Effectiveness of an electronic program based on English language with some pictures for Arabic learning as a foreign language

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ABSTRACT

This research paper aimed to know the effect of using electronic program based on English language mixed with some pictures as facilitating tool for Arabic learning as a foreign language (AFL). The sample of study consists of 12 American students belonging to Arabic families selected from Auburn elementary schools of average age 12 years old. The place of study was a lecture hall in the Islamic center of Auburn City, Alabama State, USA. The participants were exposed to Pre and Post Arabic language tests, as well as, scale of attitude toward Arabic learning. The paired t test and chi-square was used for data analysis. The results revealed that, using of electronic program based on English language mixed with some pictures had highly significant ($p \leq 0.001$) effect on enhancing the Arabic learning, as well as, it led to an increase in the tendency of students towards the desire to learn Arabic.

Keywords: Electronic program, Arabic as foreign language, achievement test, first language.

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INTRODUCTION

Globalization and travelling between countries are increasing, so different cultures come in contact with each other, resulting in the need for communication between different societies and cultures (Hamers and Blanc, 2000). Thus, the bilingual person has more opportunities to obtain a better job and to have more achievements than a monolingual person (Cummins, 2007). The first language can play a positive role in the learning of a foreign language (Kelleher, 2013). English is viewed as a first common language in the world, even in countries which do not use English as a first language. Chung and Nation (2003) emphasize that; the suitable use of first language within the classroom setting may be helpful. Madriñan (2014) indicated that, students do benefit from the use of the first language in the classroom, as they transferring the concepts from their mother tongue to the new foreign language. The foreign language acquisition is a process that has different stages that teachers should be familiar with in order to ensure students' learning. Since students in bilingual schools may have little or no exposure to the second language outside the classroom, it is important for teachers to understand the process by which a foreign language should be taught, using the first language as support in order to ensure understanding and learning (Dixon et al., 2012). McMillan and Rivers (2011) discovered that use of mother language in foreign language classrooms promoted cognition, communication and social functions.

Arabic language, once instructed as a second language, is perceived by the learners, to be the toughest subject (Jassem, 2000). In fact, the teaching and learning of Arabic language is facing obstacles because of many factors: Arabic language is described as following the trend in using instructional technology instead of finding and creating new invention and innovation (Mohd Feham and Isarji, 2000). The rarely using of computer-based instructional aids in teaching and learning Arabic is found

to be due to some reasons such as: (a) preference of teachers in using traditional and non-computer instructional aids (b) poor computer knowledge, particularly among the teachers (Zawawi, 2008) (c) the incapability of handling a computer and (d) lack of technology training (Aladdin et al., 2004). Arabic language are often perfect meaningfully if instructors utilize sounds, patterns, gestures, symbols and mix multimedia system in everyday lessons (Wikipedia, 2006). The instructors need to use field-tested theories of teaching so as to show the Arabic effectively. Teachers have to enhance their teaching ways by mixing multimedia system to help their teachings to realize students' attention (Ashton and Zalzala, 2004). Computer mediated teaching ways not only offer opportunities for the teachers to prepare glorious instructions, however it conjointly paves the approach for more difficult and a lot of meaningful learning environments (Aydin, 2005). The application of tutorial teaching and learning aids in vocabulary learning is necessary to reinforce and improve language learning and acquisition, particularly for second language learning methods. However, the shortage of supportive tutorial teaching and learning aids, particularly in Arabic, is of major concern and underneath the discussion of many researchers to improve the situation (Muhammad and Nor Aziah, 2011).

LITERATURE REVIEWS

The need of learning new language has risen nowadays. As elementary schools, high schools, and universities have to face the need for bilingualism by educating students who are able to work in the multicultural societies. If students receive bilingual education from their first years of school, the level of proficiency in the foreign language should increase (Timor, 2012). According to Hadley (2001), students' native language usually plays an important role in most popular language teaching methods. The usefulness of native language as a psychological feature and educational tool that facilitates learning has been gaining significance for the last twenty years. For example, Swain and Lapkin (2000) maintain that to help that no use be made of the native language in polishing off tasks that are each lingual and psychological feature complicated is to deny the utilization of a very important cognitive tool. This indicates that both learners and teachers learning of English as a foreign language is difficult to learn without using the mother tongue in the classroom setting (Rababah, 2003).

