The Impact of Utilizing Competitive Digital Games on Developing Vocabulary Retention of Primary Stage Pupils

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Abstract The ability of students to recall or remember things after a period of time is referred to as vocabulary retention. In language teaching, retention of what has been taught may be affected by the quality of the teaching, the learners' interest, or the relevance of the materials. As a result, this paper explored the appropriateness and usefulness of introducing competitive digital games and activities into English lexical training at a middle school of Egyptian schools. The current study aimed at investigating the effectiveness of utilizing competitive activities on developing primary stage pupils' vocabulary retention. To achieve such goals, certain instruments have been designed and used; a vocabulary retention pre-posttest and competitive activities-based teachers' guide & student's book. The study adopted the quasi-experimental research design that depends on the two groups; experimental and control. The experimental group was then advised to employ competitive activities, while the control group was instructed to use the traditional practices outlined in the "Time for English" Level 6 "Teacher's Guide". The sample of the study comprises 60 students from the 6th grade at Hurghada Smart city school, and they were divided into equal groups. Both groups were approximately the same age, according to their school records (10-11 years). Results of the study showed that there were statistically significant differences between the mean scores of students in the experimental group in the pre and post vocabulary retention test in favor of the post-testing. Findings also revealed that there were statistically significant differences between the means scores of both the control and experimental groups in the post-testing of vocabulary retention test.
Key words: *competitive activities - vocabulary retention - primary stage pupils*

أثر استخدام الألعاب الرقمية التنافسية في تنمية مهارات الاحتفاظ بالمفردات لدى تلاميذ المرحلة الابتدائية

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مستخلص الدراسة

يشير الاحتفاظ بالمفردات إلى قدرة الطلاب على الاحتفاظ بالمفردات أو تذكرها بعد فترة زمنية أثناء تعلم اللغة ، حيث قد يتأثر الاحتفاظ بما تم دراسته بمدى جودة التدريس أو اهتمام المتعلمين أو أهمية المواد الدراسية. ومن هذا المنطلق، هدفت هذه الدراسة إلى بيان مدى فاعلية استخدام الألعاب الرقمية والأنشطة التعليمية التنافسية في التدريب على الاحتفاظ بالمفردات لدى طلاب المرحلة الابتدائية بالمدارس المصرية، حيث تمثل الهدف الرئيسي منها في بيان أثر استخدام الألعاب الرقمية والأنشطة التعليمية التنافسية في تنمية مهارات الاحتفاظ بالمفردات لدى طلاب المرحلة الابتدائية. ولتحقيق أهداف الدراسة تم تصميم أدوات الدراسة التي تمثلت في الاختبار القبلي/ البعدي في الاحتفاظ بالمفردات، وكذلك دليل المعلم وكتاب الطالب لتدريس المقرر القائم على الألعاب والأنشطة الرقمية التنافسية. وتبنت الدراسة منهج البحث شبه التجريبي ذو المجموعتين: التجريبية والضابطة، حيث تم استخدام الألعاب الرقمية والأنشطة الإلكترونية التنافسية في التدريس في حين تم استخدام الطريقة التقليدية في تدريس المجموعة الضابطة باستخدام كتاب "Time for English" المستوى السادس. ولقد تكونت عينة الدراسة من ٦٠ تلميذاً في الصف السادس الابتدائي بمدرسة سمارت بالغردقة – البحر الأحمر ـ والتي تم تقسيمها على مجموعتين أحدهما تجريبية والأخرى ضابطة متكافئة في العمر الزمني (بمتوسط ١٠-١١ عام). ولقد أظهرت نتائج الدراسة وجود فروق ذات دلالة إحصائية بين متوسطى درجات أفراد العينة التجريبية في التطبيق القبلي والتطبيق البعدي لاختبار الاحتفاظ بالمفردات لصالح التطبيق البعدي، كما أظهرت النتائج وجود فروق ذات دلالة احصائية بين متوسطي درجات أفراد المجموعة التجريبية والضابطة لصالح المجموعة التجريبية لاختبار الاحتفاظ بالمفردات، كما تبين استمرار الأثر الإيجابي للاستراتيجية التدريسية المقترحة في تنمية مهارات الاحتفاظ بالمفرات في التطبيق التتبعي لأداة الدراسة بعد فترة من التطبيق البعدي.

الكلمات المفتاحية: الألعاب الرقمية والأنشطة التنافسية – الاحتفاظ بالكلمات – تلاميذ المرحلة الابتدائية

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Introduction

Language, as a means of communication, is extremely vital in human activities and social relationships. English language is the first foreign language taught to children at an early age. The major goal of teaching English in the early years of schooling is to prepare young students to be confident and ready for learning English at higher levels of education. Some children are born to polyglot parents; therefore, they must learn two or three languages. Others learn a second or third language to immigrate to a new nation. Language learning is now required for youngsters who desire to follow educational systems and become useful citizens in their countries (Hashemi & Azizinezhad, 2011). However, language learning is not an easy task, language learners need to be motivated to learn the target language.

Language production and comprehension would be impossible without vocabulary knowledge. As a result, expanding one's vocabulary is one of the criteria for language learning, and expanding one's vocabulary is only achievable when teachers employ efficient vocabulary teaching and learning tactics (Mukoroli, 2011). To maximize vocabulary development, teachers should assist children to master the fundamental steps of accessing and acquiring, recognizing and remembering, activating, and generating new word meanings (Loucky, 1998).

Vocabulary is essential for language learning since language learners cannot understand or express themselves without it. According to

Wilkins (1972), "although without grammar very little can be conveyed, without vocabulary nothing can be conveyed" (pp.111-112). Vocabulary knowledge facilitates language use language usage facilitates the expansion of vocabulary knowledge, and understanding of the term facilitates the expansion of vocabulary knowledge and language use, and so on. Vocabulary items are essential in the acquisition of the four language skills in English as a Foreign Language (EFL) learning: listening, speaking, reading, and writing (Nation, 2013).

Vocabulary is more significant than grammar in boosting learners' ability to construct phrases, sentences, essays, and other language products. Learners who lacked vocabulary expertise were unable to comprehend more complex language units (Brown, et al. 2008). Therefore, the more frequently learners are exposed to vocabulary, the more confident they are in their ability to recognize and discern the meaning of certain unfamiliar words from context (Ghadessy, 1998; Schmitt, 2011). Vocabulary teaching and learning is critical, particularly for beginning learners who have difficulty recalling new words in a non-English speaking environment where learners have little opportunity to practice their newly acquired vocabulary outside of training and learning to communicate in a foreign language in a formal setting is difficult for many learners.

