

ARABIC A+: MOBILE APPLICATION FOR LEARNING ARABIC LANGUAGE GRAMMAR

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**FAKULTI SENI, KOMPUTERAN & INDUSTRI KREATIF
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ARABIC A+: MOBILE APPLICATION FOR LEARNING ARABIC
LANGUAGE GRAMMAR

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ABSTRAK

Komunikasi dilakukan dalam beberapa bahasa, termasuklah bahasa Arab, yang merupakan salah satu bahasa yang digunakan. Tatabahasa bahasa Arab berbeza dengan bahasa lain. Untuk menguasai tatabahasa Arab, para pelajar kebanyakannya menggunakan buku teks atau buku latihan. Pelajar mesti merujuk kepada pelbagai buku untuk mencari perkataan atau contoh yang mereka perlukan. Pelajar akan memerlukan sedikit masa untuk belajar atau membuat kerja rumah mereka kerana ini. Masalah ini boleh diselesaikan dengan aplikasi mudah alih Arabic A+. Objektif utama aplikasi mudah alih ini, yang kebanyakannya tertumpu kepada penggunaan tatabahasa Arab, adalah untuk membantu pengguna dalam mempelajari bahasa tersebut. Aplikasi mudah alih Arabic A+ menggabungkan pembelajaran mudah alih, lebih khusus seperti pembelajaran bahasa mudah alih (MALL). Model ADDIE ialah metodologi yang digunakan untuk membangunkan aplikasi mudah alih ini. Hal ini kerana, ia telah terbukti berjaya walaupun untuk kaedah pembelajaran yang paling rumit, model ADDIE telah diterima pakai dan digunakan secara meluas. Bagi mendapatkan respons daripada pengguna, beberapa alat pengumpulan data seperti soal selidik digunakan. Hasil penilaian berdasarkan Skala Kebolehgunaan Sistem (SUS) yang menunjukkan Bahasa Arab A+ mencapai gred B bermakna aplikasi Bahasa Arab A+ adalah baik. Justeru itu, penggunaan aplikasi mudah alih Arabic A+ merupakan bahan pembelajaran tambahan kepada pelajar untuk membantu mereka mengukuhkan ilmu yang dipelajari di dalam kelas dan meningkatkan pengetahuan sedia ada mereka tentang tatabahasa bahasa Arab.

Kata kunci: Tatabahasa Arab, Aplikasi Mudah Alih, Pembelajaran Bahasa Berbantuan Mudah Alih





ABSTRACT

Communication is done in several languages, including Arabic, which is one of the languages used. Arabic grammar is different from other languages. To master Arabic grammar, students mostly use textbooks or exercise books. Students must refer to various books to find the words or examples they need. Students will need less time to study or do their homework. This problem can be solved with the Arabic A+ mobile application. The main objective of this mobile application, which is mostly focused on using Arabic grammar, is to help users learn the language. The Arabic A+ mobile application combines mobile learning, specifically mobile-assisted language learning (MALL). The ADDIE model is the methodology used to create this mobile application. This is because it has proven successful even for the most complicated learning methods. The ADDIE model has been adopted and used widely. In order to obtain responses from users, several data collection tools, such as questionnaires, are used. The results of the evaluation based on the System Usability Scale (SUS) show that Arabic A+ reached grade B, which means that the Arabic A+ application is good. Thus, the use of the Arabic A+ mobile application is an additional learning material for students to help them strengthen the knowledge learned in class and improve their existing knowledge of Arabic grammar.

Keywords: Arabic Grammar, Mobile Application, Mobile-Assisted Language Learning



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LIST OF ABBREVIATIONS

TnL	Teaching and Learning
MOE	Ministry of Education Malaysia
SPM	<i>Sijil Pelajaran Malaysia</i>
ODL	Online Distance Learning
ICT	Information and Communications Technology
MALL	Mobile-Assisted Language Learning
RAD	Rapid Application Development
SAM	Successive Approximation Model
FAST	Facilitated Application Development Technique
SRS	Software Requirement Specification
SDD	Software Design Document
SDLC	Software Development Life Cycle





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CHAPTER 1

INTRODUCTION



1.1 Introduction

The evolution of the Arabic language has made the Quranic language one of the most influential languages in the world. Various measures have been taken to ensure that the Arabic language continues to be mastered by Malaysians in parallel with other languages. Malaysian Education Minister Maszlee Malik stated that the ministry is committed to ensuring that Malaysians master a third or fourth language, including Arabic. This is proven by December 21, 2018, quote from the Arabnews newspaper. Malaysia has also taken steps to include Arabic language courses at all levels of education, from primary to secondary. This can be proven through a quote from the Berita Harian newspaper on September 23, 2018: Arabic is no longer studied by religious school students only but has penetrated various levels of formal education, whether at preschool, primary school or



secondary school or college and university level. This shows that the teaching of Arabic in Malaysia is dynamic and constantly evolving. The rapid development of technology has had a significant impact on global systems. It is typically desirable to use technology to simplify the process of a system, increase the quality of the outputs obtained from the process, and further speed up the workflow. The use of technology in the teaching and learning process (TnL) is starting to be highlighted at different levels of study among the areas of attention in the field of education.

