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Learning While Playing: *Kahoot* Application to Teach Vocabulary through Online Learning

Mimma Ramadhani¹; Nur Muthmainnah^{2*}

^{1,2}IAIN Salatiga, Indonesia

Corresponding author's email: nur muthmainnah@iainsalatiga.ac.id

Abstract

This research was conducted to reveal the description of teaching vocabulary using kahoot! Application through online learning and students' vocabulary mastery after learning using kahoot! application. It used mixed method which was conducted to 20 students of State Vocational School of Salatiga who joined English Club Program. The researchers used test and observation to get the data. Based on observation result, it is seen that teacher prepared the teaching activity well which was seen from the implementation of teaching vocabulary using kahoot! Application could run as planned. Teacher used zoom application to communicate and interact with students in applying the game in teaching activity. Students are challenged and motivated to fill the game and raced to be the winner. After conducting the test, the researchers calculated the score and found the mean score of each test. The mean score of students' pre-test is 36 and the mean score of post-test is 84. Based on the research result, the researchers could say that learning while playing could make students more relax to absorb the material and improve their vocabulary mastery as its effect. Kahoot application could be used as one of learning media while implementing teaching through distance learning.

Keywords: kahoot! application; vocabulary; online learning

INTRODUCTION

Vocabulary as one of language components has become crucial part in mastering language including English. On the other hand, learning vocabulary is not a piece of cake. Zheng (2012) revealed that 45% of students in his research felt that learning vocabulary is boring. One of the reason is that traditional method does not effectively cover students' learning need. Thus, the educators are required to seek other methods which are effective to improve the students' desire in studying this language component. The vocabulary learning activities which are usually done in the class such as giving explanation of word meaning, memorizing lists of words given by teacher are rather old fashioned and make them uninterested to learn vocabulary.

In addition, most of students now are coming from generation Z or Gen Z. This generation has different learning style with the millennial and other generation. They tend combine abstract conceptualization and reflective observation (Manzoni et al., 2021). Since they are

familiarized with technology from they were born, they tend to be more didactic which means that they automatically search and find available resources to learn. They tend to be more independent and more realize to what and how they want to learn (Iftode, 2019). The changing of learning style which happens to the leaners in this generation also affects to their acceptance in the way their teachers present the learning material. It is clearly seen that the traditional method in teaching could not meet with their learning style. That is why, most students would feel that learning vocabulary by filling the paper test is something old fashioned and boring.

Due to the changing era, teachers need to make revolution in the way they transfer the knowledge. This condition is supported with the Covid-19 pandemic condition which happens worldwide that forces teacher to restrict the face to face meeting including teaching learning process. Teacher needs to arrange learning activity or prepared the media to support this condition although some technical condition sometimes haunts the learning process. One of ways which could be taken is that teachers need to move the class into online. Online language learning (OLL) has varied in its forms due to adapting any condition such as, web-facilitated learning, hybrid or blended learning, and fully virtual or online learning (Atmojo & Nugroho, 2020). Thus, teachers need to choose one of online language learning forms which is suitable with the learners' condition and material delivered.

The online vocabulary teaching is something tricky to conduct. It is not only about choosing appropriate model and media but also supporting the learners' need and learning style. Since, traditional method cause boredom the vocabulary learners, teachers need to find a media which attract students to engage in the vocabulary online class. one of application which could be implemented is *kahoot!* application. Learning vocabulary using kahoot! application could help students to memorize vocabularies through fun and competitive game and it also help teachers to conduct learning assessment(Hidayati, 2019). In addition, kahoot! application also effective to improve students' achievement and critical thinking (Warsihna et al., 2019). Prawira and Mukhaiyar (2020) also revealed that there is difference in the students' learning outcomes in learning grammar as one of other language components after learning using *kahoot!* application. Since there are researches studied the use of *kahoot!* application in the language learning, and show its' effectiveness to be implemented in the class, the researchers would see how enjoyable and fun learning vocabulary using *kahoot!* application and see the effect of enjoyable learning activity to their learning outcome.

LITERATURE REVIEW

Teaching Vocabulary

Vocabulary is language's words which consists of a word, phrases or group of words which create certain meaning (Tesol, 2013). Thus, it is important to learn vocabulary as the fundamental to create communication through language(Alqahtani, 2015). It is quite difficult for language learners to master language and covey a conversation between speaker and listener when they are lack of vocabulary. Thus, the success of teaching vocabulary influence the success of how students master language.

Most of teachers in his survey stated that teaching vocabulary is about teaching spelling, pronunciation, and word meaning in the wordlist (Zheng, 2012). Those activities were three basic things which students should master in learning vocabularies. Students are required to spell correct word spelling, pronounce good pronunciation and know the meaning of words listed. Since the vocabulary becomes the fundamental layer to produce language, it is important

for teachers to asses vocabulary as the receptive skill because students could produce language when they could proceed what they receive in written and spoken word form (Asyiah, 2017). Thus, teacher could create vocabulary assessment not only in form of filling the blank, asking students to memorize lists of words, or matching the words with its meaning rather than more practical vocabulary activities such as completing dialog, rearrange words into meaningful sentence, or producing words into meaningful sentence or utterances.

There are many methods and approaches to teach vocabulary. Traditionally, teachers teach students using drilling concept from direct method. It is believed that by drilling vocabulary, they would master more vocabulary. On the other hand, this method could not make students to be flexible in using words for communication. The newer approach is CLT (Communicative Language Teaching) where teachers emphasize on how students could use vocabulary as the basic for communication. Since, teaching vocabulary is sometimes creating boredom for the learners, it need other technique to teach vocabulary through fun activities such as game (Bakhsh, 2016).

Gamification for Vocabulary Teaching

Playing game is not only fun for children but also every learners' level. Everyone love game since playing game could create enjoyable environment for surrounding. Thus, playing game while learning vocabulary is expected to break the barrier of boredom due to monotonous activity because of inappropriate method. Vocabulary learning through game could help students to learn new words or phrases, use the vocabularies by completing the game, even game also helps students to recall their memories of words' list through playing the game(Huyen & Nga, 2003). Those common activity would be more enjoyable when it is done using game. There is different feeling felt by students when they do the vocabulary activities while they are enjoying a game.

Game based learning which usually named as gamification allow students to engage fully in the learning activity. It is expected that when students could get fully involve in the game activity, it would increase their motivation to learn. On the other hand, teacher needs to work hard to modify game which support the learning material and help students master certain language skills or elements without neglecting the enjoyable activity itself (Lin et al., 2018). It is important to note that sometimes teacher forgot the essential goal of learning because it only focuses on creating fun activity. So, it is important to find appropriate game which matches with the material which would be delivered to the students.

Gamification has become interactive learning method since it provides some technique which challenge students to race and compete to be the winner of the game. The techniques which are usually used in the gamification are; (1) point: students are competing to collect as much as point to be the winner; (2) badges: it is a visual representation of achievements that can be earned and collected in the gamified activity; (3) leaderboard, it is a board to present the rank in which the students win the game; (4) Level: it is used to rank the gamers based on the level they have completed (Alomari et al., 2019). Those techniques are varied in its form of how the game creator reward his gamer. This reward stimulate the player to motivate to race and become the winner of the game. Thus, it is expected that game could promote students' motivation, activeness, and performances by creating suitable environment and context. By feeling fun and enjoyable learning through game students could be more active in doing the task and improve their interest in learning. One thing that could make the game and learning activity more fun is that introducing the game before applying it to the class(Alomari et al., 2019). Choosing certain game which matches with the learning activity is important. Teachers need to select and check whether this game appropriates to the students' age, meets the learning goal, covers the number of learners, and practical to be implemented.

Since the game could create fun and enjoyable environment, it would help students to acquire language easily and make students learn vocabulary naturally. Gamification would encourage, entertain, teach, and promote fluency and communicative skills when it is applied in the vocabulary class(Wulanjani, 2016). It is motivating due to it is amusing and interesting. So, it cannot be denied that gamification has special place in the list of teaching vocabulary methods. So, it is important to choose appropriate game which matches with the students' level, students' competence, and the number of students which support this game.

