



## Using Card Game to Improve Vocabulary Retention: A Preliminary Study

Wan Noorli Razali<sup>1</sup>, Noraziah Mohd. Amin<sup>2</sup>, Nazima Versay Kudus<sup>3</sup> and  
Muriatul Khusmah Musa<sup>4</sup>

<sup>1,2,3,4</sup>Universiti Teknologi MARA Cawangan Pulau Pinang

Corresponding email: wannoorli093@ppinang.com.my

### Article Information

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### Abstract

“GOT IT!” stands for Group-oriented Thematic Interactive Technique comprises two sets of card game, each consists of 10 vocabulary items based on one of the Standard 4 English themes and 10 pictures that match the words. It was developed with the aim to help students with lower competency to increase their memory retention of theme-based vocabulary in the English language classroom. To investigate its potential ability in assisting vocabulary retention, a preliminary study involving a class of Standard 4 students was conducted. The results of the study indicated that “GOT IT!” seems to be potentially useful in increasing learners’ retention of theme-based vocabulary learnt in their English language classroom.

### INTRODUCTION

In the Malaysia Education Blueprint (2013-2025), six key attributes required by students in order to allow them to stay competitive globally have been explained in detail. The fourth in the list is bilingual proficiency where each child is expected to be proficient in both Bahasa Malaysia and English as “upon leaving school, the student should be able to work in both a Bahasa Malaysia and English language environment” (Ministry of Education Malaysia, 2013, p. 31).

Upon realizing this, everyone has to work together in ensuring that the learning environment at school and at home provides students with maximum learning opportunities. Most of the students’ time is spent in schools where teachers struggle to adopt different learning strategies to suit learners with different competency levels. It is however difficult to retain the students’ interest in learning English, especially among those with lower competency levels as they are reluctant to get involved for fear that they may be laugh at.

#### *Problem Statement*

According to Yamat, Fisher and Rich (2014), primary school students in Malaysia lack exposure to the English language and opportunities to use it. Thus, there is a need for them to be maximised. At primary level, students are taught English based on themes and they are exposed to a set of vocabulary related to the themes via different language tasks and activities. Students with lower competency level usually find it difficult to get engaged in the classroom activities as they lack vocabulary to express themselves. Thus, they opt to keep quite more in class. Given the condition, vocabulary game is deemed necessary to help them remember the

vocabulary learnt. As according to Wang, Shang and Briody (2011), games are more useful for students with lower level proficiency in vocabulary acquisition. "GOT IT!" was thus developed by the researchers with the assumption that it could help to assist teachers in increasing vocabulary retention among students especially those with lower proficiency. However, it is uncertain whether this game is useful for the learners in terms of improving their word retention. Thus, a preliminary study was conducted to verify its potential ability to help increase vocabulary retention.

#### *Objective of the Study*

The objective of this study is to investigate the game's potential in assisting learners to retain their memory of theme-based vocabulary learnt in the English language classroom.

#### *Research Question*

Thus, the research intends to seek the answers to the following questions:

Can "GOT IT!" help to increase learners' memory retention of theme-based vocabulary learnt in their English language classrooms?

#### *Significance of the Study*

The initial results obtained from this study are helpful to identify whether card games can be employed to assist learning and retention of vocabulary which have been covered in the English classroom. In addition, the results can be a motivational factor to encourage more creative and interesting learning strategies to be adopted in English language classroom. This study can also become an indicator to researchers who are interested in investigating more in depth on the use of card games.

### **LITERATURE REVIEW**

#### *Definition of Learning Strategies and Their Categories*

Learning strategies refer to "the operations employed by the learner to aid the acquisition, storage, retrieval, and use of information" (Oxford, 2002, p. 8). Learning strategies can be divided into two main categories: direct strategies and indirect strategies. Direct strategies include memory, cognitive and compensation strategies while indirect strategies are comprised of metacognitive, affective and social strategies.

According to Gass, Behney and Plonsky (2013), a learning strategy is "a strategic plan undertaken by a learner in learning" (p. 527). Vanpatten and Benati (2010) in their elaboration of the definition of learning strategies list four fundamental elements of these strategies that explain their nature: i) they involve choice on the part of the learner; ii) they involve consciousness; that is, the learner is aware of his authority on his decision to use a strategy; iii) they are goal directed (i.e., they are purposeful in nature and geared toward task completion, and iv) they are effortful (p. 101). Vanpatten and Benati (2010) further list the five types of learning strategies: i) metacognitive strategies that include organizing, focusing, and evaluating one's own learning; ii) affective strategies that involve handling emotions or attitudes; iii) social strategies that focus on being cooperative with others in the learning process; iv) cognitive strategies that comprise activities such as linking new information with existing schemata and analysing as well as classifying it; and v) memory strategies that centre around entering new information into memory storage and retrieving it when needed.

Brown (2000) limits learning strategies to only three main categories: i) metacognitive strategies that possess an "executive" function (e.g: planning for learning, thinking about the learning process that is occurring, evaluating learning after the completion of a task); ii) cognitive strategies that are basically specific learning tasks and they focus on direct manipulation of the learning material per se; and iii) socio-affective strategies that involve social-mediating tasks and interacting with others. According to Oxford (2000), appropriate language learning strategies can contribute to an improved proficiency and greater self-confidence.

#### *Memory Strategies*

These strategies have been explained in detail by Oxford (2002). According to him, memory strategy is frequently adopted in increasing retention of vocabulary and it comprised of four subsets: i) creating mental linkages; ii) applying images and sounds; iii) reviewing well; and iv) employing action. Mental linkages can be created through grouping, associating or elaborating, and using context. These types of linkages help learners to remember words and these can be done by combining and highlighting the similarities between the words. Application of images and sounds are effective when using imageries, in the mind or even the actual drawing. The sounds of the words learnt will enhance their position in memory and make the retrieval of the words and their meaning much easier. Brown (2000) supports the idea that the association of items either in groups or with

external stimuli will enhance retention. When a word is learnt by connecting it to its intended meaning with the help of images in a collaborative game, the retention of the word could be further enhanced. Oxford (2002) further adds that all the words can then be reviewed again at spaced intervals to increase their retention. The employment of action in memory strategies is applied to words which can be transformed into actions or movements. If the new word learned is 'approach', then, the students may be asked 'to approach the teacher' in the class.

However, he argues that memory strategy alone without simultaneously adopting metacognitive strategies such as focusing and paying attention and affective strategies such as reducing anxiety may not turn out as effective as when they work in combination. In any classroom learning, it is almost impossible to say that learning strategies are individual strategies as they usually work harmoniously, complementing each other without prior planning.

One of the common ways to apply the memory strategy is by using mnemonic technique as its tool. Terry (2003, p. 185) defines mnemonic devices as "various schemes, strategies, or procedures used to aid encoding and retrieval." The author explains that mnemonics are generally divided into two: keyword mnemonics and imagery mnemonics. In using keyword mnemonics, a mediating word is attached to link the to-be-associated words together. On the other hand, imagery mnemonics which are based on visual imagery are used to enhance memory and allow words to be better remembered. In using visual imageries, the more unusual and striking the image used, the better it is remembered.

#### *Mnemonic Strategies for Improved Retention*

According to Schmitt and McCarthy (2000), mnemonic devices are "any of a number of memory techniques used to enhance retention of words, including Keyword Method, grouping words together and imagery" (p. 329). Sökmen (2000) classifies mnemonic devices into verbal, visual or a combination of both. She believes that these are aids to memory. Sökmen (2000) also proposes word/picture activities which set up mental links for learner as these tasks are more memorable.

"Learning refers to acquiring knowledge or behaviour whereas memory refers to retaining and recalling the knowledge or behavior" (Terry, 2003). Terry (2003) claims that putting an emphasis on rehearsal, elaborating and using mental imagery are usually known as verbal learning, commonly identified with memorization of word lists as a method to retain the words learnt. In verbal learning he proposes that the learning or acquisition of words can be measured by the number of study trials to repeat the list back without any error and the memory retention is measured by the number of trials needed to relearn the list for a perfect recitation. It is also undeniable that forgetting usually occurs shortly after the initial learning. However, whatever persists past the early phase is better retained and is forgotten at slower rate.

#### *Word Learning Games*

Grady, Vest and Todd (2013) in their study which aims to evaluate student attitudes towards the use of games in three different conditions; when promoting a brand new subject topic prior to a lecture, when previewing a learnt subject topic and when used to replace the teaching of a subject topic discovered games to be rewarding and effective.

According to Zimmerman (2014), spelling, word parts, meaning or grammatical features are among the specific elements of word knowledge that a learner will probably have the opportunity to deal with when a vocabulary game is executed in vocabulary learning. He adds, word cards can offer learners efficient practice in relation to time and effort. Among others, with word cards, learners can relate meaning with form in learning vocabulary and use recall as they practice.

#### *Interactive Vocabulary Learning in Relation to Working Memory Stimulation*

Celce-Murcia, Brinton and Snow (2014) in their discussion on the incremental nature of word learning propose that any task that results in more exposure, attention, time, and manipulation can improve learners' word learning and these elements can emerge when learners are engaged in activities involving verbal interaction and negotiation. They present the view of Newton (1993) and Zimmerman (1997) in their paraphrased sentence that states, "When learners discuss the meanings of words in groups, for example, useful information can be exchanged about the words, and all aspects of word knowledge can be called on and discussed" (p. 292). According to Cook (2001), working memory despite being an isolated part of the mind, is heavily involved in language use and pronunciation. As for GOT IT, the images that represent the words can promote an interaction among players of this word game as a player needs to pronounce a certain word once he has found any word-picture match for the word and later gets the verification of the other players regarding the match and his pronunciation of the word, thus leading to an interactive, memorable learning of the word.

*The Use of Word Cards in "GOT IT!" Game for Memory Enhancement*

Engaging learners in an additionally unique experience of vocabulary game can help them to store new words and their meaning in the learners' memory, a beneficial planned incidental learning after direct instructions are given in class (Paynter, Bodrova & Doty, 2005). Brown (2000) mentions that in a meaningful learning setting, the disposition should relate a new task to what is already known to the learners. The linguist also adds that a learning task is highly meaningful if it is deemed relevant to the learner's existing knowledge. Thus, after a direct classroom instruction, a game activity would be seen as useful as it strengthens what has already been discussed in the class prior to the game.

In the process of creating or constructing a game, the amount of effort harboured should not impede the learning process nor should it create any extra burden for the learners. Clark (2013) criticises one of the existing online vocabulary games, the digital version of Concentration. In the game, there are 16 cards faced down on the screen and learners have to find the matched pairs of eight vocabulary words. The learners will continue clicking until they find the right match. When there is a match, the pair is then eliminated. With respect to this game, Clark (2013) argues that having to recall the cards' location before getting the right match is an extra burden to vocabulary learners; thus this activity is highly irrelevant to vocabulary learning process. The extra energy should have been channeled to assist memory instead of recalling words' locations.

Cook (2001) in his discussion of strategies for acquiring words claims that the exploitation of various memory systems in the mind for making a link between new information to old one in remembering a new vocabulary is the most frequently employed strategy. He further explains that using mental imagery in relating something a learner already knows to his existing knowledge is one way of improving the learner's memory in learning a word.

*The Role of Proficiency Level in Influencing the Selection of Vocabulary Learning Strategies*

Oxford (2000) claims that learners who are more aware and more advanced seem to use better language learning strategies. The issue of students' advancement in the language learnt can be related to the students' language proficiency. Other scholars have also stressed on the important role played by language proficiency in determining how learners learn a language. Ellis (1994, as cited in Benson & Nunan, 2005) for example, argues that learners immensely differ in how quickly they learn a second language in relation to the type of proficiency they acquire and the ultimate level of proficiency they reach. This argument clearly reveals that a learner learns a second language differently at different proficiency levels. Oxford (1990) in her discussion of compensation strategies which are related to vocabulary learning discovers that in guessing the meanings of words, good language learners, when confronted with unknown expressions make educated guess, while less proficient language learners often panic, tune out or grab the dictionary and try to look up every unfamiliar word. Obviously, proficiency level influences what a learner is capable or incapable of doing in learning vocabulary.

**METHODOLOGY***Participants*

The study initially involved 28 Standard 4 students from one of the primary schools in Pulau Pinang. However, only 25 students came during the intervention, thus, only 25 students answered both quizzes. The students were from the low competency class and majority of them performed poorly in their English test.

*Instrument*

"GOT IT!" stands for Group-oriented Thematic Interactive Technique comprises two sets of card games, each consists of 10 vocabulary based on one of the Standard 4 English themes and 10 pictures that match the words. The total twenty words were selected from the theme 'Be Safe' based on the assumption that they are much more rarely used compared to others under the same theme. To make the game more enjoyable, a set of sad emoticon and four cards with multiple choice questions (MCQ) based on the vocabulary were also included. As not to add any extra burden unnecessary to the learners (Clark, 2013), each matching pair of word and its image is numbered. The number becomes the reference for the learners to ease their memory of the words and its meaning. The idea of playing a game is more intriguing than normal rote-learning repetitions and the links between a word and its meaning is stored with the help of the images on the card.

The general guide for playing the card game is as follows:

1. The students are first divided into a group of 4 to 5 players.

- 2.The cards are dealt by one of the players and are divided to all the group members. (Each player may not necessarily get the same number of cards as it depends on the number of players in the group)
- 3.The player who dealt the card picks one card from the person to his right. If he gets a match, he will say “GOT IT!” puts the card down in front of others, spells and pronounces the word out loud.
- 4.The person on his right then do the same until the circle is completed. If any of them obtains one of the sad emoticon cards, the person will just remain quiet. These steps will continue until all the cards are matched.
- 5.Finally, the last person to have both of the sad emoticon cards will have to answer an MCQ.

#### *Research Procedure*

The students were first exposed to all types of reading materials and activities found in their English textbook by their English teacher. The lesson is conducted for a week. During these weekly classroom activities, the students were exposed to all the vocabulary related to the theme. At the end of the last class of the week, the students were given the first quiz to discover whether or not they are able to recall the twenty words taught or covered by the teacher in the class. The first quiz requires them to match the words to the correct visual pictures. The students were then taught how to play “GOT IT!” using a sample of five words unrelated to the chapter learnt. This is conducted to ease the playing time later.

In the first class of the following week, the students were given the chance to play each set of words twice. After completing the total of four rounds, they were given the second quiz, a simple fill in the blank to find out how many vocabulary they could possibly recall after the game. Terry (2003) mentions that retention can be tested after a single presentation of the list, or repeated presentations and tests can also be given to assess learning across trials. The scores obtained in the quizzes are an indicator to whether they are able to remember the learned words. Both quizzes are recall tests that requires learners to reproduce or recall the studied words (Terry, 2003).

The visual images used for the cards and in the two quizzes were different. This is to ensure that the students’ familiarity with the images will not assist them in their recall of the words. Some verbal feedbacks were also obtained from the students to know whether they are interested to play again. Observation was also done during the playing time to see how students react to the game.

#### *Data Analysis*

Data is tabulated using SPSS Software. The results are reported based on the mean score of both tests.

### **FINDING AND DISCUSSION**

TABLE 1: PAIRED SAMPLES STATISTICS

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 PreTest	7.1600	25	2.82371	.56474
PostTest	15.8800	25	3.58608	.71722

TABLE 2: PAIRED SAMPLES TEST

	Paired Differences					Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		
				Lower	Upper	
Pair 1 PreTest - PostTest	-8.72000	2.60640	.52128	-9.79587	-7.64413	.000

Can “GOT IT!” help to increase learners’ memory retention of theme-based vocabulary learnt in their English language classrooms?

The results of Quiz 1 and 2 answered by 25 students were recorded and tabulated in SPSS and presented in Table 1 and Table 2 above. As indicated, the scores have significantly increased ( $p < 0.05$ ). The mean score for the Pre-test is 7.16 while the mean score for the Post-test is 15.8. There is a significant increment of 8.72 in the

score. This means the students are able to recall more words correctly after playing “GOT IT!” compared to the first time after they have finished their classroom lessons on the theme.

It is evident that “GOT IT!” is potentially useful in increasing learners’ memory retention of theme-based vocabulary in the English language classroom. Not only that, the students were also found to be actively playing the cards and spelling out the words. They also reported that they enjoyed it so much and wish to play again in the future. This is because they remembered the words better after enjoying their time playing the card game.

## CONCLUSION

In conclusion, “GOT IT!” can be assistive of classroom teaching where it helps in retaining the words learnt. It can be played by learners in the classroom or independently. This card game as exhibited in the results assisted vocabulary retention ability better compared to just normal teacher talk in class. In addition, the students enjoyed the session because learning is conducted in an enjoyable and incidental manner. The ability to retain the vocabulary is essential especially for the learners to be able to utilise them for later use in reading, speaking and writing.

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