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## Assessing Kahoot's Impact on EFL Students' Learning Outcomes

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### **Abstract**

Technology use in the classroom to improve student's learning has gained significant attention over the past few years. Technology has metamorphosed from CALL to MALL and the use of gamification. Teachers are more concerned with methodologies that can improve students' motivation and engagement, particularly in EFL classrooms. This mixed method that utilized qualitative and quantitative approaches to assess how Kahoot, a game-based learning tool, can be integrated with learning to improve student's engagement, motivation, and learning outcomes. A total of 36 students took part in the study. The students were grouped into two; the experimental group (20 students) and the control group (16 students). The experimental group took various tests and two main exams, known as Language Acquisition and Learning Exams. The study also explored the participants' perception about Kahoot to determine its effectiveness as a learning tool. Cronbach's alpha, descriptive statistics, and SPSS were used to analyze the data. The findings showed that the Kahoot game not only augments the learning process but also improves students' motivation, engagement, and positively impacts the classroom dynamics.

**Keywords:** MALL; Gamification; Kahoot; Classroom Dynamics; Motivation; Engagemen

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## Introduction

English language instruction approaches have shifted from the focus on routine drills and memorization, which was the primary method of teaching between the 1940s and 1980s to more communicative approaches, which dominated EFL classrooms in the late 1980s (Frazier & Brown, 2001; Al-Ghamdi & Alrefaee, 2020) and to approaches that involve contextualized instructions and increased motivation (Sutton, 2017; Johnson & Parrish, 2010). The meaningful and relevant context in the EFL classroom is important (McGrath, 2013). A study by Osam, Bergman, and Cumberland (2016) on adult learning revealed that EFL learners' motivations are significant to their lives outside the classrooms. The choice of technology that fosters motivation among second language learners is key, ensuring success in language acquisition. Several studies have supported the claim that the integration of technologies that motivate learning in EFL classrooms improve students' learning outcome. According to Thohir (2017), the success of any action depends on the extent to which an individual tries to achieve his goals, coupled with the desire to do it. The psychological impulse that generates action is what people refer to as motivation. Motivation is important in language learning classrooms because it creates desires among the students to obtain the objectives of the target language and also fosters desirable attitudes towards language learning (Alharthi, 2020).

Various studies have shown that the application of instructional technologies in L2 classrooms can optimize and improve learners' language acquisition and significantly motivate them to learn and stimulate their passion and creativity. Language learning technologies can boost and increase the opportunities and diversities in learning environments and improve the quality of learning experience. Gamification technology has been proved to foster motivation and enhance learning experience among EFL learners.

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## **CALL and Emerging Technologies in Language Learning Settings**

There is a strong bond between new technologies and gamification. Kim, Song, Lockee, & Burton (2017) define gamification as the application of mechanics and elements of a game in a non-game context such as in education to motivate learning through the use of videogames. The primary goal of gamification is to motivate users and increase participation in learning activities through gaming elements such as leaderboards and rewards. The technology use in EFL classroom to give instructions has played a significant role in improving students learning outcomes over the last decade. According to Melnikova (2019), integrating videogames in classrooms plays an integral role in offering EFL students valuable learning experiences. Technology positively contributes to the development of personality factors of students, such as motivation and self-esteem. Developing motivation in L2 learning through technology integration contributes to an improved learning experience.

Before looking into details, the current gamification technology, it is important to assess the development of Computer Assisted Language Learning (CALL). Katshemererwe and Nerbonne (2013) define CALL as the use of computers in language learning. CALL is an evolution of Technology Enhanced Language Learning (TELL) and Computer-Assisted Instruction (CAI). The integration of CALL in L2 today has shifted from Behavioristic CALL, which was used during the 1950s and 1960s to current integrative CALL. Behavioristic CALL emphasized on extensive and repetitive grammatical explanations and language drills along with translation tests (Warschauer & Healey, 1998). This instructional method was boring and not user-friendly for L2 learners. Behavioristic CALL was rejected as an approach to language learning on both pedagogical and theoretical levels since upgraded computers started creating superior prospects for individual work. This led to the emergence of Communicative CALL in the beginning of 1980 that focused on teaching grammar implicitly rather than explicitly. Communicative CALL also encouraged and allowed EFL learners to produce original pronunciations instead of just manipulative pre-fabricated language (Warschauer & Healey,

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1998, p. 57). Teachers encouraged the use of communicative CALL because met cognitive theory requirements, which stress that language learning is a process that involves development, discovery and expression.

Although communicative CALL was viewed as better than behavioristic CALL, it started facing criticisms by the early 1990s. The opponents argued that the computers during that time were being used in a disconnected fashion, and an ad hoc, therefore, made greater contributions to marginal instead of focusing on central components of the language learning. Various L2 educators started to shift from a cognitive view of teaching and learning of a language to social-cognitive view, which emphasized more on language use in realistic social contexts (Morita, 2005). Project-based and task-based methodologies all pursued to incorporate various language learning skills and also to integrate L2 students in authentic environments. This led to the emergence of integrative CALL, which strives to incorporate technology and various language skills into the process of language learning. Integrative CALL allows L2 learners to utilize different CALL tools as a continuing language learning process instead of occasional visits to computer labs for isolated activities (whether communicative or behavioristic exercises). Integrative CALL contributed to social media use and application of Web 2.0 as strategies for learning the second language. Today, thanks to CALL, EFL learners can access integrative language learning technologies to improve the learning experience. The current CALL system enables teachers to understand that they need to integrate various technologies in classrooms to improve learning.

