	Yes. She will take my phone and start playing the games	
	in it without having me to teach her on how to use the	
	device. She explore the device and learnt on her on.	
Table 7		

Question 8: Do you agree that game element can be used as a way to inculcate children's interest towards the subject?

RESPONDENT	ANSWER
Parent 1	Yes. But parent's need to control their children so that
	the children do not too immersed in the game.
Parent 2	Yes, because they are the generation who's equipped
	with technology stuff. Technology attracts them easier
	than the conventional method that we used earlier.
Parent 3	Yes, because children nowadays are different. Learning
	need to be creative and interactive to attract their
	attention towards the lesson.
Parent 4	Yes because game can increase their level of curiosity
	about something. However, it needs to be controlled so
	that the children are not too distracted with the games
	which will cause chaos later if that happens.
Parent 5	Yes. I agree with that statement. I don't know why they
	are so interested with games. As long as they know how
	to manage their time well, I'm okay with it.

No	Question	Responds
	Do you have any children studying at primary level?	All of them have children studying at primary level.
	Do you satisfy with your children's performance in Arabic skill? (Read/Write/Spell)	Some of them are not satisfy with their children's performance. Those who are not satisfy mentioned that it was their children's attitude that caused their bad performance in Arabic skill.
	Do you know how Arabicbeing taught at school?Are you satisfied with current	Most of them do not know how Arabic being taught at school, only a few does. As there are only few of them know how
	Arabic learning style?	Arabic being taught, only a few managed to answer this question. Most of them satisfy with current Arabic's learning style.
	Have you in any way teach your children on reading or writing Arabic personally at home?	Only a few had taught their children on learning Arabic. However it is only once in a while as it was not really frequent. Most of them are depending on the teacher's at school to teach their children.
	Do you own a hand phone/ smart phone?	Most of them own a hand phone. Only a few owns smart phones.
	Do you let your children play with your phone? If you do, what are the things that your children do with your hand phone?	Most of them let their children play with their hand / smart phones. Based on what they saw, their children use their phones to play games within the phone. In addition to that, the children learn by themselves, on how to use the phone and play games within it.
	Do you agree that game element can be used as a way to inculcate children's interest towards the subject?	Most of them agreed that game can assist in nurturing children's interest on certain subject in school. This is because today's way of teaching has changed since most children are interested towards interactive learning, rather than normal plain way of learning. However, they also suggested that parents must control their children's activity as too much playing games will lead to another problem, such as drop in academic standings.

This is the summary of answers according to the questions asked:-

Table 9

APPENDIX 2

Result of the interviews made for the students

Question 1: Can you read, write and understand Arabic Language?

RESPONDENT	ANSWER
Student 1	No.
Student 2	Yes
Student 3	Yes.
Student 4	No
Student 5	Yes.
	T 11 10

Table 10

Question 2: Do you like Arabic? (Speaking, Reading, Writing)

RESPONDENT	ANSWER	
Student 1	No.	
Student 2	Yes. I like Arabic because the teacher is so nice!	
Student 3	No.	
Student 4	No.	
Student 5	No.Yes. Arabic is so interesting because by being able to read and write in Arabic, I feel like I am a step forward than my friend since most of them are not interested in learning the subject.	

Table 11

Question 3: Why you did not like Arabic?

RESPONDENT	ANSWER
Student 1	It's because I am lazy to learn about the language. Even
	though it's easy, the teacher is so boring.
Student 2	-
Student 3	The class is so boring. Not only that, the characters are
	harder to be understood since the way the characters
	were arranged is so confusing.
Student 4	Because Arabic is not important as English. Besides that
	there is less focus made by the teacher.
Student 5	-

Table 12

Question 4: Do you enjoy Arabic learning session at school

RESPONDENT	ANSWER	
Student 1	Sometimes, when the teacher create a game. Or when	
	the teacher brings us to learn out of the class.	
Student 2	No. The teacher is so boring. I always end up sleeping	
	while the teacher explains on certain things at the front.	
Student 3	No. I don't understand what the teacher said.	
Student 4	No! The teacher is very strict and all he is not funny and	
	entertaining.	
Student 5	Yes. It's because the teacher is very nice and I	
	understand everything what she taught us in class.	

Table 13

Question 5: Do you like to play games?

RESPONDENT	ANSWER
Student 1	Yes!!. Can I play your game?
Student 2	Yes, I will use my free time to play game.
Student 3	Yes. But my mother put a restriction to me like she only allow me to play games during the weekend.
Student 4	Yes, but only a certain type of games. I prefer to play soccer game instead racing game.
Student 5	Yes, but I don't have many games in the computer at home. I believe my brother keep some of them hidden from me.

Table 14

Question 6: Do you learn something from playing games?