Some researchers believe that the use of mother language is extremely useful in learning a new language. This can be as a result of their assumption that using a new language can facilitate and ease the means for teachers and students in coping with the new language. On the other hand, others assume that the mother language will prevent students from learning new languages. Many studies have been conducted throughout the years on this subject.

Rababah (2003) studied the role of using the mother language in new foreign language teaching. He demonstrates this to professionally characterize the status of English for foreign language learning situation in Jordan. He found that, teachers in Jordan use Arabic language to teach difficult words and to explain English words. However, Deller and Rinvolucri (2002) do not support the use of the mother language and warn from its negative effects in the classroom. From other side, Miles (2004) concludes that limited use of the native language can facilitate the learning of the new foreign language, and does not exclude it. Moreover, Nation (2003), Tang (2002) and Sharma (2006) indicates that there is a positive contribution to English learning can be done through teaching English bilingually if mother language is used at appropriate times and for appropriate reasons. Blooth et al. (2014) investigated the use of mother language in the foreign learning at classroom in a University in Yemen. A mixed method design was employed and data were collected from a sample of 45-Yemeni students studying English as a Foreign Language at the university. A questionnaire and semi-structured interviews were used for gathering data. The findings reveal that the students perceive the use of Arabic (L1) as functional strategy in their EFL (L2) classrooms and that it is used to serve a number of purposes: to translate new words, to define concepts, to give some explanations and to help each other in their groups. They concluded that L1 can be used as a scaffolding strategy by students in facilitating their learning and can be used as a pedagogical tool by the teacher to enhance learning experience as well as maximize engagement in the classroom. Miles (2004) attempted to demonstrate two points. Firstly, using first language L1 in the classroom does not hinder learning of foreign language and secondly L1 has a facilitating role to play in the classroom and can actually help learning. Two experiments were carried out in an attempt to substantiate these theories. In the first, three classes were observed over a period of five months, during which time one class was English-only, one permitted the use of Japanese by the students only, and in the other, both teacher and students utilized Japanese. In the second experiment, four separate lessons given to one class are compared (two where Japanese was used, and two where it was not permitted). Overall findings indicated possible support for both theories and thereby for the use of L1 in the classroom for teaching of foreign language. Zohrabi et al. (2014) investigated the facilitating role of Iranian English foreign language learners' first language in learning of English vocabulary in Azarbayejan. This study used a mixed methods research design. According to the obtained results, most of the Azerbaijani-Turkish intermediate-level ELF learners had positive views towards the use of Turkish in learning English vocabulary and also Azerbaijani-Turkish ELF teachers had positive views towards the use of Turkish in learning English

vocabulary.

Statement of the problem

In many foreign countries, Arabic teachers face problems when teaching Arabic as a foreign language to non-Arabic speakers students because most students do not really comprehend Arabic language very well. The review of over 350 studies discovered that, in spite of an abundance of publications on the subject of technology use in foreign language learning and teaching, evidence of its efficacy is limited (Golonka et al., 2014). Thus, this paper aims to investigate the effect of using an electronic program based on English language mixed with pictures for Arabic learning as a foreign language.

Research questions

This study seeks to answer the following questions:

Q1. What is the level of foreign students in Arabic as a foreign language?
Q2. What is the effect of using an electronic program based on English language mixed with pictures for teaching Arabic as a foreign language?
Q3. Are there statistically significant differences at ($\alpha \leq 0.05$) between the pre and the post-test of the experimental group in Arabic teaching?
Q4. What is the effectiveness of the program in improvement the attitudes of students toward teaching Arabic language?

Purpose of study

This study aims to:

1. Measure the level of foreign students in Arabic as a foreign language.
2. Investigate the effect of using an electronic program based on English language mixed with pictures for teaching Arabic as a foreign language.
3. Investigate the effectiveness of the electronic program in improvement the attitudes of students toward teaching Arabic language.

METHODOLOGY

Research instruments

Achievement test

The achievement test has been prepared to investigate the level of foreign students in the Arabic language and their ability to understand and read Arabic alphabet and some Arabic words. The test consists of 15 questions with three questions for each of the following Arabic letters (أ Alif, بBaa, ت Taa, ث Tha, Jeem ج). The questions are composed of multiple choice, matching and complete questions. After the preparation of the test, it was subject to some arbitrators in the specialty, then the validity and stability of the test was done. The pre and post experimental design was done for the same research group.