The application of Web 2.0 has modified the process of language learning, and EFL learning has not been an exception. Luke Pierce (2015) defines Web 2.0 as web apps that foster collaborative information for user-centered designs, interoperability, sharing, and cooperation on the worldwide web. Web 2.0 application in the learning of second language motivates learners who need to empower their socio-cultural and personalities to enable them to acquire fluency.

## Gamification

Gamification is a new concept in L2 learning. Conley and Donaldson (2014) define gamification as the use of techniques of game design and gaming elements in non-game context. The gamification idea is based on the gaming industry's success, and years of human psychology research. Generally, any process, assignment, theoretical context, or task can be gamified. The primary goal of gamification focuses on fostering the participation of an individual, which is referred to as the "user" and motivates her/him by integrating game techniques and elements such as immediate feedback and leaderboards. This creates a sense of engagement and empowerment for the users to enable them to focus on achieving the tasks. However, before looking at the motivational concept of gamification, it's necessary to revisit the basic elements of the game that make it a suitable learning tool.

## Game Elements

Various elements in digital games can help a student improve his/her learning experience. Some of these elements include dynamic feedback mechanisms, interface responsiveness, interesting narratives, and maintenance of the illusion of control or choice (agency). All games integrate three basic elements, including progression, rewards, and meta-centered activities. According to Mindy Jackson (2017), each of the game elements serves a unique function to enhance learning. EFL teachers should implement a progression element through systematic promotion of healthy competition and showing students their progress. The learners are able to see their progress and become risk-takers while they are motivated to continue or move on. Table (1) shows gaming elements and their use in EFL instructional design.

Game Element	Examples	Significance to L2 Instructional Design
<b>Rewards</b>	<ul style="list-style-type: none"> <li>• Power-ups</li> <li>• Bonuses</li> <li>• Collectibles</li> </ul>	<ul style="list-style-type: none"> <li>• Rewards can be scheduled into a learning experience</li> </ul>

	<ul style="list-style-type: none"> <li>• Tools, equipment and other game resources</li> </ul>	<ul style="list-style-type: none"> <li>• Rewards give intrinsic and extrinsic motivation and recognition for skills, efforts and time attained</li> <li>• Both fixed and variable reward schedules are crucial game mechanics</li> </ul>
<b>Progression (Achievement)</b>	<ul style="list-style-type: none"> <li>• Certificates</li> <li>• Progression bars</li> <li>• Leaderboards</li> <li>• Leveling</li> <li>• Badges</li> <li>• points</li> </ul>	<ul style="list-style-type: none"> <li>• Users achieve satisfaction from accomplishment levels and skill development. L2 learners enjoy similar recognition.</li> <li>• The sense of achievement motivates continued efforts. Points, badges and leaderboards provide a social status element</li> </ul>
<b>Story</b>	<ul style="list-style-type: none"> <li>• Quest: the hero's journey</li> <li>• Narrative arc</li> </ul>	<ul style="list-style-type: none"> <li>• Places the learning experience into a captivating narrative experience. Add conflicts, characters and resolutions to immerse the students and their choices into the storylines.</li> <li>• A thwarting disaster scenario, or an adventure setting pique learner motivation and interest</li> </ul>
<b>Micro-interactions</b>	<ul style="list-style-type: none"> <li>• Easter eggs</li> <li>• Animated rollovers</li> <li>• Toggles</li> </ul>	<ul style="list-style-type: none"> <li>• Offer nuanced environmental reaction to student actions through cool transition screens, subtle animations and sound</li> <li>• Games provide various satisfying microinteractions and moments: a cut-screen narration, a sound effect or a hover-state animation. Students should be aware of too much flare</li> </ul>
<b>Personalization</b>	<ul style="list-style-type: none"> <li>• Interactive conversation</li> <li>• Character naming</li> <li>• Avatar customization</li> <li>• Avatar selection</li> </ul>	<ul style="list-style-type: none"> <li>• From avatar selection and customization to choosing the look-and-feel options, gamers are able to accommodate individual preferences</li> <li>• The use of learner input fields such as nicknames improves learner motivation and engagement</li> </ul>
<b>Time</b>	<ul style="list-style-type: none"> <li>• Schedule</li> <li>• countdown</li> </ul>	<ul style="list-style-type: none"> <li>• A common trope in countdown clocks and timers create a sense of urgency and helps the learners to focus on attention at hand.</li> </ul>

Table 1: Mindy Jackson's Game Elements to that enhance learning (page 9)

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## **Gamification in Learning Activities and L2 Learning**

As mentioned earlier, the integration of technologies in learning has become a necessity to reinforce the learning and teaching experiences today. Throughout the years, the world has experienced transitions and witnessed dramatic changes in the CALL. Given the fact that the majority of learners are digital natives, and have different approaches to learning and processing of information, gamification has been adopted in various learning institutions to improve creativity and productivity among learners (NMC, 2017). Gamification is gaining significant backing among educators who use effectively designed games to foster learning in EFL classrooms. The NMC report presents the results of a study conducted at Kaplan University. The university had embedded gamification software into its information technology courses. The report found that learners' grades improved 9 percent, and the failure rate reduced by 16% (p. 45).

