บอร์ดเกมคำศัพท์ภาษาอังกฤษสำหรับนักเรียนระดับชั้นประถมศึกษาตอนปลาย
ในโรงเรียนขนาดเล็กและขนาดกลาง

ชยากร จีนประชา[1] ชญานินทร์ พงศ์ธรวิวรรณ[2] ณัฐนันท์ วงษ์สถิต[3] มนต์ชาตรี เกตุมุณี[*4]

English Vocabulary Board Game for Upper Primary School Students
in Small and Medium-Sized Schools

Chayakorn Jeenpracha[1] Chayanin Pongtornvivan[2] Nattanan Wongsatit[3] Montchatry Ketmuni[*4] iD

บทคัดย่อ

วัตถุประสงค์ของงานวิจัยนี้คือ 1) เพื่อศึกษาผลการใช้บอร์ดเกมเพื่อพัฒนาคำศัพท์สำหรับนักศึกษาประถมศึกษาตอนปลายในโรงเรียนขนาดกลางและขนาดเล็ก และ 2) เพื่อศึกษาความพึงพอใจของนักเรียนที่ใช้บอร์ดเกม กลุ่มตัวอย่างในการวิจัยครั้งนี้ได้แก่ นักเรียนระดับชั้นประถมศึกษาตอนปลาย จำนวน 100 คน แบ่งเป็นนักเรียนระดับชั้นประถมศึกษาตอนปลายในโรงเรียนขนาดเล็ก จำนวน 50 คน และนักเรียนระดับชั้นประถมศึกษาตอนปลายในโรงเรียนขนาดกลาง จำนวน 50 คน โดยใช้วิธีการสุ่มอย่างแบบหลายขั้นตอน เครื่องมือในการวิจัยประกอบด้วย บอร์ดเกมฝึกคำศัพท์ภาษาอังกฤษ แบบทดสอบก่อนและหลัง แบบสังเกตพฤติกรรม แบบสัมภาษณ์ และแบบประเมินความพึงพอใจ สถิติที่ใช้ในการวิเคราะห์ข้อมูล ได้แก่ ความถี่ ค่าเฉลี่ย ร้อยละ ส่วนเบี่ยงเบนมาตรฐาน และ t-test

ผลการศึกษาพบว่านักเรียนระดับชั้นประถมศึกษาตอนปลายในโรงเรียนขนาดกลางและขนาดเล็กมีคะแนนคำศัพท์เพิ่มสูงขึ้นหลังจากเล่นบอร์ดเกมอย่างมีนัยสำคัญทางสถิติที่ระดับ .001 และมีความพึงพอใจหลังจากเล่นเกมในระดับสูง สอดคล้องกับข้อมูลจากการสังเกตและผลการวิเคราะห์จากการสัมภาษณ์

คำสำคัญ: บอร์ดเกม คำศัพท์ภาษาอังกฤษ การเรียนรู้โดยใช้เกมเป็นฐาน การสอนภาษาอังกฤษ

[1, 2, 3] นักวิชาการอิสระ

Independent Scholar

[*4] คณะศิลปศาสตร์ มหาวิทยาลัยเทคโนโลยีราชมงคลธัญบุรี, อีเมล: montchatry@rmutt.ac.th

Faculty of Liberal Arts, Rajamangala University of Technology Thanayaburi , Email: montchatry@rmutt.ac.th

*Corresponding author : Email: montchatry@rmutt.ac.th

Abstract

The objectives of this research were 1) to study the results of using board game to improve English vocabulary for upper primary school students in small and medium-sized schools, and 2) to study the students' satisfaction after using board game. There were a total of 100 students: 50 students from small-sized schools, and 50 students from a medium-sized school. The samples were selected by using multi-stage sampling method. The research instruments were the English vocabulary board game, pre- and post-tests, a behavior observation form, an interview form, and a satisfaction evaluation form. Frequency, mean, percentage, standard deviation, and t-tests, were used to analyze the data.

The research findings indicated that both small and medium-sized school students' scores were increased after using the board game at the statistically significant level of .001. Additionally, students' satisfaction was at a high level supported by the observation data and interview results.

