

The Effect of Using Integrating Online Tools on First Secondary Saudi Students' Vocabulary Achievement in English

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Abstract: *This study investigated the effect of using integrating online tools such as games, You Tube and digital storytelling that are embedded in a wiki on students' vocabulary achievements in the foreign language classroom. The sample of this study consisted of 46 female students at the first secondary grade chosen from a public school in Riyadh City, Saudi Arabia. Performance results on pre- and posttests revealed that the experimental group showed a great improvement in vocabulary achievements. The implications of the results were that online tools can help students improve their vocabulary achievements because this suggested way of teaching motivated the students to learn in a collaborative environment, low anxiety between peers, helped them to learn independently and to think critically. The results also revealed that the online tools improved the other language skills. Therefore, it is recommended to examine the effect of using these online tools on the whole language proficiency.*

Keywords: *integrating online tools, vocabulary achievements, foreign language.*

I. Introduction

In this continuously innovative century, students live changes in the aspects of technology life and find themselves enjoy the World Websites. They found themselves also in an urgent need to improve their learning for English language. So, for our schools to survive in the fast changing technology environment, and to avoid having a gap between the students' life inside and outside the school, it is an essential matter to use the digital technologies in teaching and have the students practice the language.

Learning vocabulary is a fundamental pillar of learning any second language. Many ESL scholars emphasize the importance of learning vocabulary in ESL and EFL. Wilkins for example, believes that, "without grammar very little can be conveyed, without vocabulary nothing at all can be conveyed" [21]. Harmer is also stressing on the same issue that "language structures make up the skeleton of language, then it is vocabulary that provides the vital organs and the flesh"[9]. EFL figures look at vocabulary teaching through different perspectives. Nation for example, believes that repetitions are required to learn new words[15]. Others say that acquiring a new word requires seven or more encounters with the word[13].

It should be noted that there are different strategies and methods for learning vocabulary of a second language but learning through using technology is now booming which having a great deep effect on motivating students to have a better learning. Learners need an explicit introduction to vocabulary, accurate and effective support in interpreting new vocabulary, and practice for remembering vocabulary[2]. It is argued that using CALL will definitely help teachers to work towards these goals for vocabulary teaching and learning.

Providing the learners with different online tools enhances the chances to choose the suitable tool that suit to their own learning style. On the other hand, it gives them more opportunities to encounter the new words in many different situations.

A wiki is a free web site that can gather all the different online tools such as, links for games, interactive stories, useful sites providing various kinds of authentic materials. Moreover, it provides the teachers with the opportunity to add their power point slides and pdfs from classes.

1.1 Problem Statement

The researcher noticed from her experience in teaching English language that most students complain from a lack of words they have learned which may be the result of the ineffectiveness of the old teaching methods. As a result, the researcher feels that students need a material that helps them to build their vocabulary through entertainment using and social website practicing.

1.2 Research Objective

To investigate the effect of the use of online tools on students' vocabulary achievements.

1.3 Research Questions and Hypothesis

This study attempts to answer the following questions:

1. Is there a significant difference in students' vocabulary achievements between the method of using integrating online tools and the traditional method of teaching?
2. Is there a significant difference in students' vocabulary achievements between pretest and posttest mean scores for those who undergo the traditional method of teaching?
3. Is there a significant difference in students' vocabulary achievements between pretest and posttest mean scores for those who undergo the method of using integrating online tools?

Accordingly, from the above questions, the following null hypothesis can be derived:

H01: There is no significant difference in students' vocabulary achievements between the method of using integrating online tools and the traditional method of teaching.

H02: There is no significant difference in students' vocabulary achievements between pretest and posttest mean scores for those who undergo the traditional method of teaching.

H03: There is no significant difference in students' vocabulary achievements between pretest and posttest mean scores for those who undergo the method of using integrating online tools.

1.4 Significance of the Study

1. The present study investigates the effect of using integrating online tools on vocabulary achievements.
2. Familiarize the English teachers with the importance of using integrating online tools in their classes.
3. The present study may enhance the chances to learn new vocabularies through different contexts.
4. The present study examines the effectiveness of using integrating online tools in teaching and learning new English vocabulary.
5. The present study provides language instructors and curriculum designers with a systematically designed educational wiki.
6. The present study may prove the literature in a way that wikis help students to acquire new English vocabularies in a collaborative learning environment by allowing students edit each other's work.

1.5 Instruments of the Study

1.5.1 English Language Proficiency Test.

The purpose of this test was to determine whether the participants in the two groups had the same level of English before the experiment was done.

1.5.2 Posttest for vocabulary

This test was mainly designed to identify to what extent the participants in both two groups had acquired the new vocabulary.

1.6 Definitions of Terms

Credit Hours Schools: It is an educational system that are similar to universities education system (based on hours system). It aims to prepare high students schools to complete their studying in universities without academic problems.

II. Literature review

Computer Assisted Language Learning (CALL) is "the search for and study of applications of the computer in language teaching and learning" [10]. It is used extensively in teaching English as a Foreign Language [5].

Learning through games encourage students to enjoy the learning situations. Using games for vocabulary learning improves the memorization of English vocabularies. Moreover, games help the students to use the words to have a meaningful context. Using games has a great effect on improving the students' vocabulary building skills [16].

There is an impact of using videos on whole language learning in EFL context and using You Tube can improve the linguistic proficiency in EFL students at university levels [14]. You tube remains a valid resource for promoting authentic vocabulary development by providing students with lively content and online videos [20].

Mason studied the effect of interactive storytelling on vocabulary acquisition and the participants were first year English majors at a four- year-private college in Osaka, Japan. He compared the effects of interactive storytelling and the traditional method on vocabulary acquisition. The result confirmed that listening to stories leads to the acquisition of vocabulary. Moreover, Stories are far more pleasant and engaging than traditional instruction, and students can gain other aspects [12].

Wikis enhances the chance to the students to be independent and give them the opportunity to share responsibility with their peers [6].

III. Methodology

3.1 Context and participants: The current study was classroom-based and conducted on the first grade of a secondary school based on credit hour system. In order to carry out the experiment of the study, in hands, two classes were selected. One class was assigned randomly to serve as an experimental group (study English vocabulary throughout the use of integrating online tools), whereas the another class was assigned to serve as a control group (study the new vocabulary throughout traditional way in which teacher explains new words in classroom). They were 46 students in both classes.

Table one: The sample of the study

Group	N
control group	23
experimental group	23
Total	46

In order to ensure the equivalence of the two groups were at the same level in the vocabulary achievement, a writing pre-test was applied on both groups. The results can be seen from the independent sample t-test in Table two. It revealed that the p-value is .711 which is higher than the criterion, $p \leq 0.05$, therefore, it is not statistically significant clarifying that both groups were similar in the level of their English vocabulary achievement.

Table two : T-test Results for the Groups' Equivalence

Groups	N	Mean	Std.Deviation	T Value	Sig.(2-tailed)
Control	23	16.22	4.369	.373	.711
Experimental	23	15.74	4.330		

3.2 Material and Data Collection Procedure

The researcher designed the wiki which was provided by PBWorks (<http://pbworks.com/>). The wiki address is: <http://buildingvocabulary2012.pbworks.com/>. It is designed to provide students with different helpful online tools to learn English vocabulary. These online tools (you tube, interactive stories, educational games) enhance the chances for the students to learn more vocabularies in different contexts [16]. The experimental group and the control group assigned to a pretest to determine whether the participants in the two groups had the same level of English before the experiment was done. The test was divided into two main parts: vocabulary and reading. The questions were 38 multiple choices. T-test was calculated to make sure that there were no significant differences between the control group and the experimental group in their prior knowledge of English.

In the introductory class, students were given access to the wiki web space and were asked to navigate and explore the wiki. Then during the experimental classes, the students were asked to learn vocabularies which were categorized in different themes through using the selected online tools. To ensure their learning, they were asked to complete selected activities based on the studied themes. The wiki content was updated daily and based on the theme covered that week in the class. This study was conducted for four weeks. Finally, a writing post test to measure students' vocabulary achievement was conducted for both classes.

The test included 20 items for vocabulary. They were chosen randomly from a list of new words students have been taught during application whether by online tools for experimental group or by explanations of the teacher for the control group. In that test, students were asked to choose the correct words to fill in the blanks, they had to match some words with their meanings, they were also asked to write the word under the correct picture.