Regarding the educator's professional development, the NMC Horizon report presents the Deloitte firm case. The firm designed a training program known as Deloitte Leadership Academy that leveraged gamification to create curriculum-based missions. Some of the game elements integrated into the training program involved learners earning badges for successful completion of curriculum-based missions. Learners could display their badges on their LinkedIn profiles as part of the reward mechanism (p. 45). Such rewards motivated learners to achieve company missions.

Today, gamification is a subject of discussion and research in EFL classrooms. The primary goal of incorporating gamification in the learning process is to unchain an effective and more engaging learning experience for students. EFL classrooms have proved to be suitable for gamification applications. This is due to the idea that EFL learning is usually immersed in technology innovation. To set off or change specific student behavior, teachers need to motivate learners. Gamification creates opportunities for EFL students to enhance their experiences in language learning while acquiring skills necessary for challenging a unit or

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class. Besides, gamification gives students the opportunities to interrelate amongst themselves as it is applied in social games.

The most important aspect of gamification in learning is grounded on the idea that it envisages the objectives of learning. The learners will see these learning objectives as tasks that need to be accomplished to enable them to move from one level to the next. The process of moving is part of the learning experience, which provides L2 educators with alternatives to plan effectively and efficiently towards language learning. Incorporating instructive gamification in the EFL classroom enables the teacher to plan instructions using a gamified shared vision and dedicate time to help students achieve their goals (Su & Cheng, 2014). This leads to increased motivation and engagement among learners. Motivations also increase in a gamified instructional classroom when students' performances are publicly acknowledged through an effective system of reward. When badges are implemented, Willis, Flintoff, & McGraw, (2016) acknowledge that it aids as a motivational instrument and may also become a form of seminal evaluation along with creating a conducive learning environment standard for challenges that learners present in their attempts to achieve fluency in the English language. In their study, Willis, Flintoff, and McGraw found that the use of a reward-gamified system such as badges motivates L2 learners in more competitive tasks, which affects the actual learning process.

### **Problem Statement**

The majority of CALL technologies do not offer classroom motivation, yet EFL learners need to be motivated to improve language acquisition. According to İltter (2015) and Jones (2018), language learning technologies should motivate learners to enhance their learning experience. An effective technology must provide learners with authentic materials that encourage language learning. Mejjini (2016) also argues that appropriate CALL technology should be able to assist L2 students to develop enthusiasm toward the language learning process.



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Technologies that foster motivation help learners develop their higher-order thinking skills. The current gap in encouraging L2 classroom motivation through technology forms the foundation of this study. The present study investigates the significance of Kahoot in motivating L2 learners to improve the language learning experience. Michos (2017) views Kahoot as an excellent didactic tool that promotes students' motivation in language learning.

### **Kahoot: A Game-Based e-Learning Platform**

Various gamification tools are available for L2 classrooms. The current study seeks to investigate how Kahoot can be used to improve language acquisition among EFL students. Kahoot is an e-learning platform that can be used to offer meta-cognitive support in L2 classrooms. Kahoot is an online gaming-based pedagogical tool that involves options such as surveys, discussions, and quizzes that make the learning process engaging, fun, and challenging (Yürük, 2019, p. 92). The tool has been accepted globally, with more than forty million users every month, and it is one of the largest learning websites and apps on the internet (Case, 2018). It is primarily based on intuitive design methodologies.

Kahoot is a student's response system. To use it, teachers need a central screen which all learner in a classroom can see. The first step to using the app involves the administration of quizzes. Teachers need to formulate several multiple-choice questions (MCQs) in a debate format and engage all students in playing the questions. Using the Kahoot app, learners press the button for the correct answer to questions prepared by the teacher and projected on the board using a device that is internet-enabled such as a smartphone, laptop, or tablet. A well-prepared classroom motivates students to play and get correct answers. In a Kahoot study by Plump and LaRosa (2017), the researchers determined that graduate and undergraduate students become motivated to play Kahoot when the game is well-prepared, and the rate of correct answers also increases with motivation.

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It is easier to join Kahoot, and L2 teachers can use the application to create exams, discussions, quizzes, or questionnaires with an interface designed in English. To use the app, Yürük advises L2 educators to create a free account on the application website <http://create.kahoot.it>. Learners are not required to create accounts, but only to login by clicking the address <http://kahoot.it>. After creating an account, educators will gain access to hundreds of thousands of free public games, which they may adapt to suit their classroom needs or create their own games. Created games can be shared among other users once they are approved. Each learner determines her or his nickname to use when logging in. They can use any internet-enabled device such as PCs, tablets, and smartphones to login. Once they login, they will see MCQs on the device screen, which can be played by up to thirty users. They only need to read the question and click on the right answer based on their interpretation. They have reward points for every right choice. Learners with high performance get their names on the board, and this motivates other students to participate to get their names shown on the board actively.

The second type of quizzes that can be created using Kahoot is Jumble. Here, the students are required to put four items in the correct order. This can be achieved by selecting and dragging items on an internet-enabled device. The task must be completed as quickly as possible for a student to get his or her name displayed on the leaderboard. Awarding of points is based on the student's accuracy and speed.

