# Innovative Games as Supplementary Tool in Teaching and Learning Vocabulary among Students at a University in the North of Viet Nam 

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#### Abstract

The purpose of this research was to investigate the use of games in teaching and learning vocabulary among Vietnamese students and to assess the effectiveness of word games in enhancing English vocabulary acquisition among university students at a university located in Northern Vietnam. The study involved the participation of sixty first-year students from two classes. Data was collected through pre-tests, post-tests, unstructured observations, and informal interviews. The findings of the study revealed a significant statistical difference between the pre-test and post-test scores of the experimental group. Furthermore, a significant statistical difference was observed between the experimental group, which employed innovative game-based methods for vocabulary learning, and the group that followed traditional language teaching methods. Additionally, the introduction of innovative games proved successful in creating an enjoyable and welcoming environment for students to enhance their vocabulary skills through interactive gameplay with their peers. The game-based activities also fostered a student-centered approach, granting students the freedom to express their ideas based on their creativity and imagination. As a result, students felt more comfortable during classroom gameplay, leading to easier expression of their thoughts and ideas.


Index Terms- Innovative games, university students, vocabulary teaching, vocabulary learning, supplement tool.

## I. Introduction

English is widely recognized as a global language, extensively spoken across numerous countries as both a primary and secondary language. It is incorporated into educational curricula in nearly every nation, serving as a dynamic and thriving medium of communication for over two billion individuals worldwide. Pasi's recent study (2017) suggests that the number of English speakers and learners will reach three billion within the next decade. The universal acquisition of English is motivated by the realization that possessing English proficiency serves as a gateway to enhanced career prospects, increased remuneration, advanced knowledge, and global interconnectivity.

Verbal aptitude can be effectively assessed by gauging an individual's vocabulary knowledge, as supported by Sternberg (1987). Proficiency in vocabulary is a significant contributing factor to young children's phonological awareness, subsequently bolstering their word recognition abilities, as explored by Nagy (2005). For English learners, the acquisition of English vocabulary stands as one of the most critical undertakings (Nation, 2014). The teaching of vocabulary not only enhances reading comprehension for native English speakers but also benefits English learners (Carlo et al., 2004). Insufficient vocabulary can be identified as a crucial determinant of academic underachievement among disadvantaged students (Bergland, 2014). Furthermore, the significance of vocabulary has endured across different eras and educational trends, as consistently emphasized (Bloom, 1988). Language fundamentally relies on vocabulary; hence, its effective acquisition and utilization pose a challenging question concerning how to assist the general populace and secondary school students in particular.
Games, as task-oriented activities with objectives beyond the mere production of accurate speech, serve as highly effective communicative tools. They provide meaningful opportunities for practice in all four language skills, regardless of proficiency levels or the teaching stage. Extensive research in the field has yielded a plethora of games specifically designed for students at various levels (Saricoban \& Metin, 2002).
In Vietnam, English education commences as early as middle school, and in some cases, even at the elementary or kindergarten levels, similar to other countries where English is spoken as a second language. However, upon completing high school, only a small percentage of Vietnamese students demonstrate fluency in English. Despite studying English for seven years, starting in grade six, many students struggle to go beyond basic greetings and simple questions like "hello", "goodbye", and "what is your name?" (Dudzik, 2000). One potential contributing factor to this issue is the limited English vocabulary of the students.
Teaching vocabulary is a multifaceted process encompassing various steps and aspects. A robust vocabulary enables students to articulate their ideas effectively and facilitates smoother communication. When students possess the skills to organize vocabulary into sentences and conversations, their confidence grows, and their speaking abilities and vocabulary development
improve. Pasi (2017) suggests that course books and teaching materials are often assumed to have been meticulously designed by experts who adhere to specific principles in selecting new words. Consequently, one of the responsibilities of teachers is to carefully choose the vocabulary that students require. Incorporating vocabulary learning through games should be a focal point in English instruction at the secondary school level.
In summary, word games play a significant role in facilitating foreign language acquisition for students. Their value extends beyond the sheer number and diverse levels of games available, as they also offer purposeful and effective language practice. It is crucial for educators to maximize the use of games in language instruction to enhance students' engagement and motivation while providing them with meaningful opportunities for practice.

## II. LITERATURE REVIEW

## Vocabulary

Vocabulary knowledge is widely recognized as a crucial asset for second language learners, as a limited vocabulary hampers effective communication. Schmitt (2000) emphasizes the central role of lexical knowledge in communicative competence and the acquisition of a second language. Additionally, Nation (2001) highlights the complementary relationship between vocabulary knowledge and language use: a strong vocabulary enables effective language use, while language use contributes to the expansion of vocabulary knowledge. The significance of vocabulary is evident both within and outside the classroom, with high-achieving students typically exhibiting a more extensive vocabulary.
Vocabulary holds a central and vital position within language, playing a crucial role for language learners. Words serve as the fundamental building blocks of a language, enabling individuals to label objects, actions, and ideas necessary for effective communication. The significance of vocabulary knowledge in second or foreign language learning has garnered recent recognition among theorists and researchers in the field. Consequently, a wide range of approaches, techniques, exercises, and practice methods have been introduced to teach vocabulary (Hatch \& Brown, 1995).
Research indicates that vocabulary knowledge is heavily relied upon by second language readers, and its absence presents the primary and most substantial obstacle for L2 readers to overcome (Nation, 2001). In terms of production, when individuals aim to express a specific meaning or concept, they must possess a reservoir of words from which they can select to effectively convey their intended message. As Krashen (as cited in Lewis, 1993) suggests, "When students travel, they don't carry grammar books, they carry dictionaries" (p. 25). Numerous researchers argue that vocabulary is one of the most, if not the most, critical components in foreign language acquisition, and foreign language curricula must reflect this perspective. Scholars such as Richards (1980) and Krashen (1989), as cited in Maximo (2000), provide further reasons for prioritizing vocabulary acquisition. They highlight that a large vocabulary is essential for achieving language mastery, which is recognized by second language acquirers who often carry dictionaries and frequently report a lack of vocabulary as a major challenge.

## Innovative Word Games

Learning vocabulary is a demanding task that necessitates active engagement in order to comprehend, produce, and manipulate the intended words. According to Byrne (1986, p.100), the concept of a game can be perceived as a variation of play that relies on adhering to strict regulations and attaining a predetermined outcome. Krashen (1985) defines games as activities conducted by individuals who either collaborate or compete and are driven by the desire to accomplish specific goals while adhering to a prescribed set of rules. Games offer valuable assistance and motivation to numerous language learners, enabling them to acquire their target language more effortlessly. Furthermore, games assist educators in establishing contexts in which the target vocabulary becomes meaningful and practical. Additionally, games infuse an element of enjoyment into the learning process, thereby facilitating students in their acquisition and retention of new words. In essence, game-based learning fosters the creation of meaningful language learning environments. Following the utilization of games for vocabulary acquisition and practice, students are afforded the opportunity to employ language in a relaxed manner, free from stress (Huyen \& Nga, 2003).
Games are advantageous and effective in learning vocabulary. They are motivating because they usually involve friendly competition and create cooperative learning environment, so students have an opportunity to work together. They improve students' communicative skills and they have a chance to use the target language (Linse, 2005). Therefore, vocabulary games bring real world context into the classroom, and enhance students' use of English in a flexible, communicative way. The role of games in teaching and learning vocabulary cannot be denied.
Acquiring vocabulary requires significant effort to comprehend, produce, and manipulate the target words. Games serve as valuable tools that facilitate and motivate learners in their journey to master the target language. By incorporating games into language instruction, teachers can create meaningful and relevant contexts in which the target words are utilized. Additionally, games add an element of enjoyment for students, making the learning process more engaging and enabling them to acquire and retain new vocabulary more effectively. In essence, game-based learning establishes a meaningful framework for language acquisition. As students engage in games and practice new vocabulary, they also have the opportunity to utilize the language in a relaxed and non-stressful manner (Huyen \& Nga, 2003).
The advantages and effectiveness of games in vocabulary learning are undeniable. Games foster motivation through friendly competition and promote a cooperative learning environment, allowing students to work together collaboratively. Furthermore, games enhance students' communicative skills by providing them with opportunities to utilize the target language in practical situations (Linse, 2005). As a result, vocabulary games bring realworld contexts into the classroom, enabling students to use English in a flexible and communicative manner. The role of games in teaching and learning vocabulary holds significant importance and should not be overlooked. In this study, innovative games are defined as a form of play governed by certain rules or conventions that inovates students in learning vocabulary.

