

Receptive Vocabulary Acquisition Through 'Storybird'

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Abstract

Knowledge of vocabulary is important for a learner of a language to be able to perform in all the four skills of reading, listening, writing and speaking in the target language. Despite its importance, language teaching or training generally puts lesser emphasis on its importance or the teaching of vocabulary still adopts a traditional teaching approach. With the advancement in computer technology and the emerging development of tools and software, vocabulary learning has moved beyond classical reading method. This present study explores the effects of online reading through the use of 'Storybird' tool on ESL learners' receptive vocabulary. It aims to ascertain if reading on 'Storybird' as a tool within a classroom context could improve learners' receptive vocabulary. The data was collected through the procedure of pre-test, treatment and post-test without control group. The result of the paired sample t-test show significant gains in the 3000-word level vocabulary test.

Keywords: Storybird, receptive vocabulary, vocabulary test, online reading, reading behaviour

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1.0 INTRODUCTION

Knowledge of vocabulary is one of the fundamentals of learning a language. Without it, there is nothing much that a learner of a language could do. This is so because, with vocabulary one is able to speak and listen in a target language, as well as understand a piece of writing and write in the target language. Knowledge of vocabulary is also known to aid reading comprehension. Gunn, Smolkowski, Biglan, Black, and Blair (2005) stated that "fluent word recognition allows the reader to allocate increased attention to key comprehension processes" which also involves meaning making and meaning relating.

Reading, however, has evolved from reading printed text to reading digital text. It is no longer the era of ABC flashcards but rather looking at videos of ABC songs to learn the alphabets, colours and numbers. In reality, today's children are exposed to more variety of medium to access their reading materials as they not only have printed books to read, but also gadgets to accompany their reading experience. The traditional method of vocabulary learning and approach to reading are debatable as suggested by Grabe (1991) as cited by Abanomey (2013) that reading process is hard to be described and understood since it involves cognitive abstract process.

Korat and Or (2010) maintained that "young children of today are exposed not only to printed books but also to electronic books (e-books), which they read independently or with an adult's support" (p.141). The exposure to online reading has become intense especially with the development of numerous educational technology tools in recent years. Therefore, meaning making also occurs when reading is done virtually. This is supported by Eckerth & Tavakoli (2012), "the explicit teaching of contextualized lexical word items has been claimed to be superior to word learning that occurs as a by-product of second language (L2) use during listening or reading". Additionally, Gordon et al. (2013) also stated that "the web-based text narrative and computer game intervention provided them with a new experience of learning vocabulary." (p. 278). With the development of internet technology, the online medium now offers an option for learning especially among the younger generation who grew up with the technology (Ting & Puteh, 2012). However, "the use of multimedia in second language learning, in particular the presentation of information in various formats (text, audio, graphics, animation, video)" is a still debatable issue as many researchers argue whether these mediums would be more effective with the employment of visual (Kalyuga, Mantai, & Marrone, 2013).

2.0 PURPOSE

As reading is always and will always be associated with vocabulary, there has been questions raised on how ESL learners learn vocabulary. Vocabulary learning from reading has long been a topic of interest for researchers (Andrew & Adams, 2010). Many factors are likely to affect the amount of L2 learning such as the amount of input, opportunities to use the L2, amount of time spent learning, amount of time explicitly focused on vocabulary learning, the extent of overlap between L1 and L2 words, the number of L2 cognates/loan words, the experience of teachers and their approach to teaching, and the effectiveness of activities used during learning (Webb & Chang, 2012). Some suggested reading aloud as reading aloud done under different conditions is believed to have positive impact on students' literacy development while at the same time helped to develop social-emotional benefit for the students (Swanson et al., 2011). Others

recommended repeated reading as it promotes reading fluency (Hawkins, Hale, Sheeley, and Ling, 2011). Additionally, there are also scholars who believe in the use of pictorial texts to aid reading, as Dalton, Proctor, Uccelli, Mo, and Snow (2011) mentioned that vocabulary support in the form of graphics, animated illustrations, hyperlink definitions, pronunciation of vocabulary and translations help struggling readers and younger readers to read effectively. In relation to all of the above matter, researchers mostly agreed that comprehensible input can appear in miscellaneous forms. The new millennium ushered in a phase of renewed interest in adolescent literacy and, more specifically, reading comprehension (B. Dalton, Proctor, Uccelli, Mo, and Snow, 2011, p.69).

In light of this, it is believed that learners learn better when their anxiety level is low. Lightbown and Spada (2006) sum up the word “affect” that relates to the learners’ emotional state, motivation, needs, feelings and also attitude. A bored, tensed and anxious learner may ‘filter out’ the input resulting to poor language acquisition. With the use of ‘Storybird’, learners are provided with opportunities to use the L2, introduced to different approach of learning vocabulary and teachers can measure to what extent is the approach effective in the learners’ learning process.

With the differing opinions held by researchers on how vocabulary is learned and with the increasing preferences for online reading, this research aimed to study the efficacy of an online reading website, Storybird, as a medium for vocabulary learning among Low English proficiency students in a tertiary level of education. In this study, the educational tool, Storybird, is used to promote vocabulary learning among the respondents.

The educational tool, Storybird, was chosen due to its features that could attract poor readers to read and make meaningful connection between words and pictures used in the stories. Generally, ESL teachers find it challenging to make students read and learn new words. To gain more insights to this problem, this study was conducted on 15 participants enrolled in the non-credited Language Enhancement and Advancement Program (LEAP) in Universiti Teknologi Malaysia (UTM). All 15 participants had participated in a pre-test which consisted of words within the 3000 word recognition Vocabulary Level Test (VLT) developed by Schmitt, Schmitt and Clapham (2001). The test contained questions on vocabulary. The same questions were given to these 15 participants in the form of post-test after treatment was conducted.

As the focus of the study was on receptive vocabulary, the study therefore only investigated the effects of online reading via Storybird on students’ receptive vocabulary gain. Productive vocabulary or vocabulary retention was not looked at in this research. The objectives of the research was:

1. To examine ESL students’ receptive vocabulary development with the use of ‘Storybird’ as the medium.
2. To examine the efficacy of the medium ‘Storybird’ in relation to the students’ reading strategies.

■ 3.0 METHODOLOGY

This study employed a pre-test – treatment – post-test design to obtain the data. The data of the study were collected through the administration of a pre-test, treatment, and post-test method. Additionally, a reading survey was distributed to study on the efficacy of the medium ‘Storybird’ in regards to the strategies that respondents employ when reading and learning new vocabulary. Hence, this study implemented the mixed-method design with pre-test- treatment- post-test design as the main instrument of the study. This study utilised two hours of reading activity class.

Instruments

i. Pre-Test

The pre-test was based on the 3000-word recognition VLT test designed by Schmitt, Schmitt & Clapham (2001). According to Schmitt (2008), “the current evidence suggests that it requires between 2000–3000 word families to understand spoken English (if 95% coverage is adequate) or between 6000–7000 word families if 98% coverage is needed” (p.331). Therefore, based on the exposure that was given to the respondents, the test consisted of the 3000 word recognition level.

The 3000 word recognition level was used in this research based on a pilot study conducted prior to the research. In the pilot study, five respondents who were of similar level of proficiency based on their Malaysia University English Test (MUET) bands were chosen to respond to the vocabulary questions. If the respondents scored less than half in a vocabulary levels test, it suggested that their vocabulary level was lower than the level tested. In the pilot test, four of the respondents scored between 13-15 marks over the total marks of 30. Therefore, 3000 word recognition level was considered appropriate for their level.

The test consisted of 30 questions. Three questions were put in a set of words with three distractors in each set. Respondents were asked to identify the three correct words for each set. Each correct answer was rewarded a mark. Respondents’ scores were measured based on the maximum score of 30. This was to identify the respondents’ vocabulary level before the treatment, which was the implementation of ‘Storybird’.

The tests were conducted through the traditional mode of using pen and paper. This was to ensure that respondents did not check the answers online or on their phone or discuss the question with their friends. Both the pre-test and post-test were administered by the researcher to ensure standardisation of implementation of the tests. Respondents were not allowed to seat close to one another during the pre-test and post-test to discourage discussion. Later, the marks were counted manually by the researcher before it was analysed using the Statistical Package for Social Science Version 20 (SPSS V.20).

ii. Treatment

Five stories ranging from 9 to 14 pages based on Storybook picture book format were used in the study. In the picture book format, stories can be developed and vocabularies introduced using what is seen in the selected graphics. Out of the five stories, four stories were developed, prepared and uploaded on Storybird platform by the researcher and one story was taken from the stories published on Storybird. The five stories used were:

1) Friendship Made On Earth

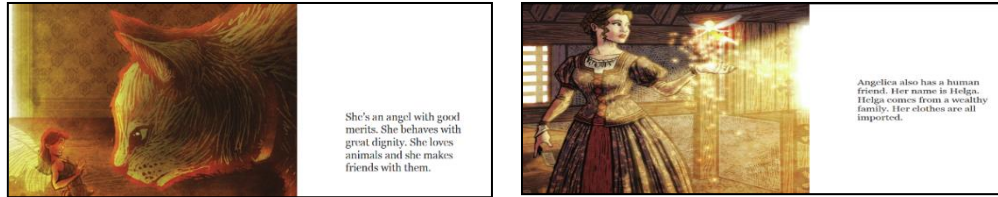


Figure 1 Sample page of the story "Friendship made on Earth"

2) Little Red Riding Hood and The Bear

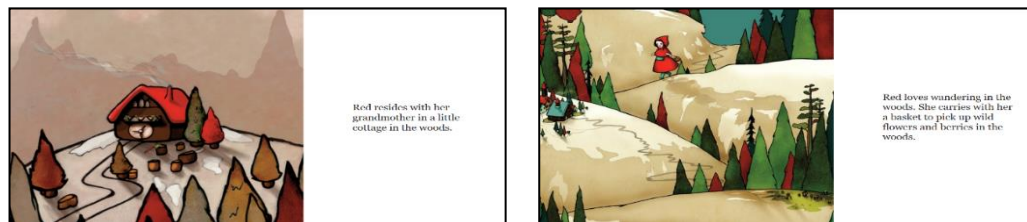


Figure 2 Sample page of the story "Little Red Riding Hood and the Bear".

3) The Identical Distinct Twins

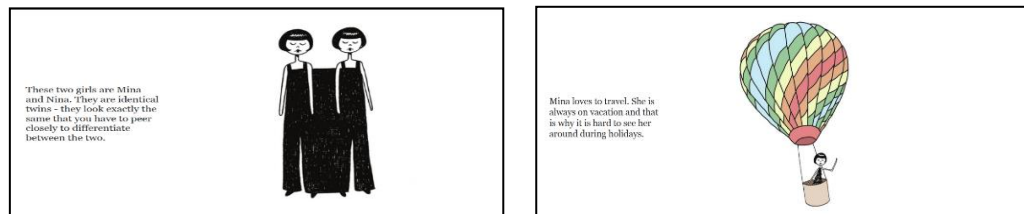


Figure 3 Sample page of the story "The Identical Distinct Twins".

4) A New Beginning



Figure 4 Sample page of the story "A New Beginning".

5) The Stolen Artefact



Figure 5 Sample page of the story "The Stolen Artefact"

Some of the stories that were originally developed by the researcher are depicted in Figure 1, Figure 2, Figure 3 and Figure 4 whereas Figure 5 "The Stolen Artefact" was the only story adopted from the collection of stories in 'Storybird'. All the vocabulary items tested in the pre-test and post-test were used in the five stories. For the treatment, all respondents were given the opportunity to read through the stories at their own pace based on their own preferences. Throughout the reading activity, respondents were allowed to ask questions on

unfamiliar words. At this stage, the researcher facilitate the respondents by giving clues and relating it to the illustrations. All in all they were given a maximum of two hours to read through the stories on Storybird platform.

iii. Post-test

The post-test was administered immediately after the treatment was completed. The post-test vocabulary levels test consisted of the same questions as those in the pre-test. However, the order of the words in the post-test was jumbled to ensure respondents' answers were not based on memorised pre-test. The post-test was administered to see whether or not respondents improved their scores for the second test as well as to observe whether or not vocabulary learning happened. Again, the test was conducted using pen and paper technique for the same reasons as given earlier. The marks were counted manually before it was run through SPSS. The mean of both tests were compared to study the relationship between the use of 'Storybird' and respondents' vocabulary growth. The data were analysed using the related sample t-test on SPSS.

iv. Reading Survey

A set of reading survey was distributed to the respondents after they had completed the pre-test, treatment and post-test. This was to study the respondents' reading strategies and vocabulary strategies and its relation to the use of 'Storybird'. The reading survey was taken from Rebecca Oxford's *Strategy Inventory for Language Learning: What every teacher should know* that consists of a number of statements on language learning strategy. Thus, for the purpose of this study, the researcher adapted the vocabulary learning strategy and reading strategy as proposed by Oxford (1990) to examine the efficacy of this medium in relation to the strategies adopted by respondents when reading.

In the reading survey, participants were asked 27 questions on reading and vocabulary strategies. For each question, participants were provided with a number of statements and participants ticked on the statement(s) that describes their reading and vocabulary strategy best. The reading surveys were distributed at the end of the class, as soon immediately after the respondents completed the test.

4.0 RESULTS AND DISCUSSION

Table 1 shows the descriptive statistics obtained in the study. The result of the paired sample t-test showed that there was a significant difference between the result of the vocabulary test before and after the implementation of 'Storybird'. Table 1 indicates that the mean of the post-test ($M=28.067$) is higher than the mean of the pre-test ($M=16.533$). Likewise, the sum of score for the post-test ($\Sigma=421$) is also significantly higher than the sum of score for the pre-test ($\Sigma=248$).

Table 1 Descriptive statistics

		Mean	N	Std. Deviation	Std. Error Mean	Sum of Scores
Pair 1	Posttest	28.0667	15	1.57963	.40786	421
	Pretest	16.5333	15	2.09989	.54219	248

Based on the descriptive statistics shown in Table 1, respondents scored better marks in the post-test after they read on 'Storybird'. It can be seen that the mean of the post-test ($M=28.0667$, $SD=1.58$) also justified the respondents' improvement in vocabulary learning. The result of the paired samples statistics in Table 1 also indicated that online reading on 'Storybird' improved marks, on average, by almost 12 points when the mean of both tests were compared.

Table 2 95% Confidence interval of the difference

		Paired Differences				
		Mean	Std. Deviation	Std. Mean Error	95% Confidence Interval of the Difference	
					Lower	Upper
Pair 1	Posttest - Pretest	11.53333	2.61498	.67518	10.08521	12.98146

The results illustrated in Table 2 shows that the findings of this study is still statistically significant, however, it is relatively small. This can be seen in the 95% Confidence Interval (CI) with a difference of just slightly more than 2. This showed that the sample size was small and the result cannot be generalised. Size of the sample should be bigger in case the study is to be replicated in the future to achieve higher 95% CI, thus better indication of the result.

Table 3 T-test Result

		t	df	Sig. (2-tailed)
Pair 1	Post-test - Pre-test	17.082	14	.000

Paired Samples Test

Table 3 also indicated a strong relationship between the online reading website and students vocabulary development based on the result of the t-test with ($t=17.082$) and significant value ($p=0.000$) which is less than 0.05.

Based on the data shown in Table 1, Table 2, and Table 3, 'Storybird' appears to assist respondents in answering the VLT test better with the pictures embedded in the story. The pictures on the website 'Storybird' are shown to have influenced meaning guessing. A number of respondents made use of the pictures available on 'Storybird' to guess the meaning of the words. Hepburn, Egan, & Flynn (2010) mentioned that "...adult reader spent more time talking about the text and pictures, or used more varied tone of voice to make the reading more exciting and enjoyable" ($p.177$). Therefore, the results of this study suggest that the presence of illustrations cannot be undermined regardless of age.

Reading Survey

Based on the findings of the survey, respondents mentioned they prefer reading materials that are deemed interesting to them, the website 'Storybird' can also be used to attract the students. Respondents also described 'Storybird' as interesting and full of pictures. This is as suggested by Song & Sardegna (2014) that it is also one of the ways to get the students read extensively and become interested in reading. The notion by Song & Sardegna (2014) is also parallel to the findings of this study. Since reading instruction is expected to build students' interest in reading, instruction should be simple, interesting, fun and not too hard. Reading materials should consider students' reading strategies.

5.0 CONCLUSION

With the use of the 'Storybird' tool for reading materials, the researcher has created an anxiety-free reading lesson where students can freely ask the teacher of the meaning of the words that they do not understand as well as the features of the website that allows the students to be a bit more relaxed. Huang (2014) found that online reading lowers the students' anxiety and allows more room for discussion among friends and they are free to ask questions to the teacher, hence, results in online reading group outperforming the paper group in the written recall test. Ergo, exposing the students to as much comprehensible input as possible in a low-anxiety environment, as found by Huang (2014), resulted in positive impact on the students' ability to make sense of unfamiliar words which supported the similar results that were reflected in this study where the students performed better in the post-test.

Reading engagement is a mechanism for improving children's emergent literacy outcomes during shared-reading interactions which is indicated by studies of storybook reading interactions showing that children's development is directly influenced by the types of tasks (e.g. use of a manipulative storybook), materials (e.g. use of manipulative figures), and verbal scaffolding and feedback that the children are provided with when reading storybooks (Moody, 2010). Presently, there are many websites that English teachers can use to promote reading among students - especially the low proficient students. These websites offer a less-anxiety environment for second language readers for they incorporate a variety of digital features and multimedia that address differing learning styles of language learners. Besides, the millennial generation of today are also more familiar with the online reading source available as technology is no longer alien to them. Therefore, it is important to incorporate computer assisted learning materials in the classroom.

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