Kahoot focuses on how the students learn and not what they are learning. The Kahoot communities create the contents and align them with curricula they are teaching. The app provides a way of tagging content to specific standards and enables other users to discover games that match the standards they are learning. It encourages students to look up, which creates a trusted learning environment that generates collaboration, discussion, and motivation around educational content. Kahoot games are designed to create emotions into the learning experience through visual design, music, and game mechanic. These game mechanics create

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memorable experiences that help students to unlock their potentials. Kahoot is all about the creation of a positive learning experience by bringing play, emotions, and collaboration together. It merely facilitates social learning experience. The best way to integrate Kahoot in the classroom involves creating quizzes that challenge students. Krashen's input hypothesis supports exposing students to challenging but achievable tasks. According to Krashen's theory, learners progress and improve along the natural order when they receive L2 input that is one step above their current competence level in linguistics (Schütz, 2019). Krashen's input theory is represented using a simple expression  $i+1$  whereby "i" represent the current learner's language acquisition stage and 1 is the exposure to significantly advanced language skills. Therefore, Kahoot quizzes should reflect Krashen's  $i+1$  theory to expose students to challenging yet achievable tasks. Fostering challenges will encourage creativity, critical thinking, and in-depth research and also improve students' presentation skills.

### **Research Hypothesis**

- i. The integration of Kahoot in the learning process improves students' learning outcome
- ii. Learning outcomes are similar among the students when Kahoot is not integrated in the learning process

### **Research Questions**

With the increased use of language learning technologies in EFL classrooms, teachers need to adopt more interactive technologies that offer motivation. As a result, Alf Inge Wang developed Kahoot in 2013 as an updated CALL technology to generate an interactive learning environment and increase motivation in L2 learning. The primary objective of the current study was to assess the impact of Kahoot in improving language learning outcomes in EFL

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classrooms through the motivation of L2 learners. The study sought to answer the following questions to arrive at the objective.

- i. To what extent does the application of Kahoot in L2 classrooms influence the motivation of students towards the acquisition of language skills?
- ii. How does Kahoot technology augment learning according to experiences of the learners?
- iii. What are the impacts of Kahoot on classroom dynamics?
- iv. What is the perception of students towards Kahoot as a language learning tool?

## **Methodology**

### **Participants and Setting**

The study included thirty-six sophomore male students aged between 18 to 22 years. The participants studied EFL major in a certain college in Central Saudi Arabia. The researcher used a random sampling method to select the participants in a class of 88 students. The selected students for the study were classified as L2 learners, and they all received in-class instruction for language arts. The students were divided into two groups to satisfy the need of independent t-test analysis. The first group was an experimental group with 20 L2 learners that used Kahoot to supplement in-class instructions in language learning. The second group, the control group, composed of 16 students that used in-class instructions only.

### **Materials**

The researcher developed a scale of measurement of how Kahoot impacted students' achievement in language skills. The measurement scale was based on Holly L. Jacobs' (1981) rating scale for holistic grading. A reliability and validity study of the scale was conducted, and the internal consistency value of Cronbach alpha was 0.94 indicating high validity and reliability. At the end of the study, a 5-point Likert scale questionnaire was utilized to gather

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data. The study sought to determine the perception of students toward Kahoot, a game-based e-learning tool. The five points included strongly agree, agree, undecided, disagree, and strongly disagree. Questionnaires were distributed to the experimental group. The participants' responses enabled the researcher to answer the study question. As the study culminated, students were requested to spare 15 minutes of their time an interview to enable researcher gauge their perception of the Kahoot.

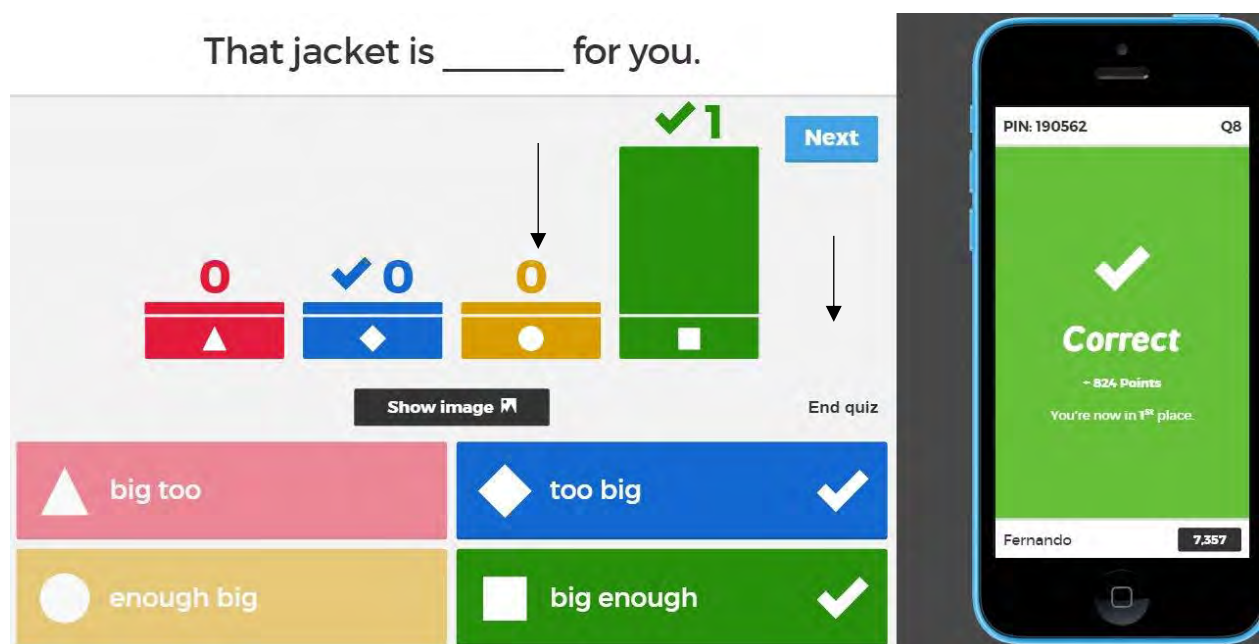
### **Training Procedure**

The researcher adopted a qualitative approach to answer the study questions. A qualitative approach is multi-method in focus as it encompasses a realistic and interpretative approaches to its subject matters (Aspers & Corte, 2019). This means that qualitative research involves the study of subjects in their ordinary settings and attempts to interpret or understand phenomena based on the means the subjects bring to them. This study involved the researcher's observations and personal experience with Kahoot in the context of motivation and engaging students in learning. The study ran for one semester.

### **The Experimental Group**

Kahoot was used as a learning tool in one of the English language courses. The teacher used Kahoot with the students in four different ways to help the researcher address the research questions. The first method was to set challenging quizzes on different topics to help in understanding the competence of learners before tailoring the lesson plan. The quizzes were projected on the board, and students used the required PIN to log in. Secondly, after delivering a one-hour lecture, the teacher used Kahoot to explore participants' knowledge of different topics taught in class. This involved displaying quizzes on the screen and letting the learners click on the right choices. The teacher used a countdown timer to motivate the students by keeping them on-task. They were to take a maximum of 15 seconds to click on the correct

answer. Third, after the lectures, students were allowed to design their own Kahoot, which they played collectively to help in validating their understanding and comprehension of the topics learned in class. Fourth, the teacher encouraged the use of Kahoot for fun, whereby students could emphasize on the topic not related to the course such as lifestyle. To ensure that the students stay motivated, the researcher helped the teacher to integrate interactive features in the design of a Kahoot game environment, including music and sound effect for correct answers. The students used their first names to join the game using laptops, tablets or smartphones. Their choices and results were projected on the whiteboard, as illustrated in (Figure 1) below.



Student's device Projected game on the whiteboard

Figure 1: An Interface of Kahoot game projected on the screen and a student's device for playing

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### **The Control Group**

The students underwent regular in-class instructional teaching. They were asked to use their creative thinking to answer quizzes. The use of MCQs enabled the students to answer the questions independently.

### **Testing Procedure**

At the beginning of the study, both groups of students tested to determine their language acquisition scores prior to the intervention. Both groups did the same test known as Language Acquisition and Learning exam (Appendix 1 and 2). The test was adapted to meet the requirements of learners. Their scores were evaluated by the teacher to determine the mean (%) acquisition scores. The pre-test result showed that the students performed almost the same as the experimental group having a mean score of 30.58% while the control group had a mean score of 30.4%. There was no significant difference in their performance. The students were taught a two-hour lesson throughout the study period, while tests were conducted every two weeks. The experimental group was requested to review and revise the course carefully and participate in the Kahoot games. The teacher added bonus credit for Kahoot participation to ensure all students utilize the technology. In the twelfth week, a post-test was conducted to determine the change in students' performance in the test. Students' scores were analyzed and compared.

### **Rating Procedure**

Students' achievements were scored independently by two teachers based on (Cucchiarini, Neri, & Strik, 2009) and (Cucchiarini, Strik, & Boves, 2000) rating procedures. Each rater was requested to provide a score of overall students' performance on a 10-point scale. The researcher requested one type of rating: a rating for each participant. This involved concatenating each student's performance in the two tests in a random order for which each

rater was to elicit one score so that only one score would be available for each participant. Raters were requested to complete the tasks in many sessions to prevent potential the scores from experiencing fatigue.

## Results

### Reliabilities of Ratings

The researcher first analyzed the raters' scores to determine inter-rater reliabilities. The inter-rater reliability computation was based on 144 cores from each rater (36 students by two testing conditions by two tests). The inter-rater reliability for pre-test was significant ( $ICC=0.93$ ,  $p < .001$ ). This showed a high agreement level between two raters. The intra-rater reliability coefficients for the two raters were 0.862 and 0.921 for raters 1 and 2 respectively showing a high reliability. A t-test was obtained on the two groups to determine students' performance before Kahoot intervention as shown in Table 3. The t-test result was statistically insignificant ( $p>0.05$ ) which proved the hypothesis than students have similar learning outcomes under the same learning condition (without Kahoot).

