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The Effects of Language Games on Smartphones in Developing Arabic Speaking Skills among Non-Native Speakers

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Abstract

This study investigates the impact of using smartphones to develop Arabic speaking skills among Arabic non-native speakers through a language game. The experiment was conducted by introducing the independent variable (language game on smartphone) on the study sample of 15 University of Sydney students learning Arabic at the beginner level. The experiment was conducted throughout semester 2/2015. Students spent 24 hours of self-study using the language game via smartphones. They were subjected to a pre- and a post-oral test to measure the impact on the speaking skill development in four major aspects namely confidence level, pronunciation, grammar and understanding. The data were analysed quantitatively using T-test and findings showed significant statistical differences On the whole, this study shows that using language games on smartphones has a positive effect on the speaking skill development of the students.

Keywords

Language Games, Autonomous, Second Language, Arabic Languge, Speaking Skill

1. Introduction

Language communication is the general purpose of learning a language. In general, a language is the voices and words in which all people express their needs with specific systems and rules in order to exchange feelings and ideas such as signs, sounds, and communication in life. Language is also used to understand the environment and the exchange of science, knowledge, opinions and experiences of

different generations in different eras. Due to this, the basis of learning a language is to enable each individual to connect and communicate with each other, without which it becomes worthless. This signifies the importance of speaking skill, and it should be particularly emphasised in the teaching and learning of a language which should be in line with the advancement of the era of technology. In fact, the latest trend in educational research has shown growing interests in the use of games to improve learning (Demouy & Kukulska-Hulme, 2010; Ke, 2009).

Using modern technology, with specific reference to gamification, will make language learning more fun and acceptable by the new generation in expressing their feelings, clarifying their ideas and expressing their views. Flores (2015) mentions that the integration of gamification in education aims to create more interesting and effective learning experiences through students' continuous and motivated involvement. This is supported by the statement stated in the NMC-Horizon Report (2014) that gamification is gaining popularity among educators for its positive effects in generating productive and creative students. More recently, literature has also emerged that shows many positive effects of gamification which include enhancing students' knowledge acquisition (Connolly et al., 2012; Li & Tsai, 2013), teaching the skills of problem solving (Li & Tsai, 2013), and increasing students' affective motivation (Connolly et al., 2012; Dempsey et al., 1994; Hays, 2005; Matsumoto, 2016; Young et al., 2012). In addition, games also contribute to the development of the much needed 21st century skills (Gee, 2008), alongside offering challenges and immediate feedback to students (Gee, 2008; Squire, 2011). The above scenario applies to the teaching and learning of most second languages including the Arabic language. However, previous studies have also shown that non-native Arabic learners outside the Arab countries are at the disadvantage due to the limited real life encounters of the Arabic environment in the process of teaching and learning (Rohaizaf, 2013; Yaacob & Bakar, 2018). This causes the absence of practical application by learners after leaving the classroom. Another reason why these students are weak especially in spoken skill is that they have limited vocabulary, and the scarcity of recommended sources, and also teaching techniques which do not keep abreast of recent developments in education (Samah, 2012).

Therefore, many researchers see the importance of employing modern technology, especially smartphones in the teaching of the second language and encouraging students to perform self-learning (Al Aamri, 2011; Sahrir, 2013; Golonka et al., 2014). The researchers also believe that the use of language games has an impact on students' achievement by training students to practice the language in their natural positions (Balqis & Marei, 2001; Al-Suwiyrki, 2005; Al-Bariy, 2010). In addition, gamification also has the potential as an evaluation tool (Menezes & Bortolli, 2016). This is because games carry with them the meanings of self-recreation and self-expression, and learning outside the classroom. The language games are targeted activities that include certain roles and rules that are enjoyable in teaching the language followed by the teacher and the learner in achieving the emotional and cognitive goals. This in itself is language training

performed by the learner under the supervision and planning of the teacher, which is also flexible and repeatable and help learners create an interactive learning environment among them while playing. In addition, language games are also effective in developing the speaking skills among learners and encouraging them to self-learn continuously through the exercise of those language games (Musa & Hasb al-Nabi, 2011).