Keywords: board game; English vocabulary; game-based learning, English Language Teaching

Introduction

Globalization has driven the needs to learn to communicate in English, and there are great benefits when starting learning a foreign language at a young age. According to the critical period for second language acquisition, language acquisition could be distinct over various ages, with children acquiring the language more efficiently than adults (Hartshorne, Tenenbaum, & Pinker: 2018; Paradis: 2004; Lenneberg: 1967), and children's intrinsic motivation will decrease as they age (Li, Han & Gao: 2019). For these reasons, English as a second or foreign language instruction is initiated for young learners in order to prepare them for future work and study. Teaching English vocabulary should begin at the same time that students start learning the language (Schmitt, 2010). This is because having a good understanding of vocabulary helps students to improve their overall English proficiency, as noted by Stanovich (2000). The ability to comprehend and use vocabulary is crucial for effective communication in English, as Rubin and Thompson (1994) and Liao and Chen (2012) have pointed out. On the other hand, a lack of vocabulary can lead to difficulties with sentence structure and misunderstandings, which is especially problematic for EFL students, as highlighted by Ferreira (2007) and Gass and Selinker (2001). Therefore, it is essential for language teachers to prioritize vocabulary instruction to ensure that students have the necessary tools to succeed in the language. Based on the results of the Ordinary National Education Test (O-NET), it was discovered that the average English subject scores of Grade 6 (Primary 6), Grade 9 (Secondary 3), and Grade 12 (Secondary 6) were all quite low: 34.42, 32.24, and 29.20 respectively (NIETS, 2019). These results were based on the results of the Ordinary National Education Test. It was discovered that the average scores for the English subjects were low, and when compared to the scores for other subjects, the average scores for the English subjects were very close to being at the lowest level. This indicated that the teaching and learning of English in Thailand was in need of improvement.

วารสารศิลปศาสตร์ มทร.ธัญบุรี ปีที่ 4 ฉบับที่ 2 (กรกฎาคม-ธันวาคม 2566)
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Games are one of the most effective tools for teaching English to young learners because playing games can be a fun and helpful way to learn English. Studies show that when students play games, they feel less worried and more comfortable learning. This positive atmosphere can help them learn better. Games also motivate students to learn because they want to win. While they play, they get to practice their language skills and learn from the game. This can improve their language abilities and help them do better in class. The language in games is presented in a way that makes sense, which makes learning more meaningful (Richard-Amato, 1988; Lee, 1996; Jacobs & Kline-Liu, 1996; Dastgoshadeh & Jalilzadeh, 2011; Mubaslat, 2011; Fung & Min, 2016). Game-based activities have been shown to help students achieve English language learning for communication above a specified threshold and allow them to progress using language and gain a deeper understanding of the subject matter.

Board games are a type of game that can be used for teaching and learning English. They have various definitions. For example, Barbara (2017) and Zagal et al (2006) suggested that board games are the games with rules, playing surface, and token with players' interaction. According to Carter, et al. (2014), board games are played on the tabletop with a game board, a dice, game rules, game context, etc. Fata et al. (as cited in Putri, Usman, & Nasir, 2016) said that board games should consist of a counter, dice, a game board, and cards to motivate, challenge, and sustain students' learning. However, in this research a board game is defined as a tabletop game with game rules as the minimum requirements. Motivating, challenging, and keeping students learning, board games have visual parts that help students understand, and playing board games also helps students learn how to work together and get along with other people (Billinghurst & Kato, 2002). So, students can practice the language they want to learn in a fun way with good feelings like happiness, anticipation, and excitement, that can help them have a good attitude about learning a language (Langran & Purcell, 1994). In addition, playing board games allows students to practice their language skills in a variety of situations, including listening, speaking, reading, and writing, ultimately leading to better communication and understanding of the language (Lee, 1996).

For the above reasons, the researchers created the board game, named "*Word Fantasia*", inspired by another popular game called *Halli Galli*. In this game, players try to be the fastest to touch a bell and shout out how many fruits they see on a card. The researchers made a new version of the game that is even easier to play. Instead of saying how many fruits there are, players have to say the words they see on the cards. This change makes the game easier for primary school students to understand and enjoy.

Objectives

1. To study the use of a board game to improve English vocabulary for upper primary school students in small and medium-sized schools.
2. To study the students' satisfaction after using board game.

Research Questions

1. Can the adapted board game in this research help improve the vocabulary?
2. What is the students' level of satisfaction after they play the board game?

