Available online at www.jlls.org

JOURNAL OF LANGUAGE AND LINGUISTIC STUDIES

ISSN: 1305-578X

Journal of Language and Linguistic Studies, 17(Special Issue 2), 1069-1082; 2021

Gender differences in Learning Arabic Language Proficiency via M-learning among Malaysia University Students

Wan Ab Aziz bin Wan Daud[a1], Kung Teck Wong[b], Mohammad Taufiq Abdul Ghani[c], Saipol Barin Ramli[d]

[a] *Universiti MalaysiaKelantan, Kelantan, Malaysia*
[b], *Universiti Pendidikan Sultan Idris, Perak, Malaysia*
[c], *Universiti Pendidikan Sultan Idris, Perak, Malaysia*
[d] *Universiti Pendidikan Sultan Idris, Perak, Malaysia*

APA Citation:
Daud , W.A.A.W., Wong, K.T., Ghani, M. T.A.,& Ramli,S.B.(2021). Gender differences in Learning Arabic Language Proficiency via M-learning among Malaysia University Students . *Journal of Language and Linguistic Studies, 17*(Special Issue 2), 1069-1082.

Submission Date:16/09/2020

Acceptance Date:21/01/2021

Abstract

The integration of multimedia would enable teachers to take maximum advantage of technology to educate non-native students regarding Arabic language proficiency. Multimedia teaching has many benefits compared to the conventional teaching model, where we differentiate by incorporating multimedia which makes Arabic classes more energetic, vibrant and interesting. However, the significant impact of multimedia learning could be different toward gender as their interest and preference could be differ. Therefore, this study aims to investigate gender differences in learning Arabic language proficiency via M-learning among Malaysia university students. This study is a pre-test and post-test quasi experimental study which comprises of 84 males and 189 females in treatment group; and 197 students in control groups. All of the participants are lower beginner Arabic language learners from four universities in peninsular Malaysia which were selected through stratified random sampling technique. The findings revealed that male learners received substantially greater adjusted average scores on the performance test versus females using the same courses. Noticeable correlations between M-learning modes and gender on achievement have been established. In regards, the concepts of M-Learning must be taken into account when developing online learning syllabuses in order to facilitate Arabic language learning. The findings of this study will help lecturers to improve their teaching practices in this era of technology advancement and provide a consideration on gender differences of the preference towards mobile learning practice.

Keywords: Arabic language; Arabic proficiency; Multimedia learning; M-learning; gender; Higher education institution.

1. Introduction

Instructional systems and educational technologies have received a great deal of interest from educators in order to improve the learning of students. Teachers and lecturers are always searching for new

[1] Corresponding author.
E-mail address: abaziz.wd@umk.edu.my

methods to make their education program more successful. As a consequence, learning practice has changed modes of thinking from an instructor-focus approach to a learner-focused pedagogical framework. Academicians have modified their curricula to take advantage of modern teaching methods. Educational innovations such as digital presentation, simulation techniques, online courses and computer-assisted learning are now becoming mainstream. (Yamauchi, 2008).

In foreign language learning, the first visual media used to use a blackboard media is a simple image in the form of stick figure, to explain object, action, or idea. For a talented person, they can make a better picture for the provoking productive and receptive language skills. Blackboard can be used to write new vocabularies, phrases, or sentences, and to practice in writing sentences by language learners. Blackboard is solely the medium of instruction used by teachers in the classroom. Some methods of teaching originally used by teachers are grammar translation method, direct methods, total physical response, and audio-lingual (Larsen-Freeman, 1986), where the interaction of teachers and students was done through voice of teachers to explain learning materials, conduct drills to practice the language learned, practice the language being studied, and test the ability of oral and written language to communicate with others. The emergence of communicative language learning and communicative approach gives a new nuance in the importance of learning in order to improve the understanding and skills in the language learners to master the language learned. Instructional media are used to help teachers explain and practice the language.

The language became a field that led the English among the major world languages in the mid-20th century for the purposes of a private custom. Recognising the importance of Arabic to the international society, many scholars have undertaken to explore this particular area of language, which is significant for private purposes in Arabic studies (Abdul Rahman C., 1988). In the 1960s, when an expert group in Applied Linguistics studied the fields of language in different areas, Abdul Rahman found that the interests of the development of language were beginning to emerge in a new robe. They noticed that every vocabulary, rules and methods themselves vary from other regions. The linguistic complexity in several areas depends on the students' specialties. Language academies are established for a variety of purposes, namely: commercial, religious, medical, legal and media, scientific, professional, which may include all educational and professional fields (Abdul Rahman, 2007). ASP is emerging from time to time, from one field to another field either for academic purposes or occupational purposes in Malaysia such as Arabic for Islamic jurisprudence purposes (Nadwah, 1998), Arabic for Islamic creed purposes (Azad, 1998), Arabic for pilgrimage (Abdul Halim, 2005), Arabic for Islamic law purposes (Najmiyyah, 2005), Arabic for economics (Najmiyyah, 2009), Arabic for nursing purposes (Zainudin, 2010), Arabic for science purposes (Ismail A., 2012), Arabic for agro-technology (Wan Ab Aziz, 2016), Arabic for tourism (Mohammad Taufiq & Muhammad Sabri, 2016), (Zalika & Abdul Rahman, 2011).