Kahoot! Application

Kahoot! is a free game based application which aims to make learning fun, activate learners through game, and dig up the students' learning potency (Chiang, 2020). Teacher and students are able to use and sign up through this application to conduct the game. Teacher could make quizzes and the students could answer the quizzes by entering the code on *kahoot!* application. Students could enjoying enrolling any subject, language, device, and for all ages through learning using *kahoot!* This popular e-learning application also provide metacognitive support, liveliness in class and student attendance in higher education which need limited lecturers and student education (Bicen & Kocakoyun, 2018). Kahoot! application is classified as game based student's response since teacher could manage and design the game based on the topic and material learned, then students are able to response and take part in the game (Marsa et al., 2021).

According to Wang & Tahir (2020) *Kahoot!* is a game-based classroom response system that can be played in the class in real-time. Teachers could add *kahoot!* game in the learning activities; it can be in the beginning, middle, or in the end of the class where students could access the *kahoot!* game through their web browser of their gadget. Teacher could add pictures or videos and the teacher becomes game controller when the game is started and ended. Students would get any reward when they answer the quiz correctly and the speed they answer would impact to their rank. The result of the quiz would be displayed on teacher's screen and it would motivate students to be the winner and lead on the kahoot! board (Licorish et al., 2018).

The Advantage and Disadvantage of Kahoot! Application

Kahoot! could create interaction among teacher and students in numerous form of challenging game based learning. Students do not need to register or sign up to join the game. They only fill the code through the kahoot! website: https://kahoot.it/#/ as directed by their teacher (game host). Teacher and students could advantage of this game that they could play game enjoyably without realizing that they are also learning (Kalleny, 2020). In addition Felszeghy et.al., (2019) revealed that kahoot! application has given advantages to the learners in improving their learning motivation, solving learner's learning difficulty, setting up students' collaboration, and promoting students' to be involved in playing the game. When the *kahoot!* application is used as the media to deliver quiz, it could help teacher to give direct feedback after students answered the questions. The direct feedback would help students to improve their comprehension and recall their memory (Perera et al., 2008). The corrective feedback after quiz is also beneficial for students to confidence, motivation and self-esteem (Clynes & Raftery, 2008). Moreover, kahoot! is applicable to use during Covid-19 pandemic as the schools were closed and moved to online class. kahoot! can be implemented during distance learning although it needs video conference application which could share the teacher's screen such as: zoom, skype, webEx, google meet, and so on (Kalleny, 2020).

The use of Kahoot! application in teaching learning process has some benefits, on the other hand this fun game also has some weaknesses. Hodson (2017) stated that there are at least two weaknesses of applying kahoot! in the learning process, such as: 1) The answer are in form of true or false, yes or no, or multiple-choice that limit students to elaborate their answers.

Thus, it needs corrective feedback and learning reflection after conducting this game; 2) the faster student answer the higher he will get score. It is able to spotlight the speed over the content. Thus, this game is meaningful to apply in recalling material rather than instructing students to do something. In addition, the weaknesses of this application is that, students with lower internet speed will get problem to log in to the game and finally they would be late to join the game. Furthermore, this application also endures from being a very topical survey of student knowledge at times. This weakness is a problem if the assessment depends on the primary form without more rigorous and complete models of assessment incorporated before and after. This application needs to devices and digital literacy as well. Thus, the students should have their device, but not all the schools provide the device (Bicen & Kocakoyun, 2018).

Steps of Teaching Vocabulary using Kahoot! Through Online Class

Online learning has become popular, moreover in this pandemic condition as the face to face meeting is restricted and moved to virtual meeting. In addition, Various kinds of teaching model and approaches, vocabulary learning activities, and skills are effectively proven to teach students' vocabulary mastery using Computer Assisted Language Learning. In addition, the use of technology to teach vocabulary could help students to comprehend and apply their vocabulary by integrating it to language skills such as writing skill, speaking ability, listening skill, and reading comprehension (Al-Jarf, 2016). Teachers could choose online game as the technique to teach vocabulary when they are teaching online. It would help students to memorize new vocabulary and enrich them (Arintia & Fitriati, 2010).