Scale of attitude towards learning Arabic language

The scale of attitude is designed like questionnaire to identify the students' opinions towards Arabic learning. The scale is applied before using the electronic program, after that, it was applied again after using of the program. The scale is made up of six phrases. The Triple gradient of Likert (agree - disagree - neutral) was used, then the scale was arbitrated and controlled as shown in Table 1.

Research sample

A sample of 12 American students from families of Arab origin living in the United States was selected. The sample of the study was chosen from students belong to Arabic families because they have some background knowledge of the Arabic language by listening from parents and have an incentive to learn Arabic language to be able to communicate with relatives. The average age of group of research was 12 years old. The research group studies in English in schools and only learns Arabic through the family at home.

Area of study

The study was conducted in the lecture hall of the Islamic Center in Auburn, Alabama, USA. The hall was equipped with computer aided by the program prepared by the researcher to serve the purpose of research. Each student has a device that deals with the program designed to teach Arabic through the use of English and pictures to facilitate the learning process.

Procedure

The electronic program was implemented in about two and a half months with 12 sessions as follows:

Session 1: Introductory session: In this session, we get acquainted with the students and draw the plan that we will follow in the rest of the sessions. The pre-
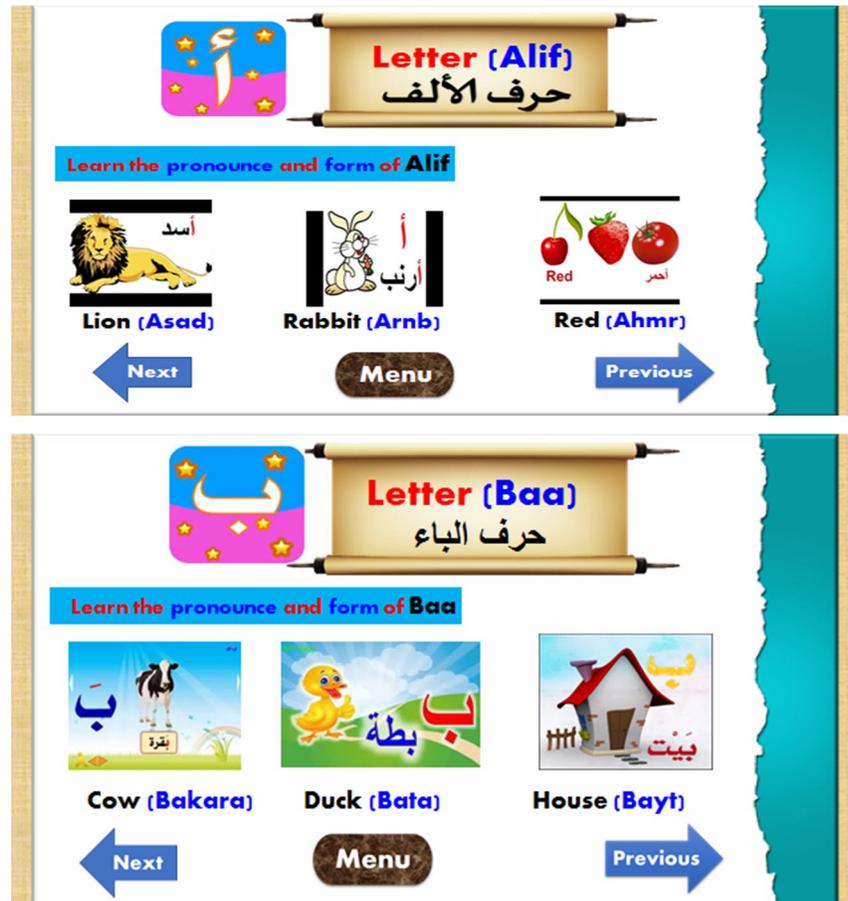
Figure 1. Samples of screenshots from the electronic program.

Table 1. Scale of attitude towards learning Arabic Language.

Phrase no.	Phrases	Opinions		
		Agree	**Disagree**	**Neutral**
1	I love to learn Arabic			
2	I am happy when I speak some Arabic words			
3	Arabic is an easy language to learn			
4	I use some websites to learn the Arabic language.			
5	I spend my free time learning Arabic			
6	I would like to speak Arabic alongside English			

achievement test for the Arabic language has been applied to determine the level of students in the Arabic language. A scale of attitude has been applied to determine the students' attitudes toward learning of Arabic language (Table 1). The session ended by setting the next date for starting the program.

