The Effect of Using Quizlet on Students’ Vocabulary Achievement

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ABSTRACT

The present research is concerned with the effect of Quizlet on students’ vocabulary achievement and perception. A quasi experimental research design was employed, involving a control group and an experimental group. Each group consisted of thirty students. The sample of the study was determined by way of purposive sampling. The only difference between the control group and the experimental one was that the latter was taught using Quizlet, whereas the former was not. Two types of instruments were used: a vocabulary test and a questionnaire. The findings of the research show that the experimental group outperformed the control group and that students had a positive perception on the use of Quizlet for learning vocabulary.

1. INTRODUCTION

The teaching of vocabulary is important because without vocabulary nothing can be conveyed. People need to use words to express themselves in English. This is why most of the words need to be taught since lack of vocabulary may hamper communication. However, some students might be confronted with the problem of forgetting new words immediately after learning the words or after looking them up in the dictionary. Unfortunately, vocabulary teaching has not always been responsive enough to such problems.

The teacher has an essential role in helping students to improve their vocabulary. If we look back into the past, we discover that for a long time, English language teaching has relied on such approaches as Direct Method and Audiolingualism which emphasized on the importance of teaching grammatical structures. Since the emphasis
was on grammar, few words were introduced in such courses and most often, they were limited and related to the grammar taught.

The beginning of the 1970s saw the change in the teaching of English. The focus changed from the Direct Method and Audiolingualism to Communicative Approach which emphasized on the importance of teaching vocabulary.

Today there is so much freedom in choosing the methods to be used during English classes. The English syllabus is organized around both vocabulary and grammar structures. Teachers, therefore, usually have the necessary time to focus their teaching on practicing vocabulary. Vocabulary is no longer treated as an add-on and teachers are becoming more aware of the importance of vocabulary. Nevertheless, not all students move at the same speed and some students might still have some difficulties in expressing themselves fluently, primarily due to lack of vocabulary.

The advance of technology of today opens up another option for teaching vocabulary. Since vocabulary becomes one of the important aspects of English teaching and learning, the teaching of vocabulary is critical. However, students often face problems in their attempt to master vocabulary. These problems are attributed to the fact that the conventional way of learning vocabulary is often found to be less interesting and less motivated as far as the students are concerned. Integrating technology may help address these concerns.

In fact, the students expect that the teacher will provide learning materials using technology, especially when studying vocabulary. Margono (2010) notes that media, such as games, songs, pictures, cards cassettes, tapes, radio, television, videos, films, overhead projector slides are now commonly used in teaching English, particularly in improving vocabulary mastery of the students.

Arguably, technological advancements in the field of education bring a better direction of change. One of them is the use of the Quizlet application available on Android and iOS mobile devices as online-based learning media. Quizlet application is a new thing in the world of education. Quizlet application has the main function to develop linguistic intelligence and can be used for all subjects. The use of Quizlet as one of the online-based learning media among millennials is interesting to study as this generation is so familiar with the new technology.

Quizlet application is one of the forms of flashcard in the form of an online application. As Azhar Arsyad (2011) noted, the Quizlet application can also help students remember new vocabulary learned. Although this flashcard is online, this application can still display a real flashcard, which contains images, texts and even symbols. According to Haycraft (1978) flashcards can be used for consolidating vocabulary, practicing structure and word order or a variety of games. This would mean that the students have to memorize and understand the vocabulary available in the Quizlet which has been prepared by the teacher.

Furthermore, there would be a weekly test to gain information on how many words the students could memorize and understand. The weekly test is also held using Quizlet application; so students’ progress could be monitored.
Altman, Valenzi, and Hodgetts (2013) contend that the way people perceive something, positively or negatively, influences their behavioral responses. Thus, if students perceive the importance of Quizlet application in assisting them master vocabulary, their response will probably be positive too. Conversely, if the students do not perceive the importance of Quizlet application, then their response will probably be negative. Based on the above description, the following research questions guide the study:
1. Is there any significant effect of using Quizlet on students’ vocabulary achievement?
2. What are the students’ perception towards the use of Quizlet as a learning media?

2. LITERATURE REVIEW
2.1 Mobile-Assisted Language Learning (MALL)
In general, MALL means learning with the aid of technologies like mobile phones, PDAs, iPods and other similar devices which could have impact on language learning (Valarmathi, 2011). Laptops are not suitable to use in a MALL context in the opinion of Viberg and Grönlund (2012) as only “lightweight” devices are being used. Even though mobile learning and MALL is commonly known as the same thing, Valarmathi (2011) noted that MALL is actually a subset of both Mobile learning (m-learning) and Computer Assisted language Learning (CALL). CALL and MALL, both utilize technology to enhance language learning. The ubiquity of mobile learning sets it apart from traditional computing. As a result, MALL has the potential to afford learners much more flexibility compared with CALL (Ballance, 2012).