RESPONDENT	ANSWER
Student 1	Yes, I learn new vocabularies, especially the English
	words from games.
Student 2	No. I just play the games with the aim to win. No other
	intention.
Student 3	No. Is there any hidden meaning behind playing games?
	I don't find any.
Student 4	Sometimes, if there is another person told me new
	things that reside within the games. If not, I will play the
	game for the sake of winning.
Student 5	Yes, sometimes I learn new words and added it into my
	vocabularies.

Question 7: Do you like to play games at hand phones?

RESPONDENT	ANSWER
Student 1	Yes. Playing games at hand phones are more addictive
	compared to the games in normal PC. I don't know why
	but I addicted to Angry Birds for a while now. I will
	play the game inside the phone but never bother to play
	the same game in the normal PC.
Student 2	No. It's hard to control the player while playing in
	mobile phones since the button are smaller. Besides that,
	the mobile phone's game also easier than the game
	inside the desktop.
Student 3	No, because games in the phone is so easy and not
	challenging. Besides that it's hard for me to play mobile
	games because I don't own any hand phones and my
	siblings do not allow me to play theirs.
Student 4	Yes, because I can play the games anywhere I want.
	Besides that, games inside the phone are funnier than
	the game in PC.
Student 5	No. It's because I don't own any hand phones. Not only
	that, mobile games also smaller in view, and I don't like
	it. I prefer playing games at normal computer, because
	the screen is bigger.

Table 16

Question 8: Whose hand phone?

RESPONDENT	ANSWER
Student 1	Mine. I own a sony erricsson phone. I inherit it from my
	sister, since she got a new model. I installed quiet a lot
	of games applications and will change the game once in
	a while.
Student 2	My dad. He always left his phone while he goes for pray
	at the mosque. I will use the time to play games secretly.
	My mother's phone does not have any game, that's why
	I play games in my dad's.
Student 3	I played mobile games at my parent's phone. They did
	not really care if I played theirs, as long as I able to
	maintain my result.
Student 4	I played the games on my own Nokia phone. I got the
	games from my brother. He installed the games for me,
	without mom knowing.
Student 5	Sometimes I play mobile games at my mother's Nokia
	phone. The one model that can be slide. There are a lot
	of games inside it!!

Result of the interviews made for the students

No	Question	Responds
	Can you read,	Some of them can read and write Arabic
	understand and write in Arabic?	well and some of them are not.
	Do you like Arabic? (Speakin, Reading,Writing)	Only a few of the children like Arabic .Most of them are those who have a good skill in reading and writing in Arabic. However, there are still good Arabic skill children did not like Arabic due to their lazy attitude.
	Why you did not like Arabic?	Some of them said because they are lazy to learn about the writing, since it is less focused at school. Apart from that, some of them claim that the factor that the writing is hard to learn is one of the factors why they did not like the subject.
	Do you enjoy Arabic learning session at school?	Most of them did not enjoy the learning session. They said the subject is plain and boring.
	Do you like to play games?	All of them responded with one answer, which is they like to play games.
	Do you learn something from playing games?	Most of them say that they did not learn anything from playing games. Only a few respond that they learnt about new words while playing games.
	Do you like to play games at hand phones?	Some of them say that they like to play games at hand phone and some of them prefer playing at normal PC, due to the constraints of not owning a hand phone.
	Whose hand phone?	Only a few own their own hand phone and the rest, who do not own any hand phone, play games at their parents or siblings phone.

Table 18

APPENDICES 3

Result of the interviews made for the J-QAF Teacher 1

No	Question	Responds
	AreyouaArabiclearningteacher?Andhow many yearsyoualreadyteachthissubject?	Yes. I have been teaching in Arabic learning programme for about 2 and half years.
	What are actually Arabic learning programmes?	It's actually a programme designed to assist Arabic learning subject. It focuses more on weak students.
	How Arabic learning works?	We came at the same time as Islamic Education teacher and we will take the weak students somewhere else. Sometimes, we did not go anywhere but will form a circle at the back of the class.
	How many steps are there to teach arabic	There are four basically. First is knows the letters/alphabets/numbers, then is vocabulary, then grammar and will be followed by forming a sentence.
	Doyouthinkthereisanyissue that relateswiththisprogrammeorIslamicEducationingeneral?	For me, there is no big issue, but I believe that if there are more time allocated for the session, students will be able to learn more. Not only that, I think it would be better if there is a continuous campaign of Arabic language at school.
	Do you think it's a good idea to promote Arabic learning through a mobile game?	That is so interesting. The trend is changing, so there is no awkwardness to inculcate Arabic in mobile games.
	Do you think Hangman is a good concept to be followed?	Isn't that the game where you need to guess the letters? If you are referring to that, I am totally agreed. I love to play that game too back then. It

Table 19

APPENDICES B