

Using Language Games for Vocabulary Retention in a Rural Primary School in Sarawak

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ABSTRACT

This study seeks to examine the impact of using language games on students' vocabulary retention. Six language games were chosen for this study; (1) describe it, (2) matching pairs, (3) jigsaw puzzle, (4) board rush, (5) ball games and (6) true or false. The rationale for choosing six different games is based on the understanding that students require at least five to sixteen exposures to learn a new word (Nation's, 2001) for effective vocabulary retention. For this study, vocabulary retention is the ability to keep or retain the new words that are taught for the duration of two weeks. The Pre-test and post-test were used to measure the vocabulary retention of the students. Prior to the pre-test, all 64 participants were taught for two weeks using the conventional teaching method by getting students to look words up in the dictionary, write definitions, and use the words in sentences (Basurto, 2004). For this traditional teaching, the eight new words were chosen from unit 10 of the text book for grade three of Malaysian elementary schools. For the next stage, the students were taught eight new words from unit 11 of the same text book. After two weeks of teaching using the above six games, the students were given the post-test. The findings revealed that there was a significant difference in vocabulary retention between the pre-test and post-test. The participants were able to retain significantly more words in the post-test than in the pre-test. In fact, they achieved better results in the post-test ($M=63.45$) than in the pre-test ($M=58.71$). This study reveals that language games can help to boost the students' vocabulary retention if they are given a

chance to learn and practice English language in a fun learning environment.

Keywords: *Vocabulary retention; vocabulary acquisition; game based learning; language games; traditional teaching*

INTRODUCTION

Students are commonly exposed to learning vocabulary using the traditional teaching methods such as rehearsing, writing words on papers or learning passively through the teacher's explanations (Nguyen & Khuat, 2003; Uberman, 1998). In this passive learning situation, students have limited opportunities to engage in meaningful learning activities when listening to their teacher, which does not assist in vocabulary retention. Traditionally, students are taught new vocabularies in the speaking, listening, reading and writing lessons. Vocabulary component is never taught as a particular subject. In a traditional teaching scenario, the students usually just wait for the teacher's explanation. They expect the teacher to control the lesson in the classroom and they just sit back and wait for the teacher to start teaching and listing out the new words. The students then write those words in their exercise books. Whenever they were introduced to a new list of vocabulary, students expect that there is also a list of meanings of the new vocabulary in their native language. Students always need the teacher to explain the meaning of the new words as well as the usage of the words in context.

However, some students are brave enough to use their own words of understanding to describe the new words learned. Often times, these students may look up words in a bilingual dictionary to search for the meanings or definitions of the new vocabulary taught by their teachers. They copy the new words in their exercise books without knowing how to use them in context. After a period of time, students often forget the meanings of the new words after being taught by their teachers. The students become discouraged in learning vocabulary and eventually blame themselves on their poor memorization as the cause of their lack of vocabulary retention. This method of learning new vocabularies without engaging activities, but merely by listening to the teacher can be very boring to many students (Huyen & Nga, 2003).

In such traditional learning, vocabulary retention becomes a challenge. Vocabulary retention is the ability to store or remember as many words as possible. In order to enhance the vocabulary retention of the students, they need to be engaged in the learning activities. One of the ways to encourage participation is by using language games for vocabulary learning. In vocabulary learning through games, the students need to participate in a number of interesting learning activities through a variety of language games. This study investigates the students' achievement in vocabulary learning using both traditional teaching and game based learning. 64 Grade 3 students were selected from a rural primary school in Lundu school district to participate in the study. The rural dwellers of Lundu traditionally participate in economic activities such as agriculture, fishing, and cottage industry. Accordingly, many of the students in this rural primary school come from low income families. The purpose of the study was to examine the impact of using language games on students' vocabulary retention. To this end, the paper is intended to answer the following research questions: 1) What are the students' achievements in the pre-test and the post-test of the vocabulary retention tests? 2) Is there any significant difference between the pre-test and the post-test scores of the vocabulary retention tests? This study also aims to test its research hypothesis that; there is a significant difference between the students' pre-test and post-test scores of vocabulary retention tests.

LITERATURE REVIEW

Traditional practices of vocabulary learning that are based on the definitional approach (Scott & Nagy, 1997) of learning the meanings of the words are undoubtedly one of the easiest ways of teaching vocabulary because they are less time consuming for teaching new vocabulary. However, learning merely the definition of words does not necessarily develop into useful and meaningful integration of new vocabulary. Also, there is no guarantee that this approach improves comprehension of the students or increases the active vocabulary of the learner. Herman and Dole (1988) argue that while dictionaries are good for understanding the meanings of new words, the use of dictionaries alone does not necessarily provide long term knowledge for the learner's skill or resources. Twaddell (1973) goes on further to suggest that relying on the sole use of a dictionary does not develop the skill to personalize the word and use it in

different context. In fact, students need several exposures to words in various contexts before they can recognize, comprehend, remember, and apply them (Nagy, 2005). Furthermore, with the definitional approach, the learners only know the meanings of the words without knowing their usage. To this end, although the traditional teaching of vocabulary using dictionary definitions can be particularly short and brief, it is often difficult to grasp a word's meaning or apply those meanings in context (Beck, McKeown & Kucan, 2002). When the meanings of new words are not clearly understood, vocabulary retention becomes difficult and problematic for many young ESL learners.

Children are not expected to sit down or do the same activity for a long time because they lose interest after several minutes (Harmer, 2001). Due to their short attention span, they need variety of learning activities. Children talk about what they know in their mother tongue which helps them to learn. Due to the imaginative language skill young learners bring into the classroom, English teachers need to provide them with a learning environment where they could express themselves effortlessly. At the same time, teachers can encourage them to actively construct language for themselves. That is why we assert that games are essential and useful for vocabulary retention. Since young learners have a short attention span, their vocabulary learning activities need to be as engaging as possible or they may lose interest after ten minutes (Bakhsh, 2016).

Many past studies have shown that the use of language games is comparatively effective for vocabulary learning. However, within the context of Malaysian primary schools, there have been very limited studies conducted on the use of games to boost the learners' vocabulary acquisition. Therefore, this study was designed to use language games for vocabulary retention among young learners. It is vital to develop the learners' vocabulary size from a very young age to prepare them for higher levels of education at secondary and tertiary level. A review of literature on vocabulary learning among young learners within the local context found that past studies have been conducted on various types of games such as digital games, computer games, etc to boost vocabulary acquisition.

Among past local studies reviewed were by Choo (2015), Abdul Rabu and Talib (2017), and Omar and Mohd Said (2019). In Abdul Rabu

and Talib's (2017) quasi-experimental study of 70 year four students from a rural primary school, the respondents were classified into two groups. The experimental group of 35 students receives digital game-based learning (DGBL) method, while the controlled group of 35 students experiences the interactive multimedia learning (IML) method. It was found that students who had been taught using the DGBL method demonstrated a better English vocabulary acquisition than those who were taught using the IML method.

An earlier study by Ab. Kadir (2013) employed a qualitative method to observe vocabulary learning using the online vocabulary game called the Word Confusion game. In this study, observation was conducted on Seven Year 5 primary school students. They were asked to learn new words and list all new vocabulary that they had learned from it. This was followed by interview sessions. The data obtained from the observations, vocabulary lists, and recorded interviews were analysed using thematic analysis. The findings showed that students were able to engage, learn, acquire and increase their vocabulary with the help of the online vocabulary games.

In contrast with the above studies, Choo (2015) investigated the effects of game-based practice on year three pupils' vocabulary acquisitions in the Chinese language classroom. In this study, two different teaching practices were employed, i.e. a game-based practice for the experimental group (30 pupils) and a conventional based practice for the control group (30 pupils). A vocabulary acquisition test was administered to obtain the data. The results showed that there were no significant differences between the two groups' vocabulary acquisition test. However, both the middle and high vocabulary level pupils in the experimental group made significant improvement and performed better. Besides, the pupils of high, middle and low vocabulary levels in the experimental group significantly performed better than those in the control group when tested separately. Quite recently, Razali, Mohd. Amin, Kudus & Musa (2017) introduced the card game called "GOT IT!" (Group-oriented Thematic Interactive Technique). It comprises two sets of card game to help students with lower competency to increase their memory retention for vocabulary retention. Each game consists of 10 vocabulary items based on one of the Standard 4 English themes and 10 pictures that match the words. The findings revealed that "GOT IT!" is useful in increasing the learners'

retention of theme-based vocabulary learnt in their second language classroom.

Moving away from a conventional vocabulary lesson, Omar & Mohd Said (2019) introduced the Puzzle-Based Learning (PBL) for learners' vocabulary acquisition. The aim of the mixed methods research study was to identify the PBL effects on young learners' vocabulary acquisition and their perception of the learning tool in the English as a second language (ESL) context. They employed 29 Primary 5 pupils (aged 10) from a rural school in Lahad Datu, Sabah. A set of pre- and post-test and a semi-structured interview were used in the data collection. It was found that Tarsia puzzle had helped to improve the learners' vocabulary acquisition. Making a slight difference from other studies, Letchumanan, Tan, Paramasivam, Sabariah and Muthusamy (2015) conducted a quasi-experimental study comparing the effects of two language games - paper-based or computer-based on vocabulary size of Form Four students especially at the 2000 word-level. Seventy students were involved in this study i.e. thirty-five in each group. The study was conducted in three stages. First, the participants sat for the Productive Vocabulary Levels Test (PVLТ) as a pre-treatment measurement. Then the Experimental Group 1 played the computer-based games and the Experimental Group 2 played the paper-based games for seven weeks before sitting for the first post-treatment parallel PVLТ. After that, both groups switched treatments before they were assessed again using the second parallel PVLТ. The statistical analysis of the pre- and post-treatment test scores was done using the t-test. The results show a significant gain for both modes of games, but the computer-based games had a higher mean gain. This study provides evidence that the computer-based games had better influence on students' vocabulary enhancement than the paper-based games.

Studies conducted in other settings also revealed the effectiveness of using games for enhancing learners' vocabulary learning and acquisition. Various types of games were also employed by other researchers. Among them, Alemi (2010) conducted a study which aimed to examine the role of using word games in increasing the learners' vocabulary. In the study, he experimented with five-word games using Twenty Questions, Charades, Definition Game's, Passwords, and Crossword Puzzles. 60 participants who were almost homogeneous were selected randomly from a third-grade junior high school. They were

randomly divided into two groups: experimental and control. Both groups were taught words using traditional methods, however, the experimental group received word games as a treatment at the end of each session. Finally, a vocabulary test was administered to both groups to determine the differences between them. It was found that learning new words using games has positive effect on expanding the learners' vocabulary.

On the other hand, Romana Iran Dolati and Peyman Mikaili (2011) conducted a case study to identify the role of the games and level of vocabulary learning among 70 girls from ages 12-13 years old. The students were selected from one Iranian primary school in Urmia, Iran. From pre-test and post-test, it was found that all the students in the experimental group demonstrated encouraging improvements than those in the control group. Thus, it was concluded that the use of games in their vocabulary learning benefit the pupils in the experimental group compared to controlled group.

Quite recently, Taheri (2014) investigated the effect of using language games on 32 elementary students' vocabulary retention. They were homogenous as they were at the same level of proficiency and were assigned into two groups of 16. For the control group, a traditional method of teaching vocabulary namely drills, definitions, etc. was used while for the experimental group, language games were used. The treatment was conducted once a week and the study took four weeks. Three post-test were administered for both groups during the study, following the specified number of weeks after the treatments. The third post-test was administered to determine the participants' vocabulary retention in both groups. The study revealed that the effect of the game like activities was more significant in the delayed time than the immediate one. It was concluded that using language games has very significant effect on vocabulary retention and recall of the participants.

With a larger sample, Amaal Al Masri and Majeda Al Najar (2014) conducted a study in a Primary school in Jordan to investigate the effect of using word games on students' achievement in English vocabulary. The sample consisted of 158 first grade students; (76) male students and (82) female students and they were distributed into four groups (two female groups experimental and control, and two male groups; experimental and control). As treatments, the control groups were

taught using the traditional way of teaching using pictures and memorization while the experimental groups were taught English vocabulary using games. It was found that there were statistically significant differences in the post-test between the control and the experimental groups and the experimental group had obtained a better achievement in the English vocabulary test. Nevertheless, there was no statistically significant difference in the students' achievement between genders. The researchers recommended future research to consider other populations and the treatment to be carried out for a longer period of time.

Past studies have revealed the effectiveness of using games to teach vocabulary in the ESL and EFL classrooms. Nevertheless, as recommended by Amaal Al Masri and Majeda Al Najjar (2014) there is still a need to conduct more studies on this topic by taking sample from other settings and with a longer treatment period. Relevant studies on vocabulary retention using language games are not clearly evident in the local setting, especially in the rural areas of Sarawak. Additionally, little is known about the impact of using language games for vocabulary retention from schools in Malaysia or South East Asia. Therefore, this case study is conducted to experiment the effects of using language games on vocabulary retention in our local setting.

METHODOLOGY

Research Design

This is a quasi-experimental research employing a one group pre-test and post-test design. The purpose of this research was to study the impact of using language games on vocabulary retention among young learners of elementary school age. In this study, the same group of students or sample acted both as the experimental and the control group were compared with each other based on the results of their pre-test and post-test.

The Participants

The participants in this study were all 64 students who attended Grade 3 at a rural school district in Sarawak, Malaysia. This study was conducted in Lundu, located approximately 103 kilometres from Kuching, Sarawak.

The purpose of selecting a rural school for the study was to shed light on rural students, especially in Sarawak, who are often outperformed by their urban counterparts, particularly in English subject. Grade 3 students were chosen among young learners for Level 1 (Grade 1-3) of the elementary school age group to find the impact of using language games on their vocabulary retention. Grade 3 pupils have gone through 2 years of elementary education, therefore, it is deemed as an appropriate age group for this study.

The respondents were chosen through convenience sampling technique because the population is accessible to the researcher at the time of data collection. Of the 64 students, 32 were males and 32 were females. Majority of the students are Malays (58.3%), followed by Ibans (19.4%), Bidayus (18.8%), Melanaus (1.7%), Chinese (0.64%), Kedayans (0.64%), Kadazans (0.64%) and Javanese (0.43%). The participants' gender and ethnic background were not considered as moderator variables in this study. Thus, their influences on the results were not taken into consideration. Although they have learned English as a subject since pre-school, they have very limited exposure to the use of English because they hardly use the language outside their English lessons. They often communicate with one another in Sarawak Malay dialect. The few Bidayuh and Iban students would also converse in their own dialect. With limited proficiency in English, only a few students are responsive to the teacher in their English classes. While a few students would be able to converse in simple sentences, some of them however do not understand simple English words.

Data Collection Procedures and Methods

The vocabulary component was conducted as an hour lesson per day from Monday to Friday for two weeks respectively. In the first stage of the study, the sample acted as the control group that received instruction based on traditional teaching through the teacher's explanations for two weeks and after that, they were given the pre-test. For traditional teaching, eight new words were chosen from unit 10 of the text book for grade three of Malaysian elementary schools. Since the students have low familiarity with these new words, they were taught to look up for the new words in the dictionary, write definitions, and use the words in sentences. In the second stage, the same sample acted as the experimental group received

the treatment using language games for two weeks. Six language games were chosen for this study; (1) describe it, (2) matching pairs, (3) jigsaw puzzle, (4) board rush, (5) ball games and (6) true or false. Immediately after the treatment, they were given the post-test. For the experimental group, the students were taught eight new words from unit 11 of the same text book. After two weeks of teaching using the six games, the students were given the post-test.

The main instruments used to obtain the data were vocabulary retention tests (VRTs). The VRTs were constructed based on the testing format for Grade 3 students. Each set of tests, for both the pre-test and the post-test, consists of three sections. The first section is to choose the correct spelling of the vocabulary based on the pictures provided in the test. The second section is to fill in the blanks by forming the correct words. Lastly, in section three, the respondents need to fill in the blanks with the words provided based on the pictures. The reason for using the same sets of tests is to evaluate accurately the abilities of the students. The data measured is used to identify the differences in their achievements after the pre-test and post-test.

Data Analysis

The data obtained from the vocabulary retention test scores in the pre-test and post-test was coded for statistical analysis to respond to the research questions. The Statistical Package for the Social Sciences (SPSS, version 21.0) was employed for this statistical analysis. For research Question 1, descriptive statistic namely percentage was applied to obtain the patterns of students' vocabulary retention test scores in the pre-test and the post-test and to measure their achievements. Then, the data was translated into a figure to identify the findings of the study. Next, to answer the second research question, inferential statistics of paired samples t-test was computed to determine whether there was any significant difference between the pre-test and the post-test. The data obtained was transferred into a table and based on this, the findings were specified.

RESULTS AND DISCUSSION

Students' Achievements in the Pre-test and Post-test

Descriptive statistics was computed to answer the first research question on the students' achievements. The vocabulary retention scores of all the 64 samples in the pre-test and post-test were computed. The results of the pre-test and post-test are presented in a clustered cylinder chart as shown in Figure 1 below. The total mark for both the pre-test and post-test is 100. The blue cylinders signify the pre-test scores and the red cylinders represent the scores in the post-test. The students' scores in the post-test showed a positive improvement, they scored higher scores after the intervention using language games in their vocabulary learning. In the pre-test (control group), the students scored between the range of 16% to 92% but in the post-test (experimental group) the students' scores had increased to between the range of 20% to 94%. All the 64 students had obtained an increase in their scores of between 2% and 10% in the vocabulary retention test after the treatment using the language games.

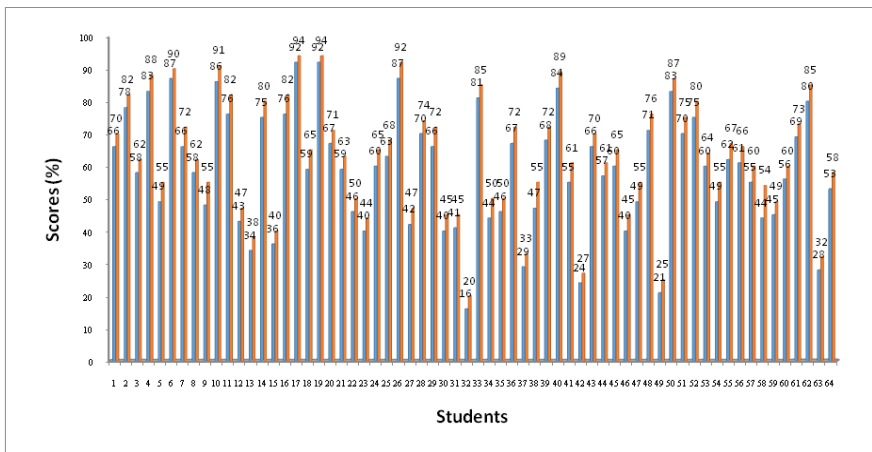


Figure 1: The Clustered cylinder chart of the pre-test and post-test scores

All the 64 students responded positively to the application of games in their vocabulary learning. This is proven when they scored better results after they received the treatment as compared to when they were taught using the conventional method of looking words up in the dictionary, write dictionary definition and use the words in sentences. The students were more engaged in learning vocabulary using language games because they were having fun in their learning. The excitement that they

experienced during the lessons has resulted in improved vocabulary retention as compared to the conventional vocabulary learning where the students only listened to their teacher’s explanations and teaching without engaging in any classroom activities. The positive results indicate the positive impact of using language games on vocabulary retention.