Inter-rater	Intra-raters	
	Rater 1	Rater 2
<b>0.93</b>	0.862	0.921

Table 2: Inter-rater reliability coefficients for pre-test (Cronbach's alpha)

Group	N	Mean	MD	SEM	t	Sig. (1-tailed)
<b>Experimental</b>	20	30.58	-4.627	4.816	-.6341	.622
<b>Control</b>	16	30.4	-6.108	3.282	-.927	.448

Table 3: t-test results for the pre-test

The post-test's inter-rater reliability was also significant ( $ICC=0.94$ ,  $p < .001$ ). The intra-rater reliability was also high and the agreement between raters was significant as shown in Table 4. The raters discussed the difference in the ratings so as to come to the final conclusion. MS Excel was used to carry out an independent t-test to determine the differences



between post-test and pre-test. The remaining data was analyzed using SPSS. The t-test result was statistically significant ( $p < 0.001$ ) that proved the hypothesis that integration of Kahoot in the learning process improves students' learning outcome.

<b>Inter-rater</b>	<b>Intra-raters</b>	
	Rater 1	Rater 2
<b>0.94</b>	0.889	0.938

Table 4: Inter-rater reliability coefficients for post-test (Cronbach's alpha)

<b>Group</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>SEM</b>
<b>Experimental</b>	20	50.64	9.35	1.83
<b>Control</b>	16	41.2	6.22	1.64

Table 5: Descriptive statistics of students' performances in post-test

The post-test result as shown in Table 5 proved that the students who used Kahoot (the experimental group) had significantly performed better (50.64%) than those who used in-class instruction alone whose mean performance was 41.2%.

The researcher also carried out an independent t-test (Table 6) which demonstrated a statistically significant difference in the scoring between the two groups. The results showed that integrating Kahoot in learning leads to positive learning outcomes.

<b>Group</b>	<b>N</b>	<b>Mean</b>	<b>MD</b>	<b>SEM</b>	<b>t</b>	<b>Sig. (1-tailed)</b>
<b>Experimental</b>	20	50.64	8.86	5.83	3.06	.083
<b>Control</b>	16	41.2	6.42	3.46	2.59	.352

Table 6: t-test results for post-test

### **Student's Perception of Kahoot Game**

Concerning the fourth research question on the perception of students on Kahoot, the participants in the experimental group initially criticized the tool due to many assignments associated with it. Nonetheless, their attitudes toward the homework changed when they realized they were performing better than the control group. During eighth week, the participants in the experimental group requested their teacher to give them more time so that

they could read widely before responding to Kahoot questions. As a result, they were given two days instead of one to prepare for Kahoot question. What was more surprising was that even at the culmination of the study during the filling of questionnaires, four students still believed that Kahoot game gives students unnecessary pressure with assignments. However, 100% of the students agreed that incorporating Kahoot in learning significantly improved their learning gains. All participants in the experimental group completed a Likert scale and the results were analyzed using SPSS.

<b>Statement</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
	<b>Strongly Disagree (%)</b>	<b>Disagree (%)</b>	<b>Undecided (%)</b>	<b>Agree (%)</b>	<b>Strongly Agree (%)</b>
<b>It was easy to use Kahoot</b>	0	0	5	10	85
<b>I found using Kahoot fun</b>	0	0	5	1	94
<b>Using Kahoot kept me motivated to interact with other students and do tests</b>	0	0	4	6	90
<b>The use of Kahoot helped me learn new vocabularies</b>	0	0	4	0	96
<b>I prefer the use of game in learning instead of paper and pen alone</b>	0	4	4	0	90
<b>The use of Kahoot helped me to improve my spelling</b>	0	5	0	3	92
<b>Kahoot encouraged me to concentrate</b>	0	6	4	1	89
<b>I feel more prepared for tests and exams after using Kahoot</b>	0	0	0	0	100
<b>Kahoot improved collaboration among learners</b>	0	0	0	0	100
<b>Kahoot has improved my writing skills</b>	0	0	5	1	94

<b>Kahoot has reinforced my English language understanding</b>	0	0	4	0	96
<b>Kahoot improved my listening skills</b>	0	4	4	3	89

Table 7: Students' Satisfaction Survey

All 20 students completed the Likert questionnaire. Nineteen students believed that it was easy to use Kahoot in learning. Nineteen students believed that the use of Kahoot was fun while nineteen contested that Kahoot motivated them to learn and interact with other players. All students strongly agreed that Kahoot effectively prepared them for tests and also improved their collaboration in class. On the other hand, nineteen students believed that Kahoot helped them learn new vocabularies, improve writing skills, listening skills, improve their spelling and understanding of English language. Students' perception of Kahoot support the findings by Bowles (2018), Hung (2015), and Lynch (2014) that integrating gamification and other visuals in classroom help EFL students to improve their target language skills. The researcher used descriptive statistics to determine the questionnaire survey's reliability. The results showed a high reliability of the questionnaire survey in evaluating the Kahoot's impact on student's language skills.