For second language learners, proficiency is the most challenging skill to master. Lenneberg (1967) takes the view that this is the outcome of a hypothesis based on neurology. According to Taylor (1974), there is no theoretical reason to justify why learning a language is better for children than for adults. Upshur (1968) and Spolsky (1969) offer additional necessary data to support the belief that adults' second-language skills can reach native-speaker levels.

The education of Arabic language has generated considerable interest in recent years, particularly for students from non-native speakers. There are numerous tests and research performed to improve the standard of Arabic language learning and teaching based on students' experience as well as on improving the learning situation. It has led to a variety of innovations that have propelled Arabic language education and learning in a progressive direction. Malaysian education in Arabic language has experienced positive developments had started before the country's independence when it was introduced in the 'hut schools' and madrasah institutions in the 18th century AD (Abdullah, 1989). Arabic language teaching in Malaysia has been proliferating ever since (Muhammad Shahrizal,

Muhammad Sabri, Mohd Firdaus, 2015). This excellent development continues, and Arabic is presently being taught in primary schools through the introduction of J-QAF initiatives (Jawi, Quran, Arabic and Fardu Ain). In tertiary education, Arabic language courses are offered by many public institutions of higher learning (IPTAs) including University of Malaya (UM), International Islamic University of Malaysia (UIAM Malaysia, UPM), Universiti Sains Islam Malaysia (USIM), Universiti Sultan Zainal Abidin (UniSZA), Universiti Teknologi MARA (UiTM) and Universiti Pendidikan Sultan Idris (UPSI) at different levels of study.

The definition of 'multimedia' can be described in a number of forms, depending on one's viewpoint. Multimedia is known to be a computer program that combines text with at least one of the following components: audio or sophisticated sound, music, video, photography, 3-D graphics, animation, or high-resolution graphics. It is described that multimedia is data that comes in the form of audio, video or film. A multimedia file includes a media item other than plain text. According to Mayer (2010), multimedia depicts both words (in speech or written form) and pictures (illustrations, photographs, animations, videos). Multimedia is often integrated in a range of lessons, since it offers a diverse range of learning types and methods. Learning style is a concept that correlates to cognitive activity and serves to describe how learners interpret, communicate and react to learning environments. It has been shown that students are more relaxed in acquiring information in an atmosphere that is related to their prevailing learning style. Every learner in the classroom has a preferred mode of learning as visual, aural, and kinaesthetic. Many learners are multimodal, which is a combination of all the modalities mentioned earlier. Multimedia aids in order to develop a curriculum that relates to visual, aural and kinaesthetic learners, hence that learners have equal opportunities in their success. Students are encouraged to establish a flexible approach for learning method by presenting materials in a wide range of modes.

Educators may utilise a number of smartphone apps to improve language learning. Apps are applications which are able to run through a browser as well as mobile devices such as computers, phones and tablets. Most software may be retrieved with or without a link to the Internet. Thanks to their versatility, apps have been commonly used in various areas, particularly education, where there are many programs for educational or training purposes. In this sense, mobile apps can assist to decimate and envision knowledge that is essential in education. Educational technologies involve word processing applications as well as multimedia resources that enable learners to use and produce electronic media such as picture and music as portion of their learning experience. The growing use of mobile applications in teaching and learning has propelled the use of tablet-type devices as an educational resource in classroom (Shimizu R., Ogawa K., 2014).

The incorporation of multimedia in academic institutions needs significant improvements in conventional learning and teaching (Kamila, 2016). In effect, it is related to the various tasks of the teacher to partake in the multimedia-applied classroom. Teachers play the role of guides and facilitators, hence need to familiar with a wide variety of different materials that are usable and help to improve the language skills of learners, as language textbooks are not necessarily the only source of knowledge. Multimedia applications provide visual and audio to educate learners on how native speakers would communicate. Electronic encyclopedias and dictionaries are available in a matter of seconds. Digital newspapers offer up-to-date information on the target language counties. The website is a source of information in a variety of areas, such as: tourism, politics and economics. Teachers need to be conscious of the methods in which the accessible content can be used efficiently in teaching. An effective facilitator and a guide must be versatile, identify and react to the needs of the students. They got to be open-minded, and not just rely on the previously defined curriculum (Gilakjani, 2012)

Instructor acts as a digital integrator for improved language learning. Educators should not only well-versed regarding the roles of the various media available, but they should also pick the best time to deploy them. At a time when projects are being developed, students require instruction on the use of

word-processing, graphics, and presentation programs. By combining audio and visual elements, will help learners to understand that the target language's foreign language world is as multifaceted and vivid as their own environment. Teachers must possess the knowledge of how and where to obtain the information for their own use and for the use of students. They should be capable to make great use of search engines and to acquire accurate and correct information. Knowing the functions of electronic resources for language analysis enables teachers with linguistic and professional expertise, thus enhances their optimism in the use of languages. Hence, teachers should execute the position of researcher in the classroom (Gilakjani, 2012).

