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International Jasin Multimedia & Computer Science Invention and Innovation Exhibition

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# EXTENDED ABSTRACT

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# Learning Arabic Communication Skill Through Mobile Application

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***Abstract*— Arabic language is listed as one of the third language courses in Universiti Teknologi MARA (UiTM). This course aims to equip students with the ability to communicate using Arabic. It is found that most of the students are facing difficulties to converse in the Arabic language because they have less vocabulary and lacking in practice. Therefore, this mobile learning application is developed to help students to improve their communication skill in Arab. Agile model is used as the project development methodology as it encourages a continuous improvement during the development. This application is using FRAME approach which implements accessibility, interactivity, immediateness, awareness context, permanence and functionality to construct an effective mobile learning application. The effectiveness on improving students' performance after using this mobile application is evaluated using dependent t-test. The test is conducted at 5% significance level and analysed using Minitab 19. The result shows that this application is effective in improving students' performance in Arabic. However, there are few improvements that can be implemented such as add more topics: grammar topics, past, present and future tense to provide a better learning tool for the students.**

**Keywords— Arabic, E-learning, mobile application, third language**

## I. INTRODUCTION

The Arabic language is one of the most spoken foreign languages in the world. It uses an Arabic script and writes from right to left. In the 1970s, the Ministry of Education of Malaysia (MOE) paid attention to Arabic language teaching by adding Arabic students to syllabus teaching (Yahaya et al., 2019). At the university level, Arabic language is increasingly pervasive as an elective language and as a specialization program in its area (Yahaya et al., 2019). Universiti Teknologi MARA (UiTM) has made Arabic as one of the university's requirement courses, in line with other foreign languages. Students need to learn the communicative skill for the third language course. Among the methods used for the communicative course are public speaking, group discussion, and roleplay (Mat et al., 2019).

Students who take Arabic as a third language course will be assessed using roleplay and discussion in Arabic. Roleplay is part of drama practices (Mat et al., 2019). Generally, Arabic learners must become proficient in reading, writing, speaking, and listening in the third language (Brosh, 2019). Students must develop their language skills by engaging actively in their positions. Furthermore, the students also must perform a video project focused on role play within a community of five or six participants (Mat et al., 2019).

However, their performance in the Arabic language course is weak and disappointing. Recent studies have shown that the standard of language skills among students is still unsatisfactory (Azlan Shaiful and Rosni 2015). Even now the Arabic language has been one of the elective courses at the university, but it is not useful as the mastery of the students in this language is poor (Al-Muslim and Zamri 2012). Most students have no confidence in speaking Arabic because they fear to ask something, and are extremely shy of speaking Arabic, afraid to be mocked, and accused of being show-offs (Yahaya et al. 2019). Among the challenges faced by speakers of different languages is the ability to overcome the fear and anxiety of using the language to communicate. (Abdullah and Daud 2017).

Therefore, this project is developed as one solution to ease students to strengthen language skills in Arabic. Improving vocabulary will improve the confidence to converse in a foreign language. Practicing communicating in Arabic could be done by learning from this application and perhaps help to improve students' performance in the third language course.

## II. OBJECTIVES

There are three objectives in this paper and all the objectives listed tend to be achieved. The objectives are as follows:

i) To design a 2D modelling environment and characters to improve the performance of the mobile learning application.
ii) To develop a mobile learning language application that contains audio-visual aids in the vocabulary teaching.
iii) To evaluate the effectiveness of this mobile application in improving students' communication skills in Arabic language.

## III. METHODOLOGY

The methodology used in this project is Agile model. Agile model emphasizes the individual and interactions over processes and tools, working software over comprehensive documentation and customers' respond towards the changes over the project (D. Cerna, 2018). Fig. 1 shows the architecture of the Agile methodology model.

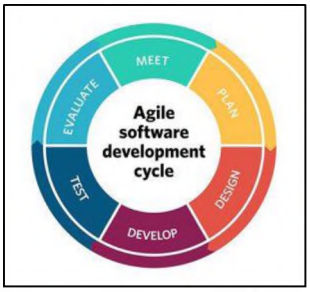
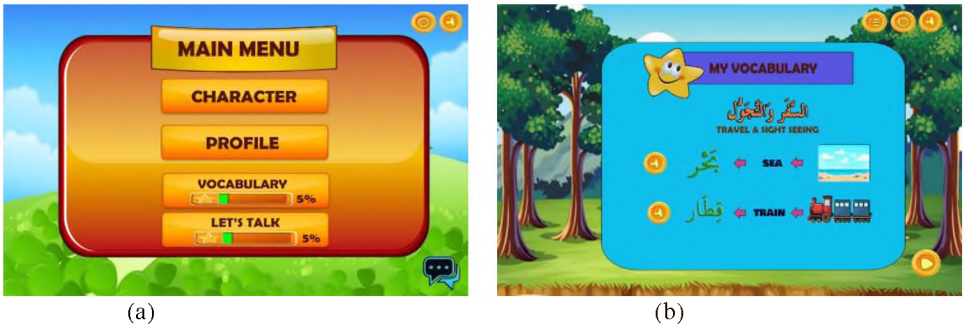



Fig 1. The architecture of Agile model

The Agile model consists of five main phases, which are requirements gathering (meet and plan), design, development, testing, and review. Each of these phases must be carried out to develop a successful application. Fig. 2 shows the part of the scene that were produced during the design phase.