<b>Statement</b>	<b>Number of Students</b>			<b>Mean</b>	<b>Std. Dev.</b>
	<b>Agreed</b>	<b>Undecided</b>	<b>Disagreed</b>		
<b>It was easy to use Kahoot</b>	19	1	0	5.83	0.82
<b>I found using Kahoot fun</b>	19	1	0		1.33
<b>Using Kahoot kept me motivated to interact with other students and do tests</b>	19	1	0	4.22	1.08
<b>The use of Kahoot helped me learn new vocabularies</b>	19	1	0	4.9	0.84
<b>I prefer the use of game in learning instead of paper and pen alone</b>	18	1	1	5.68	0.93

<b>The use of Kahoot helped me to improve my spelling</b>	19	0	1	5.51	0.76
<b>Kahoot encouraged me to concentrate</b>	18	1	1	3.54	1.22
<b>I feel more prepared for tests and exams after using Kahoot</b>	20	0	0	5.6	1.39
<b>Kahoot improved collaboration among learners</b>	20	0	0	4.88	0.75
<b>Kahoot has improved my writing skills</b>	19	1	0	5.42	0.86
<b>Kahoot has reinforced my English language understanding</b>	19	1	0	6.02	1.2
<b>Kahoot improved my listening skills</b>	18	1	1	4.63	1.64

Table 8: Descriptive Statistics for Students' Perception of the Kahoot

## Discussion

This study sought to evaluate the efficiency and effectiveness of Kahoot on the acquisition of language skills, including the acquisition of writing skills, listening skills, vocabulary, and spelling among the EFL students. The study utilized multiple designs across 20 students and compared their learning outcomes, with 16 students who did not use Kahoot. Students' learning outcomes were evaluated based on their performance on various Kahoot tests and using a 5-point Likert scale to obtain students' perception of the Kahoot.

The use of gamification in English language teaching has been proved to be effective in increasing language skills, including vocabulary acquisition among students (Huang, 2014). The present study's findings corroborate the research of Case (2018), Frazier and Brown (2001), and Yürük (2019) that the integration of gamification to reinforce in classroom learning resulted in an increased acquisition of language skills. Nineteen participants indicated that Kahoot aided them not only to acquire knowledge but also to retain it. The use of gamification in learning helps students to refresh their memory and continue engaging with learning

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materials. Kahoot game has various elements that motivate students to learn and retain knowledge (Su & Cheng, 2014). The critical element is reward, which gives intrinsic and extrinsic motivation and recognition for skills, efforts, and time attained. Students who performed low were motivated to work hard and get answers correctly so that their names could appear on the leaderboard. This is confirmed by the response from 19 students who said that Kahoot motivated them to learn. Kahoot supported the experimental group to re-grasp and retain language skills from within the lectures, and provided them with a reminder of what was taught in class. It is easy to remember the game when a student goes wrong in solving a problem, and that helps them to seek the correct answer.

Concerning the first research question, "*to what extent does the application of Kahoot in L2 classrooms influence the motivation of students towards the acquisition of language skills?*" the study found that Kahoot has a high potential of motivating the learners to engage in learning and interact with one another in the classroom. The use of Kahoot motivated learners to concentrate on specific language areas that they wanted to improve. This, in turn, encouraged students to engage with their teacher, course content, and their peers. Students were also motivated to compete to get their names displayed on the leaderboard. Therefore, the Kahoot game encouraged students to be more attentive to the teacher and class activities, which substantiates Willis, Flintoff, & McGraw, (2016) findings that gamification motivates learners and improve the learning outcomes.

Regarding the second question, "*how does Kahoot technology augment learning according to experiences of the learner?*" the study found that Kahoot game positively impacts students' skills and knowledge gain. 90% of the students who engaged with Kahoot conceded that the game encouraged them to pay attention and focus on the lecture; thus, the game augmented the learning process. The finding justifies İlter's (2015) study, which concluded that the integration of technology in learning enriches the learning process. The fact that Kahoot

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improved classroom engagement between learners and the teacher, course content, and the lecture also helped in enriching the learning process.

In responding to the third question, "*what are the impacts of Kahoot game on classroom dynamics?*" the researcher observed that Kahoot offered the participants with more opportunities to interact with course content, peers and the teacher by creating a fun environment which supported engagement in a manner that shifted the lecture hall dynamics. The Kahoot game shifted the classroom from teacher-centered to student centered, which supported Topîrceanu, (2017) finding that gamification is key to creating a student-centered learning environment. However, this experience was different from that of the control group, and also from experience, the experimental group had prior to integrating the Kahoot in learning. The study findings are consistent with Mindy Jackson's (2017) finding those game elements, including story and personalization, serve unique functions that can improve classroom dynamics. However, the excessive competition brought about by the game could trigger negative classroom dynamics, particularly when there was limited time to complete a given task.

Concerning the last research question, "*what are the perception of students towards Kahoot as a language learning tool?*" the researcher noticed that the majority of students (more than 90%) viewed Kahoot as an important tool in the learning process. As indicated in Table (7), students' nineteen students agreed that Kahoot improved their language skills, engagement, motivation, vocabulary acquisition, and spelling. The students' views correspond with Bowles (2018), Hung (2015), and Lynch's (2014) findings that gamification improves students' learning outcomes.

## **Conclusion**

In summary, the primary objective of the present study was to determine whether the use of Kahoot games would enhance increase learners' motivation, engagement, learning outcomes,

and also to get students' insights towards the application. The preliminary study recognized the increased use of CALL in the contemporary learning environment to improve learning outcomes. The study found that, indeed, Kahoot contributed to a more significant impact on students' motivation, engagement, classroom dynamics, and the whole learning process. Integrating Kahoot in learning shifted the application of grammar translation method in learning to the communicative competence approach. Therefore, the researcher met his goals of the study. This study has also justified previous studies on the use of the game in the classroom, which found that gamification impacts learners' engagement, motivation, and learning outcomes.