Methodology

A hundred of upper primary students were chosen as samples, using a multi-stage random sampling technique. The samples were divided into two groups. In the first group, there were 50 students from two small schools: 25 Nikornradburana school students and 25 Wattossatis school students. The samples from the small-sized schools were randomly selected by class levels: 20 students in grade 6 and 30 students in grades 4 and 5. And another group was made up of 50 samples from the medium-sized school, the Innovation Demonstration School of Rajamangala University of Technology Thanyaburi. Also, the samples from the medium-sized school were randomly selected by their class level: 12 students from grade 4, 13 students from grade 5, and 25 students from grade 6.

Based on the research and development process, this research was divided into the following six steps (Figure 1):

1 Study the problems
interview the teachers and discuss the issues in English teaching and learning.

2 Reveiw the relevant literature

3 Create the vocabulary board game
Create a board game prototype and other research instruments.

4 Validate and improve the research instrumets
The research instruments are validated by three experts.

5 Try out
Ask for the research permission and conduct the research:
Phase 1: Try out in a small group.
Phase 2: Try out in a medium group.
Phase 3: Try out in a large group.

6 Analyze and interpret the data
Analyze and interpret the data from the research, and discuss the results.

Figure 1. Research Process

Step 1: The researchers conducted interviews with 8 participants: School Directors, Deputy Director of Academic Affairs, and English teachers from Wattossatis School and Nikornradburana School in order to discuss the issues in English teaching and learning. The researchers discovered that students struggled with a lack of comprehension in English class and confidence in speaking English, also discovered that the students had low scores on the English O-net test. The meeting noted the lack of opportunities to use English outside the classroom as an important obstacle for English learning and recommended improving O-net English vocabulary for their students. Board games were discussed because students could play and learn English vocabulary without a teacher after using board games in class. Although knowing the answers, the students had to compete their friends through speed or luck. Replaying bord games to improve students' English vocabulary was expected.

Step 2: The researchers reviewed the relevant literature, theories, and research papers concerning the identified issues. The researchers also examined the aesthetics, methodology, and categories of board games.

Step 3: The researchers designed and created a vocabulary board game utilized in this study. Three experts evaluated the board game's vocabulary using a board game performance evaluation form. This game contained a total of 30 words from the English O-net and selected by choosing the most common and frequently used words that the students encountered in school and daily life. On each card was cartoon picture of each vocabulary item, along with the score, the word, its meaning, and its pronunciation. In addition, the researchers created the research instruments: a pre- and post-test of English vocabulary, a satisfaction evaluation form, an observation form, and an interview form.

Step 4: After designing the research instruments and creating the vocabulary board game, the instruments were validated by three experts.

Step 5: The researchers requested the permission from the schools to conduct the research and informed the parents of the participants to allow them to participate the research. The research procedures involved three phases:

5.1 The small group experiment was conducted with six Nikornradburana School students to focus on the game mechanism. After conducting experiments, the researchers recreated and improved the game.

5.2 The medium group experiment included 18 students: six from Nikornradburana school, six from Wattossatis school, and six from the Innovation Demonstration School at RMUTT to focus on the game design. After conducting the experiment, the researchers recreated and improved the game.

5.3 There were 100 students in the final stage for a large group experiment: 50 students from the small-sized schools and 50 students from medium-sized schools. After conducting experiments, the researchers recreated and improved the game.

Step 6: The data was analyzed, interpreted, and discussed.

Research Instruments

The research instruments employed in this study consisted of an English vocabulary board game, pre and post-tests on English vocabulary, a behavioral observation form, an interview form, and a satisfaction evaluation form. The validation of these instruments was ensured by the evaluation of three experts.

1. **The English Vocabulary Board game**

The English vocabulary board game was named "**Word Fantasia**". Two items of equipment were included: two sets of 60 English vocabulary cards and thirty plastic coins. This research's board game was printed on paper the size of a standard business card. The words on each card were frequently encountered in school and daily life as well as in the test: beautiful, difficult, energy, heavy, long, old, slow, traffic, weather, grill, clean, read, walk, celebrate, recycle, expensive, public, pollution, sign, environment, seat, river, street, light, happy, listen, throw, train, pull, and look. The difficulty levels dictated the point values on the playing cards. In this board game, the plastic coins served as tokens; each coin was worth one point. An example of board game's finalized design was displayed below (Figures 2 and 3).
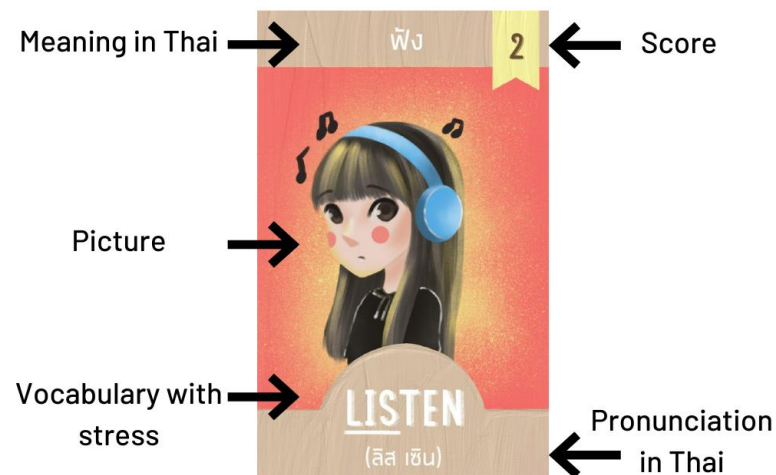