On the other hand, difficulty in vocabulary retention stems from inadequate teacher training, learners' lack of desire, instructor-centered procedures, and inadequate assessment methodologies (Fareh, 2010, Ghanem, 2018; Abdul Rahman el. al., 2018; Abd-Raboh, 2019). As a result, the difficulty that many educators are experiencing today is that

many pupils lack the drive and curiosity to learn. Using traditional teaching approaches may show some drawbacks (Zichermann & Cunnigham, 2011). In the traditional approach of teaching, it is difficult to memorize a large amount of vocabulary since young learners are not motivated and are also hesitant to ask questions to clarify the meaning of words or phrases they do not understand. Elementary school students suffer greater difficulty learning vocabulary compared with adults (Munamtair, 2011; Alqahtani, 2015; Farrah and Shabaneh, 2019). In traditional classrooms, students listen passively to their teacher, they are allowed to ask a few questions when necessary and answer questions from the teacher. Language learners not only suffer from learning new vocabulary but they also find it difficult to retain words and retrieve them for future use (Turgut and Irgin, 2009; Abdullah, 2016; Aladle, 2019; Muhammed, 2019).

Using amusing competitive activities and digital games may be an effective strategy for facilitating language learning. Games are one of the activities that may help encourage students to maintain their attention and effort. Games are an important part of interactive learning and are useful in foreign language acquisition in general (Dehghanzadeh et al., 2019; Zou & Huang, 2019). With the global interest in digital technology use, innovative teaching methods have been oriented to the English language. These internet-based methods present different functions for the educational environment, which can be motivating and supportive for language learners. Game-based technology helps develop critical thinking and learners' autonomy (Bishop, 2014). Online games represent purposeful activities that can be utilized in language learning. Instructors

use online games to address educational issues and present knowledge, information, and skills through an educational template that is appropriate for the 21st century (Lee and Hammer, 2011).

Therefore, using digital games helps make learning more enjoyable, the proliferation of E-learning software on mobile devices resulted in the rise of digital games in education. This involves using games to engage users in non-game environments, and gamifying a lesson has been found to have a beneficial influence on increased motivation among learners (Lam, 2014; Sauerland et al., 2015). Playing games can help students acquire vocabulary in less time and so improve their learning experience. Also, students' attitudes toward language learning were improved by playing online games (Bao, 2015; Crow, 2015, Lam, 2014, and Halvorsen, 2013). Digital games not only motivate students but also assist teachers in creating a setting in which language is usefully employed. In addition, games entertain, promote and strengthen the collaboration among students (Dalton, 2005).

Therefore, games and competitive language activities are both highly useful for vocabulary retention. The choices teachers make in-class planning can have an impact on students' interactions with others, knowledge, and attitudes (Campbell, 2013). In a competitively oriented classroom, students compete to see who is the best by winning or losing (Anderson, 2009). The act of employing competition in the classroom instills in learners a sense of external urgency and drama. The competition introduces a variable into the equation, causing learners to focus on task performance (Johnson & Johnson, 2006). Hosseini (2012) evaluated the impacts of competitive and non-competitive classrooms on

various linguistic domains, concluding that the former had a beneficial impact on the participants' performance. Accordingly, the current study tends to use competitive online games to boost primary children's vocabulary retention, based on the prior benefits and positive effects of online games and activities on vocabulary retention.

2. Theoretical background and related studies

2.1 Competitive Activities

Competition is one of the components that contribute to the enjoyment of games. A rivalry between two or more individuals or groups is referred to as competition. They are all competing to be the best in this rivalry. Many aspects of our lives are fraught with competition. It might be a large sporting event, such as the Olympic Games, where everything revolves around competition, or it can occur in kindergartens where two children compete for the same item. The first is a massive and obvious example, while the second is a modest and less obvious example, yet both are competitions. We, humans, aspire to be the best (Rooswinkel, 2014).

Games represent an activity to express our competitive characteristics. Although others may argue otherwise, competition is a vital, if not necessary, component of playing a game (Shaffer 2006; Akili, 2007; Michael and Chen 2006). The competition includes two distinct components; a) organizations or individuals have a rivalry with one another, b) an objective for which the contestants can work (Michael and Chen 2006). Therefore, contestants must understand what the aim of the game is, what competitors must do, and what occurs if they do that. Students need to know this to be encouraged to continue competing.

Competitive games are classified into four types according to the way it is conducted; a) competitive games where one or more player win or lose, b) cooperative games where all players can win or lose, c) collaborative games where all players can win but not everyone can lose, and d) quasi-competitive games where all players can win but not everyone can lose (Kiley, 2014). Sigurardóttir (2010) presents a paradigm for dividing games into competitive and cooperative categories. Some students win or lose the game in the former, but they can be a good technique to keep some students interested and focused in the latter. In cooperative games, on the other hand, the fundamental goal is for all pupils to work together, rather than for them to win or lose. In this study, the language game is founded on two elements: competitiveness and the use of technology.

The competitive language game is one in which there is some element of competition; this competition might be between individuals or groups. Different definitions of competitive games exist, all of which are intimately tied to teaching/learning settings. Competitive games are defined as those in which students compete against one another to reach a goal that only one or a few people can achieve (Johnson & Johnson, 1989). Accordingly, it is viewed as "a game in which one set of players must win and another set of players must lose." Kiley (2014, p.2)

Competition is also used to assess the performance of individuals in various tasks. In the educational contexts, adding a competitive element in activities individuals or groups undergo represents a motivational and enriching factor. Competition inspires people to perform to their best abilities (Yu, 2005). Also, the competition proved to be effective on

student learning (Creighton & Szymkowiak, 2014; Chen et al., 2018; Ke, 2008; Yu & Liu, 2009). Lam et al. (2004) argued that competition has a favorable impact on students' performance and it creates positive attitudes towards learning.