By the year 2015, there were 7 billion mobile subscribers in the world, which represents around 96% of the world population. This widespread of mobile phone usage makes MALL, as termed by Chinnery (2006), an inevitable extension of CALL as the use of mobile phones dominates all aspects of life including language learning. MALL, also referred to as M-learning (Miangah & Nezara, 2012), is believed to “augment second language teaching and learning by taking it into the real world” (Palalas, 2011) and convert the learning process into personal, informal, interactive and ubiquitous experience (Kimura, Obari & Goda, 2011; Taj at all, 2016). Moreover, the advance in internet and the emergence of web 2.0 technologies enhance the use of MALL. According to Wang and Hefferna (2009), “...the use of the Internet has become commonplace for most mobile phone users, enabling ubiquitous access to email, music, news, e-books, e-animation, blogs, online tickets, shopping, and auctions” (p. 473) offering more effectiveness to MALL and providing remedies to learning obstacles concerning time and place.

MALL can be beneficial to learners when incorporated into vocabulary activities. Although there might be some challenges in terms of size, durability and sustainability, the educator can make use of mobile devices by using the right pedagogy. This is true as mobile devices should be seen as an extension and not replacing the existing teaching and learning tools (Bidin & Ziden, 2013).
According to Thomas as cited in Husain et al. (2012), there are few types of learning that can be used as foundation when implementing mobile devices into learning. First is *behaviourism* as this approach offers feedback and reinforcement which can be facilitated by certain applications in the devices. Second is *constructivism*; this approach needs a lot of simulations, uses various media, and immersive environments. All of these can be provided through mobile devices. The third approach is *situated learning* where students learn in the environment that is relevant to the field of study. Due to mobile’s portability feature, learners can search for answers or information while still in context. Lastly, *collaborative learning* can also be used as it promotes creating and sharing student and teacher resources. This is suitable for mobile devices because it can be accessed anytime, anywhere, which allows students to learn more flexibly.

MALL has been found to be a successful way to learn vocabulary. In a study by Azabdaftari and Mozaheb (2012), it was found that mobile devices could be used to improve students’ English vocabulary. In fact, new generation of MALL applications enables L2 learners to exploit web 2.0 tools to communicate and improve their linguistic skills (Cakir, 2016). More interactive aspects are now available to language learners including customizable e-flashcards, engaging games, and collaborative activities. A famous example of these applications is Quizlet.

### 2.2 Quizlet

Quizlet is an online learning tool developed by a high school student in California named Andrew Sutherland. The idea of developing this device came from his personal experience when asked to remember 111 names of animals by French teachers. The Quizlet is actually not new because the device was originally designed in 2005, but was later released to the public in January 2007 in the form of a website. Furthermore, in August 2012 Quizlet was released in the form of a mobile application for iOS which was followed a year later for Android applications in August 2013 (Aribowo, 2015).

Instantly, Quizlet transforms into a simple, easy-to-use and innovative device that can help millions of teenagers learn. More than 20 million active users each month visit Quizlet, both through the website and application. This application is easy to use for all ages, from elementary school to college. They can process and optimize this application for learning purposes. Quizlet is one of the largest educational websites in the world. Basically, access to this device is free, either in the form of a website or application. It is even available in the form of a smart phone application; this application can also be used offline (not connected to the internet).

Although this device can be accessed for free, this device has been well-organized. In other words, the facilities provided to give virtual class services range from managing multiple folders that contain a set of flashcards to a particular topic or material, limiting users (whether everyone, certain classes, just me, or needing a particular password) to use it, to record the scores of users when running existing modes. In fact, a series of flashcards that have been made can be printed, including tests. As a support service and a means to help remembering, Quizlet provides facilities
equipped with audio-visual. That is, users can listen to pronunciation of existing words while paying attention to the image when the flashcards can be played. In addition, by upgrading an account the teachers can record their own voice so that students can hear it anytime, anywhere.

Quizlet is one of the language learning tools that can be accessed from the internet. It is designed as a place where everyone can share knowledge in any level, at any subject and gain confidence as a learner (Quizlet, 2019). Blackwell and Kane (2014) state that Quizlet is a free application or website to help students learn a concept or study vocabulary. Quizlet is designed to feel like a game and scientifically proven to be effective. Quizlet has developed a computer adaptive test of study concept or English competency for students. Quizlet also developed in smartphone as an educational application.

According to Kálecký (2016: 7), “Quizlet is an online interactive learning platform operating on electronic bilateral flashcards, that can be used to study any subject, but serves mostly as a system for learning languages”. It is an application for mobile phones or web-based computer and is available for Android, iOS, Windows Phone, and website. Vargas (2011: 14) mentioned that the definition of Quizlet is a free language learning application or website to create their own flashcards or browse what other students have already created.