The position of the designer involves the establishment of activities and resources to direct students to the successful execution of their tasks and to facilitate them to reach conclusions from these activities. The accomplishment of this learning situation is very complicated and requires higher-level expertise in the analysis and evaluation of source materials. In addition, it involves setting overall targets and developing achievable and meaningful sequences by breaking down assignments. Teachers should be a role model of good conduct in serving this function, giving: support, advice and motivation to students, who then serve as a source of motivation for related tasks. It is believed to be advantageous for an educator to collaborate and engage with his or her pupils. The effect can be observed in a more productive and satisfying attempt. The use of media creates opportunities for interactions between organisations and beyond national boundaries. In reality, the Internet communications actually be beneficial to teachers in the form of assisting them resolve the sense of alienation of experience in their teaching professions (Gilakjani, 2012).

Constant development in technology is the key cause in transition. With the advent of the Internet, the conventional teaching of English has been questioned as a result of the implementation of several different and modern ways of teaching. Teachers have a role to play in resolving issues of growing student engagement in English learning and increasing the quality of teaching in the classroom. Multimedia has been shown to be a perfect way in dealing with these matters. “In the multimedia teaching, with eyes looking, ears listening, mouth speaking, hands writing, brains keeping in mind, students will greatly improve their passion for learning, leading to higher class efficiency” (Dong & Liu, 2013). Therefore, the aim of the present analysis is to examine the gender differences in learning Arabic language proficiency via multimedia-based learning among Malaysia university students.

1.1. Gender Differences in Language Learning Research questions

Gender is an identifiable variable (Heinich, et al., 2002) or a participant variable (Jackson, 2003) that describes the general characteristics of the study respondents who cannot be changed. The common feature of these respondents is often used as an independent variable in the study to see the difference between male and female respondents over the dependent variables studied. Some of the dependent variables that are often studied in the context of TnL include achievement, motivation and acceptance levels.

In terms of academic achievement, it is generally discovered that female learners have astounding achievement levels compared to male learners and have better results than male students for almost all subjects in the public examination locally and internationally especially in Arabic language teaching and learning. (Saida & Mustapha, 2018; Akmaliyah et al., 2017; Norizan et al., 2017; Di Xuan et al., 2014; Kamarul Shukri e .al., 2009). The female students in the study of Poh and Ng (2008) found that they achieved better achievement in general studies than male students. However, male students are found to be as proficient in Science (Meece et al., 2006; Zalizan et al., 2005) as in Chemistry (Mullis et al., 2000). They are also better at describing phenomena scientifically (Forsthuber et al., 2010) than female students.

In terms of motivation level, it is found that the results of previous studies show different results when the motivation level is compared by gender for different subjects. Dai's (2001) study found that women had high self-concept in oral whereas men had high self-concept in mathematics. The results of his study also report a significant correlation between academic self-concept and academic motivation (Githua & Mwangi 2003). So, indirectly, Dai's research shows that female students have high motivation in verbal whereas male students have high motivation in math. The results of the Dai (2001) study were supported by Githua and Mwangi (2003), Meece et al., (2006) and Preckel and colleagues (2008), where female students showed lower motivation for math than men. In language learning (Kim & Kim 2011; Kissau 2006; Meece et al. 2006) and literature (Ghazvini & Khajehpour, 2011), it was figured out that female learners showed greater motivation as compared to their male counterparts. Meece et. al (2006) conclude that the gender gap between Science and Mathematics involves increasing age, but differences in motivation in language will persist.

Therefore, the researcher is an attempt to show gender differences in academic achievement for learning Arabic language proficiency using i-Almunawwar among HIEs students in Malaysia.

2. Methodology

2.1. Participants

84 males and 189 females from treatments groups and 197 students from control groups lower beginner Arabic language learners from four universities in peninsular Malaysia participated in a pretest-posttest quasi-experimental study. They were divided into two groups (25-30 in each group) based on determined group by university to work with a mobile application or a printed one for their Arabic language course. As shown in Table 1, a pre-test was conducted before the experimental instruction, followed by a post- test.

Table 1: Quasi experiment Design

Group	Pre-test	Experimental treatments	Post-test
Experimental	O1	X1	O2
Control	O3	X2	O4

Xi: Experimental treatments at i, i = 1, 2

Oi: Arabic language achievement test at i, i = 1, 2,3,4

2.2. Instrument(s)

Two instruments were included to be utilised in this research: language achievement test i-Almunawwar Module and Al-Munawwar Textbooks.