Figure 2. An Example of Board Game's Finalized Design

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Figure 3. An Example of Board Game's Finalized Design

How to Play Word Fantasia

1. Shuffle the cards and place them upside down on the playing board or floor.

2. Spread the cards around the board.

3. A player who shuffles the card will be the first one to play.

4. The first player turns one card face up.

5. When the card is turned face up, the player who knows the meaning of that card must place his or her hand on the card and say its meaning correctly.

6. If the player can guess the meaning correctly, he or she will receive one token. (Players can check the correct meanings on the cards.

7. The player on the right will be the next one, and repeat step 4.

8. Continue playing until the cards on the board run out.

9. When the cards run out, the players count their scores with the tokens they received and the scores written on the cards they got.

10. The player with the highest score will win.

Special Rule: If there are two cards on the board that have the same word, any player must place their hands on those cards and pronounce that word correctly (players can check the correct pronunciation on the cards).

How to Get a Score

Scoring on the normal rule: The player who can place their hand on the card and tell the meaning of the word correctly will receive one token.

Scoring on the special rule: The player who can place their hands on the two cards that have the same word and pronounce that word correctly will receive those two cards. The score is shown on the card and will be counted with the token at the end of the game.

2. Pretest and Posttest

The English vocabulary pretest and posttest were the vocabulary from the game, and were the same set of questions with 60 points in total and included 2 parts: an English vocabulary test and an English pronunciation test.

2.1 The English Vocabulary Test

The English vocabulary test consisted of 15 items divided into two parts (30 points): Part 1 consisted of matching the text in the box to the images. The objective of this section was to assess vocabulary comprehension. The students read the words in the box and pair them with the corresponding images. Part 2 offered multiple choices. The students choose the correct words to fill in the blanks.

2.2 The English Pronunciation Test

This part aimed to measure how well students could pronounce the target vocabulary that was selected from the game varying from vocabulary difficulty levels. There were 15 words in the English pronunciation test (30 points): beautiful, expensive, difficult, energy, weather, environment, pollution, river, street, traffic, recycle, listen, celebrate, heavy, and slow. The rubrics of pronunciation test were shown as follows:

Table 1 Pronunciation Test Rubrics (adapted from Bill Heller by Cherice Montgomery, 2000)

Score	Descriptors
2	Students can pronounce the word correctly. And students can stress the word correctly.
1	Students can pronounce the word correctly. And students put the stress in the incorrect
0	Students make no attempts to respond or pronounce the word.

3. The observation form

The observation form in this research was formatted as a checklist to observe students' behaviors and expressions while playing board games. It was divided into 2 parts: Part 1 was general information about the students, including name, class level, gender, and school. Part 2 was the observation of the students in this research. The students were observed in 5 different aspects: 1) the students could follow the rules of the board game; 2) the students had an intention while using the

board game; 3) the students participated while using the board game; 4) the participants interacted with other students; and 5) whether the students enjoyed using the board game.

4. The interview form

The research's interview form was structured and divided into two sections: The first section contained general information about the pupils, such as their name, class level, gender, and school. The second section consisted of 12 structured interview questions from three perspectives: interests in the English language, interests in gaming, and points of view on the activity. The 30 interviewees were chosen at random.

5. The satisfaction evaluation form

The satisfaction evaluation in this research was in Thai language, and was divided into 2 parts: Part 1 was general information about the students, including name, class level, gender, and school. Part 2 was about the students' satisfaction toward the board game and covered 3 aspects: the contents of the game, the activity of the game, and the participation of the game. There were a total of 10 items based on the Likert 3 rating scale (1932): 3 for highly satisfied, 2 for moderately satisfied, 1 for low satisfied.