3.3 Validity and Reliability of the Tests

In order to make sure that research instrument measures what it is mainly designed to measure, it was given to a jury of specialists in educational studies and EFL Experts. Their views and comments were highly taken into consideration. Tests items were modified according to their suggestions.

As for reliability, several tests could be used to identify reliability of research instruments. In this study, Pearson correlation coefficient was calculated for all the items to investigate the reliability of the pretest and posttest. The total value for the pretest was (.88). Whereas, the total value for the posttest was (.83).

3.4 Statistical Analysis

In order to analyze the data, the researcher used statistical techniques using (SPSS) program. The following statistics were used:

- 1- Means scores
- 2- Independent sample t-Test
- 3- Paired sample t-Test

IV. Findings

4.1 Data Analysis

Table three shows the group results from the pretest and posttest scores of the control group and experimental group. The results in Table three show that experimental group had undergone changes in their vocabulary achievement.

Table three: group statistics

Group	Tests	N	Mean	Std. Deviation	Mean Difference
Control	Pre-test	23	16.22	4.369	0.17
	Post-test	23	16.39	4.175	
Experimental	Pre-test	23	15.74	4.330	21.65
	Post-test	23	37.39	1.406	

4.1.1. Research question 1

The first research question aimed to find if there is a significant difference in vocabulary competence between the method of integrating online tools and the traditional method of teaching. The results can be seen from the independent sample t-test in Table four.

Table four: independent sample t-test

		Levene's Test for Equality of Variances			t-test for Equality of Mean			95% Confidence Interval of the Difference	
		F	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Posttest	Equal variances assumed	23.352	-22.861-	44	.000	-21.000-	.919	-22.851-	-19.149-
	Equal variances not assumed	23.352	-22.861-	26.925	.000	-21.000-	.919	-22.885-	-19.115-

Table four demonstrates that there was a significant difference between the results of the control group and the experimental group where the p-value was 0.000. This is lower than the set criterion where the hypothesis will be rejected if $p \leq 0.05$. Therefore, from Table four, the first null hypothesis is rejected and the first research question is answered, concluding that there is a significant difference in vocabulary competence between the method of using integrating online tools and the traditional method of teaching in favor of the experimental group because its mean is higher than the control group.

4.1.2 Research question 2

The second research question intended to probe if there is a significant difference in vocabulary competence between pretest and posttest mean scores for those who underwent the traditional method of teaching. The results of the paired t-test can be seen in Table five.

Table five: paired samples t-test

		Paired Differences			95% Confidence Interval of the Difference		t	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
Pair 1	Control Group Pretest-Control Group Posttest	-.174-	.778	.162	-.510-	.162	-1.073-	22	.295
Pair 2	Experimental Group pretest-Experimental Group posttest	-21.652-	3.737	.779	-23.268-	-20.036-	27.788-	22	.000

Table five shows a clear picture of the statistic scores for both groups. The mean difference for the pretest and posttest of the control group is -.174-. On the other hand, the mean difference for the experimental

group is -21.652- which reveals a larger difference. However, the p-value for the control is .295 which is higher than the criterion, $p \leq 0.05$, therefore, it is not statistically significant. Thus, the second null hypothesis failed to be rejected, concluding that there is no significant difference in vocabulary achievement between the pretest and posttest mean scores for the participants who underwent the traditional method of teaching.

4.1.3. Research question 3

The third research question intended to find out if there is a significant difference in vocabulary achievement between the pretest and posttest mean scores for the participants who underwent the method of using integrating online tools. The results can be seen in Table five above.

The p-value for the experimental group is .000, which is lower than the criterion, $p \leq 0.01$; therefore, there is a statistically significant difference. The third hypothesis is rejected, concluding that there is a significant difference in vocabulary competence between pretest and posttest mean scores for those who underwent the method of using integrating online tools.