The Language Tests

The language exam is comprised of 5 parts which include multiple choice question (20 marks), vocabulary matching (20 marks), fill in the blank grammar (20 marks), rearrange (20 marks) and constructing sentences. The exam was performed twice, before and at the end of the experiment. The overall test score was 100. The ranking is objective (2 for right answers and 0 for incorrect responses).

I-Almunawwar Mobile Application and Printed Textbook

The experimental group brings out the best of the i-Almunawwar mobile application installed in their phones and tablet, while the control group used the textbook printed and given by their respective university.

2.3. Data collection procedures

Before the course, both groups were evaluated for their language skills. Over a seven (7) weeks semester, the experimental community used i-Almunawwar mobile phone applications loaded on their smart phones to carry out all their classroom activities. In the meantime, the control group collaborated alongside the textbook to carry out their language learning plan. By the conclusion of the study, both groups were tested for their language skills.

Achievement Test

Some of the information from the study were acquired from the preliminary test and after-test results that were conducted prior and after the study. The preliminary and post-test instruments have the same number of questions to test the participants' Arabic language proficiency at the equivalent level. The pretest will be given to the participants in the form of a formative assessment before the instruction to classify the participants' level of proficiency and background knowledge before learning the Arabic language. Meanwhile, the post-test scores can be used to measure the participants' level of progress learning through all units in the topics (Morrison, Ross, & Kemp, 2007). The post-test was used as both formative and summative assessments in this analysis, the variance between the initial test and post-test can be utilised as a formative assessment to evaluate whether the current objectives are fulfilled. In this regard, as the pre-test is not applied as a summative assessment, the post-test was renamed as the Arabic Language Proficiency test on summative assessment to avoid confusion. It will be given to both groups of students during the summative evaluation after the Arabic language instruction to evaluate how it can affect the students' understanding of the Arabic language. In addition, the findings of the Arabic language skills test were used to make comparisons between the control and treatment classes to determine the efficacy of the mobile application in developing Arabic language skills.

The researchers constructed the questions. Each test contained thirty-five (35), and the participants were required to answer multiple-choice questions and complete matching, fill in the blank, and re-arranging tasks. The participants were also required to construct simple sentences with zero grammatical errors. The total mark is a hundred (100), and the time allocated for each test is 90 minutes. The analyses focus on understanding Arabic language comprehension related to all language skills. The details of the questions are tabulated in the table below:

Table 1: Pre-test & Post-test Question Outline

Question number	Type of question	Marks
Question 1 (10 questions)	Multiple choice questions	20 marks
Question 2 (10 questions)	Matching	20 marks
Question 3 (5 items)	Fill in the blanks	20 marks
Question 4 (5 questions)	Re-arrange	20 marks
Question 5 (5 questions)	Construct sentences	20 marks

2.4. Data analysis

Statistical Analysis

The data collected was compiled and inserted into the IBM SPSS statistical software which was used to conduct the inferential analysis. ANCOVA was used to test research hypothesis and measure the efficiency of the mobile apps for educational use in Arabic language proficiency among non-native Arabic students. Before the ANCOVA study, hypotheses of parametric statistical data (i.e., normality, homogeneity of variances, linearity, and multicollinearity) are evaluated optically, numerically, and statistically Post-test results of performance tests were used as dependent parameters in the ANCOVA study. Gender was an independent variable, and the initial test scores in the performance tests are being used as covariance. Post-hoc research was carried out where the variances were equal based on the Levene's test for equal variances (Garson, 2005). The authenticity of the experimental results was validated after the assessment and comparison of the distinctions of each group by Cohen's d or ω2 test. Cohen indicated that d = 0.2 represents a "small" effect size, d = 0.5 signifies a "medium" effect size, and d = 0.8 shows a "large" effect size (Cohen, 1988), and ω2 < .01 is a low effect while .01 > ω2 > .0138 is a moderate effect, whereas ω2 > .138 is a strong effect.

Table 2. Levene's Test of Equality of Error Variances

Dependent Variable: POSTEST

F	df1	df2	Sig.
.833	2	467	.435

Normality Test

For statistics, the presumption that the observations are normal is common. The whole statistical system is based on this premise, and the hypothesis breaks down when this presumption is violated. For this reason, it is important that this statement is verified or reviewed before any statistical data review. To ascertain whether a given set of data is normality distributed it is important to employ the normality test. Hair et al. (2014) point out that the normality test is conducted to examine the levels of normalcy in a given set of data. Moreover, Jarque & Bera (1987) suggest that multiple normality tests are often developed by different scholars. This implies that there are numerous methods of determining the normality of the given set of information. For this analysis, the researchers make use of the skewness and kurtosis techniques in assessing the normality of the data provided. Kurtosis and skewness measures, such as dispersion and central tendency measurements, also analyse the properties of a frequency spectrum (Mallery, George, 2010). Skewness is defined as the measure of the degree of asymmetry demonstrated by the analysed data, while kurtosis is defined as the highest peak of a histogram. The range for skewness and kurtosis is utilised in the experiment, based on Hair et al. (2014) that ranges between -1 to +1. Coherently, Byrne (2013) states a skewness of -2 to 2 and kurtosis range of -7 to 7, respectively.