Research Results

1. Demographic Information

Table 2 The Number of Students Divided by School Sizes

School Sizes	Male	Female	Total
Small-sized Schools	25 (25.00)	25 (25.00)	50 (50.00)
Medium-sized School	23 (23.00)	27 (27.00)	50 (50.00)
Total	48 (48.00)	52 (52.00)	100 (100.00)

According to Table 2, 48 (48.00%) out of 100 students from small and medium-sized schools were male, while 52 (52.00%) were female. Regarding small-sized schools, there were 25 males (25.00%) and 25 females (25.00%) in participation; 23 males (23.00%) and 27 females (27.00%) were from the medium-sized school.

Table 3 The Number of Students Divided by Class Levels

Class Levels	Small-sized Schools	Medium-sized School	Total
Grade 4	14 (28.00)	20 (40.00)	34 (34.00)
Grade 5	14 (28.00)	20 (40.00)	34 (34.00)
Grade 6	22 (44.00)	10 (20.00)	32 (32.00)
Total	50 (100.00)	50 (100.00)	100 (100.00)

Table 3 revealed that the majority of students were in Grades 4 (34.00%) and Grade 5 (34.00%), with 32 students in Grade 6 (32.00%).

2. **Pretest and Posttest Results**

The pretest and posttest of this research were divided into 2 parts: vocabulary test and pronunciation test. The summary of the test results was shown in Figure 4.
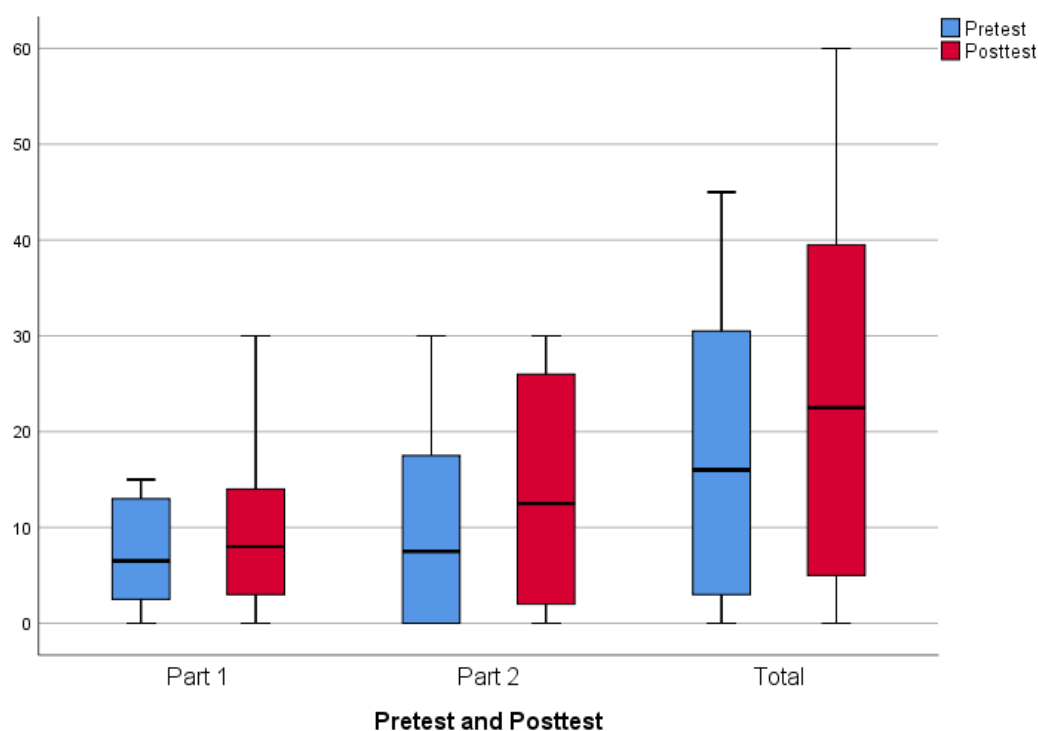

Figure 4. Comparison between Pretest and Posttest Results

As shown in Figure 4, the total score on the posttest (Min = 0, Max = 60, Mean = 22.68) was greater than the total score on the pretest (Min = 0, Max = 45, Mean = 17.69). Regarding Part 1 (Vocabulary Test), the minimum, maximum, and mean scores on the pretest were 0, 15, and 7.45, respectively, while those scores on the posttest were 0, 30, and 9.37, respectively. In addition, posttest scores of Part 2 (Pronunciation test) (Min = 0, Max = 30, Mean = 13.31) were higher than pretest scores (Min = 0, Max = 0, Mean = 10.24).

The investigation of students' learning achievement subsequent to vocabulary acquisition via board game implementation involved the determination of variances between pretest and posttest scores, which were evaluated through the application of paired sample t-test. The results of this analysis were presented in Table 4.

Table 4 Pretest and posttest scores (N =100)

Tests	*M*	SD	SKEW	KUR	t	df	Sig. (2-tailed)
Part 1 - Pretest	7.45	5.21	.03	-1.71	-4.374	99	.000***
Posttest	9.37	7.34	1.01	.64			
Part 2 - Pretest	10.24	10.21	.46	-1.23	-6.271	99	.000***
Posttest	13.31	11.63	.19	-1.65			
Total - Pretest	17.69	15.00	.25	-1.52	-5.964	99	.000***
Posttest	22.68	18.18	.33	-1.33			

*** p < .001

According to Table 4, the posttest scores were significantly different from the pretest scores at level of .001 (t = -5.964). The mean score of pretest was 17.69 with Standard Deviation (SD) at 15.00, Skewness (SKEW) at .25, and Kurtosis (KUR) at -1.52, but the mean score of posttest were greater at 22.68 with SD = 18.18, SKEW = .33, and KUR = -1.33. The test scores were found to be normally distributed, with skewness and kurtosis performed between -2 and +2 (Hair et al., 2022). By directing our attention to the individual parts of the test, it became evident that there was a noteworthy discrepancy between the pretest and posttest scores in Part 1 as well as Part 2 of the assessment, as indicated by the t-values of -4.374 and -6271, correspondingly.

3. The Results of Students' Satisfaction toward Board Game

Following the completion of the board games, the students were requested to respond to a questionnaire with 3-rating scales. The satisfaction level was ranged and interpreted into 3 ranges (Bunjai Srisatitnarangul, 2002: 304–305): 2.34 – 3.00 for high satisfaction, 1.67 – 2.33 moderate satisfaction, and 1.00 – 1.66 for low satisfaction. The results were shown in Table 5.

Table 5 Students' Satisfaction toward Board Game

Items	M	SD	Satisfaction Levels
1. Content	**2.88**	**.27**	**High**
1.1 The difficulty of the content is appropriate for the students' grade levels.	2.86	.35	High
1.2 The content matches the students' interests.	2.89	.35	High
2. Activities	**2.93**	**.17**	**High**
2.1 The game instruction is easy to understand.	2.91	.35	High
2.2 The game pushes the student to get actively participated.	2.91	.29	High
2.3 The game helps students learn.	2.94	.24	High
2.4 The time used for the game is suitable.	2.94	.28	High

Table 5 Students' Satisfaction toward Board Game (Continued)

Items	M	SD	Satisfaction Levels
3. Learning	2.95	.11	High
3.1 Students enjoy the board game.	2.98	.14	High
3.2 Students participate in playing the game.	2.96	.20	High
3.3 Students are able to remember new words.	2.96	.20	High
3.4 Students can improve their learning skills in the classroom by using what they've learned from playing board games.	2.89	.35	High
Total	2.92	.13	High

The students who played the board game reported high levels of overall satisfaction, with a mean score of 2.92 and a standard deviation of 0.13. Specifically, the learning perspective received the highest mean score (2.95, SD = 0.11), followed by the activities (M = 2.93, SD = 0.17) and content (M = 2.88, SD = 0.27) of the game.

The students expressed satisfaction with playing the board game, as indicated by a mean score of 2.98 (SD = .14) on Item 3.1. Furthermore, they reported satisfaction toward the game that helped them learn during the game, with a mean score of 2.94 (SD = .24) on Item 2.3. In terms of content, the students indicated that they were satisfied when the game aligned with their interests, as evidenced by a mean score of 2.89 (SD = .35) on Item 1.2.