According to Good and Brophy (2008), competitive activities are significant in engaging students, it is effective as it; a) generates interest and excitement in tasks that would otherwise be of limited interest to students, b) may be appropriate if all students have a chance to win and a team approach is used rather than individually based evaluations, and c) may be appropriate in the context of behavior management, such as when the teacher is attempting to reduce disruptive behavior. Furthermore, competitive processes have been involved in numerous linguistic phenomena in the language domain. Competitive games can also help to achieve a greater understanding of the language learning process (Shen et al., 2009).

The literature reviewed indicated the usefulness of using competitive digital games in improving language learning, among these is the study conducted by (Hung, 2011) which revealed that a collaborative and competitive game-based learning environment is effective in helping disadvantaged students through improving their English skills. The Wireless Crossword Fan-Tan Game (WiCFG) system was developed to provide teachers with a novel technique to guide students' learning through positive participation with tablet PCs. Results showed that integrating the WiCFG system into a collaborative and competitive game-based learning environment leads to improved interaction between students of different levels.

In a related context, Guevara (2014) investigated the usefulness of competitive games in developing language learning. Findings revealed that students were encouraged to learn English in the classroom by playing these four competitive games. Furthermore, Telesecundaria pupils realized the value of education. Also, it was shown that students' collaboration while playing games increases their motivation to reach their goals. In sum, a competitive game can add an exciting element to the game since learners, particularly young learners, are interested in competition and winning. Competitive games can inspire students to learn by providing multiple opportunities for practice and reducing boredom.

2.2 Using digital games in EFL classroom

Nowadays, technology and communication information is advancing at a rapid pace. As a result, modern technologies enable learners to be motivated, involved and engaged in the language learning process. The technology-enhanced language earning approach provides solutions for traditional problems language learners usually face. Learners have a better chance of increasing their learning experiences; thus, technology-aided learning is vital for learners to achieve more. According to Kapp (2012), using game-based learning help engage students, boosting their excitement and enhancing their motivation for learning. It also creates an attractive educational environment that draws attention and increases motivation is known as online gaming in education. Using digital games in the classroom is a powerful instrument for enhancing student learning and participation.

Digital games include using technology for influencing students' motives and behavior through game-like systems. People are increasingly engaged in activities that are more likely to produce the flow state as a result of digital games and the overall spread of video games in modern society. Online games are distinguished with a combination of didactic intent and fun. There is no exception in the digital educational game. It is specifically developed for teaching and learning; it combines learning content into game goals as it provides entertainment.

It is worth noting that online games are based on the constructivism theory in education. Constructivism is a philosophical position regarding the nature of knowledge (Patrick, 2021). Based on the constructivist theory, knowledge is received via contact with others in a social environment rather than through teacher transmission. As a result, pupils are not passive consumers of knowledge; rather, they actively generate meaning (Brown, 2010). This process of meaning formation can only be carried out by individuals. During the learning process, students actively select and process external information based on their experience and knowledge background, thereby constructing their knowledge. Learning, according to constructivist theory, is an active process that allows learners to participate in activities connected to the gained knowledge. Constructivist tactics are commonly referred to as student-centered instruction due to the emphasis on students as active learners (Slavin, 2003).

In game-based language learning, an instructor's responsibility is to provide instruction, including assistance in selecting an appropriate game

for students of various learning levels. According to Garca (2017), there are several other reasons to use online gaming as a motivational resource: a) it assesses progress as it is a type of feedback that encourages students to continue participating in an activity, b) it is a reward for students' efforts, students receive incentives when they successfully finish a task or achieve goals. To achieve its goals in EFL contexts, digital games depend on certain principles, digital games should be: a) linked to the educational goals, b) activities should allow the student to contemplate, observe, balance, and arrive at facts through logical visual processes, c) activities should be free of danger and violence, d) exercises should assist teachers by providing feedback to diagnose students' progress and identify shortcomings and weaknesses, e) games should have a connection to the learning environment, f) games should be simple, straightforward, and uncomplicated, and h) games should be appropriate for the students' experiences, abilities, and dispositions (Papadakis, 2018; Gee, 2014, p.85)

Empirical research revealed the effectiveness of games on learners' vocabularies. Abrams (2014) conducted a case study to explore the effectiveness of gamified vocabulary online systems on undergraduate students at a university in Macau. It is revealed that games could aid in the retention of new vocabulary. In addition, Hasegawa et al. (2015) designed a gamified English vocabulary retention system that has the potential to boost students' long-term vocabulary retention. The majority of learners found the time trials, clear points, and ranking system incredibly useful for both motivation and vocabulary development, according to the findings.

In a related context, the study conducted by Klimova and Kacet (2017) revealed that digital games help in vocabulary retention. It also increased exposure to the target language, boosted interest, and improved learners' communication participation. Also, Ibrahim (2017) revealed that language games can assist pupils in establishing a positive association with a new language. In addition, Vasileiadou and Makrina (2017) conducted research into the usefulness of digital games in language learning, as well as the amount to which they improve student motivation of the 4th grade of primary school. It was revealed that digital games prove to be effective in motivating students to learn English.

Furthermore, Alzaid (2018) investigated whether GBFA technology can increase vocabulary retention faster than PBFA. Findings showed that gamified formative assessment can help students learn more than the traditional paper-based method. It was also discovered that the experimental group had a higher sense of motivation and competence than the control group. There was also a link between motivation and vocabulary retention. Additionally, Cárdenas (2018) investigated the effects of vocabulary quiz scores when a Kahoot game-based response system was used as a competitive game for vocabulary review, as well as a standard review worksheet. Findings suggest that when the standard worksheet was used, vocabulary quiz scores were marginally higher.

2.3 Digital games and vocabulary retention

Digital games greatly increase vocabulary retention, it enhances students' skill to comprehend vocabulary, retain them, and retrieve them for future uses. It is worth noting that memory is not a unified idea, and

different parts of the brain collaborate on encoding and retrieving activities (Moghadam & Araghi, 2013). Word knowledge over a while is critical (Min, 2008). Nation (2001) claims that successful vocabulary retention is dependent on three processes: noticing, retrieval, and creative application. Noticing is a personal experience that is required for transforming input into the intake. Retrieving a term from memory for subsequent use can improve retention. The application of learned terminology in unexpected contexts/ways, such as through retelling activities, is referred to as creative use.