V. Discussion

The main purpose of the present study is to investigate the effect of using integrating online tools on Secondary school students' vocabulary achievements. The vocabulary pre-test and post-test were applied on the experimental and control groups at the beginning of the study and at the end of treatment period. Pre-test was conducted to ensure that both groups were at the same proficiency level in vocabulary achievements. Findings showed that they were equivalent (Table two). To achieve the main purpose of conducting this study, it is first asked whether there would be a significant improvement in the students' achievement for English vocabulary in the post test for both groups. As discussed in chapter four, the students in the experimental group showed great improvement in their vocabulary achievement. The results showed that the mean score of the experimental group was 37.39 whereas the mean score of the control group was 16.39 (Table three and Table four). These findings were consistent with the results of previous studies showing that games, You Tube, storytelling are effective technological tools for enhancing student vocabulary achievement [16 & 12 & 20]. The justification for the great improvement in vocabulary achievements of the experimental group is that online tools are far more pleasant and engaging than traditional method which leads to a high motivated students and a more creative learning environment [4].

Secondly, the study asked whether there would be a significant difference between the pre- test and post- test for the control group due to traditional way of teaching. Findings showed that there was no significant difference between them (Table five). This result revealed that the traditional method was ineffective in teaching vocabulary because students were bored in learning English vocabulary due to the old teaching method. Therefore, it is an essential matter to use technological tools in teaching to have best results in learning.

The students who were included in the study showed a great improvement in the use of their new vocabulary in different contexts [14 & 16]. This was clear in their answers of the activities which were embedded in the treatment. Moreover, they showed progress in their speaking and listening skills. Their teacher said that they were having trouble in pronouncing the words but now their English is better and they used English more in the classroom. Previously, the teacher had a problem motivating students to learn in EFL classrooms. Most of the students noticed that their spelling is getting better. Using online games encouraged them to share playing with even their families and with their friends from other schools. They found themselves learned many vocabularies unconsciously. One of the students said that she was teaching her grandfather English by showing him the You Tube clips. Other students expressed their desires to design a website to download all their assignments in and to share them with their colleagues because they found themselves motivated to learn through online tools.

Using computer programs in language learning promote visual, verbal and kinesthetic learning, higher-level thinking, and problem-solving [18]. This study showed that learning through online tools which were parts of computer programs helped the students provide different solutions for the complaints about different subjects (Complaints was the topic addressed in the study). This could be a result of using the online tools in their learning. One of students' solutions for the complaints about the careless waitress in restaurants is to use the stimulus style with them. For example, the waitress who is more requested by the customers, worth more reward. It depends on the number of customers whom being served by the waitress. As for the complaints from not keeping the bathrooms clean, they suggest that the customer will not be allowed to take tissues or to use bathrooms till they record their table number in the restaurant or their room number in a SIM card which pasted in the wall. If they left it dirty, they would pay tax for that. On the other hand, The control group didn't provide any solutions for these complaints. The traditional teaching method didn't actually stimulate their thinking to find solutions or to solve problems.

The researcher noticed that some students prefer to use You Tube clips in learning new vocabulary while others prefer playing games to build their vocabulary. Students who are enthusiastic in listening to stories,

they are provided with different online stories. That's what makes the researcher integrate different online tools in order to meet the students' need. Moreover, these online tools provide them with authentic materials and help them to practice their language outside classrooms.

As the researcher cannot neglect the collaborative nature of the wiki experience which was not specifically studied in this research, it is expected, as found by Chen that a collaborative learning environment leads to an improvement for the students in their English ability[3].

Being student-centered, online tools such as games, YouTube and interactive stories which are considered as parts of CALL develop students' ability to learn independently[1]. Moreover, using CALL can help students progress at their own pace and study alone without being dependent on others[8]. Using games reduces the anxiety levels between the peers [19]. The students of the experimental group noticed that they can learn by themselves after their experiences with these online tools especially with games. They said that they did their best to understand the instructions which were spoken in English in order to win the game and that experience had its great effect in building our English vocabulary.

The researcher faced certain obstacles in applying this study in the school such as not having access to the internet and English labs. Furthermore, the teacher is not qualified enough to use the online tools in her teaching. The researcher had to do such training sessions for the teachers in using online tools and provide the school with access to internet in order to apply the study with the experimental group.

In light of the previous literature which provides clear evidence that online tools, which were considered as parts of CALL, improve students' achievement for English vocabulary. Therefore, it is preferable way to use CALL as supplementary tool to traditional face-to-face teaching as it was suggested by [7&11].