Table 3. Skewness and Kurtosis Normality Test

	N	Skewness	Std. Error of Skewness	Kurtosis	Std. Error of Kurtosis
Pre and post tests	470	-.133	.113	-.385	.225

3. Results

To evaluate the hypothesis that experimental instruction would improve academic performance, preliminary test student grades in the experimental group were contrasted with student results in the control group and measured by employing one-way ANCOVA (Table 3). The non-significant Levene's test showed a lack of proof that the homogeneity of the variance statement was violated. In addition, the homogeneity regression tests for the ANCOVA step-down study revealed that the homogeneity of the regression assumption was satisfied for all dependent variables ($p>0.05$). No univariate or multivariate outliers were apparent and ANCOVA was deemed to be an effective analytical methodology. Learners under diverse teaching approaches varied substantially in terms of academic performance ($F (1, 51) =5.23$, $p=.03$). Post-hoc comparisons found that post-test student grades in the treatment group ($M=47.86$, $SD=4.180$) were substantially greater compared to post-test student grades in the control group ($M=38.35$, $SD=3.336$), supporting the H1 hypothesis. Nonetheless, $\omega 2 = 0.020$ indicates a poor relationship, which implies that the deviations were small. While the average pre-test results were identical between the experimental group and the control group, the post-test grades illustrate that the experimental group improved substantially compared to the control group.

Table 5. Comparison of Pre-test and Post-test Scores on the Achievement Tests

Descriptive Statistics	Class	Dimension	Pre-test		Post test		Levene's test	
		N	M	SD	M	SD	F	*p*
	Treatment	272	36.80	2.718	47.86	4.180	.833	.435
	Control	198	37.10	2.135	38.35	3.336		
	Total	470	36.40	2.350	43.24	4.235		

Table 4. Comparison of Post-test Scores on the Achievement Tests between male group, female group and controll group

Descriptive Statistics	Class	Dimension	Post-test	
		N	M	SD
	Male Experiment	84	51.161	3.6546
	Female Experiment	189	46.394	3.5052
	Control	197	38.310	3.2798
	Total	470	43.858	6.0709

Table 5. Descriptive Statistics

Dependent Variable: PostTest

Group Gender	Mean	Std. Deviation	N
Male Experiment	51.161	3.6546	84
Female Experiment	46.394	3.5052	189
Control	38.310	3.2798	197
Total	43.858	6.0709	470

Table 7 shows the mean difference of post-test, and standard deviation. The mean score for male groups in the treatment group increased 51.16 marks, the mean score for female in the treatment group increased 46.39 marks, while the control group 37.31 marks. The differences in mean scores for the three groups explained that there was a significant change in student achievement after seven (7) weeks of intervention sessions among the male treatment group and the female treatment group. However, there was a slight increase in achievement among students after seven (7) weeks without intervention among the control group. This indicates that the intervention was successful and had an impact on student achievement.

Findings of Statistic Analysis Studies Through Hypothesis Testing.

Table 4 below shows a summary of the preliminary test and post-test ANCOVA analyses among the men treatment class, the women treatment class and the control class.

Table 6. Post test Score by gender

Tests of Between-Subjects Effects

Dependent Variable: PostTest

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	12492.360a	3	4164.120	404.831	.000
Intercept	1499.058	1	1499.058	145.737	.000
PRETEST_A	733.597	1	733.597	71.319	.000
Group Gender	12026.011	2	6013.006	584.578	.000
Error	4793.307	466	10.286		
Total	921327.990	470			

Significant at $p < 0.05$.

The ANCOVA analysis shown in Table 8 illustrates that there were substantial alterations between initial test and post-test between the men treatment group, women treatment group and control group at the $F = 584.578$ value ($p < .05$). Therefore, the research hypothesis that the i-Almunawwar Application was found to be effective toward students' achievement based on significant differences in after-intervention-test differences amongst the male treatment team, the female treatment team and the control team was rejected.

As the outcomes revealed that there seems to be a substantial and observable variance between post-test amid the male treatment groups, female treatment groups and control groups. Post Hoc statistical analysis should be performed.

Table 7. Summary Analysis of Post Hoc- Turkey Post-Test Differences

Dependent Variable: PostTest
Tukey HSD

(I) Group Gender	(J) Group Gender	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
Male Treatment	Female Treatment	4.767*	.4511	.000	3.706	5.827
	Control Group	12.851*	.4483	.000	11.797	13.905
Female Treatment	Male Treatment	-4.767*	.4511	.000	-5.827	-3.706
	Control Group	8.084*	.3503	.000	7.260	8.908
Control Group	Male Treatment	-12.851*	.4483	.000	-13.905	-11.797
	Female Treatment	-8.084*	.3503	.000	-8.908	-7.260

Based on observed means.
The error term is Mean Square (Error) = 11.835.
*. The mean difference is significant at the 0.05 level.