It is rather difficult to determine what the qualities of a good speaker are due to lack of speaking tests as benchmark (e.g. Bernstein, Van Moere, & Cheng, 2010). Undoubtedly, there are many language tests in the market, however, tests on speaking are rather limited. Tests related to language proficiency are either old or inadequate. Thus, this leads to difficulty in determining the elements that are important in a good speaker. Even for English language, not all of the high-staked exams include speaking test—only IELTS and MUET contain speaking test but not TOEFL. In scrutinising further, even IELTS and MUET are different in the implementation of the speaking test. The former emphasizes on one to one conversation (https://takeielts.britishcouncil.org/prepare-test/understand-test-format/speaking-test), between the examinee and the examiner, while the latter highlights both individual and group performance in speaking (Malaysian Examinations Council, 2015).

Combining the criteria in measuring IELTS and MUET speaking tests gives rise to four important elements that a good speaker should possess. IELTS speaking test uses four criteria to measure conversation skills—1) fluency and coherence, 2) lexical resource, 3) grammatical range and accuracy, and 4) pronunciation (https://takeielts.britishcouncil.org/prepare-test/understand-test-format/speaking-test). However, the evaluation method for MUET is based on accuracy, fluency, appropriacy, coherence and cohesion, use of language functions, managing a discussion and task fulfilment (Malaysian Examinations Council, 2015). There are a few measuring aspects that overlap in these two tests. Hence, it can be surmised that from the amalgamation of the assessment criteria listed for IELTS and MUET speaking tests, there are four pertinent elements that can be highlighted as pertinent to speaking. The four aspects are 1) confidence, 2) understanding, 3) grammar, and 4) pronunciation.

Within this context, the purpose of this paper is to present the impact of the use of the game on smartphones on the development of speaking skills through the students' practice of language games and self-learning of language. The impact on speaking skill development is discussed based on four aspects which are confidence level, pronunciation, grammar, and understanding. Thus, this study seeks to answer the following research question: *What is the impact of using the game on smartphone on the four aspects pertinent to speaking*?

2. Research Methodology

The researchers employed the experimental method in this study by introducing

smartphones to the sample of the study as the experimental group. As for the control group, the students involved learnt Arabic via a traditional method, not involving gadgets or technology. However, the discussion on the comparison between the two groups is beyond the remit of this paper. Instead, it only reports on the results for the experimental group.

The sample consisted of students who were beginners in the Arabic learning at the University of Sydney, Australia. Most of them did not have any formal Arabic learning experience. The students involved in the experimental group had two hours per week to play an Arabic game on smartphone. The hours were calculated on the account of 2 hours × 12 weeks = 24 hours.

The research began with a Pre-Test and then proceeded with the intervention where students use smartphones in language learning (independent variable) and ended with a post-test. The effect of the use of smartphones in language learning upon learners' speaking skill is then measured using the Independent T-test. Thus, the summary of the sequence of study procedures is as shown in Figure 1.

The pre-and post-oral test contained 20 questions that were presented to students via the smartphone. The questions posed were divided into three levels: 6 beginner, 8 intermediate and 6 advanced questions. Students had to answer the questions and their answers were recorded directly. Then, the recorded answers were evaluated by an examiner specializing in teaching Arabic.

The questionnaire was distributed to understand the sample's perceptions after using the smartphones to learn Arabic language, from which we can know the effect of smartphones on the motivation of the students to practice the Arabic language after the completion of the study. The questionnaire was based on the choice of the closest degree of approval according to the Likert Scale system as shown in the following table:

1	2	3	4	5
Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree

The assessment of the test was based on a special evaluation form which focussed on measuring the four aspects mentioned above: confidence level, pronunciation, grammar, and understanding. While listening to the recording, the examiner would mark the form accordingly.

3. Findings and Discussion

The importance of this finding is to answer the null hypothesis (Ho) to prove

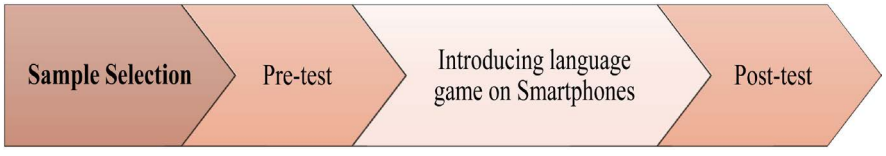

Figure 1. Procedures involved in the study.

that there is no relationship between the use of smartphones and the development of speaking skill. The results of the T-test conducted are:

T-Test				Independent Samples Test					
	Test	N	Mean	Levene's Test for Quality of Variances			T-test for Equality of Means		
					f	Sig.	t	df	Sig. (2-tailed)
confidence	Pre	15	9.86	EVA	1.735	0.199	11.98	28	0.000
	Post	15	71.40	EVNA			11.98	25.64	0.000
pronunciation	Pre	15	8.20	EVA	0.098	0.757	19.22	28	0.000
	Post	15	81.20	EVNA			19.22	27.28	0.000
grammar	Pre	15	2.73	EVA	8.417	0.007	8.17	28	0.000
	Post	15	41.39	EVNA			8.17	16.01	0.000
understanding	Pre	15	7.73	EVA	1.718	0.201	10.67	28	0.000
	Post	15	55.66	EVNA			10.67	21.68	0.000

The table shows the comparison between the results of the oral and post-oral testing of the sample of the study, and that there is significant statistical significance in the T-test. All the results of the statistical significance are less than 0.05; the value of (T) in confidence level (11.98), understanding (19.22), grammar (8.17) and pronunciation (10.67). This shows that the language games provided via smartphones have to do with developing speaking skills in this group.

In all the parameters, there is a clear difference between the mean in the pre and post test; the mean in the confidence criterion for the oral test (71.40) is greater than the pre-oral test (9.86), the understanding in the oral exam (81.20) is greater than the pre-oral test (8.20), the grammar component in the oral test for post (41.93) is larger than the pre-oral test (2.73), and the pronunciation in the post oral test is 55.66 which is higher than the pre-oral test (7.73). This result shows us the positive growth of speaking skill on the sample after the use of language games via smart phones.

The results also indicate that 100% (15) of the sample agrees that they can use smartphones individually and more flexibly in choosing the right times for them. They see that smartphones are suitable for children and teenagers, and that they are happy to learn Arabic using smart phones. The results also indicate that 93.3% (14) believe that smartphones can be used in open areas without the supervision of the teacher, and that it is suitable for learners of the Arabic language beginners and help them improve the skill of listening in Arabic and increase interest. In the opinion of 86.7% (13) of the sample that the use of language games with attractive design through smartphones helps them to build simple sentences in Arabic language. 80% of them believe that the instructions are easier to understand and help them to improve speaking skills in Arabic.

The results of the research show the positive impact of the use of smartphones

in the teaching of Arabic language to its students and other speakers in addition to the possibility of encouraging them to continuous self-learning and the lack of reliance on the classroom and the teacher in the process of teaching and learning Arabic.

By comparing the result of the oral test with the results of the participants' perceptions after the completion of the study, we can conclude that games on smartphones have a positive impact on the development of speaking skills among non-Arabic speakers, and in the development of confidence in the same students. It is noticeable that there is a significant improvement in the mean of all skill levels of speaking; confidence level, pronunciation, grammar, and understanding, as well as positive perceptions after the completion of the study. However, there are some observations which were concluded by the researchers during the running of the experiment. Firstly, the use of smartphones is characterized by the individual learner with a focus on the development of listening skills and lack of focus on the skill of speaking directly (direct human communication). Apart from that, smartphones encourage self-learning to listen to the correct pronunciation of the word over the speaker while using it without training direct speaking skills.

It is also obvious that smartphones are more flexible to use because the learner can set time and space alone without connecting to others. It is also noted that smartphones are fully dependent on technology programming and cannot be excluded from students who are now mostly digital natives.

4. Conclusion

The weakness of speaking skills in Arabic among its learners is not new, especially if it is learned outside its real-life environment. This leads to a major responsibility for teachers to find helpful methods and approaches that encourage their students to use the language. This study showed the effectiveness of the use of smartphones in the development of Arabic speaking skill, in addition to the receptivity of learners and interaction with them. Therefore, it is necessary to take advantage of this development in the teaching and learning of Arabic in order to develop the language proficiency among its learners. Despite those differences and shortcomings arising from the previous observations, the positive impact in developing the skill of speaking remains the most important goal we seek. Therefore, the researchers consider the importance of continuous research in the use of smartphones, focusing on the appropriate content of language games, training and teaching decisions that help learners and encourage them to practise self-learning to reach greater benefits in the field of teaching and learning of Arabic, especially among its learners.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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