



**EFFECTS OF THE GAMIFICATION TOOL KAHOOT!
ON SECONDARY SCHOOL STUDENTS'
ENGLISH READING SKILLS**

BY

MISS THIPPAWAN SRIPANYA

**A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF ARTS IN CAREER ENGLISH FOR
INTERNATIONAL COMMUNICATION
LANGUAGE INSTITUTE
THAMMASAT UNIVERSITY
ACADEMIC YEAR 2018
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ENTITLED

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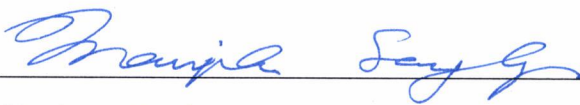
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Chairman


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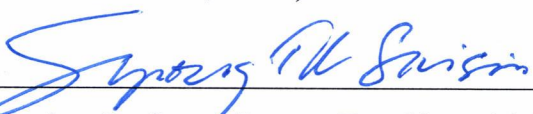
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Thesis Title	EFFECTS OF THE GAMIFICATION TOOL KAHOOT! ON SECONDARY SCHOOL STUDENTS' ENGLISH READING SKILLS
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Degree	Master of Arts
Major Field/Faculty/University	Career English for International Communication Language Institute Thammasat University
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ABSTRACT

This study aims to 1) investigate the effects of the gamification tool Kahoot! on English reading skills in English class and 2) explore students' attitudes towards the use of gamification tool Kahoot! in English reading class. The participants of the study were 97 students studying in Mathayom 2 from two classrooms taught by the researcher. The participants were separated into two groups: an experimental group and a control group. One classroom was selected to be the experimental group and one classroom was selected to be the control group. They were taught by the researcher as the teacher. The research instruments included 1) the English reading skill test to assess scores before and after learning; 2) the gamification tool Kahoot! was used in the experimental group; 3) a questionnaire to explore the students' attitudes toward using the gamification tool Kahoot! in English reading, and an interview form for in-depth data regarding comprehensive answers. The quantitative data was analyzed using mean, standard deviation (SD) and t-test. The content analysis method was applied for qualitative data. In this method, the researcher as the teacher was the one who gave and recorded interviews and coded the data. It was later checked by an expert.

The results of the study were as follows:

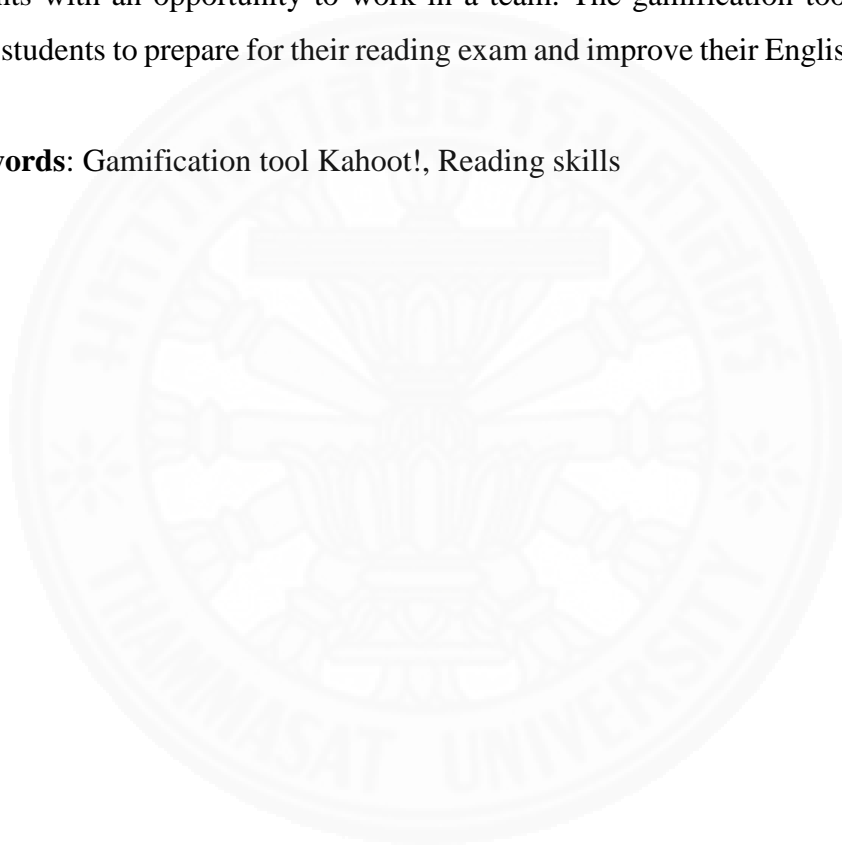
1. The students' posttest mean score after using the gamification tool Kahoot! in English class in the experimental group was significantly different from the pretest

mean score at .05 level. The posttest mean score ($M = 15.24$, $SD = 3.02$) was higher than the pretest mean score pretest ($M = 14.27$, $SD = 3.49$).

2. There is no significant difference between pretest and posttest score in the experimental and control groups at 0.5 level.

3. The students' attitudes toward using the gamification tool Kahoot! in English reading was at a strongly agreed level ($M = 4.55$, $SD = 0.63$). All students indicated that Kahoot! is appropriate for their age and English class since it is fun and it provides students with an opportunity to work in a team. The gamification tool Kahoot! also helps students to prepare for their reading exam and improve their English reading skill.

Keywords: Gamification tool Kahoot!, Reading skills



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Ms. Thippawan Sripanya

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CHAPTER 1

INTRODUCTION

1.1 Background

According to Naved (2015), one of the most important and common foreign languages is English. English is also crucial to the education field because, in many countries, such as in Thailand, students are encouraged to learn English as a second language (Prasongporn, 2016). A large number of activities are provided in the English classroom to improve students' English abilities in listening, speaking, reading and writing skills (Karanjakwut, 2010).

Although Thailand has devoted a large amount of money for education and development, focusing on English teaching methodology and English communication skills of students, the English competency of students is still poor (Noom-ura, 2013). Moreover, Siriphanich and Laohawiriyanon (2010) stated that not only Thai students at the elementary level but Thai students through high school and higher education also have poor reading comprehension. Furthermore, the very low reading ability of Thai students might be the result of ineffective English teaching (Chavangklang, 2008). In English reading class, Thai students are asked to read the text and answer the comprehension questions without using any reading strategies (Chavangklang, 2008). Being taught with textbooks in a traditional style, students cannot master basic skill in reading (Nakjan, 2012). Thus, Nakjan (2012, p.2) indicated that "the students need to be taught to develop reading skill in another fashion."

Games are a method that can be used in teaching. The teachers will create some situations for the learners to play under rules. The learners have to make decisions while they are playing games to compete with their competitors (Khaemanee as cited in Suthirat, 2001). Moreover, Sarkar (as cited in Suthirat, 2001) and Warojmawichaya (1987) claimed that a game is an activity that provides the players with enjoyment under the rules and goals. The three most important components of games are the players, the rules, and the goals. Yolageldili and Arikan (2011) stated that games play an important role in foreign language teaching programs because they help young children in

particular in foreign language learning. Moreover, games have become crucially essential for English language learners and teachers because they provide enjoyment and relaxation and students are encouraged to use their language in a creative and communicative manner. İzgören, (as cited in Yolageldili and Arikan, 2011) also stated that many studies in Turkey explored the relationship between games and the teaching of foreign languages. For example, Topkaya and Küçük (2010) recommend more games for children be incorporated in primary school curriculum for young learners' English lessons. Similarly, Sungurtekin, Sezer, Bağçeli-Kahraman and Sadioğlu (2009, p. 756) explain that "by playing games, a child makes acquaintance with his environment, learns life and gains new instructions. Furthermore, providing learners with meaningful context is a way that games can encourage learners to put their energy towards language learning directly." To sum up, a game is an activity that can draw learners' attention when learning. Therefore, games should be integrated into foreign language learning as a tool that is designed for fun and learning.

A large number of researchers reveal that there are many advantages of games. According to Lee (as cited in Suthirat, 2001), a game can be used to promote the enthusiasm of students. Using games in class also provide a chance for students to be the center of learning, lead them to have high motivation, support them to work in teams efficiently, and provide an opportunity for them to make their own decisions on problem solving that is a way of productive learning. Also, integrating games into the classroom provides some opportunities for the students to apply their social and communication skills to improve their language learning skill.

In addition, Thanasuwan (1987) claimed that using games in English class would support a pleasant classroom environment. The students have a chance to practice their basic communication by applying their knowledge from the classroom to the genuine situation and have a good attitude toward using games in English class. Moreover, teachers can use games to draw the students' attention in English class. It can cause liveliness, the students are active to learn, and the students will be supported to develop themselves in various skills such as problem analysis, social skills, teamwork, creativity, and self-confidence.

Owing to the rapid advancement and popularity of technology, teachers have a variety of features that improve the process of education and motivate students to be

active (Aleksic-Maslac, Sinkovic & Vranesic, 2017). Gamification is included in games that are designed for entertainment (Kiryakova, Angelova & Yordanova, 2014). Aleksic-Maslac et al. (2017) state that gamification is a process that tries to capture the elements which define games as sources of fun and which motivates players to continue playing in order to make progress, strengthens their desire to learn, and enhances competitiveness. According to Werbach and Johnson (2012), the use of game elements and game design techniques in non-game contexts is called gamification. Moreover, Pede (2017, p.11) states that “gamification is the process of using video games to engage audiences, solve problems, and/or elicit game-like thinking and mechanics.” Using game-based mechanics, aesthetics and game thinking to engage people, motivate action, promote learning, and solve problems is called gamification (Kapp, 2012).

In this study, the gamification tool refers to Kahoot!, which is an internet system in which students can respond to game-like pre-made or impromptu quizzes, discussions and surveys. The players can answer questions by using their own devices. The players who can answer questions faster and correctly get more points (Susilowati, 2017). Iaremenko (2017) also mentions the advantages of applying Kahoot! to the classroom. This technology is able to be applied in all ESL learning areas: reading, grammar, vocabulary, etc. Students can learn vocabulary and grammar in a pleasurable and challenging way by using Kahoot! and this application is useful for both individuals and teams.

1.2 Statement of the problem

The researcher, as a teacher who teaches English in Mathayom 2 or grade 8 students in a public school in Bangkok, had an opportunity to make observations in an English class that often used Kahoot! at the end of class to review the lesson. In that class, the students seemed to be eager to participate in this activity. They helped each other in their team energetically to answer the questions as fast as they could to compete with the other teams. The students looked very happy and had fun. The researcher realized that this activity might be able to create the environment of learning in class, as well as to improve students' English skills and students' motivation in learning English. To support the idea, previous studies about using Kahoot! in classrooms present the same positive result: using Kahoot! in classrooms can increase students'

motivation, perception, acquisition, attitude, and satisfaction. For example, the study of Zarzycka-Piskorz (2016) that was conducted to examine the influence of specific game elements on players found that the motivation aspects of game involvement and the game elements could be responsible for increasing motivation to participate and engage in a grammar learning game. The finding shows that intrinsic motivation is improved in the online game context because of the perspective of winning and/or getting a reward. Also, the result from the questionnaire shows that clear objectives are able to assist students to gain knowledge and improve language skills. Moreover, the study by Susilowati (2017) about the effectiveness of Kahoot! in supporting grammar classes reveals the result that the first-year students felt something different in grammar class, since the boring and not enjoyable grammar class had been changed by using Kahoot! and it seemed that their motivations were increased.

There is another important English skill, reading skill, that should be considered because reading skill leads students to learn vocabulary, improve their writing style and other main points of their communication, and helps them focus on their student books. However, a large number of students cannot reach the main idea and cannot answer questions about what they read. These reasons lead students to feel uncomfortable in learning English. To support this idea, previous studies by Udomsinklul (2012) indicated that a serious problem of learning English is the difficulties of understanding vocabulary and reading. The students cannot catch up with the lesson due to their below standard reading ability (Udomsinklul, 2012). Udomsinklul (2012) also stated that the students feel bored when they are asked to learn to read English through teaching in the traditional style in which students answer the teacher's questions, then the teacher gives the students feedback.

Gamification is defined as "a way to influence online and real-world behavior" (Dale, 2014, p.82). Kahoot! was launched in September 2013 and is a new and updated technology. It can be seen that there are a large number of studies that have already attempted to study about applying Kahoot! to teaching English. Those studies focus on English grammar and motivation in learning. However, not many studies have been conducted on the relationship between Kahoot and reading skills.

Thus, the researcher was encouraged to conduct this study and demonstrate if using a gamification tool in English class can enhance English reading skills of Mathayom 2 students.

1.3 Research questions

1.3.1 To what extent can the English reading skills of the students be enhanced by using the gamification tool Kahoot! in class?

1.3.2. What are the students' attitudes towards the use of the gamification tool Kahoot! in English reading class?

1.4 Research objectives

1.4.1 To compare the English reading skills of the students in learning English before and after using the gamification tool Kahoot! in English class

1.4.2 To explore students' attitudes towards the use of the gamification tool Kahoot! in English reading class

1.5 Definition of terms

1.5.1 **Game** is defined as an activity that can build interest in learners. In each game there are at least two sides to compete and all players must follow the defined rules and conditions.

1.5.2 **Gamification** is defined as “a way to influence online and real-world behavior” (Dale, 2014, p.82). It has been used since 2003. In addition, it is defined as using game-based mechanics, aesthetics and game thinking to engage people, motivate action, promote learning, and solve problems (Kapp, 2012). Moreover, gamification refers to game elements and game thinking integration in activities that are not games (Kiryakova1 et al., 2014). According to Werbach and Johnson (2015), the use of game elements and game design techniques in a non-game context is called gamification.

1.5.3 **Kahoot!** refers to a system in which students can respond through game-like pre-made quizzes (Dellos, 2015). Also, Kahoot! is a free online game for both students and teachers. It can be run by multimedia tools such as a cell phone, and laptop

for running the Kahoot! website (Siegle, 2015). There are two styles of questions in Kahoot!; questions with multiple choice answers and true or false questions were used in the study. These questions attempt to explore reading skills of students in remembering level, understanding level, applying level and analyzing level (according to Bloom's taxonomy, 2001).

1.5.4 **Reading** refers to an activity in which students attempt to understand the writer's purpose in a written text. Reading for general purposes, where the readers are encouraged to read about some general interest based on their background knowledge is focused on this study.

1.5.5 **Reading Skills** refers to the three steps for teaching reading in the classroom. They are pre-reading, while-reading and post-reading.

1.6 Scope of the study

This study is limited to the use of the gamification tool Kahoot! in learning English reading skills and focuses only on Mathayom 2 students who are 13 – 14 years old in a girls' school in Bangkok during the first semester of the 2018 academic year. Mathayom 2 students were asked to do a pretest before the use of gamification as well as to do a posttest and to complete questionnaires after the use of gamification in an English reading class. Moreover, they were asked to answer the questions in the interview part in this study. The purposes of this study are to compare the English reading skill of the students in learning English before and after using the gamification tool in English class and to explore students' attitudes towards the use of the gamification tool Kahoot! in English class.

1.7 Limitations of the study

1. Only group work is applied in the use of Kahoot! in English class.
2. Mathayom 2 students who were the experimental group were asked to separate into ten groups to answer the questions through Kahoot! using their mobile phones. Only one device per group was allowed for answering questions due to the Internet signal limitation.

3. There was only one researcher who interviewed and recorded the information from the interviewees, who were the students who got the highest and lowest differences between pretest and posttest scores.

1.8 Significance of the study

The study of the effects of Kahoot! on secondary school students' English reading skills can be a learning paradigm in the secondary level to enhance reading skills. Kahoot! is a kind of technology that is more utilized in English class. It helps students to improve their English skills and it can create an enjoyable and relaxed atmosphere in class. Also, in this study, students were encouraged to have more participation in English class while reading and that can lead them to have higher proficiency in English learning, especially in reading skills. Using Kahoot! for reading can help them to understand the texts more clearly and help them to read faster. In addition, the students have good attitudes about English learning.

1.9 Organization of the study

This study is organized into five chapters. Chapter one presents the introduction of the study consisting of background, research questions, objectives of the study, definition of terms, scope of the study, limitations of the study, significance of the study, and organization of the study. Chapter two reviews the literature which covers four topics: the concept of game and gamification, the concept of Kahoot!, the concept of reading, and related studies. Chapter three describes the methodology containing population and sample, research instruments, data collection, and data analysis. Chapter four reports the results of the study. Lastly, conclusions, discussion, and recommendations for further studies are reported in Chapter five.

In the next chapter, the concept of game and gamification, the concept of Kahoot!, the concept of reading, and related studies are reviewed.

CHAPTER 2

REVIEW OF LITERATURE

This chapter reviews the literature in five main areas: (1) the concepts of game and gamification, (2) the concept of Kahoot!, (3) the concept of reading, (4) the concept of Bloom's taxonomy, and (5) the related studies.

2.1 The concept of game and gamification

2.1.1 Definitions of game

Kaemane (as cited in Suthirat, 2001, p.417) stated that a game is one good tool to use in teaching. The teacher can create the situation for the learner to play by themselves under the defined conditions or rules. The learner needs to choose one choice which leads them to win or lose. This will make learners learn how to analyze the thoughts and action which influences decision making and help them enjoy studying.

Pianchop (as cited in Suthirat, 2001, p.417) claimed that a game is the activity that would bring joy by having the competition with goals and rules. The important parts of games are the players, goals, and rules.

Warojmawichaya (1987) stated that a game is an activity in which the players try to achieve the goal under the determined condition. Moreover, a game also means entertainment and enjoyment.

Sithapanon (2008) said that a game is the activity that builds interest and joy in the learners. There are rules and conditions to encourage learners to learn, understand and remember the lesson easily together with improving various skills in a short time. In addition, a game encourages learners to work in teams. Each game can have only one player or more to compete with each other or work together to do activities according to the rules. There is a scoring pattern or a win-lose judgment procedure.

Furthermore, Thanasuwan (1987) said that a game is a competition among two sides. The players can play one on one, as a team or by oneself. There can be win – lose or no lose no win, but the players have to play under the rules. The game must have one

goal such as for having fun, for building relationships, for giving an idea, or for learning something.

Therefore, from all the mentioned definitions, the researcher can summarize the definitions about game as an activity that can build interest in learners. In each game, there are at least two sides to have a competition, and all players must follow the defined rules and conditions.

2.1.2 Definitions of gamification

Gamification is included in games that are designed for entertainment (Kiryakova et al., 2014). Aleksic-Maslac et al. (2017) state that gamification is a process that tries to capture the elements which define games as a source of fun and motivate players to continue playing in order to progress and strengthen their desire to learn more to enhance competitiveness. According to Werbach and Hunter (2012) and Deterding, Dixon, Khaled, and Nacke (2011), the use of game elements and game design techniques in non-game contexts is called gamification. Moreover, Pede (2017) and Kapp (2012) state a similar meaning of gamification, that it is the process of using video games or using game-based mechanics, aesthetics and game thinking to engage people, motivate action, promote learning, and solve problems. Furthermore, GamifyingEducation.org (as cited in Kiryakova et al., 2014) claims that to improve motivation and learning in formal and informal conditions, using game mechanics is applied. In addition, Utendorf (2013) indicates that gaming methods and mechanics in a non-gaming environment to motivate customers and employees is the process of gamification. Zicherman and Cunningham (2011) claims that using gaming attributes to drive engagement, strengthen skills, or behavior changes is the process of game-thinking and game mechanics to engage users and solve problems that is called gamification. Also, gamification is defined as the process that allows students to become more active in the classroom because they are asked to engage more in education through playing a game and having competition between themselves (Aleksic-Maslac et al., 2017).

According to Kiryakova et al. (2014), gamification is a game elements and game thinking integration in activities that are not games. The gamification concepts that are

mentioned have one thing in common, the intrinsic elements are used and their purposes are to support learning and to improve users' engagement.

Thus, the researcher can summarize from all the mentioned definitions that gamification is a process that is designed for entertainment in non-game contexts in both formal and informal situations. Meanwhile, motivation, activeness, progression, and competitiveness are the main aims of gamification integration.

2.1.3 The characteristics of game

According to Rusameeprom (as cited in Suthirat, 2001), the game which is very appropriate for teaching is the drill and practice game. These kinds of games will let learners do things repeatedly until they build up some skills. In addition, the teacher should make this game more fun, exciting and not boring. The teacher should not let learners wait for a long time to take turns playing the game. The game that involves competing with the other groups will also practice how to work in a team. These are the characteristics of the game:

- (1) Give knowledge and ideas according to the goal.
- (2) Increase understanding and motivation to the content.
- (3) Could be learned in a small group without an instructor.
- (4) Improve the basic skills with procedures like visual perception, and number concepts or activities that have rules and conditions.
- (5) Make new vocabulary by spelling activities and create new vocabulary from the given alphabet and competing with each other.