The grades of the Post Hoc - Tukey analysis in Table 3 above show that there was a noteworthy difference in test scores among the male treatment class and the female treatment class with significant values at P.0.05 <0.000; there are significant differences between male treatment team with control team with substantial value at P, 0.05> 0.000; and there was a substantial variance in the post hoc treatment class with the control group at P, 0.05> 0.00. The results of this study show that the application of i-Almunawwar has been found to significantly improve student achievement in the treatment class than the control class. In addition, the application of i-Almunawwar was also found to be more effective in improving the performance of the men treatment class compared to the women treatment class. Therefore, gender influences the impact of the application of i-Almunawwar on students' achievement.

4. Discussion

Based on statistics reported by the United Nations Development Program (UNDP 2005), the Ministry of Women, Family and Community Development (2007), the United Nations Children's Fund (UNICEF, 2010) as well as the Commonwealth Secretariat, the ratio of female students in Malaysia to more than male students. It was therefore difficult to find respondents of a gender-balanced study for both the control and treatment groups in this study. Considering several factors as many as 163 men and 315 women were involved in this study. Although the number of females is greater than the number of males, the ratio between the two genders is approximately the same.

Overall, in comparison to the forecasts, male learners outdid female learners by utilising the identical learning method and technique. The disparity in the degree of contact between learners and teachers in both male and female classes is believed to be a cause that has led to this outcome. This is contradictory to prior research results. Other researches which are not consistent with the results of this report include Mohd Shamsuddin (2003), Mahamod and Embi (2006), Izawati (2008), Mat Teh (2009), Mat Teh et. al., (2009), Kaur and Embi (2011), and Mat Nafi (2014) where female students have better academic performance and strategy than men.

A disparity in the behaviours of men and women learners regarding smartphone apps is also believed to have led to the discrepancies in the rates of accomplishment reported. Educational technology experts support this view, stating that men have more optimistic beliefs compared to women in the use of technology to facilitate their academic education (Chieh Lai & Mu Kuo, 2007; Mahmood, Fong, 2012). Several researches have indicated that the achievement of discrepancies between women and men operating in the online world is due to the fact that it has been overwhelmingly male-dominated until recently (Gunn, 2003). However, current studies have disclosed that gaps in the use of technology and the degree of computer literacy amongst male and female students are no longer a major concern (Ono

& Zavodny, 2003). Presently, the proportion of women and men using smartphone apps is nearly equal (Price. L, 2006) implying that female behaviours are shifting.

The activity theory of Angestrom notes that growing involvement in the learning process contributes inevitably to a greater degree of accomplishment. Traditions of the Middle East determine, to a large degree, the correct actions and actions of a woman's daily life, which may contribute to limitations to social contact. As a consequence, these non-physical gender differences, which are the product of socialisation, have been found in learning and education.

Social constructivism is important to provide encouragement to heighten the involvement of female students in order to address the identified gender disparities. Assistance in the form of advice and reminders can help to improve not only the level of students' involvement, but also the rate of effort involved in the activity.

A disparity in the behaviours of men and women learners concerning smartphone mobile apps is also considered to have led to the discrepancies in the rates of achievement reported. Educational technology experts support this view, stating that men have more optimistic beliefs than females in the use of computer technology to facilitate their academic education. Multiple studies by Gun (2003) have indicated that the variations in accomplishment between men and women operating in a mobile app setting was due until recently to the fact that it is mainly male-dominated technology. Nevertheless, recent researchers have found that gaps in the use of technology and the level of computer literacy amongst male and female learners are no longer a major issue. Ono (2003) stated that the proportion of women and men using mobile apps for learning is currently roughly the same. Price (2006) indicates that the attitudes of women are shifting.

Extended research has concluded that gender disparities affect students' achievement via mobile apps. It was noticed that male learners performed better compared to female learners when they were connected to the mobile app. Similar findings were also stated by Lai and Kuo (2007), who suggested that male students' language learning skills were better over female learners in acquiring the same skills using mobile app software. Male learners were also documented to have more optimistic learning behaviours and less learning anxiety regarding the usage of mobile apps for their Arabic language training versus female learners.

5. Conclusions

The results of the analysis showed that there is a gender disparity between Arabic learners in their attempts to use mobile apps and the aided language learning programs to improve their Arabic language training. While both male and female students have reported that mobile apps are useful for improving their Arabic skills, male respondents have a more optimistic learning impact on the practise of mobile apps for Arabic learning over female respondents. In order to address this issue, the researcher proposes that Arabic teachers could build more learning and training opportunities to boost the awareness, knowledge and skills of these female students in technology. To top it off, the institution could acquire more applications of mobile apps in attempt to improve the students' Arabic educational activities and decrease the learning obstructions.

6. Ethics Committee Approval

The author(s) confirm(s) that the study does not need ethics committee approval according to the research integrity rules in their country (Date of Confirmation: 21.01.2021).