The Significant Difference between the Pre-test and the Post-test Scores

A paired samples t-test was run to determine whether there was a statistically significant mean difference between the pre-test and post-test scores to answer the second research question. Additionally, the two groups’ mean and standard deviation were also compared. The results are presented in Table 1.

Table 1: The Paired Samples t-test

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	PRETEST	58.72	64	18.110	2.264
	POSTTEST	63.45	64	18.020	2.253

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	POSTTEST - PRETEST	4.73	1.235	0.155	5.044	4.425	30.605	63	.001

Students were able to increase their scores in the vocabulary retention tests in the post-test after the treatment using the language games ($M= 63.45, SD= 18.02$) than in the pre-test ($M =58.72, SD= 18.11$), a statistically significant mean increase of 4.73, 95% CI [5.044, 4.425], $t(63)= 30.605, p= .001$. This shows that there was a significant difference between the mean of the pre-test and the post-test. Therefore, we accepted

the research hypothesis that there is a significant difference between the students' pre-test and post-test scores of the vocabulary retention tests. This analysis has proven that the participants were able to retain significantly more words in the post-test than in the pre-test. Thus, we can conclude that the language games are more effective for learning vocabulary than using the traditional method.

The results suggested that the students outperformed in the post-test (experimental group), instructed through language games than in the pre-test (control group) which received instruction through the traditional method. The increase in the mean scores between the pre-test and the post-test shows that the students had improved significantly in their vocabulary learning after the treatment using language games.

IMPLICATION AND RECOMMENDATION

The results show that the students scored better after learning vocabulary through language games than through conventional teaching. Implications of the study suggest learners using fun activity on learning vocabulary to provide them with effective learning (Bavi, 2018). The findings are consistent with Nguyen's and Khuat's (2003) argument that students tend to learn and retain new vocabulary better when it is applied in a relaxed environment like playing vocabulary games. The results also resonate with Alemi (2010) who found that using games has positive effect on expanding learners' vocabulary. Additionally, findings from this study support the positive impact of using games for vocabulary retention (Romana, et. al. 2011; Taheri, 2014; Amaal & Majeda, 2014).

Apparently, for beginners and young learners as in this study, the activity of labelling and displaying pictures when describing new vocabulary is relatively helpful. Language games are known for the ability to create a fun learning environment, add motivation, and promote team learning and collaborative skills (Tuan, 2012). When the study participant utilized games to describe new words, to identify matching pairs, to solve jigsaw puzzle, to complete board rush, to play ball games and to answer true or false questions, their learning can be fun, engaging, as well as motivating. Being motivated by the relaxed and fun learning environment, young learners are keen to participate in the learning process. As such, in

order to create a good environment for learning, we need to recognise the important role of language games in the ESL classroom.

The results of this quasi-experimental study suggest the useful benefit of using language games among young learners in a rural school. Since children can learn better through playing, for young learners with short attention span, various language games should be used in a short amount of time with dynamic actions and lively activities. Similarly, the results also revealed that vocabulary learning through language games is more effective for vocabulary retention because games can bring in relaxation and excitement for students, thus helping them to learn and retain new words more easily (Nguyen & Khuat, 2003). Although language games are proven to be a more successful method when teaching vocabulary to young learners, they can also pose some challenges to teachers as learning facilitators. Therefore, future studies are recommended to conduct a true experimental research with longer treatment periods and to explore the role of teachers as facilitators in assisting, guiding and monitoring students' learning activities through language games.

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