Pranom (as cited in Suthirat, 2001) mentioned about the characteristics of the game as follows:

- (1) Use a short period of time and appropriate for learners' study levels.
- (2) Have clear agreement or instruction.
- (3) Every learner has a chance to participate in the game.
- (4) If it is a competition, there should be a certain condition to avoid a problem when making a decision.
- (5) Have some movement to change body position.
- (6) Can control the volume of the voice to not disturb the close classroom.

Furthermore, Thanasuwan (1987) mentioned four characteristics of a good game for learning which are

(1) The game should be challenging to motivate learners to participate.

(2) The good language game should let learners work in groups and put the main focus on the learners by giving an opportunity to think and solve the problem by themselves.

(3) The game should be easy to play without the need to rehearse before playing, be easy to follow the directions and should not have to prepare much or use a lot of equipment. If equipment is needed, it should be easy to find and cheap.

(4) The game should have different difficulty levels according to learners' age and ability.

Also, Kiryakova et al. (2014) indicates that there are some distinctive features of game and gamification.

(1) Users are all participants – employees or clients (for companies), students (for educational institutions).

(2) Challenges/tasks that users perform and progress towards defined objectives

(3) Points that are accumulated as a result of executing tasks

(4) Levels which users pass depending on the points

(5) Badges which serve as rewards for completing actions

(6) Ranking of users according to their achievements

2.1.4 The types of game

Thanasuwan (1987) has divided language games into 2 types:

(1) Communicative Games – The goal of this game is to make learners communicate, converse, exchange or decorate the information by using given language patterns or vocabulary.

(2) Non-communicative Games – this kind of game was built to make learners feel joyful and reduce stress from daily study. Most games in this category are competition which has winners and losers.

Other than these, Promwong (1978) has divided the game for practicing skills into six types.

(1) Improving listening and attention skill game –this kind of game should start at the beginning step in the class for preparing learners to be good listeners and have long attention in one thing.

(2) Follow an order practice game – for this kind of game, the learners need to listen first and follow the order. This game will help learners to have more concentration and follow an order seriously.

(3) Number concept game – this kind of game will give opportunities for learners to participate thoroughly in both physical and mental activities.

(4) Listening game – this kind of game will encourage learners to know various kinds of sounds and make connection with the picture.

(5) Learning alphabet game – this kind of game will help learners to remember the name of each letter and when the teacher says that letter, the learner can identify them correctly.

(6) Improving physical and mental game – this kind of game has a wide boundary because all the mentioned games use both physical and mental activities. However, this kind of game will focus on practicing a learner's imagination.

Furthermore, Whitton and Moseley (2012) indicate that three main areas in particular, highlighted as presenting opportunities for game creation, are alternate reality games (ARGs), virtual worlds, and traditional games.

(1) Alternate reality games (ARGs)

Alternate reality games (ARGs) are an interesting alternative to traditional computer games in which both the online and real worlds are combined, and accessible low-end technologies are applied. ARGs, provide a fictional game world in which narrative is interwoven with real people and events, and storytelling, puzzle-solving, and online community are consolidated. Whitton and Moseley (2012, p.88) also state that “an ARG will typically consist of three elements: (a) the ongoing storyline that unfolds as the game progresses that the players need to assemble over time, piecing together the narrative from multiple sources as the game unfolds; (b) a series of challenge or puzzle that are set to the players as the game progresses that generally require some types of collaboration to complete; (c) a community that works together to solve the puzzles, support one another and creates and elaborates on the game environment and narrative as the game progresses.” The non-technical game designers are particularly interested in this type of game because this type of game focuses on player activity and collaboration, rather than high-end digital design. Also, many different media types are used to act as a delivery mechanism for the game.

(2) Virtual worlds

Virtual world is an online space which provides the users an opportunity to travel around, explore the environment, have an interaction with objects, and communicate with other users. Game-based environments can be created by the educators who do not have high-end technical skill in virtual world. An avatar (a graphical representation of the players' characters) is applied to make the players be imitated in a virtual world.

(3) Traditional games

The traditional games are created with easy design and development. The terms of use of traditional games are highlighted owing to their simplicity, ease of creation and because there is a tendency to forget them in discussions on game and learning. Traditional games such as card games, board games, role playing and puzzles have many advantages. These games provide learners with active learning, collaboration, and engagement but the drawbacks of high-development overheads are not included. Moreover, an effective and simple way of employing game-based learning in classrooms and other face-to-face settings can be set by using this type of game.

2.1.5 Using games for learning objectives

Thanasuwan (1987) indicated that the objectives of using games for learning are as follows:

- (1) To increase learners' opportunities in four skills: listening, speaking, reading, and writing.
- (2) To make a good environment for studying that will not be boring because while playing games learners will enjoy the activity and be alert
- (3) To review the past lesson including vocabulary and sentence patterns
- (4) To practice how to remember, observe, find the reason, and apply it to use in their lives.
- (5) To encourage learners, to practice creativity and concepts
- (6) To make learners get an experience from playing and bring them to solve the problem and adapt themselves in society
- (7) To practice decision making

(8) To make learners learn to accept the rules, follow the rules and have a sporting spirit

(9) To know how to work in teams because playing games helps to make a good environment in working together

(10) To build a good attitude toward the English subject

Promwong (1978) said the objective of playing games is to open an opportunity for learners to receive and learn things as follows:

- (1) Enjoyment
- (2) Good behavior and sporting spirit
- (3) Good health with great shape
- (4) Improvement in perception
- (5) Confidence and self-control
- (6) Cooperation as a team member

Saengthanu and Pongsatat (1978) claimed that the purposes of teaching language games are as follows:

- (1) To motivate learners to study English
- (2) To review the past lessons about vocabulary, sentence patterns and pronunciation
- (3) To eliminate the weak points in language use of the learners by using learner problems to drill in games
- (4) To increase the speed of thinking, understanding, following the order and using language automatically
- (5) To encourage a positive attitude in studying English

Weed (as cited in Suthirat, 2001) mentioned the purposes of using games for teaching as follows:

- (1) To develop physical development, reduce stress, reinforce learners to be active and change the learning language environment
- (2) To build a joyful atmosphere to encourage learners' interest
- (3) To learn about foreign cultures and practice using language in a real situation
- (4) To be another technique for teaching grammar and sounds

2.1.6 The advantages of games in learning management

Lee (as cited in Suthirat, 2001) mentioned the advantages of games as follows:

- (1) Games encourage learners to be active and focus on student centered learning.
- (2) Games give a high motivation, encourages students to work together and have communication activities with others.
- (3) Games open the opportunity to make a decision and solve a problem
- (4) Games give feedback immediately from the competition.
- (5) Games reduce mistakes. Learners have more freedom. They do not need to worry about the wrong mark or the red pen correction from the teacher.
- (6) Games encourage learners to work in teams and this is one way to learn about society.
- (7) Games can be used to take a rest after the lesson.
- (8) Games encourage learners to have better learning.
- (9) Games help to practice language in many skills from speaking, writing, listening and reading. Moreover, it can help to improve language use.

Thanasuwan (1987) stated that using games in English teaching will have many advantages as follows:

- (1) Help to build a fun environment in class and reduce anxiety from daily lessons
- (2) Help to review lessons such as pattern, vocabulary and pronunciation
- (3) Give an opportunity for learners to practice basic skills such as listening and speaking by using the learned knowledge in a simulation
- (4) Motivate learners to begin studying some content
- (5) Help learners to have a good attitude toward English teaching
- (6) Help learners to know how to work together in a group competition

Furthermore, Warojmawichaya (1987) mentioned the advantages of using games for teaching as follows:

- (1) Make lessons more interesting. When learners have fun, it will help to make a natural atmosphere.
- (2) Make lessons more realistic and livelier. The learners will not be bored because they can participate in learning.

- (3) Improve many skills such as problem analyzing and living with others
- (4) Improve creativity skill
- (5) Be more confident

All the advantages mentioned above present some similarities of the advantages of games. Thus, the researcher can summarize that Lee (as cited in Suthirat, 2001), Thanasuwan (1987), and Warojmawichaya (1987) indicate that games have many benefits. Games can encourage and motivate the learners to be active in learning and it creates the realistic and lively environment in class. Also, games can give immediate feedback, as well as reduce mistakes and anxiety. So, games lead the learners to have more confidence and freedom to learn and make the learners have fun and be happy while they are learning. However, only Lee (as cited in Suthirat, 2001) and Thanasuwan (1987) states that games increase opportunities to practice language skills such as listening and speaking skills and help the learners to have better learning and to review lessons. Also, only Lee (as cited in Suthirat, 2001) and Warojmawichaya (1987) agree that games open an opportunity to the learners to increase their problem-solving skills. Moreover, Lee (as cited in Suthirat, 2001), Thanasuwan (1987), and Warojmawichaya (1987) present the different aspects of the advantages of games that are different from each other. Lee (as cited in Suthirat, 2001) indicates that the learners can take a rest after a lesson by playing games. Thanasuwan (1987) claims that games can extend a good attitude toward learning English. Meanwhile, Warojmawichaya (1987) reveals that creativity of the learners can be developed by using games in learning.

Other than these advantages mentioned above, five aspects about the advantages of learning by using games from some research can be summarized as follows:

(1) Learning achievement and stability

Zuckerman (1976) found that game is a tool that can be used to teach like other tools. It is easy to use and improves learning advancement. Games also helps to complete learner understanding and helps to motivate a discussion. Walling (1977) made experimental research to study school records of first year university students after using games in every process with other ways of teaching, for example, lecture discussion, only lecture, and lecture with games. The result showed that the group of students who studied by using games for teaching in every process had higher learning achievement scores than other groups.

Boonmusik (1998) studied English vocabulary spelling of Grade 6 students between teaching with games and normal teaching. The experimental group was taught by using games while the control group was taught by normal teaching. The result showed that the experimental group had higher learning achievement scores and stability in spelling learning than the control group with statistical significance level at 0.5.

(2) Working together

Dickerson (1976) made a comparison research about teaching by using Active games and Passive games with normal teaching to find reinforcement methods to learn vocabulary for Grade 1 students who had limited ability. The result showed that games should be used to reinforce students more than normal teaching. The reasons were using games would give an opportunity to students to meet each other, work in groups and have a competition.

(3) The relationship between learners

Taylor (as cited in Suthirat, 2001) made a comparison research about teaching by using games and normal teaching. The samples were two groups of high school students and each group had 15 people. The result showed that the group of students that used games for teaching had a better relationship than the normal teaching group.

(4) Attitude toward subject

Janruang (as cited in Suthirat, 2001) studied the result of using games in teaching with grade 9 students in mathematics. The result showed that the group of students who has been taught by using games had higher learning achievement scores and attitudes toward mathematics subject than the group that used role play and the group that has been taught by following the mathematic guide book from IPST.

(5) The ability in English writing

Srithongchai (2002) made a comparison research between using a spelling game with critical feedback and using a spelling game with score feedback on the writing of Grade 4 students who had learning achievement scores of lower than 60 percent. The result showed that students had more ability in English after they had been taught by using the spelling game with critical feedback and using the spelling game

with score feedback with statistical significance level at .01. Moreover, students who had been taught by using the spelling game with critical feedback and using the spelling game with score feedback had different abilities in English writing with statistical significance level at .05.

In addition, Whitton and Moseley (2012) indicate that there are six aspects of games that can support and increase the learning process. They are as follows:

(1) Playfulness

Games provide a chance to the players to be in another world where the learners can try the new things without any concern about risk or negative outcome. Moreover, games can generate creativity, innovation, and new ideas as well as games offer players the ability to create new identities and interact with both the environment and other people in novels. Also, games can release the players' stress in formal education.

(2) Practice

Mistakes can occur in games. However, these mistakes can lead players to be experts because players are supposed to compete with the other players. So, they need to do their best and improve themselves to compete with the other players to reach their goals.

(3) Engagement

Engagement in game can be increased by several elements and can be influenced by various factors such as the level of difficulty, motivation to play the game in the first place, intrinsic interest in the game subject matter or the use of challenges. Furthermore, mystery and stimulating curiosity or uncovering secrets can improve engagement. These factors are able to attract the players because of human desire. However, every player cannot be engaged by the same elements or factors, so well-designed game for different types of players is very important.

(4) Scaffolding

The goals in games start from simple to more complicated. At advanced levels of game, the game is more difficult, so there is less support or scaffolding, hints are more obscure, and rewards or power-ups are offered less than at basic level. The games become harder but the players become more independent.

(5) Feedback

The effectiveness of players can be evaluated by feedback. Feedback is also important to give direction to the players to manage their future opportunity and games. For computer games, proper feedback and well-timed feedback is desirable. One of the preferences of feedback is that it is intrinsic and is directed to activity undertaken. Moreover, receiving feedback that is linked to the actions immediately is powerful for learning whether or not you achieve the goals.

(6) Digital Literacy

Computer games allow the players to be confident with computer interaction. Moreover, it helps the players to get ready for online community. Visual, aural media, data management and extraction from multiple competing sources can be learned through games. The player also can practice basic computer skills such as using the mouse and keyboard by playing computer games. These skills are essential because they can support the players or new computer users to gain confidence in safe and profitable circumstances.

In addition, Kinzie and Joseph (2008) state that a game is an activity that provides students voluntary and enjoyable activity and they are able to pursue a challenging goal under the rules. Employing online educational games help students to develop their learning performance (Wang & Chen, 2010). For example, some studies reveal that children's cognition and social processes that are an important part of the development of children can be developed by digital games (Yien, Hung, Hwang, & Lin, 2011). Moreover, Ebner and Holzinger (2007) report that the students' learning interest can be enhanced by online educational games, and online educational games also increase students' learning motivation (Burguillo, 2010).

2.1.7 The disadvantages of games in learning management

According to Adams (2017), educational games played using the internet or the computer are applied for use in schools to enhance students' abilities in learning. These educational games can increase students' interests in class. However, Adams (2017) states that games should be replaced having students study or playing outside because there are some disadvantages or effects on students both mentally and physically. So, Adams (2017) divides the disadvantages of games into four aspects. They are as follows:

(1) Physical strain

When students are addicted to some games, they will sit and play those games for a long time or until the end of the games. This long term use may lead students to have neck aches, back aches, repetitive strain injuries, eyestrain, headaches, fatigue and mood swings.

(2) Mental Effects

According to studies done at Newman University College in Birmingham, England (as cited in Adams, 2017), low self-esteem or aggressive behavior of the students who keep losing at the game can be caused by educational games. Moreover, social isolation and poor social skills can be caused by the overuse of educational games because the students may spend too much time trying to win the game.

(3) Wasted Time

When the students spend too much time playing games, their studying, being active or participating in social events will be decreased.

(4) Negative Behaviors

If educational games ask students to shoot at objects or people, these behaviors may lead to violence. Students may attempt to copy some these behaviors with friends, people around them or family members.

Furthermore, Diana (2010, p.36) indicated that “the using of games is a good method for teaching English vocabulary especially by applying the creative activity one but there were also some disadvantages in using games in teaching. The first disadvantage is it is difficult for the teachers to control students in class because students were active and noisy. The second disadvantage is teachers only had a little time to explain the material and gave some new vocabularies. So, there was no longer time for teachers to explain more and help them to memorize all the new vocabularies”

All the disadvantages mentioned can be summarized that games not only provide a large number of advantages to the teachers and students but games also have disadvantages that should be taken into consideration by both teachers and students.

2.1.8 Using games for teaching procedure

Abalo (as cited in Thanasuwan, 1987) recommended the procedures for using games for teaching in four steps

(1) Choosing step – To choose which game for teaching, teachers should be concerned about the language used in the game according to ability of students

(2) Preparing step – Prepare how to use the game before the class starts especially the tools

(3) Using step – Explain the game objective and how to play it together with clear rules to make sure it will go well. After that, start to play the game by separating learners into groups appropriately.

(4) Evaluation step – If it is a competition game, the score should be given for the group that does it correctly by writing the score on the board. If any group makes any mistake like wrong grammar, the teacher may decrease the score and give a special score to the best group, especially for creativity.

In addition, Thanasuwan (1987) recommended the following four steps of communicative game procedures

(1) Warm-up step – Teachers announce the game's name, makes groups, and recommends or reviews the sentence pattern or vocabulary for use in the activity.

(2) Instruction step – Teachers describe how to play the game and the rules that learners should follow.

(3) Performance step – When the teacher is sure that all learners understand everything, give them an opportunity to play.

(4) Summary step – The teacher announces the result of the game to learners and corrects the mistakes about grammar or language use that are used to communicate, which the teacher noted while students were playing

Furthermore, Warojmawichaya (1987) and Promwong (1978) said that to use game for teaching or adjust it to the steps of learning, games can be classified as follows:

- (1) Leading games
- (2) Teaching games
- (3) Relaxing games

To recommend new games to learners, teachers can do it in two ways

(1) Tell learners general information about the game then focus on the detail of the game

(2) Describe each step of the game by giving an order step by step

From these procedures above, teachers can choose one of them to use.

2.1.9 Recommendations for using games in class

Saengthanu and Pongsatat (1978) gave the recommendations for using game for teaching as follows

(1) Teachers should let students play games at the end of English class to be like a reward so that most students pay attention in class and succeed in learning.

(2) If the lesson is too difficult, teachers should add a short game to decrease students' stress.

(3) As students love to compete, if it is a competition game, teachers should prepare the ways to prevent students from feeling conflict and pressure.

(4) Teachers give an opportunity to all students to play and get compliments.

(5) Teachers should be impartial and judge fairly and decisively.

(6) Each round of playing should last for more than 15 minutes.

(7) Teachers should control rules and sound to not disturb the other class nearby and announce to all students that whenever students disturb another class, the teacher will stop the game immediately.

Warojmawichaya (1987) also gave the recommendations to use game in teaching as follows

(1) Teachers should make a clear goal about the game. For example, games can help students change their behavior, games can be related to what teacher wants to teach, and games can support the lesson, and improve the atmosphere in class.

(2) Games should be used at an appropriate time.

(3) If the game needs some equipment, teachers should prepare it and tell students about the goal of using this game.

(4) Teachers should try to make all students participate in the game.

- (5) There should be an evaluation after the game.
- (6) The game is appropriate for participants in each age.
- (7) The competition should improve sportsmanship.

Moreover, Thanasuwan (1987) also provided advice to use games in teaching as follows:

- (1) Study every detail of the game before using it, especially the rules and procedures
- (2) Describe procedures or instructions clearly to learners together with a demonstration
- (3) Do not use one game more often because learners will lose their interest to participate in this activity
- (4) Separate learners into groups by mixing different ability levels together

2.2 The concept of Kahoot!

2.2.1 Definitions of Kahoot!

According to Dellos (2015), Kahoot! is a system in which students can respond through game-like pre-made or impromptu quizzes, discussions and surveys. Siegle (2015) states that Kahoot! is a free online game for both students and teachers. Piskorz (2016) claims that Kahoot! is an application in which teacher or user can create their own accounts where the tasks or the tests are prepared and the tasks or tests are able to be made public or kept private. In addition, “Kahoot! is a game-based approach that has been introduced in some areas of life especially in education” (Susilowati, 2017, p.137). Also, Kahoot! is free and effortless to learn and use. It is a development of the previous clicker technology (Plump, 2017).

All the above definitions about Kahoot! can be summarized that it is a free online game which consists of quizzes, discussions, and surveys. This online game allows teachers and students to have cooperation in learning. Teachers can create the activities in Kahoot! then students are allowed to join by using the given PIN for registration.

2.2.2 The methods of Kahoot!

Kahoot! can be run by a cell phone, laptop or Chromebook for running the Kahoot! website. For teachers, an LCD projector and speaker are needed (Siegle, 2015; Susilowati, 2017).

Graham (2015) claims that to inspire students, videos, pictures and music can be uploaded with questions on Kahoot!. According to Susilowati, (2017) Kahoot! consists of questions on specific topics. The users can create and set their own questions on each topic. To provide students an opportunity to select the best answer for the presented question, the users are able to set the time and access to play with no limited number of players (Graham, 2015; Susilowati, 2017). For each question, 10 to 120 seconds can be set for the players to choose an answer, and at least one correct answer needs to be stated (Graham, 2015; Susilowati, 2017). Both the questions and answers have character limits. Questions are limited to 80 characters while each of the two to four multiple choice answers are limited to 60 characters (Graham, 2015; Siegle, 2015).

Furthermore, according to Graham (2015), the instructors are willing to share their experiences in a big user community in Kahoot!. The instructors are also able to look into the “Kahoot!! Journal” to find out some more help such as hack, tips on getting started, free learning games, and other ways to inspire students to play Kahoot!. Moreover, Zarzycka-Piskorz (2016) mentions that the existing public tests or tasks available on Kahoot! can be adapted to use for every user need while the other users can share their tests to the rest of the users.

In addition, to join this game, a laptop equipped with Wi-Fi, and a code is required for registration and students are asked to create appropriate nicknames (Siegle, 2015). “To play the game the class needs access to the Internet, a projector and a screen where the task or test is displayed. The participants give their answers using mobile devices, such as smart phones, tablets or laptops” (Zarzycka-Piskorz, 2016,p.25). To enter the platform, students sign in using the web address <https://Kahoot!.it> then choose team or individual mode (Plump& LaRosa, 2017). Using the code given by the instructor, students can access the platform. They do not need to download an application or register for an account (Plump & LaRosa, 2017). The player can play individually or in a team with unlimited questions in a quiz (Susilowati, 2017). When the questions are presented in front of the class, the players can answer the questions

by using their own devices. The players who can answer questions faster and correctly get more points (Susilowati, 2017). In each question, the top five highest scores are presented on the leader board at the front and at the end, the highest scorer is exhibited. Moreover, the players can download the results of the answer of each question afterwards (Susilowati, 2017).

To sum up, to play Kahoot!, an Internet connection, smart phones or laptops, and an LCD projector and speaker are required because Kahoot! is an online game that many users can access and play together at the same time. The activities in Kahoot! are created and shared by teachers, then the code to access those activities is given to students who are asked to participate in activities in Kahoot!. The three main types of activities in Kahoot! are quiz, discussion and survey. However, a quiz is normally applied to the language learning process.

2.2.3 The advantages of Kahoot!

According to Susilowati (2017), the quizzes in Kahoot! can be used to evaluate each individual's knowledge by adapting their knowledge from the class to do the exercise. Moreover, they are used to investigate the learning progress of the learner and inspire the learners to create their own quizzes in the future.

Furthermore, Kahoot! is a way to involve students in gamified learning (Iaremenko, 2017). Iaremenko (2017) also mentions the advantages of applying Kahoot! to classroom. They are as follows:

- (1) Kahoot! is a free game.
- (2) This technology is able to be applied in all ESL learning areas: reading, grammar, vocabulary, etc.
- (3) Students can learn vocabulary and grammar through a pleasurable and challenging way by using Kahoot!.
- (4) This application is available for both individuals and teams.

2.2.4 The disadvantages of Kahoot!

According to Hodson (2017), using Kahoot! in the classroom has some disadvantages. The limitation of using Kahoot! in the classroom is that students are only provided an opportunity to answer the questions in multiple choice, yes or no, or true or false styles. Moreover, Hodson (2017) states that Kahoot! is a good game for

review but it is not a good game for instruction because some of the new games in Kahoot! are a Jumble, which is a game that asks students to place correct answers in a correct order and students receive more points for quicker answers. So, speed is emphasized over substance.

In addition, Van Den Berg (2016), indicated that having four options is a limitation of Kahoot! and switching between the personal device in a single window for the game screen and answer board screen was annoying. The questions are only viewed on one screen in front of the class, so it is difficult for some students to follow along while the lesson is taking place (Mathur, 2017). Also, while the students were playing Kahoot!, the system collapsed because of many players at the same time (Cammarata Armenta, García Malo & Igea Bermejo, 2017). The background music to encourage students to play can be stressful and students can be overexcited and the atmosphere of the class can become too noisy and they can lose track of the aim of the activity (Cammarata Armenta et al., 2017, p.3).

2.3 The concept of reading

2.3.1 Definitions of reading

According to Oxford University Press (2010, p.1220) “reading is the activity of somebody who reads or the particular way in which you understand a book, situation, etc.” In addition, Wallace (2010) claims that the reacting to a written text as a piece of communication is called reading as interpreting. Moreover, some communicative intent to understand the writer’s purpose is also called reading (Wallace, 2010).

The researcher can summarize that reading is an activity in which somebody attempts to understand the writer’s purpose in a written text.

2.3.2 Reading skills

According to Yugoslav and Noff (as cited in Chatwiroj, 2006), there are three steps for teaching reading in classrooms. They are pre-reading, while-reading and post-reading. Moreover, Wallace (2010) states about the classroom reading procedure that there is not a complete coincidence of construction between writer and reader. The contradiction between the writer and reader may occur because of the difference of the way to communicate in the writer’s text and the way to interpret the text by the reader.

However, there must be some area of agreement. Therefore, two main procedures are suggested for the reading classroom to enhance the reader's comprehension. They are as follows:

- Access to the context of situation – in some textbooks the readers cannot focus only on the context of production but also have to focus on the context of use.
- Access to content- access to both content and context is important for effective interaction with the text.

Furthermore, Yugoslav and Noff (as cited in Chatwiroj, 2006) and Wallace (2010) indicate that three main steps of reading activity and the main objectives of each step are presented: pre-reading activity, while reading activity and post-reading activity.

Pre-reading activities

In this type of reading activity, the readers are asked to answer the questions so that the reader can discover the specific answers related to the questions immediately through scanning the text to find information. Brainstorming is also one popular pre-reading activity. The purposes of this activity are as follows:

- to encourage the background knowledge of learners
- to examine the learners' feeling
- to support the individuality of learners
- to set the objective of reading
- to encourage curiosity
- to persuade learners to read

While-reading activities

The learners are encouraged to be flexible, active and reflective readers in while-reading activities because the readers are invited to read the type of text being presented in ways which are perceived to be appropriate. The samples of while-reading activities are the kind of dialogue between reader and writer, to ask students to reassemble the jumbled sentences or sections of the text, a group cloze activity in which the range of possibility is explored, or jigsaw reading in which the readers have to piece the whole text together. The purposes of this activity are as follows:

- to enhance reading comprehension
- to comprehend

- to encourage the thinking process
- to call for interest in language
- to provide an individual response

Post-reading activities

Traditionally, multiple choice questions that tend to test the existing schematic knowledge of learners are adopted in post-reading activities. Moreover, another motivated post-reading activity such as a writing task or role-play can be used. The purposes of this activity are as follows:

- to stimulate the reaction
- to promote analysis and synthesis
- to connect old knowledge with new knowledge
- to create a research source.

According to the mentioned classroom reading procedures, the researcher can summarize that the general procedures of teaching reading are pre-reading, while-reading and post-reading. Furthermore, the appropriate activities in each step are chosen from the content and context of the text which is taught in class

2.3.3 The purpose of reading

2.3.3.1 Reading for specific purpose

“Reading for specific purpose is a kind of reading that the reader sees the content of the text as relevant in the way that general text was not, would therefore be more motivated to read them”(Wallace, 2010, p. 65). “Many students learn English for a very particular purpose and term such as ESP and EAP (English for Academic Purposes) have become common.ESP learning is usually related to particular content areas such as engineering or medicine.” (Wallace, 2010, p. 65) Also, Wallace (2010) states that the students would be more motivated to read when the texts are selected from the learners’ specialist area.

2.3.3.2 Reading for general purpose

Not only to be readers for specific purposes but the students of English also want to be readers for general purposes (Wallace, 2010). Reading for general purpose is the way that the readers want to read with some related general interest based on their background knowledge (Dubin, 1989). Moreover, Dubin (1989) stated that the readers’ background knowledge is related to the general interest of the readers and if a

wide range of genres and topics is included in an ESP reading course in the early stages, this background knowledge can be improved concurrently with more specialist knowledge.

2.3.3.3 Reading for pleasure in the second language

The second language learners can be encouraged to read in any genre including thrillers, romantic fiction, or comics for their entertainment (Wallace, 2010). Furthermore, according to Wallace (2010, p.69), “students can be encouraged to take account of their existing preferences. If they enjoy science fiction in their first language they are likely to enjoy similar material in the second language. They will, of course, also have experience with the genre which will help them to predict many features of the second language text. At the same time, cross-culture genre contains cultural-specific discourse, and these can be explored and discussed”.

2.3.4 Factors affecting reading skills

There are some important factors that can lead learners to be successful in reading. The classroom is one of the most important factors that can support learners in effective reading. Therefore, the environment in the classroom has to be calm, there must be enough light for the readers to read and the temperature has to be set appropriately (Korsuwan, 2010; Boynton & Boynton, 2005).

Moreover, Crawley (2009) indicates that the materials, such as books that are used in reading class, must be appropriate. Different ages of reader should read different kinds or different levels of books. For instance, the beginner learners should read fairytales, comics, or fiction with various colors. Also, the content of these books should not be complicated, and they should not have many pages. On the other hand, the learners at advanced level should read the books that have less colors and pictures than the beginner level. The content in these books should be the content that the learners are interested in and they should have an appropriate length.

Furthermore, the activities held in the classroom are important factors. The fun activities can encourage the learners to read. The sample activities are singing, dubbing and recording of radio plays, reciting for the show, reading together with friends or listening to audio books, and reading books that are easy to understand (Crawley, 2009). Not only the mentioned factors but the great relationship between the teachers

and learners is also influential because it can decrease learners' stress while they are reading (Korsuwan, 2010; Boynton& Boynton, 2005).

In addition, Pongphanit (2007), claims that the success of reading depends on backgrounds of experience, maturity, intellectual development, physical development, emotional and social development, interest, and effort, practice, and opportunity and support.

- Background of experience

The children who are from the family with good experiences such as the family that trains children to read, and reads for the children tend to improve their interest and ability in reading better than other children (Angwatthanakul, 2002).

- Maturity

"Maturity is the quality of thinking and behaving in a sensible, adult manner". (Oxford University Press, 2010, p. 917) Maturity is an important factor in reading because the person who has high maturity tends to have high ability in reading (Boonyakarn, 2004).

- Intellectual development

Intelligence is relevant to success in reading because reading is a thinking process. Intelligence is a tool that allows ability in learning and the ability to apply what the readers have learned to use in their real life. Moreover, successful readers are supposed to realize the similarity and differences of what they read and they are supposed to think of things that are abstract, to understand what situations are going to happen in the story and to share their ideas about the story they read. These abilities are definitely related to intelligence skills (Angwatthanakul, 2002).

- Physical development

The children with an unhealthy body lack enthusiasm in learning because if the children have poor physical development, their brains can work slowly. This reason can cause children to feel bored and that makes them turn their back on reading (Angwatthanakul, 2002).

- Emotional and social development

The emotional factors such as patience, meditation, and confidence are the basis of reading (Juengklinjan, 1999). Moreover, social development is a factor that affects

reading because social participation helps to develop communication skills that are beneficial for reading skills (Juengklinjan, 1999; Angwatthanakul, 2002).

- Interest and effort

Interests are related to ability so interest leads to effective reading. Interest helps readers to put as much effort as possible to explore the obstructions in reading and the ways to solve them to reach their goal of successful reading (Pongphanit, 2007).

- Practice

Reading skill is a skill that needs to be improved continuously. If some problems occur with reading ability of children in the present, it may affect the reading ability of the children in the future. Furthermore, reading practice also includes thinking practice because the children have to apply knowledge, understanding from what they read, and reading principles to various story types (Pongphanit, 2007).

- Opportunity and support

If opportunity and support such as answering questions, giving suggestions related to reading and using ideas are provided to the children, these children will be the person who has high ability in reading (Pongphanit, 2007).

2.3.5 The Criterion for Selecting Reading Material

The criterion for selecting material is crucial because different kinds of texts or reading material provide different reading advantages. Also, different environments have different restrictions for reading material selection (Wallace, 2010). For instance, “some teachers and learners will be in environments where a wide variety of English language material is readily available in form of newspapers, magazines, and books. Others will need to be more resourceful in acquiring a supply of reading matter for both their own use and as class material for their learners” (Wallace, 2010, p.71). This study focuses on teachers and learners who are in an environment in which they need to be more resourceful in acquiring a supply of texts. Therefore, the criteria for selecting material must be carefully considered. Material selection in this study focuses on texts as vehicles for teaching language structure and vocabulary, texts which teach language through reading, and texts which offer high-interest content.

2.3.5.1 The text as a vehicle for teaching language structure and vocabulary

There are some kinds of texts called ‘language focused’ texts. They are primary advocates of the language structure (Wallace, 2010). The particular structures or lexis repetition are written to teach the language. These texts are not the same kind as normal texts. This kind of text focuses on features of structure within or beyond sentences such as pronoun references or logical connections (Wallace, 2010).

2.3.5.2 Texts which teach language through reading

“The more fluently and widely the second language reader reads, the more exposure to the key structures and vocabulary of the second language he or she gains” (Wallace, 2010, p.74). Elley (1984) explored how the context of meaningful written sentences is able to help children to determine the meaning of unfamiliar English structures. Moreover, Wallace (2010) claims the learners can learn language through written language due to consistency and permanency. It also means that the content of the text that will be selected to motivate the learners to read is considerable (Wallace, 2010).

2.3.5.3 Texts which offer high-interest content

Finding an interesting text for the learners is one of the important decisions that can create the learners’ interest (Wallace, 2010). Different texts share some interesting things. For example, some texts are more interesting than others because they are some kinds of narrative texts or other texts may be more interesting because they are based on a true story (Wallace, 2010). However, the individual preferences of different groups of learners are not the same (Wallace, 2010).

2.3.6 How to improve reading skill

Student Learning Development, University of Leicester (2009) illustrates that there are various styles of reading in everyday situations, so reading skill is one of the most important skills that can be applied to daily life. Reading skill improvement can reduce the reading time of the readers and can help them to read in a more focused and selective manner. Moreover, the levels of understanding and concentration of the readers will be increased through reading skill improvement.

There are four steps to improve reading skill. They are as follows:

- have clear reading goals;

Reading goals can lead the reader to have effective reading. The readers can select and prioritize information appropriately.

- choose the right texts;

The readers have to determine if the text is relevant to their reading goals by checking the date of publication to see if it is updated, reading the overview contents, checking for related content, and looking in the index for the references for the topic.

- use the right reading style;

The right reading style is needed in order to read efficiently. For instance, scanning is the technique that is used for finding relevant particular words or phrases for the readers' tasks or skimming technique allows the readers to read speedily for the general meaning and the main point.

- use note taking techniques.

Note taking is necessary for collecting the important information that the readers get from the texts. There are various styles of taking notes, such as underlining and highlighting, picking keywords, creating questions, or making summaries.

In addition, for teachers to improve students' reading comprehension, Pressley (2000) indicates that teachers have to teach students as follows:

- teach decoding skill
- teach vocabulary
- encourage students to build world knowledge such as by asking questions
- teach students to use a range of active comprehension strategies such as prediction, analyzing story, question asking, image construction, and summarizing
- encourage students to monitor their comprehension

Brown (as cited in Prommak, 2005) suggests the ways to increase reading comprehension are

- identify the purpose in reading
- use graphic rules and patterns to assist in bottom – up decoding for the beginners
- use silent reading techniques for relatively rapid comprehension for learners in intermediate or advanced levels
- categorize between literal and implied meanings
- capitalize on discourse markers to process relationships

2.4 Using games in reading

“Helping kids learn to read is a process. It starts with letter identification, sound mastery, and then sight word recognition. They start becoming fluent in reading when they have the ability to sound out words they haven’t seen and the ability to comprehend what they read” (Kara, 2019, p.1). Comprehension is crucial to reading because they can apply reading skill to other books. However, before students can comprehend what they read, there are the steps of reading that the students should be trained in (Kara, 2019). According to Bloom’s taxonomy (as cited in Kara, 2019), the students can start from memorizing words, then, they should be able to understand, apply, analyze, evaluate, and create from what they have read respectively. In addition, Kara (2019) stated that to ensure students have comprehension and/or correct application of words, games should be applied. The reasons are as follows:

1. Games take the stress out of learning to read

Using games in reading provides the learners an opportunity to participate in reading experiences with others in teams as a community (Kara, 2019).

2. Games engage kids, making reading more than just a word on a page

According to Marc Prensky (as cited in Kara, 2019), learners want to be engaged in classroom activity because it’s more than just about being fun, it’s about being a hands-on experience. When the learners are engaged in a fun and interactive classroom activity, they can absorb information, most notably reading, through their own learning style whether it’s visual, kinesthetic, or auditory (Kara, 2019).

3. Games and puzzles promote the spatial awareness necessary to read

Before reading the whole page of the passage, the learners have to know how a word is formed, instead of just seeing a completed word. Therefore, using game such as puzzles in reading can help them to understand the flow and direction of words and letters (Kara, 2019).

4. There is efficiency in learning to read using games

David Booth (as cited in Kara, 2019) indicated that the learners can learn to read more efficiently through game because they can learn and master skills much faster in limited time in game.

5. Games use fluency and/or tell a story, just like reading

While the learners are playing games even non-reading specific games, they can practice reading through the story that describes what situations are going to happen in games (Kara, 2019).

2.5 The concept of Bloom's Taxonomy

According to Handbook One (p. 201-207) (as cited in Armstrong, 2017), Bloom's taxonomy is a framework that consists of six major categories. They are knowledge, comprehension, application, analysis, synthesis, and evaluation. This taxonomy ranges from lower to higher levels of cognitive thinking.

- **Knowledge** “involves the recall of specifics and universals, the recall of methods and processes, or the recall of a pattern, structure, or setting.”
- **Comprehension** “refers to a type of understanding or apprehension such that the individual knows what is being communicated and can make use of the material or idea being communicated without necessarily relating it to other material or seeing its fullest implications.”
- **Application** refers to the “use of abstractions in particular and concrete situations.”
- **Analysis** represents the “breakdown of a communication into its constituent elements or parts such that the relative hierarchy of ideas is made clear and/or the relations between ideas expressed are made explicit.”
- **Synthesis** involves the “putting together of elements and parts so as to form a whole.”
- **Evaluation** engenders “judgments about the value of material and methods for given purposes.”

For teachers, Bloom's taxonomy is used to compose questions on different levels. Dalton and Smith (1986, p.36-37) provide us with the following examples:

KNOWLEDGE		
USEFUL VERBS	SAMPLE QUESTIONS	POTENTIAL ACTIVITIES AND PRODUCTS
<ul style="list-style-type: none"> - Tell - List - Describe - Relate - Locate - Write - Find - State - Name 	<ul style="list-style-type: none"> - What happened after...? - How many...? - Who was it that...? - Can you name the...? - Describe what happened at...? - Who spoke to...? - Can you tell why...? - Find the meaning of...? - What is...? - Which is true or false...? 	<ul style="list-style-type: none"> - Make a list of the main events. - Make a timeline of events. - Make a facts chart. - Write a list of any pieces of information you can remember. - List all the in the story/article/reading piece. - Make a chart showing...

COMPREHENSION		
USEFUL VERBS	SAMPLE QUESTIONS	POTENTIAL ACTIVITIES AND PRODUCTS
<ul style="list-style-type: none"> - Explain - Interpret - Outline - Discuss - Distinguish - Predict - Restate - Translate - Compare - Describe 	<ul style="list-style-type: none"> - Can you write in your own words...? - Can you write a brief outline...? - What do you think could have happened next...? - Who do you think...? - What was the main idea...? 	<ul style="list-style-type: none"> - Cut out or draw pictures to show a particular event. - Illustrate what you think the main idea was. - Make a cartoon strip showing the sequence of events. - Write and perform a play based on the story.

	<ul style="list-style-type: none"> - Who was the key character...? - Can you distinguish between...? - What differences exist between...? - Can you provide an example of what you mean...? - Can you provide a definition for...? 	<ul style="list-style-type: none"> - Retell the story in your words. - Paint a picture of some aspect you like. - Write a summary report of an event. - Prepare a flow chart to illustrate the sequence of events. - Make a colouring book.
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APPLICATION		
USEFUL VERBS	SAMPLE QUESTIONS	POTENTIAL ACTIVITIES AND PRODUCTS
<ul style="list-style-type: none"> - Solve - Show - Use - Illustrate - Construct - Complete - Examine - Classify 	<ul style="list-style-type: none"> - Do you know another instance where...? - Could this have happened in...? - Can you group by characteristics such as...? - What factors would you change if...? - Can you apply the method used to some experience of your own...? - What questions would you ask of...? 	<ul style="list-style-type: none"> - Construct a model to demonstrate how it will work. - Make a scrapbook about the areas of study. - Take a collection of photographs to demonstrate a particular point. - Make up a puzzle game using the ideas from the study area. - Make a clay model of an item in the material.

	<ul style="list-style-type: none"> - From the information given, can you develop a set of instructions about...? - Would this information be useful if you had a ...? 	<ul style="list-style-type: none"> - Design a market strategy for your product using a known strategy as a model. - Paint a mural using the same materials. - Write a textbook about... for others.
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ANALYSIS		
USEFUL VERBS	SAMPLE QUESTIONS	POTENTIAL ACTIVITIES AND PRODUCTS
<ul style="list-style-type: none"> - Analyse - Distinguish - Examine - Compare - Contrast - Investigate - Categorise - Identify - Explain - Separate - Advertise 	<ul style="list-style-type: none"> - Which events could have happened...? - I ... happened, what might the ending have been? - How was this similar to...? - What was the underlying theme of...? - What do you see as other possible outcomes? - Why did ... changes occur? 	<ul style="list-style-type: none"> - Design a questionnaire to gather information. - Write a commercial to sell a new product. - Conduct an investigation to produce information to support a view. - Make a flow chart to show the critical stages. - Construct a graph to illustrate selected information. - Make a family tree showing relationships. - Put on a play about the study area.