The education system used today has led to a new development in the field of education, which has led to the introduction of learning relevant to the 21st century. The development that brought about advances in educational technology brought about the implementation of mobile learning, which is consistent with the heutagogy-based mode of education. It is believed that using this instructional technology would increase the quality of learning, allow teachers to teach more, and entice pupils to study. Mobile application are software programs built primarily for use on tiny computing devices such as smartphones and tablets and not on desktop computers or laptops. Examples of these devices are smartphones and tablets. The research conducted by Nur Hafizah and Fariza (2021) suggests that using knowledge-based activities inside mobile apps may help increase student engagement. This is because the use of online applications and the education required to utilize technology may assist in the direct distribution of information (Norshila Rosli & Norshidah Salleh, 2021). Students are more likely to be self-motivated to study when they participate in mobile learning via mobile apps in education. This is because mobile devices like smartphones are user-friendly and offer appealing features. Students will be able to take part in classes and access study



materials, consult outside of class time or fixed infrastructure, and have more flexibility of usage to communicate with other students in real-time, thanks to this innovation.

The average grade percentage of subjects decreased from 4.66 to 4.48 in the SPM 2020 Arabic results analysis report. This is due to Covid-19, which requires students to study online. Covid scenario raised number of concerns including reduction academic quality and student learning results (Naciri et al., 2020). This encourages students to learn independently in the space of mental and physical readiness (Saedah, 2004). According to the Board Dictionary, "learning self" refers to a learning environment that allows students to study at their speed and improve their self-efficacy. Application learning can be used during online learning, and it is more interesting because it is in the form of multimedia, which are combination of text, graphics, sound, video, and animation. At the same time, studying via these mobile learning may deliver a more effective learning experience while also making the process more enjoyable for the student. This demonstrates that the use of mobile learning technology can enhance the provision of high-quality education centered on the learner. To conclude, this mobile application can be used as a learning material that can be used to interest students because it is in the form of multimedia which are combination of text, audio, and video that can help them master a topic that is difficult to understand and makes learning more enjoyable and understandable.



1.2 Research Background

According to Jaya Kumar (2021), in any form of learning, its success depends on the efforts of teachers and students. However, comparing the differences between traditional learning and mobile learning. This is because according to the traditional class, the teacher is considered a versatile human being to share his knowledge with the students. This learning strategy is teacher-centered, while the mobile learning strategy is student-centered. Students can choose the time, content, and direction of their learning. According to a study by Wahyu Idrus and Yahya Buntat (2008), the main focus of mobile learning is students. The mobile learning environment will force students to be independent and more active in their learning because student planning can be chosen by the students themselves, whether they feel appropriate or not. Not only that, but students also can learn complex topics repeatedly until achievement is achieved. This can encourage self-learning everywhere and be used anytime. Thus, such learning strategies lead to high-level thinking skills and generate critical, creative, and innovative thinking. In turn, it can produce human capital better prepared to face drastic technological changes, especially in the 4.0 education environment and the 4.0 industry revolution.

The education system underwent another evolution in educational technology when mobile learning was introduced to improve teaching and learning. According to Nik Mastura Nik Mohammad, Mohd Nor Mamat and Posiah Mohd Isa (2012), although the mobile learning experience is still limited, it becomes a reliable, cost-effective component in providing open and distance learning (ODL) tailored to the needs of an institution and situations. Ahmad Sobri (2010) also stated that the mobile learning method has long been practised by developed countries such as Europe. However, the level of



mobile learning usage in Malaysia is still in moderation and it can be said that it is still new from the point of view of Nur Atikah et al. (2016). The availability of mobile devices such as smartphones has made it much easier for students to share their notes, and they no longer need to be seated in front of a personal computer while downloading notes. The use of the subscribed mobile phone service providers' wi-fi or broadband services allows for simplifying the process of note sharing. It is now possible to download notes anytime and in any location. According to Wood (2003), the use of wireless technology (wireless) in education can contribute to bridging the digital divide among developing countries because technological equipment such as mobile phones are cheaper than desktop computers. Thus, using mobile learning can help increase student motivation, improve organizational skills, encourage a sense of responsibility, encourage collaborative learning, and help check student progress more quickly and quickly efficiently (Smith & Kent, 2003). Thus, this study aims to develop an interactive mobile learning application to learn Arabic grammar that focuses on self-learning strategies by using mobile applications as teaching technology materials.

1.3 Problem Statement

The first problem statement of this project is existing Arabic grammar learning applications are incomplete. Most of the available apps cover the fundamentals of Arabic, such as explaining meanings, ordinary dialogue, and letter recognition. According to Hazrati Yahaya, Janudin Sardi, Mohammad Radzi, and Ibrahim Youssef Abdelhamid (2019), the results of the study show that this application does not include vocabulary



learning elements in the menu. It also states that this application does not implement assessment components such as games, exercise activities and quizzes. Vocabulary learning must be included in the application because it is the key to mastering reading skills. This can be proven by Fadi Al-Khasawneh (2019) that vocabulary knowledge contributes to the mastery of language skills (reading, listening, writing, and speaking). This grammar app, which will be developed, will cover all the grammar taught to the student sitting the Arabic language examination and include multimedia elements and assessments to make students more enjoyable to use this mobile application.

Second, lack of skill and understanding in learning Arabic grammar. According to Mat Taib Pa (2006), Arabic language proficiency among Malay students is very weak. Even with better textbooks, a complete curriculum, and more qualified teachers, their deficiencies are more obvious than prior students. Students that struggle academically and find it challenging to comprehend content might benefit from using this mobile application as a learning resource. Students can acquire material that may be beyond their comprehension until they reach an advanced level. This can be asserted from the statement from Demir and Akpınar (2018), mobile learning has a significantly positive effect on academic achievement compared to traditional learning in this research.

Next, learning from a book is not attractive compared to an application. Using educational applications might help students become more interested in subjects they might otherwise ignore. Evans (2008) emphasized that mobile learning is more effective and instructive than books and more supportive of learning. Mobile learning offers benefits such as quick access to information for students, diverse ways of learning, contextual learning, control over own learning, supporting and encouraging learning,



increased participation in the course, will use in the course, and positive, meaningful differences of academic achievement, considering the results of the research (Demir & Akpinar, 2018)

1.4 Research Objectives

In developing an Arabic grammar learning application, the objectives that will be reached are as followed:

- i. To identify the requirements for Arabic grammar learning application.
- ii. To develop a prototype of interactive mobile apps for learners to learn Arabic grammar.
- iii. To test the functionality of the application among users.



1.5 Research Questions

This research questions are created based on the research objective. The followings are the research questions of this study:

- i. Which requirements are needed for users to learn Arabic from an application?
- ii. How to develop a mobile application with the user requirements that are collected from potential users to learn the grammar?
- iii. Does the application serve the user needs after development?



1.6 Research Scope

This mobile learning application development project focuses on multimedia-based projects with the concept of the school curriculum in helping students as additional learning aids. Emphasis is given to form 1 to form 3 in secondary schools that will sit for the Arabic language examination on the topic of Arabic grammar according to the KSSR standards set by the Ministry of Education Malaysia (MOE). This mobile learning combines multimedia elements in its application which are text, audio, graphics, and video, as a reward for user interaction. Some of the functions in this mobile app includes viewing videos and images, reading information about Arabic grammar and some mini game to recap in the last part of this app. By using this app, students can save examples of sentence usage they like for future use. They can easily find a topic they are weak on by just search it on this mobile application. There are also a few basic words provided to add to students' vocabulary collections. The software used to develop this application is the ADDIE model, which consists of five phases: analysis, design, development, implementation, and evaluation. The hardware used is a laptop, while the software are Flutter framework which uses Dart programming language, Visual Studio Code, Firebase, Canva, Draw.io, Microsoft Words and other related software. This mobile learning application project involves a questionnaire instrument used by 30 secondary school students of SMK Jalan Kebun to evaluate the content contained in this mobile learning. This is to ensure that this permission can work well through the assessment methods that have been used.



1.7 Significance of Research

The development of this mobile application provides many benefits to many parties including students and teachers. The creation of this mobile application will allow students to study Arabic grammar in accordance with the subject of the textbook. This mobile application may help kids learn and comprehend certain subjects. The developer will create elements that will aid and entice pupils to use this mobile application to study and comprehend grammar in greater depth. Additionally, the educator that teaches Arabic in school will get advantages as they can have a variety of teaching aid that can help students power this subject.



This chapter gives a general description of the project. Mobile application that will be carried out, including problems and objectives. The importance of this project is to benefit students and teachers and contribute to Malaysia's educational system.