Digital games are media with built-in vocabulary retention capabilities. To progress, gamers frequently have to interact with staff. In other words, they repeatedly reuse and examine these products to learn about their properties and capacities. As a result, gamers would interact with these goods in novel circumstances regularly. These items are represented both textually (with names and explanations) and visually (thumbnails, color codes, and visual effects). As a result, multimedia presentations may assist learners in reinforcing what they code (Hulstijn, 2001) into their memory on the significance of a certain item. Smith et al. (2013) compared vocabulary retention using digital video games embedded in eBooks versus hardcopy booklets. The study included 57 male and female EFL undergraduate, intermediate, Chinese students. A vocabulary pre-and post-test was used to collect data. Both interventions were administered to the individuals in a counterbalanced manner. The game-mediated intervention was discovered to produce superior results.

Based on the preceding theoretical background, it was discovered that incorporating competition digital games into the language game may

boost its effectiveness and enrich its potential to attain language learning results. The current study represents an attempt to employ online competitive games in English language teaching to engage young learners in more interesting and meaningful activities that meet the needs of the learners in the digital era and may help to improve their vocabulary retention.

2.4 Context of the problem

Based on the researcher's observation (As a supervisor of English language prospective teachers' practicum at Hurghada faculty of education), she discovered that some primary stage pupils struggled to recall previously learned vocabulary, inaccurate spelling, struggled to form sentences in simple paragraphs, and lack knowledge on how to use words. To learn more about this issue, the researcher performed a semi-structured interview with 45 pupils (n = 45) and English teachers to learn about the problems and difficulties they face in their actual classrooms. Findings revealed that six graders in primary schools have significant difficulty mastering vocabulary. In an EFL class, pupils simply listen to new words, pronounce them again, and then respond to the questions. They don't have enough variety in their practice tasks. Students lack interesting activities to learn and therefore they are less motivated.

According to the researcher's observations, the results of the pilot study, and the recommendations of previous studies Fareh, (2010), Ghanem (2018), Abdul Rahman, el. al. (2018), Abd-Raboh (2019), fifth-graders in Hurghada governorate primary schools lack vocabulary retention, thus, the current study tries to be an attempt to use competitive

activities and digital games to develop primary school pupils' vocabulary retention.

2.5 Significance of the study

This research could be significant because it has the potential to a) improve the vocabulary retention of elementary school pupils, b) attract EFL teachers' attention to the use of online games to engage students and promote language vocabulary retention, c) benefit curriculum designers since it encourages them to use competitive learning in EFL classrooms, d) assist academics in conducting a fresh study on the use of competitive activities in teaching English language classes.

2.6 Hypotheses

1. There are statistically significant differences in the mean scores of the experimental group in the pre and post testing of vocabulary retention skills in favor of the posttesing.

2. There are statistically significant differences in the mean scores of the control and experimental groups in the post-testing of vocabulary retention skills.

3. There are no statistically significant differences in the mean scores of the experimental group in the posttest and follow-up of the vocabulary retention skills.

3. Method

The current study used a pre-post two groups' research design with a quasi-experimental approach. A vocabulary retention test was used to pre-test of the two groups. Then the experimental group was then advised to employ competitive activities, while the control group was instructed to use the traditional practices outlined in the "Time for

English" Level 6. The experiment lasted for four weeks, two days of class per week.

3.1 Participants

Sixty fifth-grader pupils at Hurghada Smart City School were selected to participate in the study, and they were divided into equivalent groups. Both groups were approximate of the same age, according to the school records (10-11 years). Interfering variables were controlled as the school divided the students into classes in a way that ensured students' equivalence.

3.2 Delimitations

Place: Smart City Language School at Hurghada, Red Sea governorate (The school platform is suitable for the competitive games).

Age: Participants are fifth-grader pupils who are approximate of the same age, according to the school records (10-11 years).

Duration: A semester.

3.3 Instruments and materials

The researcher designed and used the following materials and instruments to achieve the study objectives:

    a) Vocabulary retention test.
    b) The students' activities.
    c) The teacher's guide.

3.4 Procedures

1. Designing the students' activity book and teacher's guide

a) **Selecting the content:** Units 1 & 2 in "Time for English", Level 6, were chosen to design the student's activity book. The selected units

included 8 lessons that were constructed on a variety of oral and written activities and practices to help learners enhance their various language abilities. This number of units was deemed to be enough for improving the participants' vocabulary retention.

b) **Content analysis:** The selected units have been analyzed to stand on the expected outcomes and to decide on the vocabulary items and language functions in Time for English, Level ٦. The following were the steps involved in analyzing the selected content:

1. Defining the primary categories and inventories: a) vocabulary items, b) grammatical items, and c) language functions.

2. Submitting the study to a jury of language teachers and supervisors, who reported on the list's validity.

4. Calculating the content reliability coefficient the researcher examined the experimental units twice. Table 1. shows the dependability coefficients.

Table (1) Inter-rater Reliability of Content Analysis

Categories	1stAnalysis	2nd Analysis	Agreement %
Vocabulary items	102	104	99%
Grammatical items	10	8	97%
Language functions	24	26	95%
Total	136	138	99%

c) Designing the activity book using competitive activities: The exercise book was designed to improve the participants' vocabulary retention. It is a re-creation of the first two units of "Time for English" Level ٦, which involve competitive activities. The Time for English ٦

textbook concentrated primarily on oral activities. As a result, each unit involves two major activities: Time for discussion and practice various competitive and challenging games which were included in the revised teacher's guide. The modified teacher's guide has the following characteristics:

1. Each unit consists of 4 lessons including a variety of competitive games and activities to foster participants' vocabulary retention.

2. In each lesson, the new vocabulary items were delivered using a variety of teaching strategies, and then participants were subjected to a variety of competitive games to help them learn more effectively.

3. The games and activities chosen were digital, they were carefully chosen following the lesson's objectives and teaching resources.

4. Participants use the website "WordWall.com" to play the assigned games and exercises. They had previously been taught how to use the website, as well as how to log in and play. The website now includes a leader board to encourage participants' progress. In each game, students' performance was evaluated based on their achievement and speed in solving problems.

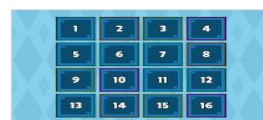Community ▶ Language game   Examples from our community

10000+ results for 'language game'

Irregular Verbs Wheel
Random wheel
by **Sofiamartinez**
Game

pick your name for a game
Random wheel by **30sawyer**
Game

school wordsearch
Wordsearch by **30sawyer**
Reading   Game

Figurative Language (Open the box)
Open the box
by **Miserranofritz**

0:23   Drag wheel to spin

Irregular Verbs

Spin It

Leaderboard

Rank	Name	Score	Time
1st	ARRIBA ESPAÑA!	10	7.5
2nd	N	10	8.0
3rd	Darasco	10	8.3
4th	Amia	10	9.0
5th	Rence Ariel	10	10.7

5. Competitive activities and digital games offer great opportunities for students to be creative as they are asked to produce more words and form sentences. This is done to guarantee students' participation and interaction.

6. Participants can practice individually or collaboratively about the probing digital games.

7. The teacher's guide was designed to help teachers communicate the processes, directions, and recommendations for implementing the activities described in the student's book.

8. The appropriateness of the tasks and exercises, the adequacy of the language for the subjects, and the consistency of the content

with the objectives were all judged by a jury for both the activities and the teacher's handbook. Some changes to the activity arrangement were made in response to jury suggestions, and they were all included in the final version.

2. The vocabulary retention test

The researcher designed the vocabulary retention test that was used before and after the implementation of the experimental program. The test was used to assess 6th primary stage pupils' retention of the target vocabulary items from the EFL textbook. The following steps were taken to design the vocabulary retention test:

1. Reviewing research on vocabulary retention assessment.
2. Deciding on the test objectives based on the lexical content based on Bloom's Taxonomy levels: knowledge, understanding, and application.
3. Designing a test specification table: The test specs table provided the content and number of items, ensuring that all of the learning objectives were assessed and that the number of questions was appropriate for assessing all of them.
4. Deciding on the types of questions included in the test. The test had a total of 25 questions which were divided into the following categories:

   a. Circle the right word (3 items).
   b. Fill in the gaps with words (4 items).
   c. Matching (3 items).

d. Circle the odd out and replace it with the correct word (3 items).

e. Rearrange the following words to make correct sentences (3 items).

f. Choose the correct word from the four given choices (4 items).

g. Look at the picture and write the missing word (4 items).

5. Deciding the time allowed for the test and the scoring rubric. The maximum test score is 25 points, with one point for each correct answer.

6. Submitting the test to a jury of EFL teachers, supervisors, and staff members to verify its validity, appropriateness, and suitability.

7. Piloting the test on a group of forty sixth-grade pupils.

a. Test Reliability: To ensure the test reliability, Cronbach Alpha has been calculated using a sample of 40 pupils. Cronbach Alpha was .72 at a significance level (0.01) which is acceptable (Allam, 2000). In addition, the test-retest reliability coefficient has been calculated using the piloting group of 46 primary stage pupils.

3. Difficulty and Easiness Indices: Difficulty indices varied from (0.35) to (0.45), while easiness indices were found to vary from (0.44) to (0.64). These values were found to be quite adequate and within the permissible limit (Allam, 2000).

4. Discrimination indices: It varied from 0.30 to 0.80. According to Allam (2000), discrimination values were found to be quite appropriate and within an acceptable range.

5. Designing the final version of the test: The test was designed in its final form to be utilized in the fundamental experiment, taking into account the jury's revisions and the outcomes of the pilot study.

- Pre-testing of the study instrument: The vocabulary retention test was used to assess the equivalence of the two groups before the experiment was carried out, i.e., to check that there were no statistical differences between the experimental and control groups.

Table (2) *t*-test analysis of scores obtained by the control and experimental groups on pre-testing of the vocabulary retention test

Group	No.	M.	SD.	*t*-value	p-value
Control	30	10.13	1.38	1.72	0.091
Experimental	30	10.77	1.48		

Maximum score= 25

Table 2. shows that there was no statistically significant difference between means scores obtained by the study participants of both experimental and control groups on the pre-test of the vocabulary retention.

3. Implementing the study experiment: The researcher attended all of the EFL courses of both groups and write down notes, comments, observations, and descriptions of the teaching process in the form of diaries after ensuring the homogeneity of the two groups. These diaries

were extremely useful in editing and analyzing the experiment's data and implications.

4. Teaching the control group: The control group was taught using the methods and procedures outlined in the Ministry of Education's Time Teacher's Guide for English, level 6. New vocabulary and language items were typically introduced by having them translated into the mother tongue or by using visuals in the textbook. To practice the tasks in the textbook, repetition techniques were frequently used. The only difference was that in the textbook examples, names, places, and numbers were substituted.

5. Teaching the experimental group: Before beginning the experiment, the researcher met the school teachers of the two selected classes and provided the experimental group's instructor with the materials (The teacher's guide and the student's activities). The researcher set the roles and responsibilities of teachers with their students. The researcher then set passwords and IDs for each participant on the "WordWall" website, then instructed them on how to log in and play the games. Then, the researcher prepared the computer lab.

Teaching procedures included the following:

a) *Warm-up*: the researcher asked students to start working by answering a few questions about the new lecture. They were then asked to quickly review the important points of the previous class using digital games.

b) *Presentation*: The teacher used visual aids (recorded YouTube videos and internet songs) to present the new vocabulary items, repeating the pronunciation of the new words individually and in chorus.

c) *Practice activities*: The teacher guides students on how to sign in to the website www.wordwall.com using their passwords and IDs with the assistance of their teacher. They were then required to play the online games. Students' scores were recorded automatically in each game as well as the time it took them to complete the game. The victors were also ranked according to the number of right answers they provided and the amount of time it took them to complete the game. The victor is rewarded by the teacher to motivate the rest of the class.

d) *Closure*: The researcher concluded the lecture by announcing the award winner and evaluating the students' performance for the day.

6. Post-Testing: After implementing the experiment, a vocabulary retention test was used to assess the performance of the two groups.

3. Results

The current study aims to investigate the usefulness of competitive digital games on enhancing vocabulary retention of fifth-graders primary stage pupils.

3.1 The first hypothesis: The first hypothesis states that: "***there are statistically significant differences in the mean scores of the experimental group in the pre and post testing of vocabulary retention***

skills in favor of the posttesing". To validate this hypothesis, the mean scores, standard deviations as well as t-value have been calculated.

Table (3) *t*-test analysis of scores obtained by the experimental group in the pre -posttesing of the vocabulary retention skills

Administration	N.	M.	SD	df	t-value	p-value
Pre		10.76	1.47			
Post	30	21.93	1.63	29	27. 87	0.0001

Maximum score= 25

Table (3) showed that there are statistically significant differences in the mean scores of the experimental group in the pre and post-testing of vocabulary retention skills in favor of the post-test. T-value was 27.71 which is significant at the (0.01) level. This finding confirms and supports that the posttest scores were higher than in the pre-testing of the experimental group. Implementing digital competitive games and activities has a significant favorable impact on the participants' vocabulary retention.

The results showed that using competitive digital games and activities improves vocabulary retention is effective (Blake ratio =1.31, 2=.95). Blake (1974: 21) considers it to be an acceptable level of significance as it ranges from 1 to 2. Thus, using competitive digital games and activities in the classroom to teach 6th grade primary school kids helped expand their vocabulary retention.

2. The second hypothesis: The second hypothesis states that: "*there are statistically significant differences in the mean scores of the control and experimental groups in the post-testing of vocabulary retention skills*". To

validate this hypothesis, means, standard deviations, and t-test values have been calculated.

Table (4) T-test analysis of scores obtained by the control and experimental groups on the Post-test of vocabulary retention

Group	N.	Means	SD	df	t-value	p-value
Control	30	10.23	1.21			
Experimental	30	21.93	1.64	58	31.4	0.0001

Maximum score= 60

Table (4) shows that there are statistically significant differences in the mean scores of the control and experimental groups in the post-testing of vocabulary retention skills as a t-value is 22.609 is significant at the (0.01) level. This finding confirms and supports that the experimental group outperformed the control group on the vocabulary retention post-test. Using competitive digital games and activities has a significant favorable influence on the vocabulary retention of the experimental group members.

3. The third hypothesis: The third hypothesis states that: "***there are no statistically significant differences in the mean scores of the experimental group in the posttest and follow-up of the vocabulary retention skills***". To validate such a hypothesis, means, standard deviations, and t-test values have been calculated.

Table (5) *t*-test analysis of scores obtained by the experimental group in the post-testing and follow-up test of the vocabulary retention skills

Administration	N.	M.	SD	df	t-value	p-value
Post	30	21.93	1.63			
Follow up		21.81	1.62	29	-0.286	0.7759

Maximum score=25

Table (6) indicates that there are no statistically significant differences in the mean scores of the experimental group in the posttest and follow-up of the vocabulary retention skills, the t-value was 1.62 which is not significant. Findings show that the utilization of competitive digital games and activities resulted in high retention of vocabulary.

Discussion

The current study aims at assessing the usefulness of competitive digital games and activities - online competitive language games- in enhancing vocabulary retention of six graders primary stage pupils. The main aim for using competitive activities was for enhancing the vocabulary retention as pupils need more advanced activities that may help them keeping the new vocabulary. Several reasons may contribute to the success of competitive activities in promoting vocabulary retention. One of these reasons is that using online games represents fun and interesting environment that is different from the norm. Pupils in the digital age are eager to study using technology and were enthralled while doing so. In addition, using competition and a leader board on the internet improves the effectiveness of gamified challenging activities as the pupils participated in challenges and were awarded by the teacher and the website with positive expressions.

Using digital competitive games and activities provide different opportunities to practice, helps participants improve their vocabulary retention. Using visuals such as YouTube videos and online music to present new vocabulary items may aid in the participants' understanding

of those new items. Also, including a wide range of useful and exciting online games in each class can assist learners to increase vocabulary retention by allowing them to practice and apply their information in several scenarios. This game-based technology can provide learners with more possibilities for practice that are not restricted by time or place. It is envisaged that vocabulary retention would become more enjoyable and efficient.

Per the findings of the current study; previous studies (Chenge, et al., 2009; Han & Chan, 2008; Ke, 2008; Yu & Liu, 2009; Lam et al., 2004; Dettmer, 2004; Hung, 2011; Guevara, 2014, Hasegawa et al. 2015; Klimova & Kacet, 2017; Ibrahim, 2017; Vasileiadou & Makrina, 2017; Alzaid, 2018) revealed that competition has a good impact on student's performance in the classroom, particularly in vocabulary retention, which confirmed the positive effects of online games on language acquisition, particularly vocabulary retention.

Utilizing digital games and competitive activities fosters student-centered learning (SCL) that encompasses the student-centered experience (Lea et al. 2003). SCL involves active learning experiences involving learners engaging and interacting with content on a level that goes beyond simple cognitive processing. It also implicates deep learning and comprehension, a learning experience should not be separated from its context and presenting it for its purpose. Deep learning and understanding – as secured through the use of digital games and competitive activities - allows students to better internalize learning and connect it to concepts, characters, and events.

In addition, using digital games and online competitive activities enhance students' accountability and responsibility which is inextricably connected to student independence. A responsible student knows and accepts their duty as an independent learner (Corno 1992), becoming accountable in this capacity as a result. Such students may be better equipped to engage in an active learning relationship with the teacher since they both understand the goals of the learning and can discover solutions to achieve those goals (Corno 1992). Increased sense of responsibility positively impacts students' sense of autonomy and independence (Clements and Battista 1990). Independent students can seek out further information and enhance their skills on their own. Giving pupils a sense of autonomy moves teachers' and lecturers' roles toward assisting the learner's activities (Motschnig-Pitrik and Holzinger 2002; Bonk and Cunningham 1998).

Recommendations

Based on the findings of the current study, it is recommended to:

1) Increase the use of digital teaching instruments in the classroom to teach speaking, listening, and writing abilities.

2) Educate EFL teachers on the proper use of digital modern technology in the classroom.

3) Equip schools at all levels with multimedia-enabled PCs.

4) Improve the ELT teaching methods in primary and intermediate schools and introduce innovative educational technologies to schools.

5) Integrate technology into the process of teaching EFL is critical because it creates a motivating learning environment.

Suggestions for future research

1) Identifying the effect of using competitive activities for developing EFL teachers' classroom management.

2) Comparing between the effect of digital competitive games and digital traditional games on developing pupils EFL motivation and attitudes.