## Teaching Vocabulary

Language structure is often likened to the skeleton of a language, while vocabulary is regarded as the vital organs and flesh that bring it to life (Harmer, 1991). Vocabulary serves as the
foundation and a crucial component for acquiring any language. Teaching vocabulary encompasses more than merely introducing new words; it primarily aims to provide students with the ability to express their emotions and thoughts through language. Many students encounter challenges when learning vocabulary in a foreign language, particularly those whose native language's written form aligns with its spoken form. Such students are accustomed to spelling words as they are pronounced. However, when faced with a language like English, this dynamic changes, as words are not spelled phonetically, and pronunciation does not always align with the written form.
Taheri (2014, p. 544) suggests that teachers have various methods at their disposal for teaching vocabulary, including different approaches, techniques, exercises, and practice activities. However, it is the responsibility of the teachers to determine the most suitable approach for their specific group of students, considering their unique characteristics. Additionally, teachers should consider whether their chosen approach aligns with the learning objectives, maintains learners' interest and enthusiasm, and suits the specific characteristics of the class (Taheri, 2014).
Contemporary research indicates that educators encounter difficulties when it comes to the instruction of vocabulary, primarily due to their uncertainty in identifying the most effective pedagogical approaches for facilitating word learning. Establishing a solid foundation for emphasizing vocabulary acquisition poses a significant challenge. The instruction of words holds intrinsic importance in the process of language acquisition, given that languages are essentially constructed upon lexical units (Thornbury, 2002). Words serve as the fundamental building
blocks, playing a critical role in verbal communication among individuals. Both teachers and students acknowledge the pivotal role of vocabulary acquisition in language education (Walters, 2004). Consequently, the teaching of vocabulary frequently takes center stage in discussions pertaining to English language instruction.
As a foreign language, I learnt that teachers often encounter challenges in the teaching and learning process. They grapple with questions of how best to instruct students in order to achieve satisfactory outcomes. It is the responsibility of the teacher to prepare and utilize appropriate techniques that will resonate with students. A skilled teacher should equip themselves with a diverse range of effective and up-to-date methods. Mastery of these approaches is essential for effective communication with students, fostering their interest and promoting a positive and enjoyable classroom environment.
Teachers must recognize that teaching vocabulary is a distinctive endeavor separate from the students' native language. Additionally, the teaching of English to young learners differs significantly from adult learners. It is crucial for teachers to understand the unique characteristics of their learners. Furthermore, they must prepare appropriate techniques and suitable materials to effectively meet the objectives of language instruction (Walters, 2004). Harmer (2008) further emphasizes that in order to develop fluency in spoken English, young learners need to possess a solid grasp of language structures and the ability to process information swiftly. Therefore, learners must engage in diverse and appropriate techniques that support their information processing and simultaneous language operations.

## III. METHODOLOGY

This study utilizes an experimental design that incorporates a pretest and post-test methodology. The design includes two groups, namely class A and class B, which are selected randomly from the first-year students. Both cohorts undergo initial assessment before and after the study, although only one of the cohorts is exposed to the experimental intervention. Class B, designated as the control group, serves a crucial role in minimizing potential factors that could compromise the internal validity of the study. The participants for the study are meticulously selected through a randomization process. The primary objective of this research is to compare the academic performance scores of students utilizing the language games approach versus those employing the traditional method. The disparity in mean scores between the two groups is computed and subjected to statistical analysis to determine if it holds any significant implications. Specifically, the study endeavors to address the following research inquiries:

1. Is there a significant difference between the pretest and posttest mean scores of the control and the experimental groups? and
2. How effective is the use of word games in teaching and learning English vocabulary?
A total of sixty students from the ninth grade participated in this study, divided into two classes: Class A and Class B, with thirty students in each class. One class was taught vocabulary words through word games, while the other class received instruction using the traditional method over a four-month semester.
For this study, a vocabulary test was utilized as the research instrument, which was designed based on expert input and
recommendations. The same test was administered both before and immediately after the instructional intervention. The test consisted of 10 items encompassing diverse types of multiplechoice questions. Prior to introducing the formal lessons incorporating language games for vocabulary learning, the pre-test was administered by the researcher. Subsequently, after the implementation of the chosen approach, the post-test was conducted.
Upon completion of the study in both classes, the teacher responsible for instructing both groups was interviewed to gather their observations and insights regarding the different teaching methods. Furthermore, students belonging to the experimental group were requested to share their perspectives on learning English and vocabulary through the utilization of animations. This additional step allowed for the collection of valuable insights and feedback that went beyond the mere test results, thereby facilitating a comprehensive understanding of the topic at hand.