(a) (b)

Fig. 2. Part of scene (a) and (b) in Learning Arab Communication Skill mobile application

## IV. RESULTS AND FINDINGS

The participants of this project were the students who taking Arabic Language as their third language course in University Teknologi MARA Cawangan Melaka. The instruments used to test the effectiveness of the developed application is a set of Arabic questions based on syllabus of Arabic Communicative Language Level 3 book. The scores were recorded according to three different sections which are vocabulary section, Arabic sentence and sentence construction section.

The data is collected through a set of Arabic questions using Google form. The link of Google from is distributed through Whatsapp application. A sample of 7 students were selected using simple random sampling.Then, the data is analyzed using

Minitab 19. In order to analyze the collected data, paired t-test is conducted to identify the effectiveness of this mobile application on improving students' performance in Arabic language.

*A. Demographic Profiles*

Table 1. Demographics Profiles

| Gender | Frequency | Percentage (%) |
|---|---|---|
| Female | 6 | 85.7 |
| Male | 1 | 14.3 |

Table 1 shows that majority of the respondents are female with percentage of 86.7% while male with percentage of 14.3%.

*B. Pre-Test & Post-Test Scores*

The respondents were given a 20-score test. Fig. 3 and Fig. 4 depicts the scores of the pre-test and post-test, respectively. Bar chart in Fig. 1 shows that only one student scored highest score which is 11 and one student scored the lowest score which is 4. The mean score for pre-test is also calculated where the value is 7.29 over 20. Here, the result shows that most of the participants have weak performance in Arab language.

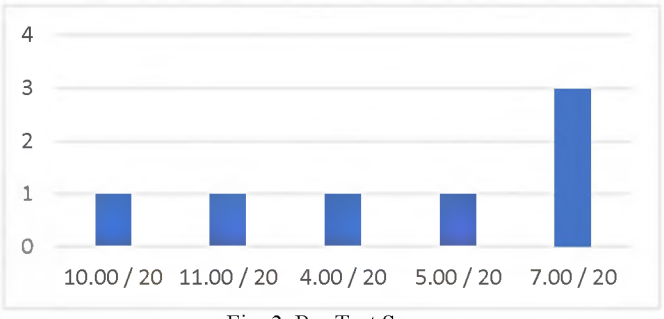



Fig. 3. Pre-Test Score

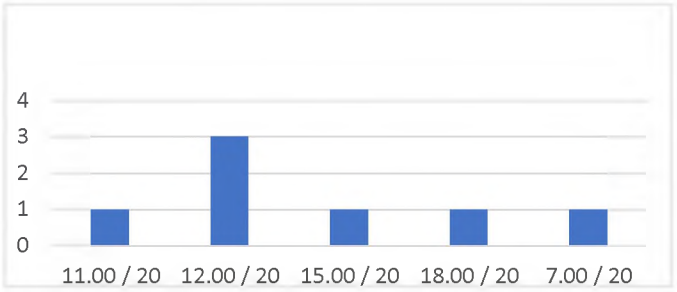



Fig. 4. Post Test Score

Fig. 4 shows the scores obtained after the students using the developed mobile application. From the post-test score, the mean score is 12.43 out of 20 which is higher than the mean score of pre-test. It implies that the students have a better improvement in the Arabic after completing learning through the Arabic mobile application.

*C. Effectiveness Evaluation using Dependent t-test*

The previous finding can be statistically supported by conducting a dependent t-test. This dependent test is conducted using 5% significance level. The scores for pre-test and post-test were analyzed using Minitab 19. For the test, the hypotheses are:

$H_0$: There is no difference in the score of pre-test and post-test.
$H_1$: There is a difference in the score of pre-test and post-test.

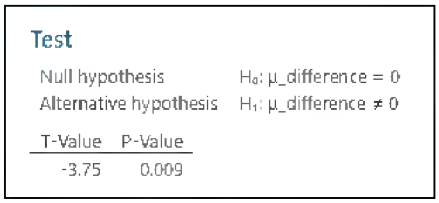



Fig. 5. Minitab Output

The result in Fig. 5 depicts the probability value is 0.009 which is less than 5% significance level. This means the null hypothesis is rejected that there is no difference in the score between pre-test and post-test. Hence, it can be concluded that this application is effective in improving students' performance in Arabic language.

## V. CONCLUSIONS

The problem statement shows the unsatisfying performance of student, the lacking practice and vocabulary, low confidence and discouraging of classical environment in Arabic language. However, after the project implementation, testing and evaluation has been conducted and shows positive result. The result shows clearly that all three objectives have been achieved. In conclusion, learning communication skill in Arabic through mobile application provides an effective learning platform for students to enjoy in learning Arabic.

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