VI. Conclusion

This study was designed to shed the light on the potential value and uses of integrating online tools in the school classroom. Integrating online tools is a major resource for teaching the Net Generation and for drawing on their multiple intelligences and learning styles to increase the success of every student.

Using online tools such as games, You Tube and digital storytelling tends to change students' experience because they can follow their own desire with use of online tools instead of that everything will be mastered by the teacher. Furthermore, online tools can also be used in non-entertaining areas such as education. It could teach and convey knowledge and cultural values to students interactively instead of the old traditional methods.

To summarize, this research suggests that using online tools to practice vocabulary improves learners' ability to use the words in different contexts effectively. The content of the online tools provides comprehensible input while learners interact in the group, allowing students to clarify meanings of words in such contexts. The use of online tools also enhanced students' motivation to learn vocabulary. This might be because the students have experienced new methods of teaching, as they have been used only to learning the new language through drilling the vocabulary. The strategy which the researcher adopted also allows them to interact with peers, which is also a new experience for them since they are used to teacher-centered methods for the whole of their learning experience. The online tools also provided a challenge, where they need their concentration to get the activities done which strengthen students' mental work. Such activities were also new to students' experience, and they think carefully to get the right answers.

This study also may help primary educators gain a deeper understanding of the relationships between technology, pedagogy and education. Furthermore, the whole process of conducting this action research and reading about vocabulary teaching and learning has contributed to my professional development in terms of providing me with knowledge of the varied current issues and strategies in teaching vocabulary. It has really enriched my theoretical background, and enhanced my ability to teach vocabulary effectively.

6.1 Recommendations: The following recommendations can be offered for the following:

6.1.1 For further studies

It is recommended to conduct similar studies that investigate the effect of using integrating online tools on the language skills like (speaking, writing, reading and listening). Other aspects to be investigated are the students' and teachers' attitudes toward using integrating online tools. Moreover, there is a need to explore the effects of using online tools on whole language proficiency and other affective domain variables, such as motivation for learning the target language. There is also a research needed to investigate the effectiveness of using online tools during previewing and viewing phases on improving cognitive and met cognitive skills while developing language skills as well. Additional research ought to be conducted to detect the reasons for individual differences, such as the role of cognitive load and visual and acoustic impediments, learning styles of learners, and their L2 proficiency levels which affect the students' English vocabulary achievement. The results of the present study also suggest that online tools provide tremendous opportunities for learning, especially

outside the classrooms since they are available all the time. So, further research is needed to investigate the role of using integrating online tools to motivate English language learners to practice English outside the classroom.

Furthermore, it is recommended that this study be replicated with a larger number of participants from the same background. It would be interesting to compare results across levels of proficiency. Finally, it is hoped that the outcome of this study will be of some use to future research studies.

6.1.2 For the English language teachers

They are recommended to integrate online tools in their lessons in order to motivate their students to learn the target language and to make the whole teaching process more fruitful. To have better outcomes of learning, teachers should choose online tools that suit the students' level, condition, culture and meet the skills that needed to be taught.

Moreover, the teachers are recommended to be ready all the time to surprise the students with a new content of online tools if the teacher thinks that there is a need to change the dull atmosphere in the class.

Furthermore, it is recommended for the teachers to believe that using online tools can be a very fruitful way of teaching if they are carefully chosen to suit what is needed to be taught. Also the teacher should be sure about the appropriateness of any chosen tool..

6.1.3 For the ministry of education

English vocabulary programs executing on online tools can be employed as an extracurricular activity for the students in teaching English vocabulary or integrate them in curriculums and give more attention to these educational tools. Students can have opportunity to practice their language anytime and anywhere since they use Internet almost all the time. This enjoyable experience can make learning fun even for students who are 16 to 18 years old.

Also, it is recommended to hold seminars and meetings to familiarize the English teachers with the importance of using online tools and how to cope with them by specialists in this field. Furthermore, ministry of education is recommended to familiarize the teachers with new techniques like digital storytelling, You tube clips, online games, Skype interaction, wikis, speaking avatar...which can increase students' motivation and interest in learning English.

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