# The Effect of Using Kahoot Application to Retain Students' Vocabulary at the Second Grade of SMP N 3 X Koto

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**Abstrak**

Penelitian ini bertujuan untuk menguji pengaruh penggunaan aplikasi kahoot untuk mempertahankan kosakata siswa di kelas dua SMP N 3. Peneliti menemukan beberapa masalah terkait kosakata siswa. Pertama, siswa kekurangan kosa kata. Kedua, siswa sulit menghafal kosakata. Ketiga, rendahnya motivasi siswa dalam proses pembelajaran. Penelitian ini menggunakan pendekatan kuantitatif dengan jenis penelitian quasi eksperimen dengan menggunakan pretest-posttest eksperimental dan control group design. Sampelnya adalah siswa kelas II SMP N 3 X Koto, yaitu VIII.4 sebagai kelas eksperimen dan VIII.2 sebagai kelas kontrol. Penelitian ini menggunakan tes kosakata sebagai instrumen dalam pre-test dan post-test. Untuk menganalisis data, peneliti menggunakan uji t sampel independen dan uji t sampel berpasangan di SPSS 24. Hasil penelitian menunjukkan bahwa terdapat pengaruh yang signifikan terhadap retensi kosakata siswa pada siswa yang diajar menggunakan aplikasi kahoot dan para siswa mengajar secara konvensional. Hal ini dapat dibuktikan dengan nilai Sig. (2-tailed) adalah 0,004 < 0,05 pada uji t sampel independen dan nilai Sig. (2-tailed) adalah 0,000 <0,05 dalam uji-t sampel berpasangan. Berdasarkan hasil data dapat disimpulkan bahwa penggunaan aplikasi Kahoot berpengaruh terhadap retensi kosakata siswa.

**Kata kunci:** *Aplikasi Kahoot, Retain, Kosakata*

**Abstract**

This research aimed to examine the effect of using kahoot application to retain students' vocabulary at the second grade of SMP N 3 X Koto. The researcher found some problems related to the students' vocabulary. First, the students were lack of vocabulary. Second, the students were difficult to memorize the vocabulary. Third, the students' motivation was low in learning process. This research used quantitative approach with quasi-experimental research by using pretest-posttest experimental and control group design. The sample was the second grade students at SMP N 3 X Koto, specifically VIII.4 as the experiment class and VIII.2 as the control class. This research used vocabulary test as the instrument in pre-test and post-test. To analyze the data, the researcher used independent sample t-test and paired sample t-test in SPSS 24. The result of research indicated that there was significant effect on retention students' vocabulary between the students who were taught by using kahoot application and the students taught conventionally. It can be proven by the value of Sig. (2-tailed) was 0.004 < 0.05 in independent sample t-test and the value of Sig. (2-tailed) was 0.000 < 0.05 in paired sample- t-test. Based on the result of the data, it can be concluded that the use of kahoot application had an effect to retain students' vocabulary.

**Keywords :** *Kahoot Application, Retain, Vocabulary*

**INTRODUCTION**

Vocabulary is the most important language component that affects to four language skills. There are listening, speaking, reading, and writing skill. In listening, students are expected to have a large vocabulary in order to grasp what the speaker says. In speaking, students should think about what words they would say so that the listener understands. In reading, students must have sufficient vocabulary in order to comprehend the information in the reading material. In writing, students must expand their vocabulary in order to express their thought in written form. They will be unable to write if their vocabulary is limited. Therefore, the main component that must be learned and mastered by the students is vocabulary since it is integrated to four language skills.

The term "vocabulary" refers to a list or collection of words which have meaning (Said, 2020). It means that vocabulary must consist of more than one letter in which the letters are arranged properly in order to produce meaning. Beside, vocabulary is one of the language components that can help the students in language learning. Without vocabulary nothing can be conveyed and very little can be conveyed without grammar (Clouston, 2013). It means that the role of vocabulary in language learning is very important especially for communication even although they are not good in grammar. It showed that vocabulary is the key of a language. The students' ability to use a language depends on how well they master the vocabulary. In short, vocabulary is a collection of words which have meaning and it is the essential component in the success of language.

In learning English, vocabulary is needed. The students' understanding is supported with adequate vocabulary of the subject matter provided by the teacher. The students who have large vocabulary will be easier to grasp the learning material. On the other hand, students will get difficulties to understand the material without sufficient vocabulary. Therefore, the teacher is expected to be able to provide interesting way so that students are more enthusiasm in learning vocabulary. One of the ways is through gamification in learning.

Game is one of the interest activities to students that can help students experience in language rather than just study it (Wright, 2006). In addition, gamification may be the key to harnessing the power of gameplay for educational purposes. Educational gamification is an instructional method that makes learning into a game. Students work through or play activities to learn. It does not mean that all activities are simply fun and games. In gamification, the principles and components of gaming can be applied to vocabulary instruction to meet grade-level standards. Playful learning can influence the way students interact with words. Furthermore, gamification framework can provide a layer of fun to increase student motivation and engagement and the opportunity to engage in wordplay to support vocabulary development (Kingsley & Hagen, 2017). Therefore, it is important for a teacher to take advantage of gamification in learning vocabulary.

Gamification has many applications for students in the education field, including Quizzes, Educandy, Tic Tac Toe, Word Wall, and Kahoot. Those applications have different features and functions in the classroom. However, especially in English vocabulary learning, kahoot can be applied in the learning process. Kahoot encourages students to engage in active learning by pushing them to consider and make sense of vocabulary items to correctly and quickly answer questions. In addition, Kahoot includes attractive features equally and appropriately with English vocabulary materials (Purnawan, 2022). Therefore, kahoot is considered capable of teaching and helping students to be more motivated in retaining vocabulary.

Kahoot as a game-based learning application can be used by teachers and students in learning process. The use of kahoot application in learning vocabulary can help students in improving vocabulary through enjoyable and competitive games (Hidayati, 2019). In addition, kahoot is considered effective for students since it can improve their vocabulary in fun learning (Hadijah, 2020). In comparison to conventional learning and other learning media, kahoot applications have a positive influence. Kahoot as a tool in educational technology is more effective for vocabulary learning than traditional methods. It means that technology makes a difference for students in learning vocabulary than learn conventionally. The use of

kahoot twice a week is able to increase students' vocabulary (Masoud, 2020). It means that kahoot as an interactive technology-based learning has potential to increase students' vocabulary proficiency. Therefore, teacher can use kahoot application to practice vocabulary they have learned and test students' vocabulary through quizzes on Kahoot application (Mawarni, 2021).

Based on the preliminary research by conducted observation and interview at the second grade of SMP N 3 X Koto on March 2023, the researcher found some problems related to vocabulary. First, the students were lack of vocabulary. This can be seen from the students' vocabulary scores were below the Minimum Mastery Criteria (KKM). Second, most students were difficult to memorize the vocabulary. They had difficulties to find out the meaning of the word which has more than one meaning. Third, the students had less motivation in learning process. Teaching and learning process was monotonous in teaching vocabulary to the students.

**METHOD**
This research used quantitative approach specifically experimental research. Experimental research was conducted to examine the effect of certain treatments or independent variable on the variables being treated or dependent variable. Quasi-experimental, true-experimental, pre-experimental, and factorial designs are the four types of experimental research designs that can be employed (Sugiono, 2013). The researcher used quasi-experimental design.

The population of this research was all of the second grade students at SMP N 3 X Koto. The sample was determined by purposive sampling. The researcher took two classes at the second grade students at SMP N 3 X Koto as the sample. The experimental class and control class were chosen from two classes. Both of classes were chosen with some considerations. The researcher did homogeneity and normality test of the students' score to the population. The sample was VIII.2 as control class with 26 students and VIII.4 as experiment class with 26 students.

Furthermore, the researcher used vocabulary test as the instrument in pre-test and post-test. The researcher did the validity and reliability before give the test to the sample class. The test was conducted twice: pre-test and post-test. In addition, the researcher used t-Test formula to analyze the data. The data calculated by using SPSS 24. In this research, the first hypothesis was answered with independent sample t-test. Meanwhile, the second and third hypotheses were answered with paired sample t-test. Then, the score between pre-test and post-test in control and experimental class were compared to analyze the data.

**FINDING AND DISCUSSION**
**Finding**
The first hypothesis was tested using Independent sample t-test with calculated in SPSS 24 to find out whether Ha or Ho is accepted or rejected by comparing post-test in experiment class and post-test in control class. The calculation can be seen below:

**Table 1. Independent Sample T-Test**

|  |  | t-test for Equality of Means | | |
| --- | --- | --- | --- | --- |
|  |  | Sig. (2-tailed) | Mean Difference | Std. Error Difference |
| Hasil Belajar Siswa | Equal variances assumed | .004 | 8.077 | 2.705 |
|  | Equal variances not assumed | .004 | 8.077 | 2.705 |

It was found that the value of Sig. (2-tailed) was 0.004 < 0.05. From the table above, the value is lower than 0.05. It can be concluded that there was significant effect of using kahoot application on students' vocabulary at the second grade students of SMP N 3 X Koto.

In addition, the second hypothesis was tested using Paired sample t-test with calculated in SPSS 24 to find out whether Ha or Ho is accepted or rejected by comparing pre-test and post-test of experimental and control class. The calculation can be seen below:

**Table 2. Paired Sample T-Test**

|  |  | Lower | Upper | T | Df | Sig. (2-tailed) |
|---|---|---|---|---|---|---|
| Pair 1 | Pre-Test Eksperiment Post-Test Eksperiment | -22.336 | -14.972 | -10.433 | 25 | .000 |
| Pair 2 | Pre-Test Kontrol Post-Test Kontrol | -17.368 | -9.555 | -7.097 | 25 | .000 |

It was found that the value of Sig. (2-tailed) was 0.000 < 0.05 in pair 1 and pair 2. From the table above, the value is lower than 0.05. It can be concluded that there was significant difference of students' vocabulary with students who taught by using kahoot application in experiment class than the students who taught conventionally in control class.

Furthermore, the third hypothesis was tested using the output of group statistic from Independent sample t-test with calculated in SPSS 24 to find out whether Ha or Ho is accepted or rejected by comparing the mean score of post-test in experiment class and post-test in control class. The calculation can be seen below:

**Table 3. Group Statistic**

|  | Kelas | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| