

# การเรียนรู้แบบผสมผสานผ่านเกมเพื่อกระตุ้นการเรียนรู้สำหรับนักศึกษาระดับปริญญาตรีในห้องเรียนที่เรียนภาษาอังกฤษเป็นภาษาต่างประเทศ

## Blended Learning through Games for Motivation in Undergraduate EFL Classroom

ธิษณา ศรัทธารัตน์ธนา<sup>1</sup>

Thisana Satharatthana<sup>1</sup>

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### บทคัดย่อ

การวิจัยครั้งนี้มีวัตถุประสงค์เพื่อ 1) ศึกษาประสิทธิภาพของเกม Kahoot ในการเรียนรู้แบบผสมผสาน 2) ศึกษาความพึงพอใจต่อใช้เกม Kahoot ในการจัดการเรียนการสอนแบบผสมผสาน กลุ่มตัวอย่างได้แก่ นักศึกษาชั้นปีที่ 1 ในมหาวิทยาลัยเทคโนโลยีราชมงคลล้านนา เชียงรายจำนวน 30 คน ที่ลงทะเบียนวิชาภาษาอังกฤษเพื่อทักษะชีวิต ในเทอมที่ 2 ปีการศึกษา 2563 เครื่องมือที่ใช้ในการวิจัย ได้แก่ แบบทดสอบก่อนเรียนและหลังเรียนและแบบสอบถามความพึงพอใจ สถิติที่ใช้ในการวิเคราะห์ข้อมูล ได้แก่ ค่าเฉลี่ย ส่วนเบี่ยงเบนมาตรฐาน และ t-test กิจกรรมการเรียนการสอนใช้วิธีการสอนแบบ 3P (PPP) ได้แก่ ขั้นนำเสนอ (Presentation) ขั้นฝึก (Practice) และขั้นนำไปใช้ (Production) กิจกรรมการเรียนการสอนเกิดขึ้นครั้งละ 1 ชั่วโมงต่อ 1 สัปดาห์ จำนวน 6 ครั้ง โดยในสัปดาห์แรกกลุ่มตัวอย่างจะทำแบบทดสอบก่อนเรียนและแนะนำการใช้แอปพลิเคชัน Kahoot จากนั้นในสัปดาห์สุดท้ายกลุ่มตัวอย่างจะทำแบบทดสอบหลังเรียนและทำแบบสอบถามความพึงพอใจต่อการเรียนรู้โดยใช้เกม Kahoot ผลการศึกษาพบว่า เกม Kahoot มีประสิทธิภาพสามารถกระตุ้นการเรียนรู้แบบผสมผสานสำหรับนักศึกษาระดับปริญญา

<sup>1</sup> อาจารย์ กลุ่มวิชาภาษาตะวันตก คณะบริหารธุรกิจและศิลปศาสตร์และศิลปศาสตร์ มหาวิทยาลัยเทคโนโลยีราชมงคลล้านนา เชียงราย; Lecturer, Western Language Department, Faculty of Business Administration and Liberal Arts, Rajamangala University of Technology Lanna Chiangrai, Thailand; e-mail: koonthisana@gmail.com

ตรีในห้องเรียน EFL อย่างมีนัยสำคัญทางสถิติที่ระดับ 0.05 ( $df = 29, t = 20.24, p = 0.00$ ) นักศึกษามีความพึงพอใจต่อการใช้เกม Kahoot ในการเรียนแบบผสมผสานอยู่ในระดับสูง (4.70)

**คำสำคัญ:** การเรียนรู้แบบผสมผสาน, เกม, การกระตุ้นการเรียนรู้, นักศึกษาระดับปริญญาตรี, ห้องเรียนที่เรียนภาษาอังกฤษเป็นภาษาต่างประเทศ

## ABSTRACT

The objectives of this research were: 1) to study the effectiveness of the Kahoot game in blended learning and 2) to study the satisfaction of using the Kahoot game in blended learning. The sample group included 30 first-year students at Rajamangala University of Technology Lanna, Chiang Rai who enrolled in English for Life Skills subject in the second semester of the academic year 2020. The research instruments were pre-and post-study exams and satisfaction questionnaires. The data were analyzed statistically using mean, standard deviation, and the t-test. The teaching and learning activities are based on the 3P teaching method (PPP), i.e., presentation, practice, and production. The activity occurred for 1 hour each week, 6 times in total. The sample group completed the pre-test in the first week, was introduced to the Kahoot application, then took the post-test, and finished the Kahoot game learning satisfaction questionnaire in the last week. The study found that the Kahoot game was effective for motivation through blended learning in the undergraduate EFL classroom at 0.05 statistically significant ( $df = 29, t = 20.24, p = 0.00$ ). The students had high satisfaction (4.70) with using the Kahoot game in blended learning.

**KEYWORDS:** Blended learning, Games, Motivation, Undergraduate, EFL classroom

## Background

The COVID-19 pandemic's emergence in Thailand has affected several elements of Thai life, including schooling (Cabinet Approves Plans, 2020). On March 17, 2020, the Thai government implemented the "stay home, stay safe" policy, and as a result, social segregation measures have been implemented in all spheres of society, particularly for

students and teachers (Patcharanaruamol, et al., 2020). This significantly impeded teachers' and students' capacity to interact and carry out educational activities in the face-to-face classroom. Freshmen at Thai universities would be exposed to different surroundings, classmates, study locations, and, of course, learning approaches such as learning from home—all taking place online—as the pandemic continued into August 2021, the beginning of a new academic year (Mala, 2020). When the situation calmed down, there were alternate classes at school and home. The teaching of English was included in this.

Due to the COVID-19 pandemic, a foundation EFL course was offered to freshmen in the first semester of the academic year 2020 at the Rajamangala University of Technology Lanna in Chiangrai, with online and onsite as the announced modes of learning. Many first-year university students in Thailand would be unfamiliar with blended (online) learning because most Thai high schools still use the traditional chalk-and-board F2F classroom lecture method (Watanapokakul, 2018). Most students in the English for Life skills classes closed their cameras and did not participate in an online class. Also when they were studying face-to-face in a classroom, some of them did not participate. Some students complained that the English grammar section was especially boring and confusing. They noticed that they could correctly answer questions in multiple-choice tests during their examination, but they couldn't figure out why the answers were corrected. This reality exposed that they responded fairly by making predictions. Some students find it difficult to learn English grammar because they do not have the opportunity to use it in their daily lives. Grammar, on the other hand, is significant because it is the language that allows us to converse about language. Grammar describes the various types of words and word groups that comprise sentences in any language (Haussamen et al., 2003). According to Crystal (2004), grammar is the structural foundation of our ability to communicate. The more learners understand how it works, the better they will be able to keep track of the language's meaning and effectiveness. According to the Evaluation of the World Bank Group's Support, graduate university students recognize the significance of English as a lingua franca of international business communication (World Bank, 2017). This means that graduate students with English skills have a better chance of getting a job than others. Another reason may be due to

Thailand being ranked 89 out of 100 countries and regions for English proficiency in the most recent EF English Proficiency Index (2020), with a score of 41.9, indicating very low proficiency. Thailand's ranking in the second expansion of international educational institutions and its proficiency in Thai students studying English continues to be in short supply. It has recently been reduced from 74 to 89, a 15-place drop, and now ranks last among 100 countries. Singapore, the Philippines, and Malaysia have higher rankings within the ASEAN bloc (Education First, 2020). Unquestionably that learning English is challenging. Adaptation is extremely important in this era, especially for the study. One of the most popular options for teaching and learning is blended learning.

Blended learning (BL), or the combination of face-to-face and online guidance (Graham, 2013). It is becoming increasingly popular in higher education, including some academics relating to it as the "new traditional model" or the "new normal" in classroom teaching (Norberg et al., 2011). Blended learning is a learning process that combines different learning styles. It is learning that occurs in the classroom as well as learning that occurs outside of the classroom, where learners and teachers do not face each other or use a variety of learning resources. The learning and teaching processes take place in a variety of formats, with activities carried out through tactics. The primary goal is for students to achieve their learning objectives (Hrastinski, 2019). According to the blended styles, the learning process should be more effective with the blended learning model because the traditional learning process will be facilitated by e-learning, which in this case is based on the information technology infrastructure and can be done at any time and from any location. However, some students are unable to adapt to the process and thus face a problem. As such, motivating them to participate in learning is a difficult task but a challenge.

Motivation is defined as the energy that empowers and changes implementation toward a goal (Mustangin, 2019). Motivation is closely related to other constructs such as interest, awareness, requirements, expectations, and objectives. All of that adds up to encouraging students' interest in learning and their desire to participate in various events and achieve different goals (Richards, & Rodgers, 2001). Motivation in education is concerned with the problem of creating conditions in which students will fulfill to the greatest of their

ability in academic circles. We frequently encourage a child by assisting them in developing an expectation that a positive impact will result from their willingness to participate in an experience in the classroom.

One of the most important issues still being investigated and discussed in the EFL classroom is technology usage. An illustration of how technology is applied to the teaching and learning process is digital game-based learning (DGBL). It started as an instructional method that could be used with a computer and mobile applications, as the name would imply. (Jin et al., 2018) claim that game-based learning can help learners be active, fun, and productive in a language classroom. According to Michos (2017), learning a language and playing a game both involve goal-oriented activities that include forms like mastering the rules and developing skills to achieve a certain aim. Games-based activities have long been intriguing and valued for language teaching and learning (Tóth et al., 2019). Using applications to develop language skills in English listening at Suan Sunandha Rajabhat University found that applications provided diverse teaching materials, making them enjoyable and non-boring (Poomjit, & Luangnapa, 2019). According to various research, using technology in foreign language teaching and learning has huge advantages for both teachers and students. Teachers use technology more and more to motivate language learning and teaching in the classroom. The Kahoot application is recommended as a tool for motivating students in English classrooms through online learning and offline, according to the reviewed literature.

The Kahoot application was created in 2012 and released in private beta in March 2013, quickly becoming a global educational brand. It has unique features of standard gaming and teaching models that are intuitive and competitive. The game's goal is to create a game-based environment for students to enjoy learning in a fun, intelligent, and competitive way. Instead of the traditional method of going through course readings and notes. Kahoot! had been played by over 2.5 billion people from over 200 countries (Vick, 2019). A few literature surveys claimed its benefits and positive effects on learner learning, such as providing immediate feedback, increasing cooperation in lessons, and advancing the maintenance of the central fabric (Mustangin, 2019). According to several studies, Kahoot can

be used to screen each student's information and identify ranges where students would benefit from more one-on-one instruction. However, it is more commonly used as a break from traditional classroom exercises (Susanti, 2017). Kahoot amusement in English language classrooms can help to develop positive states of mind, increase members' inspiration level, stimulate learners' discernment and desire towards English classrooms, solid competition, fun, and agreeable learning environment, and effectively communicate with learners by aing the desired focused on language (Medina, & Hurtado, 2017). Thus, the learning process can improve the language learning quality of students in the classroom by using Kahoot online media, with the greatest effect of reporting the dynamics, commitment, and motivation of lessons, as well as enhancing the learning process. The Kahoot game experience evolves alongside learning environments to ensure that it is engaging, impactful, inclusive, and accessible to all learners, regardless of age, background, or location. The importing is free and can be introduced in a short time and used on various student devices during class.

As a result, digital games-based learning is designed to elicit emotional responses from students, whether through distraction mechanisms, music, or visuals. This makes all the difference in creating the critical moments that allow students to unlock their skills. Kahoot application is a game-based learning and quiz tool that promotes learning outside the classroom. Based on the problems in the subject classroom and some related studies, the researcher decided to conduct action research on the topic of blended learning through games for motivation in the EFL classroom.

## Objectives

There are two objectives as follows:

- 1) to evaluate the effectiveness of the Kahoot games in the EFL classroom through blended.
- 2) to evaluate the students' satisfaction through the Kahoot games in the EFL classroom through blended learning.

## Research Questions

1. How effective was the Kahoot game in the EFL classroom through blended learning?
2. How much was students' satisfaction through the Kahoot games in the EFL classroom through blended learning?

## Research Scope

This research is a classroom action research to solve problems arising from blended learning for non-English majors at Rajamangala University of Technology Lanna, Chiang Rai due to the epidemic situation of COVID-19 in the academic year 2020.

## Methodology

### Participants

The sample group consisted of 30 first-year students who enrolled in English for Life Skills subject in the second semester of 2020 from a total of 2 groups by simple random sampling, which was the responsibility of the researcher at the Rajamangala University of Technology Lanna in Chiangrai.

### Instruments

The materials used in this study were divided into two categories: data collection and satisfaction questionnaires. The data collection instruments were identical pre-and post-tests with six English grammar topics, including present simple tense, past simple tense, present continuous tense, past continuous tense, present perfect tense, and past perfect tense. The test on the Kahoot game as a multiple-choice quiz, true or false, and type answers was created by the researcher who has to log in to the Kahoot application account with a step-by-step guide. Another set of ten satisfaction questions focused on their Kahoot game English grammar learning experiences, as well as their self-motivation and enthusiasm. The survey was graded on a five-point Likert scale (Likert, 1932).

### Procedures

The six-week study was conducted on the subject of English for Life Skills. In the first class, the sample groups took the pre-test. The post-test was given at the end of class.

The class met once a week for an hour. The presenting, practicing, and producing (PPP) technique teaches grammar relevant to the activities of the group. The PPP method is recommended for EFL classes in English (Harmer, 2007). Students were divided into small groups of 3-4 during each lesson to participate in activities. The following were the activities:

Step one was the presentation, in which the teacher introduced and explained how to use English grammar as present simple tense, past simple tense, present continuous tense, past continuous tense, present perfect tense, and past perfect tenses on a PowerPoint program in the group at the start of the activities. The teacher would introduce how to use the Kahoot application, which was added to the first activity.

Step two was to practice, Students were given activities to complete using the Kahoot game on their devices (smartphones, laptops, or computers), with quizzes displayed on a shared screen to tie the course together. The answers were created by the teacher as multiple-choice, true-false, and typed answers. During their practice, the teacher explained which quizzes were correct or incorrect, so as to better judge the progress being made in class.

Step three was production. Students would use the language in context in an activity set up by the teacher. The students did their activities through the Kahoot game. They complete answers that were created by the teacher as multiple-choice, true-false, and typed answers. The students showed their scores to each other.

After six weeks, the students took a post-test and completed a satisfaction questionnaire at the end of class.

## Results and discussion

The findings were presented based on the research questions following.

1. How effective was the Kahoot game in the EFL classroom through blended learning? The results for the data of the group was shown in Table 1.



**Table 1** Comparison of the pre-and post-test scores

Test	N	Highest score (25 )	Lowest score (25 )	$\bar{x}$	S.D.	df	t	p
Pre-test	30	14	6	10.43	2.44	29	20.24	.00
Post-test	30	24	16	17.87	2.50			

According to table 1, the student's average grade point before studying was 10.43, with the highest score being 14 points and the lowest score being 6 points. It was 17.87 after studying, with the highest score being 24 points and the lowest score being 16 points, and the results of the comparative analysis of study scores before and after the study using dependence sample t-test statistics revealed that the students had statistically significant higher grades than before at the .05 level ( $p = .00$ ,  $t = 20.24$ ). The results presented that the student's performance improved significantly after using the Kahoot game activities in blended learning classes.

Considering the significant variation in scores in table 1, it was possible to identify the effect of the Kahoot games and the type of English teaching activities (PPP steps) we used. The teacher attempted to explain clearly how to apply the English grammar on the PowerPoint, then again while doing exercises, so that by the end, all students in the groups felt confident enough to take the test. However, the post-test scores of the hold groups with the Kahoot activities were higher than the pre-test scores. That means that learning English grammar with the Kahoot activities is not only significant but also effective and beneficial for students at that time.

Based on the data presented about the effectiveness of the Kahoot activities in the subject of English for Life Skills. According to some relevant research, the Kahoot application could achieve significant differences in scores when compared to traditional learning methodologies (Iwamoto et al., 2017), and it could be a formative assessment by definition (Kapsalis et al., 2019). The Kahoot application supported students' English learning in a

variety of ways, including; it could be one ways to assist students, particularly when teaching vocabulary (Putri, 2019). The use of Kahoot would benefit students in understanding grammar materials (Masrurah, 2019), and it has facilitated and improved students' understanding of English grammar (Sukri et al., 2018). In addition, the Kahoot application was feasible and recommended for incorporating technology into senior high school English grammar instruction (Heni et al., 2018). Furthermore, the Kahoot application could be used at various educational levels to improve EFL pronunciation skills (Yürük, 2020). To summarize, both children and adults can use the Kahoot application in their English classrooms. It is effective and also assists students in improving their English skills, particularly in the grammar section.

The outcomes of some research were consistent with the results of the Kahoot games, which can recall student knowledge retention such as Ahmed et al. (2022) confirmed the impact of Kahoot as a game-based learning tool on the vocabulary recall and retention of Iranian EFL learners. When Ciaramella (2017) discovered that using a game-based learning platform improved vocabulary acquisition and retention when she reviewed the influence of Kahoot on vocabulary acquisition and retention. While Shabaneh, & Farrah, (2019) verified the effectiveness of games in the instructional experience as well as their impact on learners' lexical development. Also, Patra, et al. (2022) discovered the impact of playing digital games on Bangladeshi EFL learners' ability to remember and retain the language. Based on the data reviewed, were there any statistically significant differences in the EFL classroom with the Kahoot games through blended learning after 2 weeks of completed training? The results were presented in table 2.

**Table 2** Comparison of post-test and after two weeks of training test scores

Test	N	Highest score (25 )	Lowest score (25 )	$\bar{x}$	S.D.	df	t	p
Post-test	30	24	16	17.87	2.50	29	2.30	.029
After two- week test	30	20	14	16.87	1.99			

According to table 2, the average post-test grade was 17.87, with the highest score being 24 points and the lowest score being 16 points. The sample group for the 2-week test was 16.87, with the highest score being 20 points and the lowest score being 14 points. The comparison of learning scores after the study and learning outcomes after the 2-week trial was based on dependence statistics. The student's grades were statistically significant at the .05 level, due to the sample t-test ( $p = .029$ ,  $t = 2.30$ ).

This data showed that Kahoot games were a useful tool for engaging learners in learning and increasing knowledge retention effectively even if the score after the two-week test was lower than the post-test. Noticed that the teacher's comment feedback during the practice step helped students distinguish between the content they knew well and the content they needed to work on, allowing them to make better use of their revision time. Furthermore, students who frequently included the lecturer's explanation of Kahoot games answers in their note-taking performed better. It was relevant for any educator thinking about using Kahoot game activities in their classroom, especially those in higher education institutions. The evaluation process served as a "remember waking call" for some students who were impressed by the extent of their lack of knowledge, but instead of lowering their confidence, it increased their motivation to work harder and improve their scores on future experiments (Licorish, et al., 2017). Through more conscious involvement in the learning process, students became more active participants in their development and were able to explore concepts at a deeper level and enhance their knowledge (Holbrey, 2020). Kahoot

game activities helped one another revise, create debate, and retain knowledge (Licorish, et al, 2018). Finally, learning through Kahoot games empowers learners in remembering what they have learned. Even though a certain time has passed, it remains a distinguishing feature of Kahoot.

To proceed to answer the second research question. How much was students' satisfaction through the Kahoot game in the EFL classroom through blended learning? The results showed in table 3.