Session 2: It starts first to welcome the students as صباح الخير in Arabic and good morning in English, and then began to clarify the importance of learning Arabic as a foreign language for the ability to communicate and use with relatives and family when needed. Then, we began to talk about the characters of the Arabic language, which are 28 alphabets. The research group will learn the form and script of the letter and how to pronounce and write it using the English language and pictures to facilitate the learning of Arabic letters and words.

The first Letter in Arabic alphabet is the letter of the (أ) "say like Alief". It corresponds to a letter "A" in English with examples of some English words and pictures beginning with the letter A and translated into Arabic, open discussion and repetitions through the teacher and

students. Then assigning the students to open the program at home and solve the exercises on the letter through the program and training to pronounce the letter and write it in the exercise sheet.

Session 3: We explained the 2nd letter (ب) "say like Baa". It corresponds to a letter "B" in English. Multiple words on the letter Baa with their mean in English and pictures were discussed. Some of exercises and tasking are done to train them at home.

Session 4: Read the duties and review the previous letters and then start with the 3rd letter (ت) "say like "Taa" which corresponds to letter T. The learning process runs in the same way as the previous.

Session 5: It began with review on the previous letters and start with the 4th letter (ث) "say like Tha" in the same way.

Session 6: Start in the discussion of 5th letter of the (ج) say like "Jeem" and words that spoke the letter Jeem and translated in English and pronunciation in Arabic and English with exercises on it.

Session 7: We conduct general review of the previous letters in pronunciation, writing and dealing with each individual to verify the proficiency of letters and words that have been learned over the previous sessions.

Session 8: The post-achievement test was applied to the Arabic letters that were learned, and the same scale of attitude toward of Arabic learning was applied to identify the students' attitudes toward the Arabic language.

Follow-up achievement test: One month after the completion of the program, the students were gathered in the lecture hall once again to apply the Follow-up achievement test to determine the degree to which the impact of learning in students.

Data analysis

Test of normality

An assessment of the normality of data is a prerequisite for choosing the accurate statistical test as normal data is an underlying assumption in parametric testing. The method of assessing normality is Shapiro-Wilk test because it is more appropriate for small sample sizes. Table 2 shows that the significance value of the Shapiro-Wilk Test is greater than 0.05; thus, the data was normally distributed.

Paired t-tests

The paired t-test was done to compare the values of

Table 2. Shapiro-Wilk test of normality.

Scores	Shapiro-Wilk test of normality		
	Statistic	df	Sig.
Pre-test	0.920	12	0.290
Post-test	0.953	12	0.687

means from pre, post and follow up achievement student's test.

Chi-square test

The Chi-Square test x^2 is used to determine if there is a significant relationship between student's opinion which collected by scale of attitude towards learning Arabic before and after application of an electronic program. The frequency of each category for one nominal variable is compared across the categories of the second nominal variable.

RESULTS AND DISCUSSION

Table 3 and Figure 2 show that there was a highly significant difference (P ≤ 0.0001) between mean scores of students in pre and post application of Arabic achievement test. As the mean scores of students was 4.58 and 12.16 for pre and post- test, respectively. These results may be attributed to the effect of the electronic program based on using of English language and pictures for enhancing the learning of Arabic language. These results agree with the study of Rababah (2003) and Miles (2004) who indicated that, using the mother language plays an essential role of in new foreign language teaching. However, disagree with Deller and Rinvolucri (2002), they do not support the use of the mother language and warn from its negative effects in the classroom.

According to Table 4 and Figure 3, there was no significant difference (P ≤ 0.10) between the mean scores of students in post and follow-up Arabic test, where the mean scores was 12.16 and 11.83 in post and follow-up test, respectively. These results may be indicates that, there was presence of learning impacts for participants after finish of program by one month. Therefore, the electronic program used has a survival effect and touch the brain memory of participants.