## IV. FINDINGS AND DISCUSSION

Comparison of scores of students in the experimental and control groups
The scores obtained from both the pre-test and the post-test were analyzed independently using t-tests. In Table 1, the scores and tvalues based on the pre-tests and post-tests are compared.
Table 1. Comparison of scores of students in the experimental and control groups

| Tests | Groups | $\mathbf{N}$ | Mean | SD | $\mathbf{t}$ | $\mathbf{P}$ |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| Pre- <br> test | Control | 30 | 4.7 | 1.31 | 1.13 | 0.34 |
|  | Experiment | 30 | 5.6 | 1.22 |  |  |
| Post- <br> test | Control | 30 | 6.6 | 0.75 | 1.61 | 0.07 |
|  | Experiment | 30 | 8.2 | 1.52 |  |  |

Note. Maximum score $=10$
In Table 1, the average scores of the pre-tests are presented for both the experimental group $(M=5.6)$ and the control group $(M=$ 4.7). The results indicate that there is no statistically significant difference observed in the average scores of the pre-tests when separately analyzed for each group using a statistical test ( p > $0.05)$.
Furthermore, upon analyzing the post-test results, it is revealed that there is no statistically significant difference observed $\left(M \_\right.$experiment $=8.2 ; \mathrm{M}_{1}$ control $\left.=6.6\right)$ between the experimental group, which employed innovative game-based activities for learning, and the control group, which followed a traditional language teaching approach ( $\mathrm{p}>0.05$ ).
Comparison of Pre-test and Post-test scores of students in the experimental group
Table 2 presents the average score of the pre-tests $(M=5.6)$ and the post-tests $(M=8.2)$ administered to the experimental group. In order to determine whether there is a statistically significant difference between the average scores of the pre and post-tests within the experimental group, a dependent $t$-test analysis was conducted. The analysis yielded a t-value of -2.29 and $a$ significance level of $\mathrm{p}<0.05$ (.035). Considering a total test score of 40 , it can be concluded that there is a statistically significant difference between the average scores of the pre-tests and posttests administered to the experimental group.
Table 2. Comparison of Pre-test and Post-test scores of students in the experimental group

|  | $\mathbf{N}$ | Mean | SD | $\mathbf{d f}$ | $\mathbf{t}$ | $\mathbf{P}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Pre- <br> test | 30 | 5.6 | 1.34 |  | 11 | -1.35 | 0.03

Comparison of Pre-test and Post-test scores of students in control group
Table 3 presents the average score of the pre-tests administered to the control group $(M=4.7)$ and the average score of the post-tests for the same group $(M=6.6)$. The dependent $t$-test analysis was conducted to determine if there is a statistically significant difference between these average scores. The results indicate a tvalue of -1.35 and $\mathrm{p}<0.05$ (.03).
Table 3. Comparison of Pre-test and Post-test scores of students in control group

|  | $\mathbf{N}$ | Mean | Sd | $\mathbf{d f}$ | $\mathbf{t}$ | $\mathbf{P}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Pre- <br> test | 30 | 4.7 | 1.33 |  |  |  |
| Post- <br> test | 30 | 6.6 | 2.44 | 19 | -0.3 | 0.04 |

These findings indicate that there is a statistically significant difference between the average scores of the pre-tests and posttests in the control group, who were taught using a traditional language teaching method.
In summary, the data analysis reveals that there is a statistically significant difference between the pre-tests and post-tests for both
the experimental group, who learned vocabulary through innovative games, and the control group, who learned using a traditional language teaching method.
Effect of word games on teaching and learning English vocabulary
Table 4 below presents the significant effect of word games on teaching and learning English vocabulary among students at a university in the north of Viet Nam.
Table 4: Effect of word games on teaching and learning English vocabulary

| Variables | t-value | p- <br> values | Verbal <br> Interpretation |
| :--- | :--- | :--- | :--- |
| Word Games | -3.12 | 0.004 | Highly <br> Significant |
| Teaching and Learning <br> English Vocabulary | -2 |  |  |

The table suggests that the use of word games has a highly significant effect on the vocabulary development at the university considering the computed $t$-value of -3.12 and the $p$-value of 0.004 .