	<ul style="list-style-type: none"> - Can you compare your ... with that presented in...? - Can you explain what must have happened when...? - How is ... similar to ...? - What are some of the problems of...? - Can you distinguish between...? - What were some of the motives behind...? - What was the turning point in the game? - What was the problem with...? 	<ul style="list-style-type: none"> - Write a biography of the study person. - Prepare a report about the area of study. - Arrange a party. Make all the arrangements and record the steps needed. - Review a work of art in terms of form, colour and texture. - Review a film
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SYNTHESIS		
USEFUL VERBS	SAMPLE QUESTIONS	POTENTIAL ACTIVITIES AND PRODUCTS
<ul style="list-style-type: none"> - Create - Invent - Compose - Predict - Plan - Construct - Design 	<ul style="list-style-type: none"> - Can you design a ... to ...? - Why not compose a song about...? - Can you see a possible solution to...? 	<ul style="list-style-type: none"> - Invent a machine to do a specific task. - Design a building to house your study. - Create a new product. Give it a name and plan a marketing campaign.

<ul style="list-style-type: none"> - Imagine - Propose - Devise - Formulate 	<ul style="list-style-type: none"> - If you had access to all resources how would you deal with...? - Why don't you devise your own way to deal with...? - What would happen if...? - How many ways can you...? - Can you create new and unusual uses for...? - Can you write a new recipe for a tasty dish? - Can you develop a proposal which would... 	<ul style="list-style-type: none"> - Write about your feelings in relation to... - Write a TV show, play, puppet show, role play, song or pantomime about...? - Design a record, book, or magazine cover for...? - Make up a new language code and write material using it. - Sell an idea. - Devise a way to... - Compose a rhythm or put new words to a known melody
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EVALUATION

USEFUL VERBS	SAMPLE QUESTIONS	POTENTIAL ACTIVITIES AND PRODUCTS
<ul style="list-style-type: none"> - Judge - Select - Choose - Decide - Justify - Debate - Verify - Argue - Recommend 	<ul style="list-style-type: none"> - Is there a better solution to... - Judge the value of... - Can you defend your position about...? - Do you think ... is a good or a bad thing? - How would you have handled...? 	<ul style="list-style-type: none"> - Prepare a list of criteria to judge a ... show. Indicate priority and ratings. - Conduct a debate about an issue of special interest. - Make a booklet about 5 rules you see as important. Convince others.

<ul style="list-style-type: none"> - Assess - Discuss - Rate - Prioritise - Determine 	<ul style="list-style-type: none"> - What changes to ... would you recommend? - Do you believe? - Are you a ... person? - How would you feel if...? - How effective are...? - What do you think about...? 	<ul style="list-style-type: none"> - Form a panel to discuss views, e.g. "Learning at School". - Write a letter to ... advising on changes needed at... - Write a report. - Prepare a case to present your view about...
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According to Armstrong (2017), Bloom's taxonomy was revised and published in 2001 by a group of cognitive psychologists, curriculum theorists and instructional researchers, and testing and assessment specialists. They announced a more dynamic conception of classification and used verbs and gerunds to label their categories and subcategories as follows:

- 1) Remember
 - Recognizing
 - Recalling
- 2) Understand
 - Interpreting
 - Exemplifying
 - Classifying
 - Summarizing
 - Inferring
 - Comparing
 - Explaining
- 3) Apply
 - Executing
 - Implementing

- 4) Analyze
 - Differentiating
 - Organizing
 - Attributing
- 5) Evaluate
 - Checking
 - Critiquing
- 6) Create
 - Generating
 - Planning
 - Producing

According to Dwiastuty and Nurjanah (2016), the cognitive domain of Bloom's taxonomy that is divided into six categories begins from the lowest level and the highest level. Furthermore, the difficulty is measured by the complexity of vocabularies and structure; long – short text, the text given to students had better not be too long; content, based on the student's mental development, will, needs, or what attracts them and the genres should be considered for the test materials for reading skills creation. Therefore, to measure the student's ability in understanding a text is important before providing the reading test to the students.

2.6 Related studies

Using the gamification tool Kahoot! in learning has been studied by many researchers and the significant results of the studies are revealed as follows:

Zarzycka-Piskorz (2016) conducted a study to examine the influence of specific games on players, the motivation aspects of game involvement and what game elements could be responsible for increasing motivation to participate and engage in a grammar learning game. In this study, the Kahoot.it online game was utilized in a general English language course with students attending classes in The Modern Languages Centre at the Pedagogical University, Cracow, Poland to observe and assess how the students' motivation increases and the evaluation of the design process of the teachers was also presented. The finding from the questionnaire, which focused mainly on the aspect of motivation, indicated that intrinsic motivation was improved in the online game context because of the perspective of winning and/or getting a reward. Also, the result from the

questionnaire showed that clear objectives were able to assist students to gain knowledge and improve language skills.

The study of Susilowati (2017) that is about the effectiveness of Kahoot! in supporting a grammar class revealed the result of using the Kahoot! application in a grammar class of 37 first year Diploma III of Nursing students' academic year 2016/2017 at NgudiWaluyo University. The first-year students felt something different in grammar class since the boring and not enjoyable grammar class was changed by using Kahoot! and it seemed that their motivations were increased. In this study, the data was collected by using classroom observation and distributing a questionnaire.

Moreover, the study about the effects of the online game Kahoot! on science vocabulary acquisition of Pede (2017) indicated that after integrating the online game Kahoot! in science vocabulary acquisition of three male and three female middle school students with learning disabilities in a middle school physical science classroom, the scores of vocabulary assessment were increased when Kahoot! was played twice a week. Also, the survey of the students' satisfaction showed Kahoot! is not complicated to use and enjoyable.

According to Aleksic-Maslac et al. (2017), the educational process is able to be improved by new technologies. For example, gamification, which allows students to learn through entertainment and competition, is used to increase motivation during the class. This study of Kahoot!, which is an example of a gamification tool, was conducted at Zagreb School of Economics and Management (ZSEM). Both professors and students were asked to answer the questions about their perspectives on gamification for determination of both sides in the education process satisfaction levels. The finding showed that the students have positive attitudes towards the use of gamification in class as Kahoot! encouraged further use in various courses. Final grades of the course and the students' engagement with Kahoot! regarding information and communication were also investigated.

Another study by Iaremenko (2017) attempted to investigate the potential of online games which teachers can use to motivate students and compile the positive effects of playing learning games. Two questions about how gamified learning were applicable to learning English as a second language, the reasons that make the language learners want to play a learning game and the influence of unique elements on players

were applied in this study. These questions were examined using the example of Kahoot!. The study proposes that intrinsic motivation can be encouraged by online learning games and the students can be engaged in learning activities by online learning games. The result of applying online games to English learning also presented a direct relationship between increased motivation and a high energy level of fun competition.

Furthermore, Medina and Hurtado (2017) conducted the study about a digital tool such as Kahoot! in a language class for vocabulary learning to investigate the helpful use of the online game in an English class throughout a period of time. The result exposed that the engagement and interaction of learners are increased. It also revealed that students were able to be motivated and improved their vocabulary acquisition by using Kahoot!, the students found it is easy to use Kahoot! and they were very satisfied to use it. Therefore, the researcher realized that classroom technology is one of the important factors in language learning. It seemed that Kahoot!, which is gamification, is the most recent procedure used in language classes and is used for informal evaluation.

Tivaraju, Yunus, and Badusah (2017) who studied the attitude, motivation and perception of students via Kahoot! revealed the result of using the Kahoot! game in English class in Malaysia. Nine students who were the target group of this study could engage actively in the game and they could understand language productively. They were happy to use game in learning English and wished to continue using game. In this study, nine students in primary level from a rural area in southern Malaysia were selected as the target group. The data was compiled using attitude and motivation test battery questionnaires consisting of 10 items, interview sessions with 5 semi-structured questions for three chosen students and results of each Kahoot! game played by students. Then, the data was analyzed using descriptive analysis.

The study by Chotimah and Rafi (2018) revealed the result of the use of Kahoot! as a media in teaching reading for the English Department students of STKIP PGRI Jombang in academic year 2017/2018. The result revealed that using Kahoot! in an English class influences students' reading skill. According to the significance level 0.02, it can be concluded that using Kahoot! in English class significantly increases reading skill of the students. In this study, two groups of students were asked to be an experimental group and a control group. Kahoot! was applied to the experimental group

while the text book was used in the control group to prove if they are different. For the data collection a pretest, treatment, and posttest was done.

In addition, the study about Thai high school students' perception on the use of Kahoot! as an education tool in the English language classroom by Aramruangsakul (2018) announced the findings that Kahoot! is highly beneficial in all aspects for the Thai high school students, in particular regarding the students' motivation level to learn English in the classroom. Also, Kahoot! provides good interactions between teachers and students, and increases students' proficiency levels. Based on the research discoveries, suggestions are made that to support 21st century skills in students and to motivate students to engage in the use of English language and to participate in the language lesson, Kahoot! is a helpful tool. In this study, a questionnaire about the use of ICT in the EFL classroom was employed to survey the answers from 86 high school students from the Demonstration School of Suan Sunandha Rajabhat University, Thailand.

All the previously mentioned studies about using Kahoot! in the classroom present the same positive result: using Kahoot! in the classroom can increase students' motivation, perception, acquisition, reading skill, attitude, and satisfaction.

However, there are some differences among these studies. The instruments used in each study are different. Some researchers used an instrument or a method for data collection such as a questionnaire, observation, or interviews to investigate the facts for the study. On the other hand, some researchers used both observation and a questionnaire to examine the facts of their studies. Moreover, the objectives of each study are different. Some of the studies investigated only the increase in motivation, some of them studied about increase in motivation and acquisition, or acquisition and satisfaction by using Kahoot!. Moreover, most of the related studies that the researcher has reviewed are the studies on foreign students from other countries and there are few studies on applying Kahoot! in the English learning of Thai students.

The next chapter presents the methodology containing population and sample, research instruments, data collection, and data analysis.

CHAPTER 3

RESEARCH METHODOLOGY

The main objectives of this research are to compare the English reading skill of the students in learning English before and after using the gamification tool Kahoot! in English class and to explore students' attitudes towards the use of the gamification tool Kahoot! in English class. This chapter presents the population and sample, research instruments, data collection procedure, and data analysis.

3.1 Subjects and Participants

3.1.1 Subjects

The subjects in this study are the 510 Mathayom 2 students in a public school in Bangkok. They are 13 to 14 years old and study English in Mathayom 2 as a compulsory subject. They are all girls who are from 12 classrooms with different educational backgrounds and different English proficiency levels.

3.1.2 Participants

The participants of the study were 97 students studying in Mathayom 2 from two classrooms. The participants were separated into two groups: an experimental group and a control group. One classroom was selected to be the experimental group and one classroom was selected to be the control group. The researcher, as a teacher, was responsible for these groups of students in English teaching. They were 13-14 years old and had different educational backgrounds and different English proficiency levels.

In this study, the researcher used convenience sampling method to collect the data from the participants because the researcher could directly ask students who are the participants to participate in using Kahoot! in English class. In addition, two participants who had the highest difference between the pre and post tests and the other two participants who had the lowest difference between the pre and post tests were chosen to be the interviewees.

3.2 Research instruments

In this study, the research instruments were separated into two parts. They are the instrument for experiment and the instrument for data collection.

3.2.1 Instrument for experiment

3.2.1.1 The English reading skill pretest and posttest separated into two topics were used. The criteria for choosing these passages are that these passages have a similar topic and length (183 words for passage I and 141 words for passage II) to the passages in the students' book used in the classrooms. The passages are from the students' books (Real Life and Upbeat) with A2 CEFR readability. The topics are as follows:

- (1) My Three New Year Festivals
- (2) Sharks

3.2.1.2 The gamification tool Kahoot! was used. There are four topics. These four passages are from ACCESS2 student's book with A2 CEFR readability. These students' books are used in the regular class during the semester. The topics are as follows:

- (1) Special Days
- (2) Superheroes
- (3) The Flying Dutchman
- (4) Global Warming Global Changes

The length of the passages are 130 words for Special Days, 155 words for Superheroes, 171 words for The Flying Dutchman, and 187 words for Global Warming Global Changes.

Each passage that was used for pretest, posttest and Kahoot! includes ten questions with different levels of questions as described in Bloom's taxonomy framework (2001). The levels of questions in these passages are remembering, understanding, apply, and analyzing.

3.2.2 Instrument for data collection

Two instruments were used for data collection. They are a questionnaire about the students' attitude toward using the gamification tool Kahoot! in English reading, and an interview form about using the gamification tool Kahoot! in English reading.

3.2.2.1 Questionnaires about the students' attitude toward using the gamification tool Kahoot! in English reading

The questionnaire regarding students' attitude toward using the gamification tool Kahoot! in English reading was adapted from three sources. They are the questionnaire in terms of satisfaction with Kahoot! used by Medina and Hurtado (2017), Nakjan (2012) in terms of the attitude toward using the mastery learning method in reading and Karanjakwut (2010) in terms of the attitude toward learning with CALL on "conditional sentences". Related items from each source were chosen. It was divided into two parts:

Part I: Background information such as gender, age, the duration of studying English, the level of English proficiency, the level of English score, and English language school experience

This part reveals the differences of English background and English proficiency of the participants.

Part II: Attitude toward using the gamification tool Kahoot! in English reading

The questionnaire is the main instrument used in this survey to collect data and the questions consist of closed-ended questions which comprise five – point Likert-scale type questions to assess their ideas. The students were asked to mark the levels of agreement for ten questions in the questionnaire. The questionnaire about the students' attitude toward using Kahoot! in English reading are translated into both Thai and English versions. However, only the Thai version was provided to students for clarification of the content. Therefore, they could give the answers that represent their real point of views toward these questions.

3.2.2.2 Interview form about using the gamification tool Kahoot! in English reading

Apart from questionnaires, in-depth interview questions adapted from Medina and Hurtado (2017), Udomsinkul (2012), and Nakjan (2012) were also utilized to gain clearer and more comprehensive answers to help analyze the differences. Also, the interview form about using the gamification Kahoot! in English reading was translated into both English and Thai but it was not given to the students. In this session the participants were asked to answer five open – ended questions. In this process the

participants were asked in Thai. Then, the researcher, as an interviewer, wrote down the answers on the interview form. Also, the conversation between students and the researcher was recorded and was translated into English later.

For reliability and validity of these instruments, an English native speaker, two Thai experts in the area of English teaching and a Thai expert in the area of research were requested to check the English reading skill paper tests, the questionnaires about the students' attitude toward using the gamification tool Kahoot! in English reading, and the interview form about using the gamification tool Kahoot! in English reading. Three Thai experts were requested to check reliability and validity by using the index of item-objective congruence (IOC) form, which is a procedure used in test development for evaluating content validity at the item development stage developed by Rovinelli and Hambleton (as cited in Turner & Carlson, 2003). The results of reliability and validity which were checked through the index of item-objective congruence (IOC) showed that every question in the questionnaire and interview form received an IOC value of more than 0.5 which means these instruments were applicable. However, there were six questions in the reading which had with an IOC value of less than 0.5. Therefore, they were adjusted before applying them to this study. Also, a pilot survey was applied by asking ten students who had the same age, similar background knowledge and similar educational background as the samples to do the questionnaires.

3.3 Data collection

The data for this study was collected from the samples in the first semester from May to September in academic year 2018. The steps of data collections were as follows:

STEP	ACTIVITIES	LOCATION	TIME	INSTRUMENTS
Step 1	Participants were requested to do the pretest.	in English class	at the beginning of the semester (15 minutes)	Pretest
Step 2	All participants read four stories.	in English class	in English class	passage papers
Step 3	Students who are in the experimental group were requested to play a ten- question game in Kahoot! as a review Students who are in the control group were requested to answer ten questions on paper as a review	in English class	after each story	a ten- question game in Kahoot! passage papers with questions
Step 4	Participants were asked to do the posttest	in English class	after students read four stories and play Kahoot! or answer questions in the passage papers as review (15 minutes)	Posttest

STEP	ACTIVITIES	LOCATION	TIME	INSTRUMENTS
Step 5	The students were asked to answer the questionnaires regarding attitudes toward using the gamification tool Kahoot! in English reading.	in English class	after students read four stories and play Kahoot! or answer questions in the passage paper as review	questionnaires regarding the attitude toward using the gamification tool Kahoot! in English reading.
Step 6	Two participants in the experimental group who have the highest difference between the pre and posttest in English reading skill and two participants who have the lowest difference were chosen to be the interviewees. (The key words in answers by the students were jotted down in the interview form. The conversation between students and the researcher was recorded and was transcribed later.	outside English class	after collecting the questionnaires	Interview form and recorder

3.4 Data analysis

There are two types of data collected in the present study i.e. quantitative and qualitative. SPSS was used to analyze the quantitative data of the questionnaire in terms of means, standard deviation (SD) and t-test. The scores of pretest and posttest from the students were calculated for the average of scores, the standard deviation (SD) and the significance of pretest score and posttest score with t-test (independent) to find the significant difference. In addition, the results from the attitude toward using the gamification tool Kahoot! in English reading questionnaires were also calculated and analyzed.

On the other hand, for analyzing the qualitative part of data, the key words in the students' answers were recorded and analyzed in relation to the study objectives. The data was analyzed through the content analysis method (Yıldırım & Şimşek, as cited in Yapıcı1 & Karakoyun, 2017). The basic purpose in content analysis is to achieve the concepts and relationships that were used to explain the collected data. Then, the data was defined, and the potential result was exposed (Yıldırım & Şimşek, as cited in Yapıcı1 & Karakoyun, 2017).

Interpretation criteria

The interpretations of students' attitude averages with the use of the gamification tool Kahoot! in English reading are as follows:

Criteria for the attitude toward using the gamification tool Kahoot! in English reading

The Attitude Scale includes a total of 50 5-point Likert-type statements. It is divided into the class interval. The class interval used in this interpretation is from the formula: $\text{Class interval} = \text{range} / \text{number of classes}$ (Gaunle, 2018). According to Gaunle (2018), the range is the difference between the highest and lowest number, which is four, in these criterion. The number of classes is five. To calculate class interval for the agreement in using the gamification tool Kahoot! in English reading, divide 4 by 5, which equals 0.80. So, from maximum score (5 score) to minimum score (1 score), the criteria for students' attitude toward using the gamification tool Kahoot! in English reading are presented as follows:

The criterion for students' attitude toward using the gamification tool Kahoot! in learning English

Levels of Agreement	Mean Range	The
strongly agree	4.21 – 5.00	
agree	3.41 – 4.20	
undecided	2.61 – 3.40	
disagree	1.81 – 2.60	
strongly disagree	1.00 – 1.80	

results of the study can be reviewed in Chapter 4.

CHAPTER 4

RESULTS

This chapter presents the students' ability in English reading through pretest and posttest scores and the data analysis comparing the pretest and posttest scores. The data from the questionnaires, which are qualitative data, are also presented. The data collected from the research instruments reveals findings to answer the research questions:

1. To what extent can the English reading skills of the students be enhanced by using the gamification tool Kahoot! in class?
2. What are the students' attitudes towards the use of the gamification tool Kahoot! in English reading class?

The results are interpreted and presented in two parts:

Part 1: Students' pretest and posttest scores in using the gamification tool Kahoot! in class

The results of the comparison between the scores of the students in the experimental group and the control group from the test before and after using the gamification tool Kahoot! in class are revealed in this part. SPSS is used to analyze in terms of means, standard deviation (SD) and t-test (independent) to find the significant difference.

Part 2: Students' attitudes towards the use of the gamification tool Kahoot! in English reading class

The results of students' attitude towards the use of the gamification tool Kahoot! in English class and students' opinions on using the gamification tool Kahoot! in English reading class are reported in this part.

4.1 Part 1: Students' pretest and posttest scores in using the gamification tool Kahoot! in class

In this study, pretests and posttests were used to measure reading skill of students and the results are presented in the tables below.

Table 4.1 Descriptive statistics of pre-test and post-test in the experimental group

Experimental group	<i>N</i>	Minimum	Maximum	Mean (\bar{x})	SD
Pretest	49	6	20	14.27	3.49
Posttest	49	7	20	15.24	3.02

Table 4.1 shows that 49 students were asked to take pretests and posttests. The result reveals the difference between the pretest and posttest minimum scores. The pretest minimum score is 6 while the posttest minimum score is 7. On the other hand, the maximum scores before and after applying the treatment, which is 20, are the same. Moreover, the mean averages and SD of the pretest ($M = 14.27$, $SD = 3.49$) and the mean averages and SD of the posttest ($M = 15.24$, $SD = 3.02$) are revealed.

Table 4.2 Descriptive statistic of pre-test and post-test in control group

Control group	<i>N</i>	Minimum	Maximum	Mean (\bar{x})	SD
Pretest	48	8	19	15.31	2.86
Posttest	48	6	20	15.69	3.55

From Table 4.2 above, there were 48 students taking the pretest and posttest in the control group. The minimum score and maximum score in both pretest and posttest are different. The pretest minimum score is 8 whereas the posttest minimum score is 6. The pretest maximum score is 19 whereas the post-test maximum score is 20. In addition, the mean averages and SD of the pretest ($M = 15.31$, $SD = 2.86$) and the mean averages and SD of the posttest ($M = 15.69$, $SD = 3.55$) are revealed.

The comparison of the students' pretest score and posttest score in the experimental group are shown in Table 4.3

Table 4.3 The comparison of the students' pre-test score and post-test score in the experimental group

Test score	Total score	N	Mean \bar{x}	SD	t	Sig.
Pretest and posttest score	20	49	.96	2.54	-2.642	.011**

** $p < .05$

From Table 4.3, the mean averages ($M = .96$) and SD ($SD = 2.54$) of the difference of the students' pretest and posttest scores are revealed. In addition, the results calculated by using t-test (independent) show the statistically significant difference of pretest score and posttest scores in the experimental group students is .011, which is less than an alpha level of .05, with the statistical t-distribution value of -2.642 and 95% confidence interval ($p = .05$). Therefore, the posttest score is significantly higher than the pretest score.

The comparison of the students' pretest score and posttest scores in the control group is shown in Table 4.4

Table 4.4 The comparison of the students' pretest score and post test score in the control group

Test score	Total score	N	Mean \bar{x}	SD	t	Sig.
Pretest and posttest score	20	48	.38	2.27	-1.147	.257

** $p < .05$

To investigate the improvement of students in the control group, comparison of the difference between pretest score and posttest score is used. The results show that the mean averages is .38 ($M = .38$) and standard deviation is 2.27 ($SD = 2.27$). Moreover, the result shows the statistically significant difference with t-test (independent) is .257 which is more than an alpha level of .05, so it indicates that pretest score and posttest score are not significantly different, as shown in Table 4.4.

Table 4.5 The comparative average pre-test score and post-test score between the experimental group and the control group

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig.(2 -tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Pretest Equal variances assumed	.412	.523	1.207	95	.230	.7878	.65253	-.50760	2.08328
Equal variances not assumed			1.206	92.402	.231	.7878	.65353	-.51006	2.08574
Posttest Equal variances assumed	2.053	.155	.140	95	.510	.889	.66996	-1.23650	1.42357
Equal variances not assumed			.140	89.025	.510	.889	.66801	-1.23378	1.42086

** $p < .05$

To find the difference among pretest scores of students in the experimental group and control group, the independent sample t-test is used. The finding shows the p-values of pretest of both the experimental and control groups are higher than the significance level of .05. Therefore, pretest scores of these two groups are not significantly different. Furthermore, the finding indicates that there is no significant difference between the experimental and control groups' posttest through the p-values ($p = .510$), which are higher than the significance level of .05 as shown in Table 4.5

Table 4.6 The comparison of the number of correct answers between pretests and posttests of students in the control group

Questions	Bloom's Taxonomy Levels	The number of correct answers		Difference
		Pretest (P1)	Posttest (P2)	
Passage I				
1	remember	28	36	8
2	remember	47	46	-1
3	understand	31	35	4
4	remember	44	44	0
5	remember	37	31	-6
6	understand	27	27	0
7	understand	35	30	-5
8	analysis	34	35	1
9	understand	43	43	0
10	application	34	33	-1
Passage II				
1	understand	47	46	-1
2	remember	42	42	0
3	understand	35	39	4
4	remember	43	37	-6
5	understand	46	47	1
6	understand	23	36	13
7	understand	32	36	4
8	analysis	19	25	6
9	understand	45	44	-1
10	application	43	41	-2
Mean		36.75	37.65	0.9

Here are the findings of the average mean scores of the number of correct answers between pretests and posttests of students in the control group. There are 20 questions in the pretest and posttest. The mean of the number of correct answers in the pretest is 36.75. Meanwhile, the mean of the number of correct answers in the posttest is 37.65. Moreover, 0.9 is reported as the mean of the difference of the number of correct answers between the pretest and posttest. The difference of the pretest and posttest mean scores (0.9) indicates that the posttest mean score is higher than the pretest mean score.

Moreover, the finding reveals the two highest differences (13 and 8) are in comprehension and remember level in Bloom's taxonomy and both of the two lowest differences (-6 and -6) are in remember level.

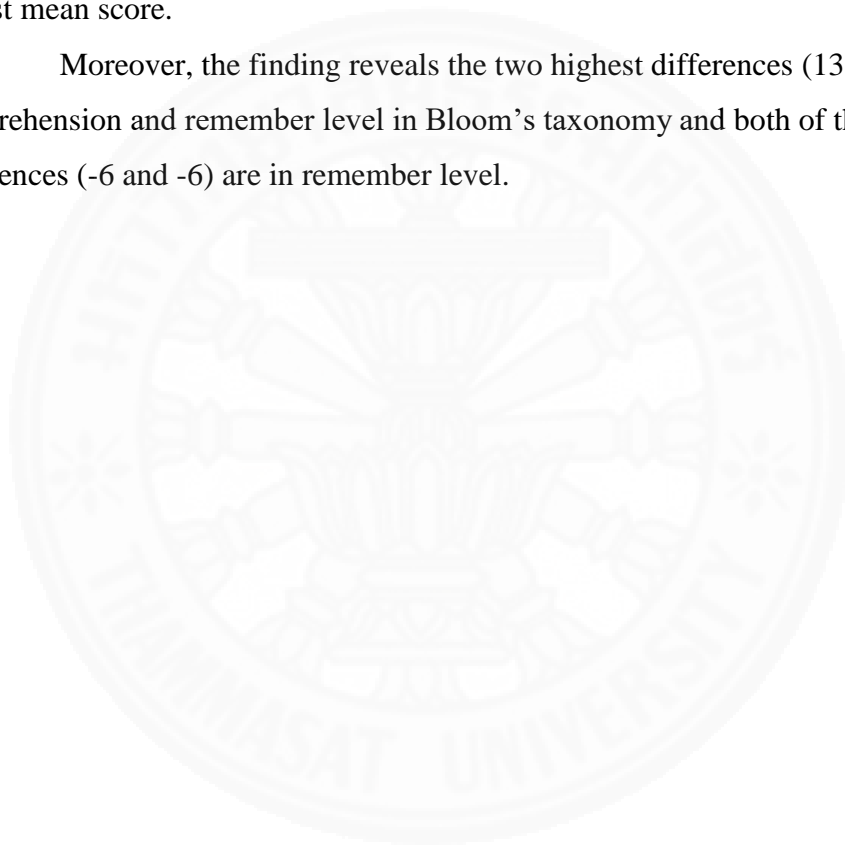


Table 4.7 The comparison of the number of correct answers in the pretest and posttest of students in the experimental group

Questions	Bloom's Taxonomy Levels	The number of correct answers		Difference
		Pretest (P1)	Posttest (P2)	
Passage I				
1	remember	34	33	-1
2	remember	48	47	-1
3	understand	30	31	-1
4	remember	45	43	-2
5	remember	35	36	1
6	understand	24	31	7
7	understand	28	38	10
8	analysis	27	35	8
9	understand	35	43	8
10	application	32	33	1
Passage II				
1	understand	46	47	1
2	remember	40	45	5
3	understand	34	33	-1
4	remember	43	45	2
5	understand	45	46	1
6	understand	25	24	-1
7	understand	29	37	8
8	analysis	21	17	-4
9	understand	43	44	1
10	application	36	39	3
Mean		35	37.35	2.25

Table 4.7 shows the mean of the number of correct answers in the pretest of students in the experimental group is 35. On the other hand, the mean of the number of correct answers in the posttest is 37.35. The difference between the pretest and posttest mean scores is 2.25. The posttest mean score is higher than the pretest mean score.

Also, the finding reveals the three highest differences (10, 8 and 8) are in comprehension and analysis level in Bloom's taxonomy and the two lowest differences (-4 and -2) are in remember and analysis levels.

Table 4.8 The comparison of the number of correct answers between the pretest and posttest of students in the control group

	Mean of correct answers		Mean of Difference
	Pretest (P1)	Posttest (P2)	
Control group	36.75	37.65	0.9
The experimental group	35	37.35	2.25

As shown in Table 4.8, the result shows that the mean of correct answers of the posttest in both the control group (37.65) and the experimental group (37.35) are higher than the mean of correct answers of the pretest. However; the mean difference (2.25) in the experimental group is higher than the mean difference of the control group (0.9).

Table 4.9 The average scores of the correct and incorrect answers in the gamification tool Kahoot!

Title	Total correct answers (%)	Total incorrect answers (%)
Special Days	65	35
Superheroes	73.47	26.53
The Flying Dutchman	55.56	44.44
Global Warming	74.75	25.25
Mean	67.20	32.81

From table 4.9, the result indicates that the mean of the total correct answers of the four topics used in the gamification tool Kahoot! is 67.20. On the other hand, the mean of the total incorrect answers is 32.31. According to the result above, the mean of the total correct answers of the four topics are higher than the mean of the total incorrect answers.

4.2 Part 2: Students' attitudes towards the use of the gamification tool Kahoot! in English class

The result of students' attitude towards the use of the gamification tool Kahoot! in English class and students' opinions on using the gamification tool Kahoot! in English class are reported in this part.

4.2.1 The result of students' attitude towards the use of the gamification tool Kahoot! in English class

The questionnaire consists of two parts. The first part is background information of the students in the experimental group and the second part is closed-ended questions, which has 10 items about the attitude toward using the gamification tool Kahoot! in English reading

4.2.1.1 Students' background information

This part presents the background information of the 49 students who participated in English class instructed by using the gamification tool Kahoot! in English reading.

Table 4.10 Gender

Gender	Male	Female
	0%	100%

As shown in Table 4.10, All of the participants are female.

Table 4.11 Age

Age	13 years old	14 years old
	73.47%	26.53%

As shown in Table 4.11, 73.47% of the participants are 13 years old and 26.53% are 14 years old.

Table 4.12 The length of studying English

The length of studying English	1 to 5 years	6 to 10 years	More than 10 years
	4.08%	44.90%	51.02%

In terms of the length of studying English, 4.08% have studied English for 1 to 5 years, 44.90% have studied English for 6 to 10 years and 51.02% have studied English for more than 10 years as shown in Table 4.12.

Table 4.13 English proficiency

English proficiency	Poor	Fair	Good	Excellent
	12.24%	67.35%	20.41%	0%

Table 4.13 shows how the participants classify their English proficiency in different levels: 12.24% are in a poor level, 67.35% are in a fair level, 20.41% are in a good level while none of the participants are in an excellent level.

Table 4.14 General English scores

General English scores	Low	Average	High
	14.28%	67.35%	18.37%

From Table 4.14, the participants classify their general English scores based on their previous grades in three levels: 14.28% are in a low level, 67.35% are in an average level and 18.37% are in a high level.

Table 4.15 The experiences in studying English in a language school

The experiences in studying English in a language school	Yes	No
	81.63%	18.37%

The experiences in studying English in a language school of the participants are presented in Table 4.15. Nine participants (18.37%) have never studied in a language school; however, most of them (81.63%) have studied in a language school.

Table 4.16 Reasons to study in a language school

Reasons to study in a language school	Percentage (%)
1) to improve their English skills	67.5%
2) to fulfill their parents' need	10%
3) to spend their (beneficial) free time in an appropriate way	7.5%
4) to increase English grade	7.5%
5) no reason	7.5%

As shown in Table 4.16, there are five main reasons to study in a language school given by the participants. The first reason is to improve their English skills that they will be able to use in their lives in the future (67.5%). The second reason is to fulfill their parents' need (10%). The third reason is to spend their (beneficial) free time in an appropriate way (7.5%). The last reason is to increase English grade (7.5%) and no reason (7.5%).

4.2.2.2 Students' attitude toward using the gamification tool Kahoot! in English reading

Table 4.17 Students' attitude toward using the gamification tool Kahoot! in English reading

No.	Attitudes toward using the gamification tool Kahoot! in English reading	5 strongly agree	4 agree	3 undecided	2 disagree	1 strongly disagree	Mean	SD	Rank	Level of Agreement
1	I would like to use the "The gamification	39	8	2			4.76	0.52	2	strongly agree

	toolKahoot!”in other reading classes.	79.6%	16.3%	4.1%						
2	“The gamification tool Kahoot!” for teaching English reading helps me understand the text more easily.	26 53.1%	20 40.8%	3 6.1%			4.47	0.62	7	strongly agree
3	Learning through “the gamification tool Kahoot!” allows me to have more fun in the English reading class.	41 83.7%	7 14.3%	1 2%			4.82	0.44	1	strongly agree
4	I have more confidence in discussing, giving an opinion or correcting my friends’ understanding when playing Kahoot! in groups.	24 49%	20 40.8%	4 8.2%	1 2%		4.37	0.73	8	strongly agree
5	The use of “the gamification tool Kahoot!” improves my attention.	33 67.3%	12 24.5%	4 8.2%			4.59	0.64	4	strongly agree
6	I am more motivated to understand the text in order to answer the questions from the online game Kahoot! correctly and quickly.	36 73.5%	11 22.4%	2 4.1%			4.69	0.55	3	strongly agree

Table 4.17 (continued from the previous page)

No.	Attitudes toward using the gamification tool Kahoot! in English reading	5 strongly agree	4 agree	3 undecided	2 disagree	1 strongly disagree	Mean	SD	Rank	Level of Agreement
7	Learning through “The gamification tool Kahoot!” helps me better memorize the information in the text than learning in the normal classroom.	32 65.3%	10 20.4%	6 12.3%	1 2%		4.49	0.79	6	strongly agree
8	The use of “the gamification tool Kahoot!” improves my reading skill.	29 59.2%	18 36.7%	2 4.1%			4.55	0.58	5	strongly agree
9	“The gamification tool Kahoot!” gives me more confidence in taking the English reading tests.	20 40.8%	23 47%	5 10.2%	1 2%		4.27	0.73	9	strongly agree
10	I am satisfied with the quiz scores as a result from using “the gamification tool Kahoot!” in the English reading class.	27 51.1%	18 36.7%	4 8.2%			4.47	0.65	7	strongly agree
	Total						4.55	0.63		strongly agree

Table 4.17 presents the average of the score, and standard deviation of the students' attitude toward using the gamification tool Kahoot! in English reading. The overall mean score was 4.55 ($M = 4.55$). The standard deviation was 0.63, which represents a strongly agree level.

The three highest ranked students' attitudes were item 3 "Learning through "the gamification tool Kahoot!" allows me to have more fun in the English reading class." ($M = 4.82$, $SD = 0.44$), item 1 "I would like to use "The gamification tool Kahoot!" in other reading classes." ($M = 4.76$, $SD = 0.52$), and item 6 "I am more motivated to understand the text in order to answer the questions from the online game Kahoot! correctly and quickly." ($M = 4.69$, $SD = 0.55$). The four least ranked students' attitudes were item 9 "The gamification tool Kahoot!" gives me more confidence in taking the English reading tests." ($M = 4.27$, $SD = 0.73$), Item 4 "I have more confidence in discussing, giving an opinion or correcting my friends' understanding when playing Kahoot! in groups." ($M = 4.37$, $SD = 0.73$), item 2 "The gamification tool Kahoot!" for teaching English reading helps me understand the text more easily." ($M = 4.47$, $SD = 0.73$), and item 10 "I am satisfied with the quiz scores as a result from using "the gamification tool Kahoot!" in the English reading class." ($M = 4.47$, $SD = 0.65$). On the whole the students agree with using the gamification tool Kahoot! in English reading at a strongly agree level ($M = 4.55$, $SD = 0.63$).

4.2.2 The students' opinions on using of the gamification tool Kahoot! in English class

The attitudes toward using the gamification tool Kahoot! in English class were investigated by interviewing four students from the experimental group. Two of them have the highest difference between the pre and posttests in the English reading skill and the other two have the lowest difference between the pre and posttests in the English reading skill. The students' answers are presented below.

1. Is the "the gamification tool Kahoot!" appropriate for English reading class?

All of the interviewees agreed that Kahoot! is appropriate for English reading class since Kahoot! is fun and encourages the interviewees to work in a team. Moreover,

Kahoot! motivates the interviewees to easily read the story again and again and understand the meaning of words more clearly.

The answers from the two students who have the highest difference between the pre and posttests in the English reading skill are as follows:

Student 1: *“It is appropriate for English class because it is fun and supports me to work in a team with friends. Moreover, I can understand the meaning of the words more clearly through playing Kahoot!.”*

Student 2: *“It is appropriate for English class because it is fun. Moreover, I can easily understand the story and answer the questions about the story quickly.”*

The answers from the two students who have the lowest difference between the pre and posttests in the English reading skill are as follows:

Students 1: *“It is appropriate for English class. I like reading English through playing Kahoot!. Also, Kahoot! encourages me to work in a team.”*

Student 2: *“It is appropriate for English class. Kahoot! is a tool that helps me to summarize the story and leads me to have more understanding about the story. Also, I can learn about the story from the questions and answers in Kahoot! for review.”*

2. Is “the gamification tool Kahoot!” appropriate for your age?

All interviewees expressed the same opinion that the gamification tool Kahoot! is appropriate for their age since it is fun, exciting and it can create an enjoyable and relaxing atmosphere in class. Kahoot! also provides the interviewees a chance to learn sportsmanship that leads the interviewees to have a good relationship with friends.

The answers from the two students who have the highest difference between the pre and posttests in the English reading skill are as follows:

Students 1: *“Kahoot! is appropriate for my age because I can understand the story easily and feel relaxed while I was playing Kahoot!.”*

Students 2: *“Kahoot! is appropriate for my age because it is fun and it creates the enjoyable atmosphere in my class. Moreover, working in a team with Kahoot! leads me to learn sportsmanship.”*

The answers from the two students who have the lowest difference between the pre and posttests in the English reading skill are as follows:

Students 1: *“Kahoot! is appropriate for me. Kahoot! is an extra activity that is not used in the traditional class.”*

Student 2: *“Kahoot! is appropriate for me. I was so excited and had fun while I was playing Kahoot! with friends in class. Kahoot! leads me to have a good relationship with friends because we have to help each other to think about the answers of the questions in Kahoot! when we are working in a team. However, I do not know some vocabulary.”*

3. Can “the gamification tool Kahoot!” enhance your participation in English reading class?

The gamification tool Kahoot! can be used to enhance interviewees’ participation in reading class. According to the answers of the interviewees, Kahoot! enhances reading motivation and leads the interviewees to have more intention to read and understand the stories. In addition, Kahoot! helps the interviewees to review the content of the stories and check their understanding of the story. Team work is also promoted in this activity.

The answers from the two students who have the highest difference between the pre and posttests in the English reading skill are as follows:

Student 1: *“Yes. I have more intention to read and understand the story because I want to answer the questions through Kahoot! correctly and as fast as I can.”*

Student 2: *“Yes. It enhances my participation in class in terms of working in a team. After reading the story, my team has to help each other to think about the answers about the story. Then, we can answer the question easily.”*

The answers from two students who have the lowest difference between the pre and posttests in the English reading skill are as follows:

Student 1: *“Yes. I can both play a game and work with my friends. The story is also the same as the story in my book. Moreover, Kahoot! motivates me to read because I want to compete with other groups. Although it is not the serious competition, it is fun.”*

Student 2: *“Yes. It can help me to review the content of the story because after reading I have to answer the questions about the story. It provides me with an opportunity to check my understanding about the story again. Also, after answering the questions for the first time, I already know the style of the questions, so I can prepare myself to answer the next questions appropriately.”*

4. Does “the gamification tool Kahoot!” help you to prepare for your reading exam?

All of the interviewees agreed that the gamification tool Kahoot! can help them to prepare for the reading exam. If they want to answer the questions in Kahoot! correctly, they have to understand the story. While they are reading, they can learn some words that they can apply to use in the future. Furthermore, playing Kahoot! helps the interviewees to read faster and have teamwork skill. They also stated that the questions in Kahoot! can be the guideline for the next reading test.

The answers from the two students who have the highest difference between the pre and posttests in the English reading skill are as follows:

Student 1: *“Yes. I have to first understand the story, then try to answer the questions about the content of the story.”*

Student 2: *“Yes. I can more easily remember the story because before playing Kahoot!, I have to read the story once, then answer the questions about the story again. Also, Kahoot! provides me with an opportunity to develop my reading skill. I have to read and answer the questions as fast as I can.”*

The answers from the two students who have the lowest difference between the pre and posttests in the English reading skill are as follows:

Student 1: *“Not really, I know some words from Kahoot! when I practice my reading skill through playing Kahoot!. I think that if I see these words in the real reading test, I can know the meaning of them.”*

Student 2: *“Yes, I can play and help each other with my friends to think about the questions. Also, I know about the guideline of the questions in the reading exam. Therefore, I can prepare myself for the reading exam properly.”*

5. Does the “the gamification tool Kahoot!” improve your English reading skill?

Most interviewees agreed that Kahoot! improves their English reading skill because they can learn new words and understand the story more clearly. Moreover, silent reading skill is improved. The interviewees can read and answer the questions faster. Reading motivation is also increased through Kahoot!.

However, some interviewees agreed that reading aloud skill and English accent are not improved through applying Kahoot! in class.

The answers from the two students who have the highest difference between the pre and posttests in the English reading skill are as follows:

Student 1: *“Yes, I know some new words and have more understanding about the story.”*

Student 2: *“Yes, I can read the story and answer the questions faster. Moreover, I read the story more carefully to understand it as much as I can for answering the questions.”*

The answers from the two students who have the lowest difference between the pre and posttests in the English reading skill are as follows:

Student 1: *“Yes. Kahoot! is a game that is fun and encourages me to read.”*

Student 2: *“Kahoot! does not really help me in terms of reading aloud skill and English accent. On the other hand, I can practice my silent reading skill more but I cannot understand the story clearly as I read out loud. I know some words through the reading story and playing Kahoot! and I really enjoy working with friends.”*

The next chapter presents the summary of the study, the summary of research findings, discussion, conclusions, and recommendations for further research.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

This chapter presents the summary of the study, the summary of research findings, discussion, conclusions, and recommendations for further research.

5.1 Summary of the study

5.1.1 Research objectives

The objectives of this research are 1) to compare the English reading skills of the students in learning English before and after using the gamification tool Kahoot! in English class; 2) to explore students' attitudes towards the use of the gamification tool Kahoot! in English reading class

5.1.2 Participants

Ninety-seven students studying in Mathayom 2 from two classrooms were chosen to be the participants of the study by convenience sampling method. The participants were separated into two groups: an the experimental group and a control group. One classroom was selected to be the experimental group and one classroom was selected to be the control group. They were 13-14 years old. They had different English proficiency levels.

5.1.3 Research instruments

The instruments used in this study are the English reading skill paper tests, the gamification tool Kahoot!, questionnaires about the students' attitudes toward using the gamification tool Kahoot! in English reading, and an interview form about using the gamification tool Kahoot! in English reading.

(1) The English reading skill paper tests were used as a pretest and posttest to measure students' English reading skills before and after using the gamification tool Kahoot!. The test developed by the researcher consists of two reading passages and 20 multiple-choice items with four choices: 10 items from each topic. These passages have similar topics and length (183 words for passage I and 141 words for passage II) to the

passages in the students' book used in the classroom, and they are from real life students' books and UP BEAT students' book with A2 CEFR readability.

(2) The gamification tool Kahoot! is separated into four topics. Each topic consists of 10 multiple-choice items. The passages are from the student's book used in the regular class during the semester.

(3) The questionnaire about the students' attitude toward using the gamification tool Kahoot! in English reading is divided into two parts. The first part is background information of students who are the participants of this study. The second part is their attitude toward using the gamification tool Kahoot! in English reading which consists of 10 closed-ended questions and a five-point Likert scale is used.

(4) The interview form about using the gamification tool Kahoot! in English reading was used to gain clearer and more comprehensive information about using the gamification tool Kahoot! in English class.

An English native speaker and three experts were requested to check the research instruments for reliability and validity. Three Thai experts were requested to check reliability and validity by using the index of item-objective congruence (IOC) form, which is a procedure used in test development for evaluating content validity at the item development stage. The results of reliability and validity which were checked through the index of item-objective congruence (IOC) showed that every question in the questionnaire and interview form had received an IOC value of more than 0.5 which means these instruments were applicable. However, there were six questions in the reading tests with the IOC value of less than 0.5. Therefore, they were adjusted before applying them to this study. Then, ten students who had the same age and had similar background knowledge and educational background as the participants were asked to do the reading test and questionnaires to check if they understood the questions in the reading test and the questions in the questionnaire.

5.1.4 Data collection

The data for this study was collected from the participants in the first semester from May to September in academic year 2018. Firstly, the researcher asked the school for permission to collect the data from the students. Secondly, the students in both the experimental group and the control group were requested to do the pretest. After that, students in the experimental group and the control group were asked to read four topics:

they were Special Day, Superheroes, The Flying Dutchman, and Global Warming Global Changes. After reading each topic, students in the experimental group played Kahoot! to answer the questions about the story they read. On the other hand, students in the control group were asked to answer the questions about the story they read on a paper test within five minutes. The students in both the experimental group and the control group were requested to do the posttest after they read the four passages. The scores of the pretest and posttest were compared. Then the two participants in the experimental group who had the highest difference between the pre and posttests in the English reading skill were chosen to be the interviewees. Moreover, the two participants in the experimental group who had the lowest difference between the pre and posttests in the English reading skill were chosen to be the interviewees. Finally, SPSS was used to analyze the quantitative data of the questionnaire in terms of means, standard deviation (SD) and t-test. For analyzing the qualitative part of data, the data was analyzed based on content analysis in relation to the study objectives.

5.2 Summary of research findings

According to the results presented in Chapter 4, the findings of the study can be summarized as follows:

5.2.1 Students' English reading skills after using the gamification tool Kahoot! in class

The average score of posttests ($M= 15.24$) of students in the experimental group is significantly higher than the average score of pretests ($M= 14.27$). Also, the average score of posttests ($M= 15.69$) of students in the control group where the gamification tool Kahoot! was not used is not significantly higher than the average score of pretests ($M= 15.31$). Moreover, the comparative average pretest score and posttest score with p-values, which are higher than the significance level of .05 between the experimental group and the control group, show that there is no significant difference between these two groups ($p = .510$).

Also, the finding reveals the three highest differences (10, 8 and 8) are in understand and analysis level in Bloom's taxonomy and the two lowest differences (-4 and -2) are in remember and analysis levels.

5.2.2 Students' attitudes towards the use of the gamification tool Kahoot! in English class

According to the students' attitudes toward using the gamification tool Kahoot! in the English reading questionnaire, most of the students ($M = 4.55$, $SD = 0.63$) strongly agreed with using the gamification tool Kahoot! in English class. Furthermore, the students who were the interviewees expressed their opinions that Kahoot! is appropriate for their age and English class since it is fun and it provides students with an opportunity to work in a team. The gamification tool Kahoot! also helps students to prepare for their reading exam and improve their English reading skill.

5.3 Discussion

The research questions can be discussed based on the summary of findings as follows:

5.3.1 To what extent can the English reading skills of the students be enhanced by using the gamification tool Kahoot! in class?

The result of using the gamification tool Kahoot! in English class of students in the experimental group indicated that the gamification tool Kahoot! is a tool that helps students in the experimental group to improve their reading skill according to the posttest score that is higher than the pretest score with the statistically significant difference .011 which is less than an alpha level of .05. This is in the line with the previous study about the effectiveness of using Kahoot! as a media in teaching reading by Chotima and Rafi (2018). Chotima and Rafi (2018) reveal that there is a significant difference between applying Kahoot! and textbooks in English class. It means that the students taught by using Kahoot! as a media had better reading achievement than the students taught by using textbooks. It is similar to the result of the present study that showed the students in the experimental group got higher scores in the post-test than the pretest. The reason why the students in the experimental group got higher scores in the posttest is they can practice their reading either individually or collaboratively through the effective gamification tool Kahoot! that is a pleasurable and challenging way. Lee (as cited in Suthirat, 2001) mentioned that games encourage learners to have better learning and help learners practice reading skills and Zuckerman (1976) found that game is a tool that can be used to improve learning advancement because the learners who studied through using

games had higher learning achievement. Pongphanit (2007) indicated that reading skills can be improved through practice. Also, Iaremenko (2017) states about the advantages of Kahoot! in a previous chapter.

However, the pretest and posttest results of these experimental and control groups in English reading class with the independent sample t-test showed that the pretest score and posttest scores of the two groups are not significantly different. It is not completely the same as the previous study of Chotima and Rafi (2018) which revealed that the students taught by using Kahoot! as a media had better reading achievement than the students taught by using textbooks. When the results of pretest and the posttest scores between the two groups of the participants from both studies were completed, the finding showed that the result from Chotima and Rafi (2018) are significantly different. On the other hand, there is no significant difference in this study. The researcher tried to investigate the causes of the difference and found some differences between these two studies. Firstly, the participants of the study of Chotima and Rafi (2018) are students in university. Secondly, Chotima and Rafi (2018) used essay writing as the pretest and posttest. Moreover, the questions of Chotima and Rafi (2018) were related to understanding the text using scanning and skimming techniques. In addition, Chotima and Rafi (2018) applied the gamification tool Kahoot! to their reading class in while reading procedure. Therefore, these reasons may lead to some different findings.

Moreover, that there is no significant difference of pretest and posttest scores between the experimental group and the control group means that not only the gamification tool Kahoot! can improve students' reading skills but that reading the text then answering the question on a paper test is also a method that can increase students' reading skill. Also, the results show that both using the gamification tool Kahoot! and reading text, then answering the question on a paper test improve the same students' reading skill the most in understanding level in Bloom's taxonomy.

5.3.2 What are the students' attitudes towards the use of the gamification tool Kahoot! in English reading class?

According to the finding from the questionnaire and the interview, most of the students strongly agree with the use of the Kahoot! as a gamification tool in English class as Aleksic-Maslac et al. (2017) stated in the study about the new technology in educational process that Kahoot! is an example of the gamification tool which leads

students in Zagreb School of Economic and Management to have good attitudes towards the use of gamification in class. Also, it is similar to the study of Susilowati (2017) and Aramruangsakul (2018) that prove the effectiveness of the gamification tool Kahoot! that it can create an enjoyable environment of classroom that is an important factor. The gamification tool Kahoot! is also highly beneficial because it increases the students' motivation level to learn English in the classroom, provides good interaction between teachers and students, and increases students' proficiency level.

Moreover, the students expressed their attitudes toward using Kahoot! that it is appropriate for their age, it is fun, it encourages them to work in team and leads them to develop their reading skills as Crawley (2009) stated that the fun activities such as singing or reading together with friends are important in reading class because it encourage the learners to read. The result of using the gamification tool Kahoot! in English reading class in this study is similar to the study of Pede (2017) whose study result claimed that three males and three females middle school students were satisfied with applying the gamification tool Kahoot! to science classroom because the use of Kahoot! is not complicated and it is enjoyable. Also, Tivarajuet al. (2017) revealed that nine Malaysia students could comprehend language productively, and they could involve in the game actively because they were happy and wish to continue using game in class.

5.4 Conclusion

In this study, the result of using the gamification tool Kahoot! in English reading class indicates that the reading skills of the students who are the participants in this study were improved according to posttest scores that are significantly higher than pretest scores. However, after applying the independent sample t-test to compare the improvement of reading skill of students in the experimental group which uses Kahoot! in class and the control group without Kahoot! intervention, the result shows that there is no significant difference between these two groups. Furthermore, the result shows that the students' English reading skills in understanding level increased the most in both the experimental group and the control group. Finally, it can be concluded that conventional methods to teach reading skills through printed textbooks and practice

questions on paper are still effective. Kahoot!, textbook and paper tests in English class can similarly increase students' reading skills.

In addition, the questionnaire and interview results show that the all students have positive attitudes toward using the gamification tool Kahoot! in English class and strongly agree for teachers to continue using the gamification tool Kahoot! in class.

Eventually, the researcher cannot deny that technology is important for education; however, the opportunity to experience technology in education of students in different areas is dissimilar. For example, it is difficult for the students in rural areas to access technology due to the many limitations. The findings of this study show that the gamification tool Kahoot! is only applied in reading class as an activity in post reading procedure because the researcher as a teacher still uses other teaching procedure in teaching reading. Therefore, the teachers in schools without advanced technology can create different appropriate teaching styles for different students in different areas.

5.5 Pedagogical implications

1. This study indicated that the gamification tool Kahoot! is fun and beneficial for English reading class. It encourages students to read and learn vocabulary. Therefore, to help students to become good readers, teachers can benefit from this information.

2. The gamification tool Kahoot! can be applied to post reading procedure as a review exercise to help improve students' reading skills.

3. The gamification tool Kahoot! can improve the understanding or literal comprehension level more than other comprehension levels on Bloom's taxonomy, so it can be used to check the students' understanding of the main idea and details of the stories.

5.6 Recommendations for further research

Further research should investigate using the gamification tool Kahoot! to improve other English skills of students such as grammar, writing, etc. Furthermore, use of the gamification tool Kahoot! should be explored to enhance students' reading skills, both silent reading skill and oral reading skill. To increase students' involvement and motivation, using Kahoot! together with various styles of motivation creation such

as a point system, etc. should also be investigated. Finally, effects of the gamification tool Kahoot! on students from different English proficiency levels should be examined and compared.



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APPENDICES



APPENDIX A

LESSON PLANS



Lesson Plan 1

Special days

Rationale and Main Concept

Students are able to state what the main idea is of the passage and share their ideas about the passage they read.

Learning Objectives

Knowledge

1. Students know what the main idea of the passage is.

Practice

1. Students should be able to share their own ideas about Thai special days and compare between Thai special days and given special days appropriately.
2. Students should be able to answer the lead-in questions correctly.
3. Students should be able to answer questions about the detail of the passage correctly.

Learning Activities

Pre-reading:

1. Teacher greets students and asks them to open their book to page 21.
“Good morning / afternoon. How are you doing? Now, I want you to open your book to page 21 and I want you to look at What’s in this module part”
2. Teacher tells the purpose of learning in module 2.
“In this module, we are going to learn about”
 - festivals and celebrations
 - the weather
 - traditions
 - superstitions
 - colors and moods
 - present continuous / present simple
 - making a speech
 - description of paintings

- making invitation and accepting them

3. Teacher gets students to look at the weather vocabularies and repeat after her and gets students to guess the meaning of each vocabulary.

“First of all, I want you to look at the vocabularies about weather and repeat after me. Are you ready? First, cool, cold and so on. Do you know what the meanings of them are?”

4. Teacher tells the correct meaning of the vocabularies.

5. Teacher asks students to look at the pictures and the phrases on page 21 and asks them to guess what they are.

6. Teacher tells students the correct answer.

7. Teacher asks students a question.

“Who want to go aboard, please raise your hand up. What’s the country would you like to go? Today, I will take you to two famous countries. They are Spain and Canada. Are you ready?”

8. Teacher asks students to open their book to page 22 and tells what we are going to learn.

“If you are ready, please open your book to page 22. Today, we will learn about special days of two cities from two different countries. They are Valencia and Quebec. However, before we start I want you to learn the vocabularies you will see in the passage first.

1. greet (v)	ทักทาย
2. stay (v)	อยู่, อาศัย
3. fiesta time (n)	ช่วงเทศกาล
4. climb (v)	ปีน
5. high (adj.)	สูง
6. tower (n)	หอคอย
7. win (v)	ชนะ
8. capital (n)	เมืองหลวง
9. excited (adj.)	ตื่นเต้น
10. show (v)	แสดง
11. around (adv.)	รอบๆ, รอบข้าง

12. wait (v)

รอ

(Teacher writes the vocabularies on the board and asks students to repeat after her.)

9. Teacher gives students some information about Quebec and Valencia.

Valencia is located in Spain. It is the thirteenth biggest city of Spain. Also, there is very famous football club that is Valencia football club or Bat manไอ้ค้างคาว”. One more city is Quebec. It is located in Canada. It is the world’s snow capital because the weather there is very cold. **(Teacher shows the pictures of Quebec and Valencia)** However, the cities that I have mentioned have their own interesting special days and each special day have the different way to perform and show. **Do you want to know “What the special days of Quebec and Valencia are?”** “If you want to know the answer you can find it from the postcards on page 22.”

While-reading

10. Teacher asks students to tell the answer and choose the picture that represent to that special days on page 22.

11. Teacher lets student to read an article again by saying “Next, I want you to read slowly and carefully again and then I will ask you about the detail of a story.

Post- reading

12. Students in the experimental group answer the questions through playing Kahoot!.

Assessment & Evaluation

1. From answering questions on Kahoot!
2. From sharing the opinion
3. From answering the questions through playing Kahoot!

Teaching aids

1. Student’s book
2. Pictures
3. The gamification tool Kahoot!

Lesson Plan 2

Superheroes

Rationale and Main Concept

Students are able to state what the main idea is of the passage and share their ideas about the passage they read.

Learning Objectives

Knowledge

1. Students should be able to say three things they remember from the text correctly

Practice

1. Students should be able to do the true or false exercise correctly.
2. Students should be able to say three things they remember from the text correctly.
3. Students should be able to answer the lead-in questions correctly.
4. Students should be able to understand the meaning of the assigned passage by working in group correctly.

Learning Activities

Pre-reading:

1. Teacher greets students.
2. Teacher tells the purpose of learning.

“Today, we will start Module 3 “Characters larger than life”. This Module we will focus about abilities, superheroes, past simple tense, used to and linking words.

3. Teacher asks students to look at the pictures on page 31 and asks them about the characters on page 31.

“Well students, I want you to look at the pictures of the characters on page 31. Do you know them? Can you tell me some information of them?”

4. Teacher leads students in the lesson by saying: “They are famous superheroes. They have very special abilities. They are good because they use their abilities in the right way to help the people. In this class, who would like to be a superhero? What is a superhero you would like to be? Why? (Students answer) Before being a superhero, you should know where the

superheroes come from. Right? So, today, we will learn the history of them. However, before we read about them we should know the useful vocabulary that can help you to understand the history of your beloved superheroes”

5. Teacher asks students to open their book to page 32 and teaches them the useful vocabulary.

take (v)	พก
answer (v)	ตอบคำถาม
creator (n)	ผู้สร้าง
create (v)	สร้าง
scientist (n)	นักวิทยาศาสตร์
change into (v)	แปรสภาพ
act like (v)	ปฏิบัติตัวเช่นราวกับ
hurt (v)	ทำร้าย
hunt (v)	ไล่ล่า
kill (v)	ฆ่า
still (conj.)	แม้กระนั้น
right (adj.)	ถูกต้อง
become (v)	กลายเป็น
successful (adj.)	ประสบความสำเร็จ

6. Teacher gets students read the name of the superheroes.

“Who are the superheroes on this page?”

7. Teacher tells students the summary of superheroes history.

“Superheroes were created by Stan Lee. He created the powerful, strong and cool superheroes. Most superheroes of him wore red and blue. However, this is one of his superheroes that wasn’t like the other superheroes. Lee made the Hulk a scientist, Dr. David Banner, who changed into the monster when he got angry. Why the Hulk monster was called superhero? What did Hulk do for being a superhero?” Do you want

to know the answer? If you want to know you can find the answer from the passage on page 32.

While-reading

8. Teacher asks students to tell the answer.
9. Teacher asks students to help each other translate the passage.

“Alright students, I will separate you into 4 groups. Then, every group has to help each other in your group to translate the assigned passage within 5 minutes. After that, the representative of every group has to come in front of class and tell the meaning of your own passage to your friends.

Post- reading

10. Students asked to say three things they remember from the text.
11. Students in the experimental group answer the questions through playing

Kahoot!.

Assessment and Evaluation

1. From answering question
2. From doing group work
3. From answering the questions through playing Kahoot!

Teaching aids

1. Student's book
2. The gamification tool Kahoot!

Lesson Plan 3

The Flying Dutchman

Rationale and Main Concept

Students are able to state what the main idea is of the passage and share their ideas about the passage they read.

Learning Objectives

Knowledge

1. Students know what the main idea of the passage is.

Practice

1. Students should be able to share their own ideas about the ghost story”.
2. Students should be able to answer the lead-in questions correctly.
3. Students should be able to answer the questions about the detail of the passage correctly.

Learning Activities

Pre-reading:

1. Teacher greets students.
2. Teacher asks students “Is there anybody here believe in ghost?” “Who has ever seen the ghost before?” “What did you do?”
3. Students are asked to share a story of ghost.
4. Teacher leads students to the lesson by saying “Besides, a story of ghost you have shared, also I would like to tell you one more mystery of ghost. It is the mystery about Four hundred and fifty years ago, there lived a man named Hendrick VanderDecken, a captain, a sailor, a man devoted to the sea. Captain VanderDecken lived in Amsterdam, in Holland, and for as many years as he could remember, he had loved to be at sea. He knew that was where he belonged, heart and soul, and he could not imagine his life anywhere else. One day VanderDecken and his crew set off in their ship, the Flying Dutchman. They were heading toward Batavia, a Dutch port in East India, and their course was set. The journey would take many months, or so they thought. They had no idea that this was a journey that would never end. After some

time the ship reached the Cape of Good Hope at the tip of southern Africa, and there, just as they were rounding the cape, a fierce and unrelenting storm met the Flying Dutchman. Captain VanderDecken and his crew died a hundred years ago when the ship sank in a storm. It haunted these waters ever since then.