**Table 3** The students' satisfaction with the Kahoot game

No	Item	$\bar{X}$	SD	Analyze
1	I am more energetic about studying.	4.77	0.57	Strongly agree
2	Promote critical thinking and study to learn more.	4.60	0.62	Strongly agree
3	I can set up my knowledge and use it.	4.60	0.62	Strongly agree
4	I have the impression that I am learning in a real classroom, even when I am studying online.	4.83	0.38	Strongly agree
5	I feel motivated when I am competing with my friends to get the highest scores in the Kahoot activities.	4.60	0.62	Strongly agree
6	The English grammar questions on the Kahoot activities are relevant to the lessons I am currently studying.	4.67	0.48	Strongly agree
7	The team mode of the Kahoot application helps me communicate and collaborate with my teammates.	5.00	0.00	Strongly agree
8	The variety of English grammar questions in	4.93	0.25	Strongly

No	Item	$\bar{X}$	SD	Analyze
	the Kahoot activities helps me improve my language learning in an interesting way			agree
9	I can remember English grammar rules more easily than before.	4.50	0.78	Strongly agree
10	My teachers should set up Kahoot activities in the English classroom at least once a week.	4.53	0.68	Strongly agree
Total		4.70	0.57	Strongly agree

According to Table 3, students generally rate their satisfaction with the Kahoot games activities while learning English grammar as "strongly agree". That means they had positive experiences with the Kahoot game during their English grammar learning activities.

During six weeks, the students with the Kahoot game activities were shown to be effective in teaching English grammar. Noticing their activities, the students were excited, joyful, and attentive. When they were face-to-face in class and didn't understand an article, they asked me and their friends, and they asked me to pause the Kahoot questions screen while they took notes. They assisted one another in explaining whether or not English grammar was corrected in their small groups. They encouraged their friends, who did not participate in the activities. When they beat the score, they yelled and laughed. While they were in an online class, they also tried to ask the teacher when they were confused. Some of those who understood the title learned explained and helped their classmates. During their activities, the teacher joined each group using the Microsoft Team program functions in an online class, so they always had the teacher in class. So the scores for the post-test of the students increased, which described the improvement of their skills at the same time.

In addition, some research articles presented and recommended the Kahoot application in learning in a variety of situations, such as when it was a useful tool for

connecting students in learning and improving their learning experience. It is important for any instructor, especially in universities and colleges, to recognize and use the Kahoot application in their classroom. Wong et al. (2020) discovered a statistically significant increase in learning from using Kahoot in flipped classrooms. According to Bawa, P. (2018), traditional teaching methods were outperformed by Kahoot in terms of learner performance and effectiveness. Also, it could improve learning motivation, engagement, effectiveness, and interaction in Chinese students' classrooms (Tao, & Zou, 2021). It was an effective strategy for making students enjoy the teaching and learning process (Putri, 2019). Another study discovered that participants felt mostly positive about using Kahoot in EFL classrooms. It was regarded as a promising software application for improving English-language learning (Mahbub, 2020). The impact of using Kahoot in medical and dental school classes at a Finnish university was consistently positive (Felszeghy et al., (2019). Interestingly, there was one negative gearing to Kahoot's popular appeal. It was worrying that students would eventually get bored of playing the game. The research discovered that online games played daily had no impact on student motivation, student participation, or student interest. The research found that participants preferred to play Kahoot after each lecture and believed that they studied something by continuing to play Kahoot (Wang, 2015). Based on the data, it can be stated that the Kahoot application is particularly useful for educators, university lecturers, and course designers in higher education. It's an excellent article for higher education professionals looking to incorporate Kahoot! into their curriculum. It also improves class dynamics by increasing motivation to participate, creating a better environment in classes, and lowering the threshold for asking questions about higher education.

## Conclusion

Since educators try so hard to improve their teaching and learning, game-based learning (GBL) and the blended classroom have become extremely popular instructional options. These two instructional formats work well together. Both benefit the 21st-century classroom by interacting with students in their learning and providing opportunities for them to create not only basic curriculum knowledge and understanding but also problem-solving

skills, improved powers of concentration, creativity, memory, languages, teamwork, and critical thinking skills. Apart from this, the study of blended learning through the Kahoot game can motivate undergraduate students in the EFL classroom as well. Games can help with skill learning if the task demands correspond to the learner's level of ability.

As a result, Kahoot is an alternative media that can motivate students to learn. However, the overall effectiveness of game design platforms cannot be fully understood without considering the students' requirements. To be able to evaluate the language program truthfully, not only the perceptions toward games but also the attitudes toward the entire foreign language learning process, should have been considered, as learners' negative attitudes may disrupt the outcomes.

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