Kahoot! has four kinds of game which can be used in the class: Quiz, Jumble, Survey and Discussion and they can be used favorably based on the needs and interests (Sabandar et al., 2018). When the kahoot! game is played in online class, teacher needs other application to share the computer screen so the students could see their result (Kalleny, 2020). Kahoot! is played in real time whether it is conducted in face to face meeting or online class. Sabandar (2018) proposed teaching using kahoot! through online as follow:

"Students should enter the system using a gamepin (a number) and a nickname. Multiple-choice questions are shared through the video conference application and learners then have the capability to answer questions through a variety of devices (computers, laptops, pads and or smartphones) using colors and shapes to connect to the answer. The goal for the learners is to choose the correct answer as fast as possible and to get as many points as possible. Educators can use ready-made Kahoots that have been created by others or create their own quizzes, jumble questions, discussion and or surveys based on their preferred topic. The website even tracks participants' achievement by looking at what the they did during the Kahoot!, as well as overall achievement while logged in."

METHOD

This research used mixed method since it needed two forms of data, qualitative as well as quantitative data. "Mixed methods designs provide researchers, across research disciplines, with a rigorous approach to answering research questions" (Aramo-Immonen, 2013). Those data were presented descriptively in form on numbers and description. The quantitative data were used to present and analyze the data of students' learning outcome after learning vocabulary using *kahoot!* Application. While qualitative data was used to present and analyze the data found in the implementation of *kahoot!* Application in the vocabulary class through online learning. This research was conducted on March 20, 2020 at State Vocational School 2 Salatiga. The researchers chose the students of English Club to be the research subject which consisted of 20 students. They were chosen as the research subject because these students who

were eligible to conduct online classroom synchronously. the data were sourced from vocabulary pre-posttest and the observation result during the online classroom activity.

Method of Collecting Data

There were three method that the researchers used to collect the data. The first method which was used by the researchers was test. The test which was conducted to the students of English club was vocabulary test. There were 20 multiple choice questions dealing with vocabulary mastery which was tested to the research subject. there were two tests which were tested, they are: pre-test conducted before implementing *kahoot!* Application in vocabulary class and post-test conducted after implementing *kahoot!* Application in the class. the researchers chose compound word as the material to be tested. The indicator of the test included: finding the meaning of compound word, finding the definition of compound word, completing the incomplete sentence using compound word, guessing the compound word using picture, and choosing true or false. Those indicators provided five questions for each.

The second method which was applied by the researchers was observation. This method was used to know the broader description of how *kahoot!* application was implemented through online classroom. The researchers prepared observation checklist to check the activities in the online classroom whether the class ran well as planned or not. The observation checklist was composed based on the teaching activity which was planned through lesson plan. The teaching activities were elaborated through observation checklist. The researchers also put blank space beside observation checklist to write the additional description and information of teaching-learning activity using *kahoot!* application. There were 25 lists which the researchers should check during the classroom observation. The activities included how teacher started the class, how teacher introduce and implemented the kahoot! application, and teacher ended and gave classroom exercise.

The last method was documentation. it was used to support the data of observation. The researchers also recorded the teaching-learning process which was implemented using zoom meeting application. The recorder was used by the researchers to validate the observation checklist which was conducted during classroom observation, so the result of observation could by more valid and accounted for. Besides, the researchers also used lesson plan as the supporting document to use in constructing the observation checklist and became the guidance to implement teaching vocabulary using kahoot! application through online. In addition, the researchers needed the document of students' data to list the name of students who joined English Club program at State Vocational School 2 Salatiga.

Method of Analyzing Data

The quantitative data which was resulted from pre-posttest was analyzed to find the mean, and classified the scores into some categories based on the table below. The number of students who were classified would be found each percentage for each category. The mean score would be used as the supporting data whether there is improvement of nor after learning vocabulary using *kahoot!* application. While the classification of students' outcome was used to know in which level students were classified.

Table 1. Score Category

No	Score	Category
1	85 - 100	Excellent
2	70 - 80	Good
3	45 – 65	Enough

No	Score	Category
4	< 45	Poor
Arilanto (2010)		

Arikunto (2019)

The data which was resulted from observation was analyzed based on the observation checklist whether teacher implemented based on the lesson plan or not. The documentation also supported the data. After analyzing the data, the researchers described descriptively the real description of teaching vocabulary using *kahoot!* application. The notes from observation checklist was really meaningful to give information about how the class was implemented. The researchers also checked whether there were activity lists which was not implemented in the class or not. In addition, the problems during the learning process was also written to know whether there was problem or not during the learning process.

FINDINGS

This research is aimed to reveal the description of how *kahoot!* application could create enjoyable learning environment in vocabulary class during online learning and to know whether there is difference in students' vocabulary achievement after learning vocabulary using *kahoot!* application. There were two approaches which were applied in this research since the data which were collected have different forms. The observation had been conducted to vocabulary class to know the real description of learning condition at vocabulary online class using *kahoot!* application. the vocabulary test had been spread to the students before and after the online class to know their difference's in vocabulary mastery.

The Description of Teaching Vocabulary Using Kahoot! application through Online

The researchers conducted observation class on March 2020. the implementation of teaching vocabulary using *kahoot!* application was started with the planning the lesson and prepared the material and media. The researchers constructed pre-posttest which consisted of 20 multiple choice questions dealing with vocabulary which is aimed to know students' comprehension in the word meaning, synonym, completing blank sentence, and guessing meaning using pictures. The researchers also planned a zoom meeting for online class and create quiz through *kahoot!* application. Before holding the class, the researchers also made sure that students did not have any problem with internet connection and the way to join zoom meeting.

The online vocabulary class was conducted using synchronous application, zoom meeting. Firstly, the researchers share the link to join zoom meeting. Since the zoom meeting application which was used is the basic one, the researchers should prepared second link for zoom meeting when the time is over. The class was started with greeting "salam" and asking students' condition. The condition is not conducive since there are some students who unmuted their speaker. After notifying students to mute the speaker, the class could run well as planned in the beginning. The researchers asked them to write on chat box if there are question or comments.

The researchers started to explain the material that day which was about "compound word". The researchers asked students about their prior knowledge about this topic but no one knew about this topic. Then, the researchers showed the examples of compound word which usually appeared in the daily life. After sharing the examples, the students began to understand and expressed their understanding through chat box. The researchers continued the class activity by introducing the game and share the link and code. They were given about two

minutes to log in to *kahoot!* application using the code. They were asked to write their nickname. After making sure that all students were in the *kahoot!* application, the researchers began to share the quiz. They explained the instruction how to choose the symbol, image, and color that they should choose.

The amusing environment started when the first quiz ended and the winner of the first section showed up in the screen shared by the researchers on the zoom meeting. They expressed their happiness, disappointment, and sad through chat box. Before continuing the game, the researchers asked them whether they wanted to continue the game or not. Twelve of twenty students wanted more quiz. Then the game continued until the last quiz. The researchers share the correct answer and explain the meaning of compound words which had been answered. The following is the image of the teaching-learning environment in teaching vocabulary using *kahoot!* through online.

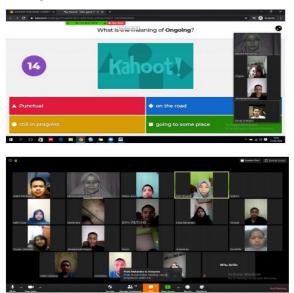


Figure 1. The Description of Teaching Vocabulary using Kahoot! Application through Zoom Meeting

The above image showed the way how kahoot! application could be implemented on online class. it needs video conference application to show the question and the result of the quiz. Below is the image of the result of the game which could be viewed by the students through zoom screen sharing.

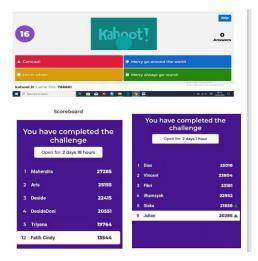


Figure 2. The Result of Kahoot! Game on Zoom Meeting Screen

The above figure shows the rank of students and their score. The winner is not only decided by the correctness of their answer but also how fast students choose the answer. Since students need accuracy to answer, they were competing and racing to win the game. The class was ended with drawing conclusion of todays' learning and sharing the post-test which they should do through google form. The researchers closed the class by reciting *hamdalah* and *salam*.