Flashcard is one of the media that can be used by the English teachers to teach their students vocabulary. Flashcards are small cards containing images, text, or symbols that alert or direct students to something related to the image. Flashcards are usually 8 x 12 cm in size, or can be adjusted to the size of the class faced. According to Susilana and Cepiriyana (2008) flashcard is a learning media in the form of picture cards measuring 25 X 30 cm. The pictures on the flashcard are a series of messages presented with the description of each image. Arsyad (1997) posits that a flashcard is a small card containing an image, a text or symbol that reminds or guides a student to something related to the image. Thus, flashcard has two sides with one side containing images, text, or symbols and other symbols in the form of definitions, drawings, answers or descriptions that help students remember or direct to something related to the image on the card.

2.3 Vocabulary
Vocabulary is the basic language aspect that must be mastered before mastering other language skills. According to Hornby (2000), vocabulary is all the words that a person knows or uses and it is all the words in a particular language. In an EFL classroom, according to Carpenter and Olson (2011), vocabulary is needed for expressing meaning and conveying thoughts through both receptive and productive skills. According to Fauziati (2010: 61), vocabulary is central to language and is of critical importance to language learner.

According to Hatch and Brown (1995:1) defines that vocabulary as a list or set of words for a particular language or a list or set of word that individual speakers of language might use. Meanwhile, Wu (2009:5) defines that vocabulary as a list of words,
usually in alphabetical order and with explanations of their meanings. Further, Vossoughi & Zargar (2009) states that vocabulary is the tool we use to think, to express ideas and feelings, and to learn about the world. It can be concluded that vocabulary is a set of words that is used to communicate in a language.

Other definitions of vocabulary is stated by Cahyono (2011:153) says that “vocabulary is core component of language proficiency and it provides much of the basic for how well learners listen, speak, read and write”. Similarly, Cameron (2001) states that vocabulary as one of the knowledge areas in language, plays a great role for learners in acquiring a language. It means that, vocabulary is a set of words known to a person or other entity, or the part of a specific language in the form of oral and written language.

From the definition above, the researcher concludes that vocabulary is one of the important language aspects which should be learned by language students. Vocabulary is a basic knowledge and useful material in the form of words which are always used by learners in learning a certain language. If the learners have already mastered a large amount of vocabulary and can used effectively, it is believe that it easier for them to conduct effective communication with others.

3. METHODS
To answer the research questions stated earlier, the researcher conducted an experiment using two cohorts. One group served as a control group (30 students) and the other as an experimental group (30 students). Researcher then administered objective tests at the beginning (pre-test) and at the end (post-test) of the experiment on both control and experimental groups. The test consisted of 30 questions which would be answered by the participants in 80 minutes.

Different treatments were given to both cohorts. The experimental group learned vocabulary by integrating Quizlet application in the learning process, whereas the control group learned conventionally without Quizlet. This way, comparison on students’ learning outcomes can be made and the effect of treatment/ intervention could be measured statistically for its significance.

The researcher also used closed ended questionnaire to gauge students’ perception on the use of Quizlet as a learning media. Consisting of 10 statements, the questionnaire was in the form of Likert-Scale. This questionnaire was adapted from a published article, but following validity and reliability analysis, 5 items were removed, leaving only 30 items to be used for the purpose of the present study.

4. RESULTS AND DISCUSSION
4.1. Results
In order to make the comparison easier, the data are presented in the table. Below are data of pre-test and post-test results from the control group.
Table 1. Pre-test and post-test results from the control group

<table>
<thead>
<tr>
<th>No</th>
<th>Pre test</th>
<th>Post test</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Score</td>
<td>Frequency</td>
</tr>
<tr>
<td>1</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
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<td>7</td>
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<td>4.33</td>
<td>3</td>
</tr>
<tr>
<td>10</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>11</td>
<td>3.67</td>
<td>2</td>
</tr>
<tr>
<td>12</td>
<td>3.33</td>
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</tr>
<tr>
<td></td>
<td>Total</td>
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</tr>
<tr>
<td></td>
<td>Mean Score</td>
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</tr>
<tr>
<td></td>
<td>Max</td>
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</tr>
<tr>
<td></td>
<td>Min</td>
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<tr>
<td></td>
<td>SD</td>
<td>0.93</td>
</tr>
<tr>
<td></td>
<td>Range</td>
<td>3.67</td>
</tr>
</tbody>
</table>

The above table shows that students from control group made some progress after being taught conventionally. Mean score, max score and minimum score all increased, while the range decreased, all showing that their vocabulary improved following the conventional instruction. In fact, the mean score improved from 5.05 in the pre-test to 5.86 in the post-test – an increase of 0.81 point.