References

Ali, S. I. (2008). التربيةوالتعليم ا لكتروني ا. Kaherah: عالمالكتب

Alkan, A. T. (2011). Differences between m-learning (mobile learning) and e-learning, basic terminology and usage of mlearning in education. *Procedia - Social and Behavioral Sciences*, 267-273.

Basoglu, E. B. (2010). A Comparison of undergraduate students' English vocabulary learning: Using mobile phones and flash cards. *Turkish Online Journal of Educational Technology, 9*(3), 1-7.

Budiu, R. (2013). *Mobile: Native apps, web apps, and hybrid apps*. . Retrieved from Retrieved from http://www.nngroup.com/articles/mobile-native-apps/

Chuntao, D. (2010). *The study on factors of influencing faculty use of modern instructional technology in higher education* . IEEE.

Dong C., Liu X. (2013). A Mobile App for Learning Japanese. In: Lam J., Li K.C., Cheung S.K.S., Wang F.L. (eds) *Knowledge Sharing through Technology*. ICT 2013. Communications in Computer and Information Science, vol 407. Berlin, Heidelberg: Springer.

Fatimah, W. (2012). *Mobile Language Translation Game. International Conference on Computer & Information Science* (ICCIS).

Frasen, J. (2008). *Mobile learning: an exploration; State of the art and expectations for the near future. Technical report.*

Gilakjani, A. . (2012). "A Study on the Impact of Using Multimedia to Imporve the Quality of English Language Teaching." . *Journal of Language Teaching and Research. 3,*6: , 1208- 1215. 8.

Godwin, R. (2011). *Emerging Technologies Mobile Apps for Language Learning. Language Learning and Technology.* . htp:/llt.msu.edu/issues/june2017.

Godwin-Jones, R. (2011). Emerging technologies: Mobile apps for language learning. *Language Learning & Technology, 15*(2), 2-11.

Grimus & Ebner. (2015). Learning and Teaching with mobile device: An approach in higher secondary education in Ghana. *International Journal of Mobile and blended learning, 7*(2), 17-32. Retrieved from http://www.geocities.com/athens/academy/5578/semtmk/

Hamidin, N. M. (2015). *Penggunaan Aplikasi 'Whatsapp' Dalam Pembelajaran & Pengajaran (P&P) Di Kuis. 1st Global Conference On Technology In Language Learning 2015* (GLIT2015), 145-152.

Ismail, N. S. (2016). *Learning Arabic Vocabulary using Whatsapp. Kuala Lumpur*: Unpublished Master Dissertation International islamic University Malaysia.

Kamila, B. (2016). *Multimedia in the English Classroom*. World Scientific news.com.

Ketty Chachil, A. E. (2014). Interactive Multimedia-based Mobile Application for Learning Iban. *Procedia - Social and Behavioral Sciences 167* (2015), 267 – 273.

Kim, H. K. (2012). *Exploring Smart Applications for Effective Mobile-Assisted Language* Learning,. 1-21.

Kim, P. M. (2008). Pocket School: Exploring mobile technology as a sustainable literacy education option for underserved indigenous children in Latin America. *International Journal of Educational Development, 28*(4),, 435-445.

Kukulska-Hulme, A. (2009). Will mobile learning change language learning? . *ReCALL, 21*(02), , 157-165.

Lenneberg, E. (1967). *Biological Foundations of Language*. New York: Wiley and Sons.

Mohamed Amin Embi & Norazah Mohd Nordin. (2013). Mobile Learning: Malaysian Initiatives & Research Findings. Dalam Mobile Learning: Malaysian Initiatives & Research Findings.x. Selangor: Mobile Learning: Malaysian Initiatives & Research Findings. Dalam Mobile Learning: Malaysian Initiatives & Research Findings. UKM & KPT Universiti Kebangsaan Malaysia : 10-12.

Mohd Shahrizal Nasir, Muhammad Sabri Sahrirb, Mohd Firdaus Yahaya. (2015). Pembelajaran Bahasa Arab Menerusi Rancangan Al-Arabiyyah Fi Al-Radio: Analisis Awal Pendengar. . *Jurnal Sains Humanika,* , 83-90.

Morrison, G.R., Ross, S.M. & Kemp, J.E. (2007). 2007. *Designing Effective Instruction.* John Wiley & Sons, Inc.

Muhammad Sabri Sahrir, M. F. (2012). *EZ-Arabic for Children: A Virtual learning Resource Tool For Malaysian Primary School*. 6th International Conference on University Learning and Teaching . Shah Alam.

Ng S.C., Lui A.K., Wong Y.K. (2015). An Adaptive Mobile Learning Application for Beginners to Learn Fundamental Japanese Language. In: Li K.C., Wong TL., Cheung S.K.S., Lam J., Ng K.K. (eds) *Technology in Education. Transforming Educational Practices with Technology*. Communications in Compu. Berlin: Springer.

Noor Jamaliah Ibrahim, Z. R. (2013). *Mobile Application of Al-Quran and Arabic Language for Interactive and Self Learning Assistant for support in j-QAF Learning: A Survey*. Seminar Kebangsaan Penyelidikan J-QAF 2013 (pp. 205-218). Bangi: Universiti Kebangsaan Malaysia.