The Result of Students' Pre-Posttest

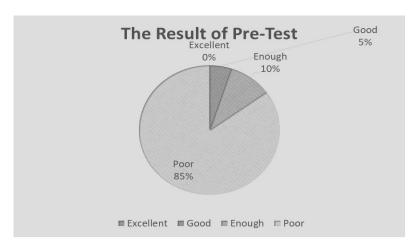


Figure 1. The Result of Pre-Test

The pre-test was conducted before the class begun. There are 20 multiple choice question which they should answer. Based on the figure above, it can be seen that 85% of total students or 17 students are in poor level which means that their score are below 45. There are two students or 10% of total students who are in enough level, and only one student or 5% of total student who is in good level of vocabulary mastery. The mean score of the pre-test is 36.

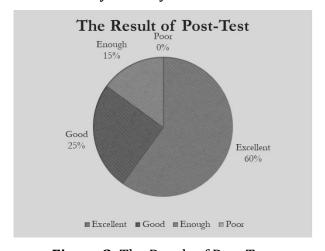


Figure 2. The Result of Post-Test

The post-test was held after the class ended. The level of difficulty of question in the pretest and post-test are similar. Based on the image above, it is clearly seen that there are differences in the students' learning achievement level. There are 60% of total students or 12 students are classified into excellent level. 5 students or 25% of total students are staying at good level. Three students are in enough level or 15% of total students, and no one is staying

at poor level. It indicates that there is significant difference in their learning achievement showed from students' vocabulary achievement before and after learning vocabulary using *kahoot!* application.

DISCUSSION

The research findings shows that there is enjoyable atmosphere created in the teaching vocabulary using *kahoot!* application through online. It could be seen when the researchers started the first quiz in the game and the students could see in which rank they are. The competition which is created in the *kahoot!* game improve students' motivation in completing the game. Since the questions in the game deal with the material delivered by the researchers, they automatically learn while they are answering the quiz in the *kahoot!* application. Thus, it can be seen that how important teacher need to construct carefully the questions in the *kahoot!* application which relate with the teaching material delivered (Sabandar et al., 2018). Students' also look pleasant to take part in the game which is seen from their expression written in the chat box. Their joy and happiness in playing the game makes them not realize that they recall and applied their comprehension to complete the game. It is in line with Kaur and Nadarajan (2020) investigation that students could actively take part in the language class when *kahoot!* application is implemented.

The success of teaching vocabulary using kahoot! application through online is seen from the students' improvement in their comprehension and achievement. Based on the research result, it is seen that students are gradually improving their achievement. 17 of 20 students are at poor level when the post-test was conducted, then it continues improving after the class. There are 12 of 20 students who are in excellent level and no one left in the poor level. It obviously shows that how fun game could affect students' motivation in learning vocabulary. Since it is applicable to use and support metacognitive support and does not require any training to play it, kahoot! application attract students to join the game (Plump & LaRosa, 2017). Hidayati (2019) also stated that kahoot! application is able to use to conduct learning assessment and improve students' activeness and motivation in the class. Since kahoot! application is real time game, the researchers need other application to share the researcher's screen to show the questions and the results of the game. It is in line with what kalleny (2020) suggested that, when the *kahoot!* application is used in the online class, it needs other application as the media to interact among teacher and students.

CONCLUSION

Teaching vocabulary using *kahoot!* application is obviously shows its effect to the students' learning outcome. It is seen from their activeness and achievement in learning vocabulary. The fun and competing atmosphere during the game motivate students to engage in the game and unconsciously that they learn and comprehend the vocabulary material while they are answering the questions in the game. On the other hand, when the *kahoot!* game is implemented through online, teacher needs to provide other application as the media to communicate among teacher and students and share the teacher's computer screen. The researchers could say that learning while playing could make students more relax to absorb the material and improve their vocabulary mastery as its effect. *Kahoot* application could be used as one of learning media while implementing teaching through distance learning.

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