This suggests that the use of word games is an effective approach for teaching and learning vocabulary. However, the study did not determine which specific types of word games had a greater impact on the vocabulary development of the participants. Based on these findings, it is recommended that teachers incorporate word games, as well as other relevant games, into their vocabulary instruction and English teaching in general.
Expanding vocabulary is crucial, as Huong (2004) noted that when students encounter a new word, it often sparks their interest in learning related words. Therefore, teaching vocabulary through synonyms or words with similar meanings is highly important. Additionally, words are interconnected through context, so teachers should encourage students to brainstorm ideas to reinforce previously learned words or to introduce new words within a contextual framework.
Furthermore, according to Steinberg (as cited in Arifin, 2003), games serve various educational purposes such as reinforcement, review, reward, relaxation, inhibition reduction, increased attentiveness, retention, and motivation. There are valuable language games that can prevent students from becoming bored with learning English and make the classroom environment enjoyable. Consequently, these games can be highly effective for vocabulary learning in the classroom.
Observations of the Teacher and Students' Opinions
During the implementation in both classes, no additional instruction or content information was provided to either group. The teacher's role was not that of a tutor but rather a guide to direct students in completing the tasks. When the teacher was asked about his observations regarding both groups, he noted a significantly higher level of enthusiasm for the activity conducted through word games compared to the one presented in a traditional method. Students in the traditional method class, who were given the text on paper, expressed difficulties in understanding the text and unfamiliar words, often needing to refer to a dictionary. On the contrary, in the word games-based class, students exhibited more excitement and eagerness to learn, focusing on the issues presented through word games. They did not indicate any need to use a dictionary.

When students in the word games-based class were asked for their opinions at the conclusion of the activity, they expressed positive views overall. They found the animation activity to be beneficial. To provide an overview of their shared perspective, the following quotations were gathered:
"It has positive impact on learning. Meanings of words are catchier for us since we can make inferences to understand the meanings of words." (Student 1)
"Both seeing and hearing make learning and remembering words easier. Also, we can infer the meaning from the visuals in the games." (Student 12)
"We can comprehend a context full of unfamiliar words not just by reading but also seeing and hearing in easier way." (Student 8)
"This is a better method in learning words than learning words on a paper-based text." (Student 3)
Some students, though finding it interesting, still wanted to have some extra information on paper in hand (Student 7). Furthermore, one of them found the games difficult to follow as the instructions were too fast, making it difficult to understand. However, same student found this game activity useful for acquiring words (Student 11).

## V. CONCLUSION

Results of the study showed the mean score of control and experimental group are nearly equal, which means the students' range of vocabularies between the two groups do not have much difference. However, the level of vocabulary games was used by reaserchers created innovative games to improve vocabulary skills. The games were effective in improving the vocabulary of the respondents. The highly significant difference in the post test mean scores of the control and the experimental group showed the effectiveness of the innovation of word games in enhancing the student's vocabulary, compared to the conventional methods and the use of word games is an effective method of teaching and learning vocabulary.
In the researcher's teaching context, particularly, the first-year students at a university in the north of Viet Nam. The results indicated that students have gained mastery of the subject matter when being exposed to this modern method of teaching English vocabulary. The increased level of performance of the experimental group in the post-test scores also reveals that the students' improvements may also be attributed to the innovation applied by the teacher. The use of word games in teaching English vocabulary not only motivates students in participating in the lessons more actively but also helps develop students' competence in using the language more effectively. This implies more communicative and interactive learning activities shall be included in the day-to-day activities in the English classes of Vietnamese students to provide them greater chances of using the words that they have learned in oral communication. Such may increase the level of retention through constant use.

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