One day, while a captain, a lookout boy and people were sailing around Cape Hope, the cantina and the lookout boy saw a strange ship was coming closer with full speed. Seeing a strange leded them to the mysterious ending.” So, I want to know what the mysterious ending of the story is. Do you want to know? If you want to know the answer you can find it from reading the story.

5. Students are separated into 10 groups.

6. Teacher asks students to open their book to page 44, and say “before we start I want you to learn the words or phrases you will see in the passage in exercise no. 1 first.

7. Students get the handout and read the story about “the Flying Dutchman”.

While-reading

8. Teacher asks students to tell the answer the guiding question.

9. Teacher lets student to read an article again by saying “Next, I want you to read slowly and carefully again and then I will ask you about the detail of a story.

Post- reading

10. Students are asked to work in team to answer the questions through Kahoot!.

Assessment & Evaluation

1. From answering a guiding question
2. From answering questions through Kahoot!
3. From sharing the story

Teaching aids

1. Student’s book
2. Handouts
3. The gamification tool “Kahoot!”

Lesson Plan 4

Global Warming (global changes)

Rationale and Main Concept

Students are able to state what the main idea is of the passage and share their ideas about the passage they read.

Learning Objectives

Knowledge

1. Students know what the main idea of the passage is.

Practice

1. Students should be able to share their own ideas about global warming”.
2. Students should be able to answer the lead-in questions correctly.
3. Students should be able to answer the questions about the detail of the passage correctly.

Learning Activities

Pre-reading:

1. Teacher greets students
2. Students are asked to watch videos and answer the question “What is this video about?” (the video is about global warming)
3. Students are asked to watch another video about the impacts of global warming. This video is about the animals that try to commit suicide because of global warming.
4. Students are asked to answer the question “why does global warming lead those animals to commit suicide?”
5. Students are asked to guess “what kind of animal in video that will be mentioned in the passage about global warming?” (lead-in question). (Teacher writes the answer on board)
6. Students are asked to find the answers from the passage about global warming.

7. Students get the handout and read the passage about “Global warming global changes”.

While-reading

8. Teacher asks students to tell the answer the guiding question.

9. Teacher lets student to read the passage again by saying “Next, I want you to read slowly and carefully again and then I will ask you about the detail of a story.

Post- reading

10. Students are separated into 10 groups to work in team to answer the questions through Kahoot!.

Assessment & Evaluation

1. From answering a guiding question
2. From answering questions through Kahoot!

Teaching aids

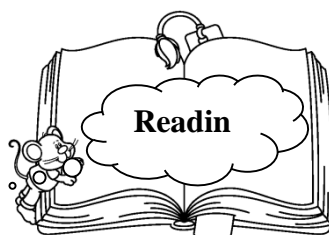
1. Handouts
2. The gamification tool “Kahoot!”
3. Youtube (video)

<https://www.youtube.com/watch?v=1CX2gpDO7K0>

<https://www.youtube.com/watch?v=kkuxXP2kIm8>

APPENDIX B
SAMPLE OF THE ENGLISH READING SKILL PAPER TESTS
(PRE-TEST – POST-TEST)





Passage I

Instructions: Read the text. Then choose the best answers.



My Three New Year Festivals

Becky Wells

Last year, I celebrated the New Year three times. It started in Brighton. I had a big New Year's Eve party on 31 December (that finished at two in the morning!)

In February, I stayed with my mate, Lee, in London and enjoyed the Chinese New Year. The festival lasted fifteen days. Lee's parents decorated their house and painted their doors red. Red is a lucky colour for Chinese people! On New Year's Eve, they cooked special food and at midnight, they had amazing fireworks. On New Year's Day, we watched a fantastic parade.

Three weeks ago, in November, I went to Birmingham. My Friend, Anisha, is Hindu and her family celebrates the new year festival of Diwali. That day, they cleaned the house and gave us sweets, presents and cards. Anisha texted her 'Happy Diwali' messages and her sister sent beautiful emails. In the evening, her family wore new clothes and put lights and candles in the house and garden. Later, we watched **brilliant** fireworks and traditional Indian dancing. I went to bed very late!



1. Becky was in London on 31 December.
 1. True
 2. False
2. The Chinese New Year festival is in March.
 1. True
 2. False
3. The Chinese New Year festival lasts for over two weeks.
 1. True
 2. False
4. Diwali is a Hindu festival.
 1. True
 2. False
5. It is traditional to give presents at Diwali.
 1. True
 2. False
6. According to the passage, the word **“brilliant”** means...
 1. busy
 2. favorite
 3. bright
 4. ordinary
7. What is the New Year’s Eve party?
 1. A party that is held on the first day of new year
 2. A party that is held on the day before the first day of new year
 3. A party that is held throughout the period of new year festival
 4. A party that is held after the first day of new year.
8. Which of the following best describes the author’s feeling in the passage?
 1. calm
 2. confusing
 3. concerned
 4. cheerful
9. Why did Becky go to bed late in November?
 1. Because she did the housework.
 2. Because she went to Birmingham.
 3. Because she stayed with her friends.
 4. Because she watched fireworks and Indian dancing.
10. How can you apply the knowledge in this passage to real life?
 1. Stay away from people who are from a different culture.
 2. Learn about different cultures in each area before visiting.
 3. Celebrate festivals only in your own way in the different culture.
 4. Tell people from a different culture that your culture is the best.

Passage II

Instructions: Read the text. Then choose the best answers.

SHARKS



DANGEROUS OR IN DANGER?

Some people are so frightened of the sharks that they don't swim in the sea. They think sharks are **cruel** and dangerous. People don't love sharks in the way that they love dolphins, whales, elephants and tigers.

But sharks are in danger. Here are the facts.

- There are 390 types of shark but only 10% are dangerous.
- Sharks are so intelligent that they rarely attack humans. They don't like the taste.
- Last year, sharks killed four people around the world.
- Last year, humans killed around 100 million sharks.

People usually kill sharks for their fins. Shark fin soup is a popular and expensive dish in many Chinese restaurants. In fact, it is so popular and expensive that sharks are now in danger.

Take action to protect sharks.
Join Save Our Sharks today!



1. People love sharks more than dolphins.

1. True

2. False

2. 90% of sharks are not dangerous.

1. True

2. False

3. Sharks kill a lot of people every year.

1. True

2. False

4. Humans usually kill sharks for sport.

1. True 2. False

5. People pay a lot of money for shark fin soup.

1. True 2.False

6. According to the passage, the word “*cruel*” means ...

1. huge 2. foolish
3. strong 4. unkind

7. What is the current situation of sharks?

1. The Chinese love sharks.
2. The number of sharks is rising.
3. A lot of sharks are hunted down.
4. There is not enough food for sharks.

8. What is the writer's main purpose to write this passage?

1. To promote shark fin soup.
2. To give general information about sharks.
3. To point out that sharks are an endangered animal.
4. To show how much people love sharks and other animals.

9. According to the passage, who/what is dangerous to sharks?

1. whales
2. the Chinese
3. tigers
4. humans

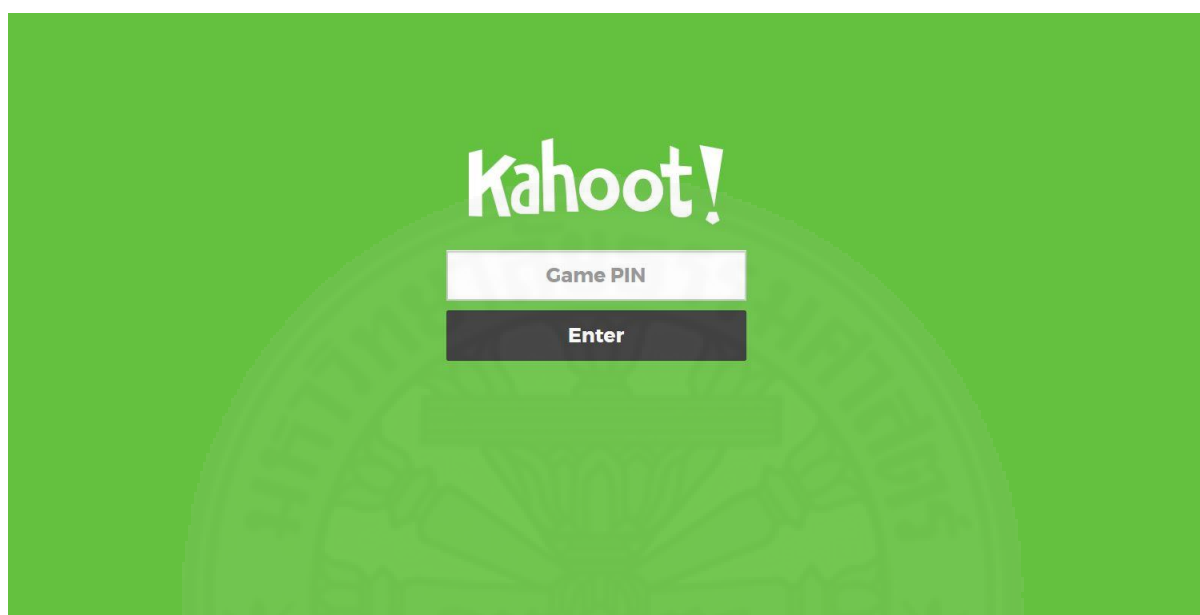
10. What should you do after reading this passage?

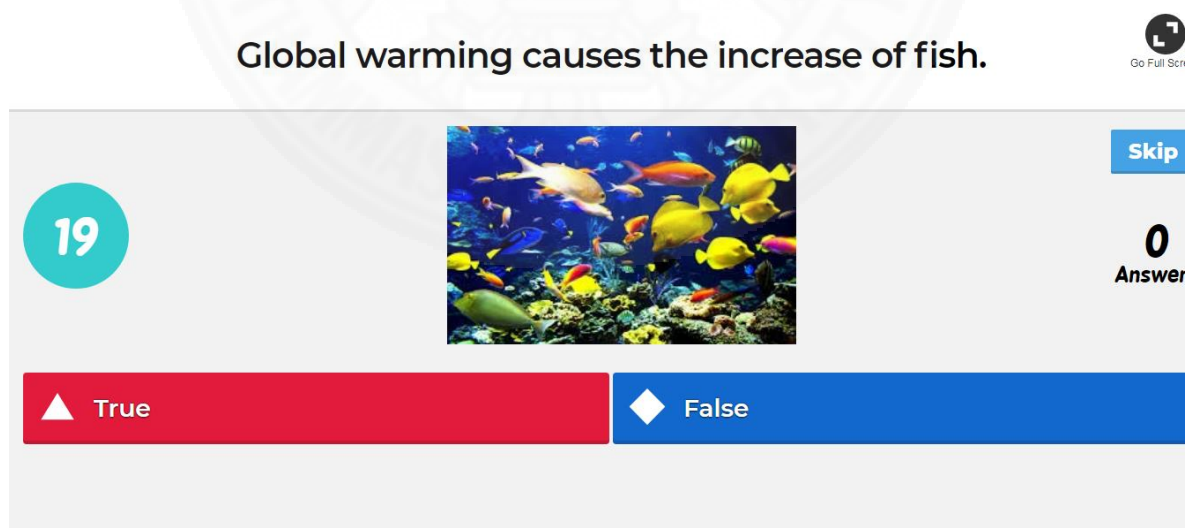
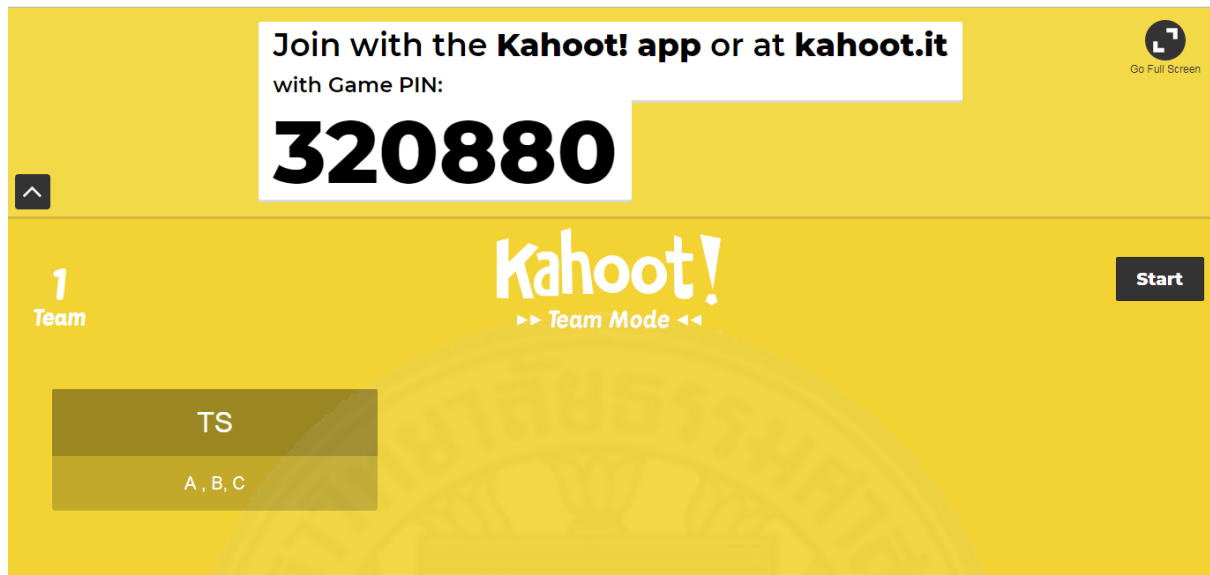
1. Stop eating shark fin soup.
2. Stop swimming in the sea.
3. Stop eating expensive food.
4. Stop going to Chinese restaurants.

Good Luck!

APPENDIX C

THE GAMIFICATION TOOL KAHOOT!






kahoot.it Game PIN: 320880

According to the passage, the word **“migrate”** means... .



3

Team Talk



Skip

0

Answers

▲ remain alive

◆ search for food

● make something happen

■ move from one place to another

kahoot.it Game PIN: 320880

Because of global warming, some fish will move to cooler waters.



✓ 1

▲

0

◆

Next




Show media

▲ True ✓

◆ False

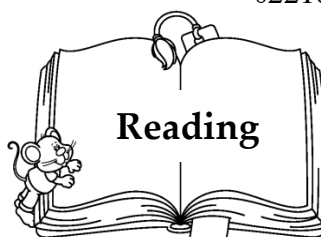
End game

kahoot.it Game PIN: 320880

The Flying Dutchman				
Played on	14 Aug 2018			
Hosted by	EnglishTeacherSW285			
Played with	10 players			
Played	10 of 10 questions			
Overall Performance				
Total correct answers (%)	84.04%			
Total incorrect answers (%)	15.96%			
Average score (points)	8641.70 points			
Feedback				
How fun was it? (out of 5)	0.00 out of 5			
Did you learn something?	0.00% Yes	0.00% No		
Do you recommend it?	0.00% Yes	0.00% No		
How do you feel?	 0.00% Positive	 0.00% Neutral	 0.00% Negative	
Switch tabs/pages to view other result breakdown				

APPENDIX D
SAMPLE OF THE GAMIFICATION TOOL KAHOOT!
(PASSAGES AND QUESTIONS)





Instructions: Read the text. Then choose the best answers.

Special days

Hey Jane,

Greetings from Valencia. It's a bit cold today, but it isn't raining. We are staying at my friend's house. It's very beautiful here because it's fiesta time. We're watching a street parade now. People are wearing costumes and they are dancing in the street. There's a human tower competition too. People are climbing on top of each other to make the highest tower to win. It's very exciting!

See you soon,

Emma

Hi Suzie,

Greetings from the world's snow capital, Quebec. It's very cold and it's snowing today, but I am having a wonderful time. It's the Quebec Winter Carnival so everyone's excited. My aunt is showing me around. Some people are carving sculptures from snow. Others are ice-skating. I can't wait to watch the night parade!

Take care,

Bill



1. What is the weather like in Valencia?

- | | |
|----------|----------|
| 1. rainy | 2. windy |
| 3. cool | 4. sunny |

2. Why is it beautiful in Valencia?

1. Because it's celebration time.
2. Because there are snow sculptures.
3. Because there is a night parade in the street.
4. Because people make the highest exciting tower.

3. What are the people in Quebec celebrating?

1. They are celebrating a street parade.
2. They are celebrating a winter carnival.
3. They are celebrating the world's snow capital.
4. They are celebrating a human tower competition.

4. Why is Quebec called 'the world's snow capital'?

- | | |
|-----------------------|--------------------------|
| 1. It's cloudy there. | 2. It snows a lot there. |
| 3. It's sunny there. | 4. It rains a lot there. |

5. Which feeling goes best with two passages?

- | | |
|----------------|-----------|
| 1. embarrassed | 2. joyful |
| 3. terrible | 4. calm |

6. How can you apply the knowledge from the passage about "Special Days" to your life?

1. Act like you know everything about the place you visit.
2. Learn different cultures from only the people you visit.
3. Celebrate the festivals without studying the rules.
4. Share your energy and join the celebration in a good way.

7. A human tower is made after dancing in the street.

1. True

2. False

8. Jane is staying with a friend.

1. True

2. False

9. Bill is with a relative.

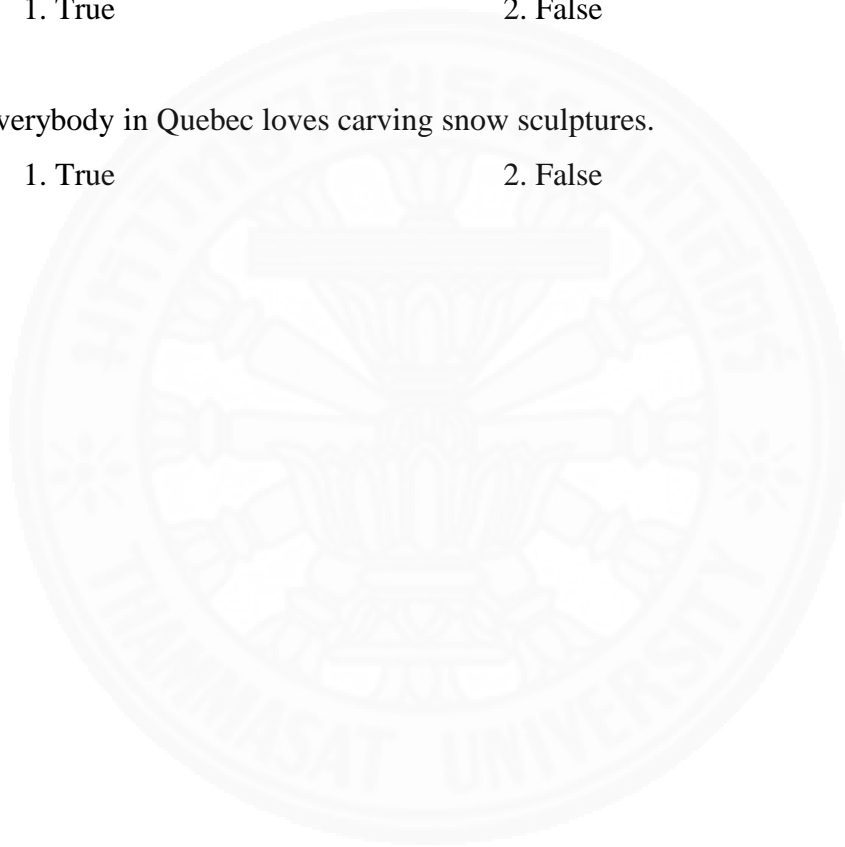
1. True

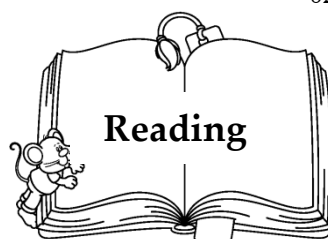
2. False

10. Everybody in Quebec loves carving snow sculptures.

1. True

2. False





Instructions: Read the text. Then choose the best answers.

Superheroes

What does it take to be a superhero? Stan Lee is maybe the best person to answer this question. The creator of Spider-Man, the X-Men, the Fantastic Four, Daredevil, Iron Man, Captain America, and the Incredible Hulk, created his heroes to help people who need them.

The incredible Hulk wasn't like the other superheroes. Most superheroes wore red and blue; this one was green and purple. Lee made the Hulk a scientist, Dr David Banner, who changed into a monster when he got angry. The Hulk looked like a monster but acted like a hero. He didn't want to hurt people and he didn't talk. He was a good person but people were afraid of him. They hunted him and tried to kill him. Still, the Hulk wanted to help them because he knew it was the *right* thing to do. The incredible Hulk was so popular that it became a successful TV series.

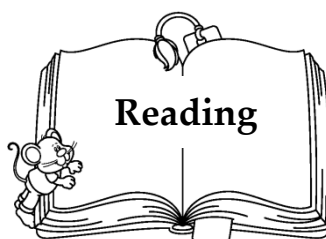


1. Stan Lee created the Incredible Hulk.
 1. True
 2. False
2. The Hulk wore red and blue.
 1. True
 2. False
3. The Hulk looked ugly.
 1. True
 2. False
4. The Hulk changed into a monster when he was afraid.
 1. True
 2. False
5. People didn't like the Hulk.
 1. True
 2. False
6. The Hulk was a TV show.
 1. True
 2. False
7. According to the passage, the word "**right**" means ...
 1. appropriate
 2. hurt
 3. popular
 4. successful
8. What should be the best characteristic of superheroes?
 1. silly
 2. fearless
 3. funny
 4. lazy
9. What can we infer from this passage?
 1. Take every chance.
 2. Don't let your dream be dream.
 3. Don't judge people by their looks.
 4. Believe in miracles but don't depend on them.

10. What can you do to be a superhero in real life?

1. Offer to help for money.
2. Forgive yourself and others.
3. Avoid making the differences.
4. Be confident to do whatever gives only you the benefits.





Instructions: Read the text. Then choose the best answers.

The Flying Dutchman

11th July 1781

It was 4 o'clock in the morning. We were sailing around Cape Hope on the south coast of Africa when the lookout boy screamed out: "Ship coming towards us at full speed!" I came out of my cabin and went to see what was happening. As soon as I was on deck, I saw a huge ship coming up to the left side. All the people on board were looking at the ship in surprise while it was coming closer. I ran to the side to get a better look at this strange ship, but the ship was no longer there. It was then that I realized what was happening. That was the famous ghost ship, The Flying Dutchman. It haunted these waters ever since Captain Van derDecken and his crew died a hundred years ago when the ship sank in a storm.

I turned to look at the lookout boy and he was not on the mast. According to legend, whoever looked at the ship closely, disappeared.



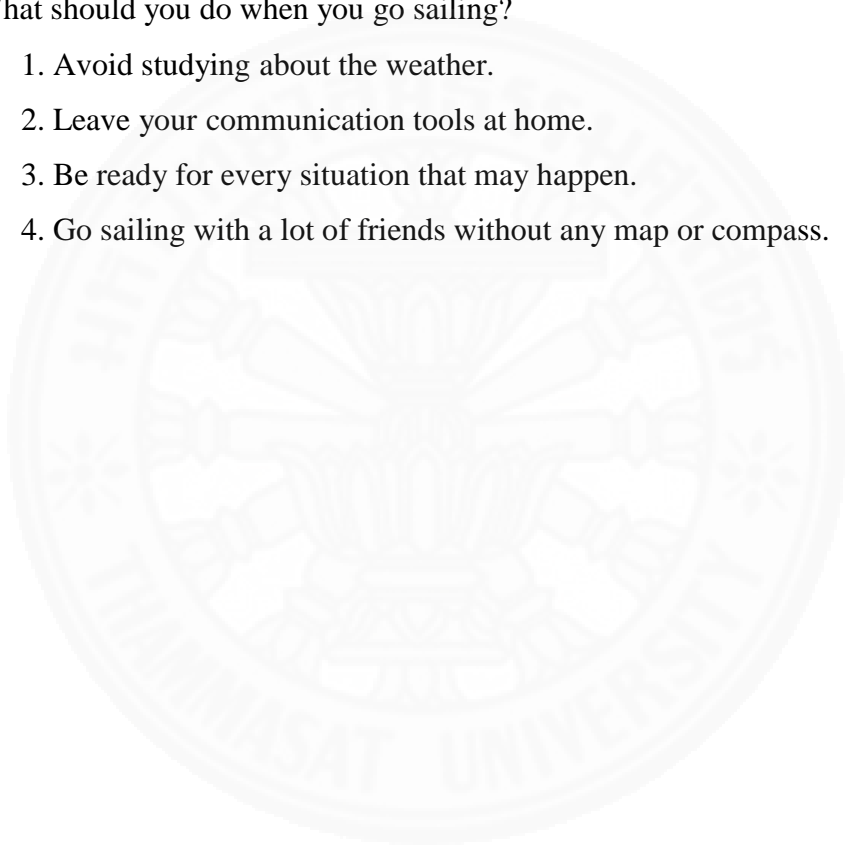
1. Before the ship disappeared, the lookout boy disappeared.
 1. True
 2. False
2. The lookout boy saw the ship after the captain had realized it was a ghost ship.
 1. True
 2. False
3. While the captain was sailing around the Cape Hope, a ghost ship was appearing.
 1. True
 2. False
4. After the ghost ship was seen by the captain, it disappeared.
 1. True
 2. False
5. Only the captain and the lookout boy were on board.
 1. True
 2. False
6. What type of text is it?
 1. a captain's log
 2. a letter
 3. a postcard
 4. a newspaper
7. Which word has the closest meaning to the phrase ***“appeared and frightened people”***?
 1. sailed
 2. happened
 3. sank
 4. haunted
8. According to the passage, the word ***“legend”*** means...
 1. truth
 2. journal
 3. fiction
 4. note

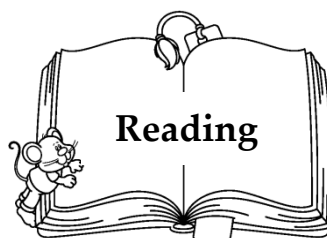
9. The sentence “*According to legend, whoever looked at the ship closely, disappeared.*” implies that...

1. people believe only in fact and true stories.
2. people need to be careful when they are on the ship.
3. people should learn about the ships before looking at them.
4. people should stay away from the objects they look at.

10. What should you do when you go sailing?

1. Avoid studying about the weather.
2. Leave your communication tools at home.
3. Be ready for every situation that may happen.
4. Go sailing with a lot of friends without any map or compass.

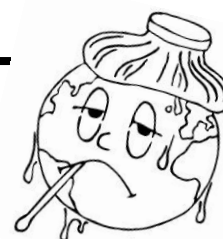




Instructions: Read the text. Then choose the best answers.

SOS

Global Warming global changes



Global warming is causing major changes in our world. Animals and plants are trying to live with these changes. If we do not do anything to stop the speed our planet is heating up, many of these species will become endangered or even extinct!

Sealife

- Galapagos penguins will not be able to survive because the fish they feed on are moving north to cooler waters.
- Rising sea levels will destroy the places sea turtle lay their eggs.

Birds

- Birds that live in wetlands will lose their habitat as global warming dries up their homes.
- As fish won't have food to eat, they will die. So, seabirds that eat fish will die too.
- Deserts are expanding. This means birds that **migrate** long distances will be in danger as they won't be able to find food on their way.

Land Animals

- Elephants will have no place to live because their home will be hot and dry.
- Polar bears will get thinner and may die of hunger. Because of the melting ice, they won't have a place to hunt or fish to eat.

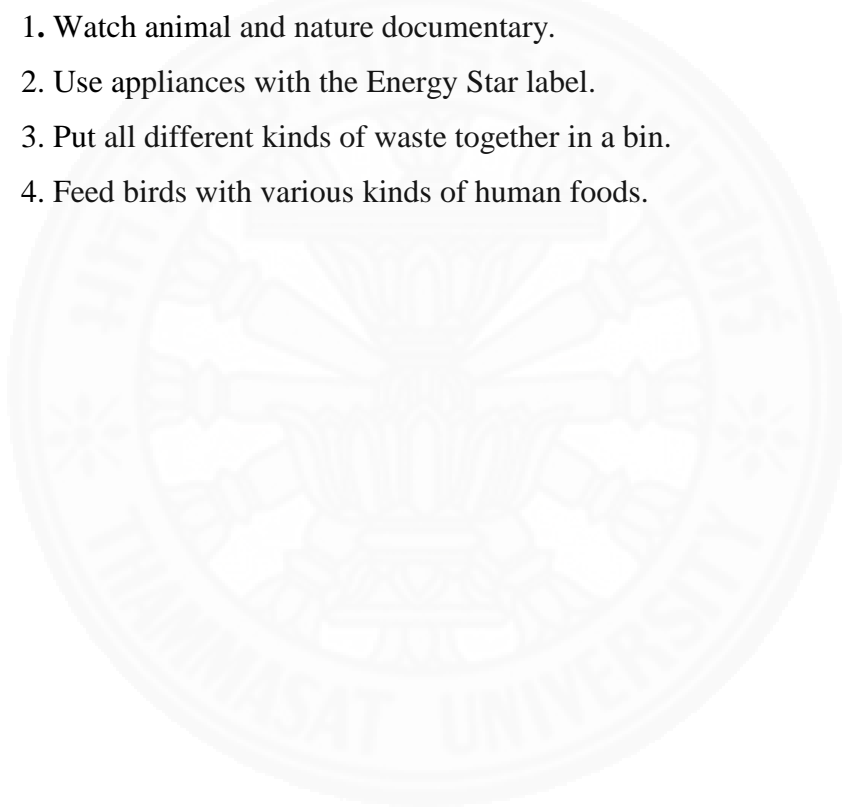
1. Because of global warming, some fish will move to cooler waters.
 1. True
 2. False
2. As a result of global warming, birds in wetlands won't have any food.
 1. True
 2. False
3. Global warming causes the increase of fish.
 1. True
 2. False
4. Elephants will lose their home because of global warming.
 1. True
 2. False
5. As a result of global warming, polar bears will have no fur.
 1. True
 2. False
6. According to the passage, the word "**migrate**" means...
 1. remain alive
 2. search for food
 3. make something happen
 4. move from one place to another
7. What is the serious consequence of global warming on animals and plants?
 1. The number of animals is falling.
 2. The different species of animals move to the same place.
 3. Only some animals will die but some plants will survive.
 4. Animals and plants can survive the high temperature happily.
8. What word best describes the phrase "**remain alive**"?
 1. feed on
 2. hunt
 3. survive
 4. lay

9. What is the writer's main purpose for writing this passage?

1. To support the animal lovers.
2. To give general information about animals.
3. To raise awareness of the effects of global warming.
4. To compare the lifestyles of different kinds of animals.

10. What can you do to help save animals' lives?

1. Watch animal and nature documentary.
2. Use appliances with the Energy Star label.
3. Put all different kinds of waste together in a bin.
4. Feed birds with various kinds of human foods.



APPENDIX E
SAMPLE OF QUESTIONNAIRE



THE STUDENTS' QUESTIONNAIRE

Instructions: For the following items, please indicate your answer with a tick (✓) in the provided spaces. There are two main parts in this questionnaire as follows:

Part I: Background Information

Part II: Attitude toward using Kahoot! in English reading

Part I: Background Information

Please answer the following questions and tick (✓) in the appropriate space.

1. What is your gender?

☐ Male ☐ Female

2. What is your age?

☐ 13 ☐ 14 ☐ 15

3. How long have you been studying English?

☐ 1-5 years ☐ 6-10 years ☐ more than 10 years

4. Which level do you classify your English proficiency?

☐ Excellent ☐ Good ☐ Fair ☐ Poor

5. Which level do you classify your English score in general?

☐ High ☐ Average ☐ Low

6. Have you ever studied in an English language school? (If you choose “yes”, please explain the reason for attending a language school)

☐ Yes ☐ No

Reason:

.....

Part II: Attitudes toward using the gamification tool Kahoot! in English reading

Please tick (✓) on the number 5, 4, 3, 2 or 1, which best represents your answer about each statement.

No.	Attitudes toward using the gamification tool Kahoot! in English reading	5 strongly agree	4 agree	3 undecided	2 disagree	1 strongly disagree
1	I would like to use the “The gamification tool Kahoot!” in other reading classes.					
2	“The gamification tool Kahoot!” for teaching English reading helps me understand the text more easily.					
3	Learning through “the gamification tool Kahoot!” allows me to have more fun in the English reading class.					
4	I have more confidence in discussing, giving an opinion or correcting my friends’ understanding when playing Kahoot! in groups.					
5	The use of “the gamification tool Kahoot!” improves my attention.					
6	I am more motivated to understand the text in order to answer the questions from online game Kahoot! correctly and quickly.					

No.	Attitudes toward using the gamification tool Kahoot! in English reading	5 strongly agree	4 agree	3 undecided	2 disagree	1 strongly disagree
7	Learning through “The gamification tool Kahoot!” helps me better memorize the information in the text than learning in the normal classroom.					
8	The use of “the gamification tool Kahoot!” improves my reading skill.					
9	The “the gamification tool Kahoot!” gives me more confidence in taking the English reading tests.					
10	I am satisfied with the quiz scores as a result from using “the gamification tool Kahoot!” in the English reading class.					
	Total score					

แบบสอบถาม

คำสั่ง : จากแบบสอบถามต่อไปนี้ กรุณาแสดงเครื่องหมายถูก ✓ ลงในช่องคำตอบที่ตรงกับความเป็นจริงมากที่สุด แบบสอบถามนี้ประกอบด้วย 2 ส่วนหลักดังนี้

ส่วนที่ 1: ข้อมูลทั่วไป

ส่วนที่ 2: ทักษะคิดต่อการใช้เกม Kahoot! ในการอ่านภาษาอังกฤษ

ส่วนที่ 1 ข้อมูลทั่วไป

คำชี้แจง กรุณาแสดงเครื่องหมายถูก ✓ ลงในช่องคำตอบที่เหมาะสม

1. เพศ

☐

ชาย

☐

หญิง

2. อายุ

☐

13

☐

14

☐

15

3. นักเรียนศึกษาภาษาอังกฤษเป็นระยะเวลาเท่าใด

☐

1-5 ปี

☐

6-10 ปี

☐

มากกว่า 10 ปี

4. นักเรียนคิดว่าระดับความสามารถในการใช้ภาษาอังกฤษของนักเรียนอยู่ในระดับไหน

☐

ดีมาก

☐

ดี

☐

ปานกลาง

☐

น้อย

5. นักเรียนมีคะแนนวิชาภาษาอังกฤษอยู่ในระดับใด

☐

สูง

☐

ปานกลาง

☐

ต่ำ

6. นักเรียนเคยไปเรียนที่โรงเรียนสอนภาษาอังกฤษหรือไม่ หากเคย กรุณาให้เหตุผล

☐

เคย

☐

ไม่เคย

เหตุผล

.....

ส่วนที่ 2 ทศนคติต่อการใช้เกม Kahoot! ในการอ่านภาษาอังกฤษ

คำชี้แจง กรุณาแสดงเครื่องหมายถูก ✓ ลงในช่องลำดับคะแนนที่ตรงกับความเป็นจริงมากที่สุด

ที่	ทศนคติต่อการใช้เกม Kahoot! ในการอ่านภาษาอังกฤษ	5 เห็นด้วยอย่างยิ่ง	4 เห็นด้วย	3 ไม่สามารถตัดสินใจได้	2 ไม่เห็นด้วย	1 ไม่เห็นด้วยอย่างยิ่ง
1	ฉันอยากใช้เกม (Kahoot!) ในการเรียนการอ่านรายวิชาอื่นๆ					
2	เกม (Kahoot!) ช่วยให้ฉันอ่านเนื้อหาภาษาอังกฤษได้ง่ายขึ้น					
3	การใช้เกม (Kahoot!) ช่วยให้ฉันสนุกสนานกับการเรียนการอ่านภาษาอังกฤษมากขึ้น					
4	ฉันมีความมั่นใจมากขึ้นในการอภิปรายแลกเปลี่ยนความคิดเห็นและแก้ไขความเข้าใจของเพื่อนๆ ในชั้นเรียนในระหว่างการเล่นเกม Kahoot! มากขึ้น					
5	การใช้เกม (Kahoot!) ช่วยให้ฉันมีความใส่ใจมากขึ้น					
6	ฉันมีแรงจูงใจมากขึ้นที่จะทำความเข้าใจบทอ่านเพื่อที่จะตอบคำถามจากเกม (Kahoot!) ให้ถูกต้องและรวดเร็ว					
7	เกม (Kahoot!) ช่วยให้ฉันจำข้อมูลในบทอ่านได้ดีกว่าการเรียนในห้องเรียนปกติ					

8	การใช้เกม (Kahoot!) ช่วยฝึกฝนทักษะการอ่านของฉัน					
9	เกม (Kahoot!) ทำให้ฉันมีความมั่นใจในการทำแบบทดสอบการอ่านภาษาอังกฤษมากขึ้น					
10	ฉันพึงพอใจกับผลคะแนนจากแบบทดสอบหลังจากการใช้เกม (Kahoot!) กับการเรียนการอ่านภาษาอังกฤษ					
รวมคะแนน						

APPENDIX F

SAMPLE OF THE INTERVIEW FORM

PERSONAL INTERVIEW FORM FOR THE RESEARCH

TITLE: EFFECTS OF THE GAMIFICATION TOOLKAHOOT! ON
SECONDARY SCHOOL STUDENTS' ENGLISH READING SKILLS

Name.....Class.....No.....

Questions	Answers
1. Is the “the gamification tool Kahoot!” appropriate for English reading class? เกม (Kahoot!) เหมาะสมกับการเรียนการสอน การอ่านภาษาอังกฤษหรือไม่	
2. Is the “the gamification tool Kahoot!” appropriate for your age? เกม (Kahoot!) เหมาะสมกับวัยของนักเรียน หรือไม่	
3. Can “the gamification tool Kahoot!” enhance your participation in English reading class? เกม (Kahoot!) ส่งเสริมการมีส่วนร่วมของ นักเรียนในการเรียนการอ่านภาษาอังกฤษหรือไม่	
4. Does “the gamification tool Kahoot!” help you to prepare your reading exam? เกม (Kahoot!) มีส่วนช่วยให้นักเรียนเตรียมความ พร้อมก่อนการทดสอบการอ่านภาษาอังกฤษ หรือไม่	
5. Does the “the gamification tool Kahoot!” improve your English reading skill? เกม (Kahoot!) ช่วยให้นักเรียนพัฒนาทักษะการ อ่านภาษาอังกฤษหรือไม่	

APPENDIX G

THE COMPARISON OF STUDENTS' PRE-TEST AND POST-TEST SCORES

The comparison of students' pretest and post test scores in the experimental group

Student No.	Score (20)		Difference
	Pretest (P1)	Posttest (P2)	
1	9	7	-2
2	17	18	1
3	12	15	3
4	16	18	2
5	6	9	3
6	17	17	0
7	17	19	2
8	17	16	-1
9	15	13	-2
10	15	13	-2
11	14	14	0
12	15	16	1
13	14	12	-2
14	9	13	4
15	11	15	4
16	12	12	0
17	19	17	-2
18	18	20	2
19	16	17	1
20	7	14	7
21	10	15	5
22	12	12	0
23	14	19	5

Student No.	Score (20)		Difference
	Pretest (P1)	Posttest (P2)	
24	15	17	2
25	12	13	1
26	17	16	-1
27	14	19	5
28	15	17	2
29	15	19	4
30	18	14	-4
31	15	16	1
32	20	19	-1
33	17	17	0
34	15	12	-3
35	15	11	-4
36	19	19	0
37	16	16	0
38	6	11	5
39	14	14	0
40	11	15	4
41	13	14	1
42	11	11	0
43	18	18	0
44	18	19	1
45	8	13	5
46	16	18	2
47	20	20	0
48	15	13	-2
49	15	15	0
Mean	14.29	15.24	0.96

The comparison of students' pretest and post test scores in control group

Student No.	Score (20)		Difference
	Pretest (P1)	Posttest (P2)	
1	11	10	-1
2	14	8	-6
3	19	20	1
4	13	16	3
5	17	19	2
6	14	20	6
7	15	14	-1
8	19	18	-1
9	16	12	-4
10	14	12	-2
11	15	14	-1
12	15	18	3
13	19	20	1
14	16	14	-2
15	13	15	2
16	19	19	0
17	16	15	-1
18	18	20	2
19	18	20	2
20	15	13	-2
21	14	17	3
22	18	19	1
23	18	20	2
24	17	17	0
25	17	17	0
26	12	15	3
27	8	6	-2

Student No.	Score (20)		Difference
	Pretest (P1)	Posttest (P2)	
28	11	7	-4
29	11	10	-1
30	15	15	0
31	15	15	0
32	16	19	3
33	16	16	0
34	19	18	-1
35	19	17	-2
36	15	16	1
37	17	15	-2
38	15	15	0
39	18	19	1
40	19	19	0
41	17	17	0
42	11	15	4
43	11	13	2
44	13	13	0
45	17	19	2
46	18	19	1
47	13	16	3
48	9	12	3
Mean	15.31	15.69	0.38

BIOGRAPHY

Name	Miss Thippawan Sripanya
Date of Birth	January 4, 1991
Educational Attainment	Academic Year 2015: Bachelor's degree in English Education (First-Class Honors), Tourism Studies Minor, Chiang Mai University, Chiang Mai
Work Experiences	2016 - Present: Teacher Satriwitthaya School, Bangkok, Thailand