Referring to Table 5, the chi-square test was used for investigating the trends of the participants towards Arabic learning. It shows the significance differences between the attitudes of participants before and after application of the program, as (9.2, 12, 8.4, 8.9, 12.1 and 7.25) for phrases extended from 1 to 6, respectively. These results indicated that the using of electronic program based on English language and pictures improve the attitudes and has significant effect (P ≤ 0.05) on attitudes of

Table 3. Mean± standard deviation (SD) of student's scores in pre and post achievement test.

Achievement test	N	Mean ± SD.	Paired t test			
			Calculated	df	Tabulated	P value
Pre-test	12	4.58 ± 1.31[Sig.]	10.49	11	2.71	0.0001
Post-test	12	12.16 ± 1.52 [Sig.]				
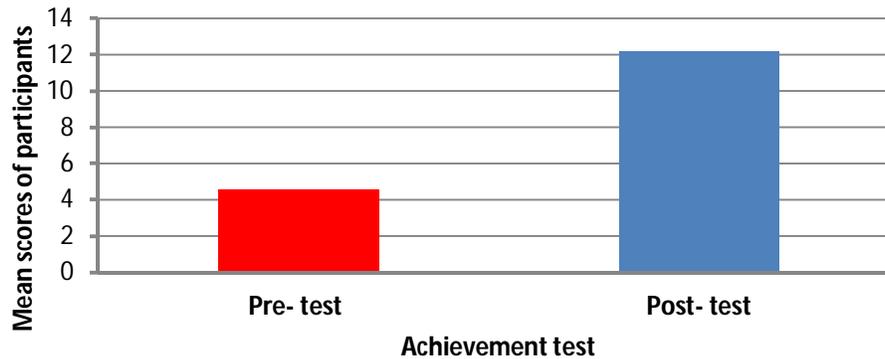
Figure 2. Student's mean scores in pre and post achievement test.

Table 4. Mean± standard deviation (SD) of student's scores in post and follow up achievement test.

Achievement test	N	Mean ± SD.	Paired t test			
			Calculated	df	Tabulated	P value
Post- test	12	12.16 ± 1.52	1.77	11	2.71	0.104
Follow-up test	12	11.83 ± 1.33[NS]				
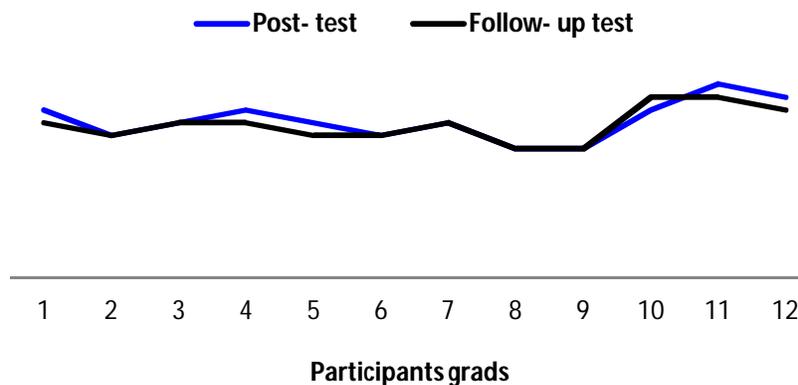
Figure 3: Student's mean scores in post and follow-up achievement test.

participants toward Arabic learning.

CONCLUSION

We conclude from the current research that, the use of the electronic program based on the English language and pictures has a clear impact on learning Arabic as a foreign language in countries that do not speak Arabic. Moreover, the electronic program has an effect on the survival of the learning process and retention of information for a long time, as well as the program has an

Table 5. Chi-square x^2 test for investigating the trends of the participants towards Arabic learning.

Phrase no.	Group case	Opinions of Participants (No. =12)			Chi. x^2	p-value
		Agree	Disagree	Neutral		
1	Before application	4	6	2	9.6	0.008
	After application	11	0	1		
2	Before application	4	2	6	12	0.002
	After application	12	0	0		
3	Before application	2	8	2	8.4	0.01
	After application	9	2	1		
4	Before application	2	9	1	8.9	0.01
	After application	9	2	1		
5	Before application	0	10	2	12.1	0.002
	After application	8	3	1		
6	Before application	5	3	4	7.25	0.02
	After application	11	1	0		

effect in changing the attitudes of students towards the desire to learn Arabic language. Therefore, the study recommends the importance of using the mother language in learning Arabic as a foreign language with students who are not speaking Arabic.

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