Park, Y. (2011). A pedagogical framework for mobile learning: categorizing educational applications of mobile technologies into four types. *International review of research in open and distance learning*, 78-102.

Pun, M. (2013). "The Use of Multimedia Technology in English Language Teaching: A Global Perspective.". Crossing the Border*: International Journal of Interdisciplinary Studies1*, 1, 29-38.

Rajani Balakrishnan, D. p. (2016). Mobile learning, Effective Integration of new technologies into Existing Model. In J. S. Johan endy Luaran, *Envisioning the future of online learning* (pp. 317-331). Singapore: Spinger Singapore.

Shimizu R., Ogawa K. (2014). Which Is More Effective for Learning German and Japanese Language, Paper or Digital?. In: Zaphiris P., Ioannou A. (eds) *Learning and Collaboration Technologies. Technology-Rich Environments for Learning and Collaboration.LCT 2014*. Cham: Springer,.

Sofian, S. (2010). *Pembangunan dan Penilaian Perisian "Hiwar" Berasaskan Realiti Maya*. Perak: Kolej Islam Darul Ridzuan.

Stockwell, G. (2007). Vocabulary on the move: Investigating an intelligent mobile phone-based vocabulary tutor. *Computer Assisted Language Learning, 20*(4), 365–383.

Thornton, P. H. (2005). *Using mobile phones in English education in Japan*. 217-228.

Upshur, J. (1968). Four Experiments on the Relation between Foreign Language Teaching and Learning. *Language Learning, 18,* 111-24.

Yusoff, N. M. (2005). *Penilaian Kemahiran Mendengar dalam Kurikulum Bahasa Arab Komunikasi.* Bangi: Tesis Ph.D. Bangi: Universiti Kebangsaan Malaysia.

Malezya Üniversite Öğrencileri arasında M-öğrenme yoluyla Arapça Dil Yeterliliğini Öğrenmede cinsiyet farklılıkları

Öz

Multimedya entegrasyonu, öğretmenlerin yerli olmayan öğrencileri Arapça dil yeterliliği konusunda eğitmek için teknolojiden maksimum yararlanmasını sağlayacaktır. Multimedya öğretiminin, Arapça derslerini daha enerjik, canlı ve ilginç kılan multimedyayı dahil ederek farklılaştığımız geleneksel öğretim modeline kıyasla birçok faydası vardır. Bununla birlikte, multimedya öğrenmenin önemli etkisi, ilgi ve tercihleri farklı olabileceğinden cinsiyete göre farklı olabilir. Bu nedenle, bu çalışma Malezya üniversite öğrencileri arasında M-öğrenme yoluyla Arapça dil yeterliliğini öğrenmede cinsiyet farklılıklarını incelemeyi amaçlamaktadır. Bu çalışma, tedavi grubundaki 84 erkek ve 189 kadından oluşan ön test son test yarı deneysel bir çalışmadır. ve kontrol gruplarında 197 öğrenci. Tüm katılımcılar, tabakalı rastgele örnekleme tekniği ile seçilen Malezya yarımadasındaki dört üniversiteden başlangıç seviyesindeki Arapça öğrenenlerdir. Bulgular, erkek öğrencilerin performans testinde aynı dersleri kullanan kızlara göre önemli ölçüde daha yüksek düzeltilmiş ortalama puanlar aldığını ortaya koydu. Başarıda M-öğrenme modları ve cinsiyet arasında fark edilebilir korelasyonlar kurulmuştur. Bu bağlamda, Arapça öğrenmeyi kolaylaştırmak için çevrimiçi öğrenme müfredatları geliştirirken M-Öğrenim kavramları dikkate alınmalıdır. Bu çalışmanın bulguları, öğretim elemanlarının teknolojinin geliştiği bu çağda öğretim uygulamalarını geliştirmelerine yardımcı olacak ve mobil öğrenme uygulamasına yönelik tercihin cinsiyet farklılıkları üzerine bir değerlendirme sağlayacaktır.

Anahtar sözcükler: Arap dili; Arapça yeterlilik; Multimedya öğrenimi; Öğreniyorum; Cinsiyet; Yüksek Öğretim Kurumu.

AUTHOR BIODATA

Wan Ab Aziz bin Wan Daud, Center for Languages and Generic Development, Universiti Malaysia Kelantan, Bachok , Kelantan, Malaysia.

Kung Teck Wong,Faculty Human Development, Universiti Pendidikan Sultan Idris, Tanjung Malim, perak, Malaysia

Mohammad Taufiq Abdul Ghani, Faculty of Language dan Communication, Universiti Pendidikan Sultan Idris, Tanjung Malim, Perak, Malaysia

Saipol Barin Ramli, Faculty of Language dan Communication, Universiti Pendidikan Sultan Idris, Tanjung Malim, Perak, Malaysia