Even though students' perceptions supported the idea that Kahoot improved the learning process, they did not comment on the teacher's effectiveness with Kahoot. It is important to assess how the Kahoot impacted the teacher's ability to deliver the course content. The future study should focus on evaluating if the use of gamification impact's teacher's content delivery.

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## Appendices

### APPENDIX 1

#### Language Acquisition and Learning Exam (Pre-Test)

##### General Directions

This test below comprises of multiple-choice questions. Each question has **TWO** to **FOUR** answer choices. Read each question and carefully answer by choosing the best answer.

Attempt to answer all questions. Generally, if you have some information about a question, it is better to try to answer it. Guessing will not be penalized.

1. My father is an excellent chef.
  - I disagree to you.
  - I agree for you.
  - I disagree for you.
  - I agree with you.
2. What is the meaning of "TV"?
  - Tuberculosis
  - Yes
  - Television.
  - Video
  - Telegram
3. The sweater is-----for her.
  - Big enough
  - Too big
  - Enough big
  - Big too
4. Where do they often eat supper?
  - At 12:00
  - In the cafeteria.
  - Sandwich.
  - With Jane.
5. How long did she train last evening?
  - English.
  - In the field
  - With Bob.
  - For fifty minutes
6. What type of tales does she like?

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- Yes, she does.
  - She likes spy tales.
  - 7. How many days a week do you listen to music?
    - I listen to music.
    - In my bedroom.
    - About two days.
    - On Thursday.
  - 8. When do you leave school every day?
    - In the evening
    - Yes!
    - My name
    - Last week
  - 9. How is "dog" spelt?
    - I don't
    - D-O-G
    - I have one dog.
    - Cat
  - 10. How is "dog" pronounced?
    - /dɒg/
    - /dʌg/
    - /dɪg/
    - /dəʊdʒ/
  - 11. How is "two" pronounced?
    - /tə,tʊ,tu:/
    - /tu:/
    - /təʊ/
    - /tu/
  - 12. Choose among the following which is a pet
    - Cut
    - Cat
    - Cute
    - Catch.
  - 13. What were you doing?
    - I have eaten.
    - I will be eating.
    - I ate.

- 
- I was eating.
  - 14. Where's Mary?
    - No, she isn't.
    - For three hours.
    - At eight.
    - At school.
  - 15. Where do you do your studies?
    - At home.
    - About an hour.
    - In the evening.
    - Every day.
    - With James.
  - 16. When did you go to that hotel?
    - I did.
    - Last month.
    - With Sharon.
    - Pasta.
  - 17. When did you take this picture?
    - Picture of animals.
    - Five pictures.
    - With my camera.
    - About four days ago.

Total Score \_\_\_/17

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## APPENDIX 2

### Language Acquisition and Learning Exam (Post-Test)

#### General Directions

This test below comprises of multiple-choice questions. Each question has TWO to FOUR answer choices. Read each question and carefully answer by choosing the best answer.

Attempt to answer all questions. Generally, if you have some information about a question, it is better to try to answer it. Guessing will not be penalized.

1. 'Human beings are emotional creatures' this idea relates to

Cognitive factors

Individual differences

Affective factors

2. Language learners have a variety of strategies to use, such as expansion, reduction and avoidance in order to manage the communication problems

False

True

3. There is no particular learning or teaching method that can suit the needs of all learners as every person, teacher or student, has a learning style.

False

True

4. Which one is NOT a learning strategy?

Achievement

Metacognitiva

Cognitive

Social/affective

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5. Acquisition of FL/ L2 consists on knowing and repeating new words, structures and sounds according to the Socio Educational Model.

False

True

6. Three distinctive features of Caregiver speech

Silence

Repetition

Exaggerated intonation

Alternative forms

Correction

7. Finding which variables make stronger contribution and are more influential than the others is associated to

Spolsky's Model of second language learning

Skehan Model of Influence on Language Learning

Gardner's Educational Model

8. The process of children working out how to use grammatical functions and rules

Language transfer

Overgeneralization

Pidgin

Fossilization



9. 'Language is not learnt by groups' this idea relates to.

Cognitive Factors

Individual differences

Affective Factors

10. Communicating through the use of signs is known as;

Habla

Lengua

Lenguaje

11. The three characteristics that the cognitive theories share are (Gestalt, Constructivism, Meaningful Learning theory)

Interaction

Cognitive and language development

Active construction of knowledge

Intellect grows and language does too

12. Mark the boxes that better answer to this question. **What is language?**

Language operates in a speech community or culture.

Language is used for communication.

Language is not acquired by all people in much the same way.

Language is limited to humans

13. Which theory states that language comes from the physical features humans possess, which lead to speech production.

Natural Sound Source



Genetic Source



Divine Source



Physical Adaptation Source

14. The creation of situations is required to allow knowledge to be internalized subconsciously



Learning



Acquisition

15. What is the theory that holds God as the provider of language to humans?



Divine Source



Physical Adaptation Source



Genetic Source



Natural Sound Source

**Total score \_\_\_/15**