4. Results of the Observation

The students demonstrated a notable level of attentiveness toward their instructors' guidance, as evidenced by their precise adherence to instructions, implying a strong proclivity toward learning. The game garnered significant student participation, with the exception of a minority struggling to earn points or keep pace with their peers. Upon close observation of their gameplay, it was evident that the majority of students were primarily focused on achieving high scores, although there were some who appeared excessively fixated on this goal, with one student opting to simply observe the game after failing to score. While most students engaged with one another, there were a few exceptions, potentially attributable to their inability to keep up with their peers. Despite this, the majority of students displayed a positive affect while playing the game, manifesting in frequent smiling and laughter, although one student demonstrated an absence of enjoyment even after scoring.

5. Results of the Interview

The interviewees were selected through a random sampling technique, resulting in a sample size of 50 individuals out of a total of 100 participants. The chosen sample was stratified into two groups,

consisting of 25 participants each, representing small and medium-sized schools, respectively. The interview of the students could be summarized as follows:

The majority of students expressed a positive attitude toward English, citing their enjoyment of learning the language as their primary motivation. Supplementary English classes were more commonly attended by students from medium-sized schools than those from small-sized schools. Board games such as Snakes and Ladders, Monopoly, and Werewolf were reported to have been played by the majority of students, with some small-sized school students experiencing board games for the first time. The students generally found the games to be visually appealing, easy to understand, and enjoyable. All students agreed that board games could be adapted for use in other subjects, such as mathematics or Thai language, and that they could be a valuable classroom tool.

Conclusions and Discussions

Upon analyzing the results, it was discovered that there was a noteworthy statistical difference between the pretest and posttest scores. Specifically, an English vocabulary board game designed for upper primary school students proved to be effective in enhancing the vocabulary learning achievement of primary school students. In terms of qualitative findings, the students completed a questionnaire and were interviewed and observed. The students expressed satisfaction, appreciation, enjoyment, attraction, amusement, and increased confidence, while also demonstrating an augmented vocabulary knowledge as a result of their participation in game play.

The use of an English Vocabulary board game for upper primary school students resulted in higher achievement compared to before the game was used. The study found varying pretest and posttest scores between small and medium-sized schools, but both schools demonstrated higher posttest scores than pretest scores with a statistically significance at the level of .001. These results aligned with previous studies by Ketumui (2021); Fotini & Makrina (2017); Sinthapanon (2010); and Alemi (2010) which suggested that games could be used to evaluate teaching and facilitate learners' comprehension and retention of lessons. Similarly, Pisut Tunchalearnpanih's study (2012) on the use of games for vocabulary learning among Grade 6 students also found that games could enhance vocabulary learning, as indicated by higher posttest scores. However, the posttest results revealed a wide range of standard deviations, indicating that some students had made small or no improvements. This could be because the vocabulary repetition was insufficient due to the research's schedule constraints.

The use of an English vocabulary board game for upper primary school students may be influenced by various general factors of the participants. The observation of students using the board game revealed that most students were motivated and enjoyed playing, despite it being an educational game. Supported by the observation and interview, the board game had the potential to facilitate, entice, and test students' English vocabulary learning in a pleasant environment, reducing learning stress and

offering occasions to repeat vocabulary and socialize with other students. According to Vygotsky (1978), children acquired knowledge through social interaction. Also, Kanoksilapatham's study (2018) supported this notion, as students reported feeling at ease, peaceful, and lively while playing games. Although some students initially displayed shyness, they became more engaged after playing games for some time, leading to improved learning outcomes. To enhance the effectiveness of the game, the students must comprehend how to play. In order to assist some students, keep up with others, the teachers may demonstrate the game to ensure that every student understands how to play it independently.

References

Alemi, M. (2010). Educational games as a vehicle to teaching vocabulary. *The Modern Journal of Applied Linguistics, 2*(6), 425-438.

Barbara, J. (2017). Measuring user experience in multiplayer board games. *Games and Culture, 12*(7–8), 623–649. https://doi.org/10.1177/1555412015593419

Billinghurst, M., & Kato, H. (2002). How the virtual inspires the real. *Communications of the ACM, 45*(7), 64-70.

Carter, M., Gibbs, M., Harrop, M. (2014). Drafting an army: The playful pastime of warhammer 40,000. *Games and Culture, 9*(2), 122–147. https://doi.org/10.1177/1555412013513349

Dastgoshadeh, A. & Jalilzadeh, K. (2011). *Language loss, identity, and English as an international language. European Journal of Social Sciences. 21*(4), 659-665.

Ferreira, L. (2007). *How to teach vocabulary effectively: An analysis of the book course eyes and spies.* Praia.