The same thing occurred in experimental group with a higher gap between pre-test and post-test being observed. Below are data of pre-test and post-test results from the experimental group.

Table 2. Pre-test and post-test results from the experimental group

<table>
<thead>
<tr>
<th>No</th>
<th>Pre test</th>
<th>Post test</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Score</td>
<td>Frequency</td>
</tr>
<tr>
<td>1</td>
<td>6.67</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>6.33</td>
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<tr>
<td>3</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>5.67</td>
<td>2</td>
</tr>
</tbody>
</table>
Note that the mean score in the experimental group has increased quite sharply from 5.24 in the pre-test to 7.4 in the post-test – a significant increase of 2.16 points compared to 0.81 point for the control group. Similarly, the maximum score obtained has also increased from 6.67 in the pre-test to 9 in the post-test and the minimum score rose from 3 in the pre-test to 5 in the post-test. An independent samples t-test was run on the gain scores of both cohorts to examine the extent to which these scores might differ statistically. The t-test suggests that $p (0.000) < 0.05$, rejecting the null hypothesis in favor of the alternative hypothesis. It can, therefore, be concluded that students in the experimental group significantly outperform those in the control group and that Quizlet has a positive and significant effect on improving students’ vocabulary.

To answer the second question regarding students’ perception, the results of the questionnaire are presented below:

### Table 3. Perception of the Experimental Group on Quizlet

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Questionnaire 1</td>
<td>4.4</td>
</tr>
<tr>
<td>Questionnaire 2</td>
<td>4.3</td>
</tr>
<tr>
<td>Questionnaire 3</td>
<td>4.4</td>
</tr>
<tr>
<td>Questionnaire 4</td>
<td>4.2</td>
</tr>
<tr>
<td>Questionnaire 5</td>
<td>4.3</td>
</tr>
<tr>
<td>Questionnaire 6</td>
<td>4.4</td>
</tr>
<tr>
<td>Questionnaire 7</td>
<td>4.2</td>
</tr>
<tr>
<td>Questionnaire 8</td>
<td>4.4</td>
</tr>
<tr>
<td>Questionnaire 9</td>
<td>4.0</td>
</tr>
<tr>
<td>Questionnaire 10</td>
<td>3.9</td>
</tr>
</tbody>
</table>

**Mean** 4.25
As seen from the above table, students show positive responses towards all 10 questions in the questionnaire with a mean score of 4.25 out of 5, indicating very positive responses.

4.2. Discussion
As mentioned earlier, the objectives of the present study are two-folds. First, to scrutinise the effect of integrating Quizlet in the teaching and learning of vocabulary and to examine students’ perception of integrating Quizlet for vocabulary learning as they experience it first-hand.

An analysis of the gain scores of both control and experimental groups suggest that experimental group significantly outperforms the control group in the post-test, although there is an increase in post-test scores for both groups. This, in turn, suggests that integrating Quizlet in the teaching and learning of vocabulary has improved students’ test scores. This finding confirmed the general claim regarding the merit of MALL in supporting student learning (Aribowo, 2015; Bidin & Ziden, 2013), especially as far as language learning is concerned (Azabdaftari & Mozaheb, 2012; Ballance, 2012).

One possible explanation is that Quizlet is designed in such a way that it resembles a game which even makes vocabulary learning more interesting and intriguing using Quizlet on the part of the learners (Blackwell & Kane, 2014). What is more, it is freely available on the Web and it has even been especially developed for use with mobile phones and gadgets. Since using Quizlet is like playing a game, learning new vocabulary may no longer be perceived as a burden by the learners. On the contrary, it is an interesting endeavor. It does not come as a surprise that the majority of the students responded quite favorably to the integration of Quizlet into the vocabulary learning.

Nonetheless, further research needs to explore in what ways Quizlet can be integrated for teaching other language skills apart from vocabulary. Further research could also be geared towards understanding how the use of Quizlet may be related to students’ learning styles and gender, how Quizlet can be used to improve students’ learning motivation and so on and so forth. Only then can we take the utmost of the new technology in education.

However, findings of the present study need to be treated with care as there were some flaws with the design of the present study. In particular, there were only 30 students involved in each of the groups and the subjects were not randomly assigned to groups. This may introduce bias in the results. Thus, findings of the present study should be considered suggestive, rather than definitive.
5. CONCLUSION
The present study suggests that the use of Quizlet positively and significantly impacts on students’ learning outcomes as indicated by their vocabulary achievement. Students who use Quizlet in their learning perform significantly better than those who do not use such an application. Additionally, the use of Quizlet has been very well received by the students involved in the present study. Overall, findings of this study suggest that technology has a great potential to offer in language learning and this potential needs to be continuously explored if we are to take the utmost benefit of this new technology in the realm of language teaching and learning.

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