References

Abdulrahman, M. & Amal, A. (2018). The effectiveness of vocabulary learning strategies in developing Palestinian students` vocabulary, its retention, and their attitudes towards learning English. *Journal of Teaching and Teacher Education*, 6 (2),169-184.

Abraboh, A. (2019). Using Vocabulary Notebook and Pave Strategies to Develop Al-Azhar EFL Secondary Stage Students' Vocabulary Learning and Retention. *Mansoura Faculty of Education Journal*, 105(4), 47-60.

Abrams, S. (2014).Gamified vocabulary: Online resources and enriched language learning. *Journal of Adolescent & Adult Literacy,* 58(1), 49-58.

Alqahtani, M. (2015). The importance of vocabulary in learning and how to be taught. International *Journal of teaching and Education*, (3), 21-34.

Alzaid, A. (2018).The Prevalence of Neck Pain and The Relationship Between Prolonged Use of Electronic Devices and Neck Pain IN: A Saudi Arabia, Cross- Sectional Study in Saudi Arabia. The Egyptian *Journal of Hospital Medicine*, 70(11), 92-99.

Anderson, L. (1989). *The Effective Teacher:* Study Guide and Readings. McGraw-Hill

Bao, X. (2015). *Applying gamification into a language learning application*.   Available: https://lauda.ulapland.fi/bitstream/handle/10024/62003/Chingual-whole%20thesis-05-26.pdf?sequence=2

Bonk, C., & Cunningham, D. (1998). Searching for learner-centered, constructivist, and sociocultural components of collaborative educational learning tools. In K. S. K. Curtis Jay Bonk (Ed.), *Electronic collaborators: Learner-centered technologies for literacy, apprenticeship, and discourse* (1st Ed., Vol. 25, pp. 25–50). University of Michigan: L. Erlbuam Associates.

Brown, R., Waring, R., and Donkaewbua, S. (2008). Incidental vocabulary acquisition from reading, reading-while-listening, and

listening to stories. *Reading in a Foreign Language*, 20(2), 136-163.

Campbell, E. (2003). The *Ethical Teacher*. McGraw-Hill Education (UK)

Cárdenas, C. (2020). Game-Based Student Response Systems: The Impact of Kahoot in a Chilean Vocational Higher Education EFL Classroom. *CALL-EJ,* (21), 64-78.

Chen, C., Liu, J. and Shou W. (2018). How Competition in a Game-based Science Learning Environment Influences Students' Learning Achievement, Flow Experience, and Learning Behavioral Patterns. *Educational Technology & Society*, 21 (2), 164-176.

Cheng, Y., Kuo, S. & Lou, S. (2012). The construction of an online competitive game-based learning system for junior high school students. *Turkish Online Journal of Educational Technology*, 11, 214-227.

Clements, D., & Battista, M. (1990). Constructivist learning and teaching. *Arithmetic Teacher*, 38(1), 34–35.

Corno, L. (1992). Encouraging students to take responsibility for learning and performance. *The Elementary School Journal*, 93(1), 69–83.

Crow, T. (2015). *A mobile game world for Māori language learning*. Available at: http://mro.massey.ac.nz/bitstream/handle/10179/6973/02_wole.pdf?sequence=2&isAllowed=y

Dalton, E. (2005). *Language learning games: why, when and how*. Available at: http://webcache.googleusercontent.com/search?q=cache:crVr

Dehghanzadeh, H., Fardanesh, H., Hatami, J., Talaee, E. & Noroozi, O. (2019). Using gamification to support learning English as a second language: a systematic review. *Computer Assisted Language Learning,* 10 (34), 1-24.

García, P. (2017). Gamification in English teaching in primary education. *Soria*, 19, 43- 57.

Ghadessy, M. (1998). Word lists and materials preparation. *A New Approach, English Teaching Forum.* 17(1), 24 – 27.

Ghanem, M. (2018). Using Authentic Materials for Developing Vocabulary Acquisition among EFL Students. *Banha Faculty of Education Journal*, 29(116), 170- 179.

Good, T., & Brophy, J. (2008). *Looking in Classrooms* (10th Ed.). Boston: Pearson Education.

Guevara, P. (2014). *The use of competitive games to motivate EFL telesecundaria students to learn English*. University of Veracruzana. Región Xalapa.

Halvorsen, M. (2013).The use of Gamification in learning applications. *MA Thesis*. Department of information science and Media Studies, University of Bergen. Available at:http://bora.uib.no/bitstream/handle/1956/7615/115728696.pdf?

Hasegawa, T. & Koshino, M. & Ban, H. (2015). An English vocabulary learning support system for the learner's sustainable motivation. *Springer Plus*, 4(99), 1-9.

Hashemi, M. & Azizinezhad, M. (2011). Teaching English to Children: A Unique, Challenging Experience for Teachers, Effective Teaching Ideas. *Procedia - Social and Behavioral Sciences*, 30(2011), 2083 – 2087.

Hosseini, S. (2014). Competitive Team-Based Learning versus Group Investigation with Reference to the Language Proficiency of Iranian EFL Intermediate Students. *International Journal of Instruction*, 7(1), 177-188.

Huang, Z. & Xie, H. (2019). Digital game-based vocabulary learning: where are we and where are we going? *Computer Assisted Language Learning*, 34(5), 1-15.

Hulstijn, J. (2001). Intentional and incidental second-language vocabulary learning: A reappraisal of elaboration, rehearsal and automaticity. In P. Robinson (Ed.), *Cognition and second language instruction* (pp. 258-286). Cambridge: Cambridge University Press.

Hung, H. (2011). Constructing the face-to-face collaborative game-based interacted environment for portable devices in English vocabulary acquisition. Computer Supported Collaborative Learning Practices, *CSCL Conference Proceedings - 9th International Conference*, 370-374.

Hung, H., Young, Sh. and Lin, Ch., (2015). No student left behind: a collaborative and competitive game-based learning environment to reduce the achievement gap of EFL students in Taiwan. *Technology, Pedagogy and Education*, 1(24),35-49. doi:10.1080/1475939X.2013.822412.

Ibrahim, A. (2017). Advantages of Using Language Games in Teaching English as a Foreign Language in Sudan Basic Schools, 37 (1), 140-150.

Johnson, D. & Johnson, R. (2006). Conflict resolution, peer mediation and peace making. In C. M. Evertson & C. S. Weinstein (Eds). *Handbook of Classroom management* (pp 803-832), Mahwa.

Kapp K. (2012). *The Gamification of Learning and Instruction:* Game-based Methods and Strategies for Training and Education. US: John Wiley & Sons.

Ke F. (2008). Computer games application within alternative classroom goal structures: cognitive, metacognitive, and affective evaluation. *Education Tech Research Development*, (56), 539–556.

Kiley, O. (2014). *Game format: competitive, cooperative and semi-quasi collaboration games.* Retrieved from: http://boardgamegeek.com/blogpost/27555/game-format

Klimova, B. & Kacet, J. (2017). Efficacy of computer games on language learning. *Turkish Online Journal of Educational Technology*, (16), 19-26.

Lam, S. (2014). *Use of Gamification in vocabulary learning: A case study in Macau, an alternative pedagogy in the English language & communication classroom.* National University of Singapore. Available at: http://www.nus.edu.sg/celc/research/books/4th%20Symposiu

Lam, S. Law, J. & Cheung, R. (2004). The effects of competition on achievement motivation in Chinese classrooms. *British Journal of Educational Psychology*, 16(7), 281-296.

Lam, S., Law, J., & Cheung, R. (2004). The effects of competition on achievement motivation in Chinese classrooms. *British Journal of Educational psychology*, (16), 281-296.

Lam, S., Yim, P., law, J., & Cheung, R. (2004). The Effects of Competition on Achievement Motivation in Chinese Classrooms. *British Journal of Educational Psychology*, 74 (2), 281-296.

Lea, S. J., Stephenson, D., & Troy, J. (2003). Higher education students' attitudes to student-centered learning: beyond educational bulimia? *Studies in Higher Education*, 28(3), 321–334.

Lee, J. & Hammer, J. (2011). Gamification in Education: What, How, Why Bother? *Academic Exchange Quarterly*, (15), 1-5.

Lee, S. (2017). Raising EFL Learners' Awareness of L2 Lexical Errors and Correct Usage: A Dual Coding Approach. *English Teach*, 72(2), 29–50.

Min, H. (2008). EFL vocabulary acquisition and retention: Reading plus vocabulary enhancement activities and narrow reading. *Language Learning*, 58(1), 73-115. Doi: 10.1111/j.1467-9922.2007.00435.x

Moghaddam, A., & Araghi, S. (2013). Brain-Based aspects of cognitive learning approach in second language learning. *English Language Teaching*, 6(5), 55-61.

Mohammed, M. (2019).The effectiveness of implementing a Meta cognitive strategy in eighth grade students' vocabulary learning and retention. *Journal of Islamic university for educational and psychological studies*, 27(3), 48- 60.

Motschnig-Pitrik, R., & Holzinger, A. (2002). Student-centered teaching meets new media: Concept and case study. *Educational Technology & Society*, 5(4), 160–172.

Mukoroli, J. (2011). Effective Vocabulary Teaching Strategies for the English for Academic Purposes ESL Classroom. *MA TESOL Collection*. 501. https://digitalcollections.sit.edu/ipp_collection/501.

Muntean, C. (2011). Raising engagement in e-learning through gamification. *Proceeding's 6th International Conference on Virtual Learning* ICVL (pp. 323–329), Cluj-Napoca, Romania, Europe. New Media Consortium.

Nation, I. (2013). *Learning vocabulary in another language Google eBook*. Cambridge University Press.

Nation, I.   (2001). *Learning vocabulary in another language*. Cambridge: Cambridge University Press.

National Institute of Child Health and Human Development. (2000). *Report of the National Reading Panel. Teaching children to read: an evidence-based assessment of the scientific research literature on reading and its implications for reading instruction: Reports of the subgroups* (NIH Publication No. 00-4754). Washington, DC: U.S. Government Printing Office.

Papadakis, S. (2018). The use of computer games in classroom environment. *International Journal of Teaching and Case Studies*, 9(1), 1- 20. DOI: 10.1504/IJTCS.2018.10011113

Patrick, N. (2021). *Handbook of Research on Mixed Methods Research in Information Science*. IGI Global,

Rooswinkel, J. (2014). Competition in Language Learning Games The effects of competition in an online memory game on the performance and appreciation of learning a foreign language. *Master Thesis*. Human Aspect of Information Technology Faculty: School of Humanities Institute. Tilburg University.

Schmitt, D. (2011). *Focus on Vocabulary 2: Mastering the Academic Word List Answer Key and Tests.* Pearson Education, Inc.

Shabaneh, Y., & Farrah, M. (2019). The effect of games on vocabulary retention. *Indonesian Journal of Learning and Instruction*, 2(1), 79-90. Doi:10.25134/ijli.v2i01.1687

Shindler, J. (2009). *Transformative Classroom Management:* Positive Strategies to Engage All Students and Promote a Psychology of Success. John Wiley & Sons.

Slavin, R. E. (2003). *Education Psychology: Theory and Practice*. Boston: Allyn & Bacon.

Smith, G. G., Li, M., Drobisz, J., Park, H. R., Kim, D., & Smith, S. D. (2013). Play games or study? Computer games in e-books to learn

English vocabulary. *Computers & Education*, 69, 274-286. Doi: 10.1016/j.compedu.2013.07.015

Szymkowiak, C. (2014). The Effects of Cooperative and Competitive Games on Classroom Interaction Frequencies Susan. *Procedia - Social and Behavioral Sciences*, (140), 155 –163.

Vasileiadou, I. & Makrina, Z. (2017). Using Online Computer Games in the ELT Classroom: A Case Study. *English Language Teaching*, 10(12), 134-150

Wang, Z. (2018). Using digital educational game for English foreign language learning. *Proceedings of EDULEARN Conference,* 2nd - 4th July, 2018, Palma, Mallorca, Spain.

Yu, F. Y., & Liu, Y. H. (2009). Creating a Psychologically Safe Online Space for a Student – Generated Questions Learning Activity Via a Different Identity Revelation Modes. *British Journal of Educational Technology*, 40(6), 1109–1123.

Zichermann, G. & Cunningham, C. (2011). *Gamification by Design:* Implementing Game Mechanics in Web and Mobile Apps. Sebastopol, CA: O'Reilly Media.