Fotini, G., & Makrina, Z. (2017). Adapting Board Games to Stimulate Motivation in Vocabulary Learning in Six Year Old Learners A Case Study. *Journal of Studies in Education, 7*(3), 1-28.

Fung, Y. M. & Min, Y. L. (2016). Effects of Board Game on Speaking Ability of Low-proficiency ESL Learners. *International Journal of Applied Linguistics and English Literature, 5*(3). https://doi.org/10.7575/aiac.ijalel.v.5n.3p.261

Gass, S., & Selinker, L. (2001). *Second language acquisition.* Manhwah: Lawrence Elbaum associate.

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)* (3 ed.). Thousand Oaks, CA: Sage.

Hartshorne, J. K., Tenenbaum, J. B., & Pinker, S. (2018). A critical period for second language acquisition: Evidence from 2/3 million English speakers. *Cognition, 177*, 263-277.

Jacobs, G. M. & Kline-Liu, K. (1996). Integrating language functions and collaborative skills in the second language classroom. *TESL Reporter, 29*(1), 21-33.

Kanoksilapatham, B. (2018). Local Context-Based English Lessons: Forging Northern Thai knowledge, Fostering English Vocabulary. *3L the Southeast Asian Journal of English Language Studies, 24*(2), 127–142. https://doi.org/10.17576/3l-2018-2402-10

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Ketmuni, M., & Naenon, P. (2021). The use of board games to develop English vocabulary of ornamental and flowering plants sold in the community of primary 5 (grade 5) students at Nikornradburana school, Thailand. *Psychology and Education, 58*(1), 1484-1489.

Langran, J. & Purcell, S. (1994). *Language games and activities*. Retrieved on May 7, 2023, from https://files.eric.ed.gov/fulltext/ED382019.pdf

Lee, J.M. (1996). *English Games.* The People Publisher, Seoul.

Lenneberg, E. H. (1967). The biological foundations of language. *Hospital Practice, 2*(12), 59-67.

Li, Y., Han, Y., & Gao, X. (2018). Young learners' motivation for learning English. *The Routledge handbook of teaching English to young learners,* 60-72.

Liao, H., & Chen, M., (2012). Effects of Vocabulary Games on Lexical Growth and Retention of Low-Motivated EFL Learners in Taiwan. *The Asia-Pacific Education Researcher, 21*(3), 564-575.

Mubaslat, M. (2011). *The Effect of Using Educational Games on the Students' Achievement in English Language for the Primary Stage*. Retrieved on May 7, 2023, from https://files.eric.ed.gov/ fulltext/ED529467.pdf

Paradis, M. (2004). *A neurolinguistic theory of bilingualism*. The Netherlands: John Benjamins Publishing.

Putri, C. R., Usman, B., & Nasir, C. (2016). Board Game in Speaking Skill. *Research in English and Education (READ), 1*(2), 146-151. from https://jim.usk.ac.id/READ/article/view/2583/1375

Richard-Amato, P. A. (1988). *Making it happen: Interaction in the second language classroom: From theory to practice.* New York: Longman.

Rubin, J., & Thompson, I. (1994). *How to be a more successful language learner.* Boston: Heinle and Heinle Publishers.

Schmitt, N. (2010). *Researching vocabulary: A vocabulary research manual*. Springer. https://doi.org/10.1057/9780230293977

Sintapanon, S. (2010). *Teaching innovation to improve the quality of young people* (4th ed.). Bangkok: Technique Printing.

Stanovich, K. (2000). **Progress in understanding reading:** *Scientific foundations and new frontiers*. New York: Guilford Press.

The National Institute of Educational Testing Service (Public Organization). (2019). *SummaryONETP6_2562*. Retrieved on June 7, 2023, from http://www.newonetresult.niets.or.th/AnnouncementWeb/ PDF/SummaryONETP6_2562.pdf?fbclid=IwAR1JOWjhFnFhXBTNaBHFXiCKDuJy63A4C2_O6bVHEKsS VXvwQhVqeuJkyhg

Tunchalearnpanih, P. (2012). *Using games on P. 6 student's vocabulary learning*. BangkoK: Srinakharinwirot University (SWU), Thailand.

Vygotsky, L. (1978). *Mind in society.* Cambridge, MA: Harvard University Press.

Zagal, J. P., Rick, J., Hsi, I. (2006). Collaborative games: Lessons learned from board games. *Simulation & Gaming, 37*(1), 24–40. https://doi.org/10.1177/1046878105282279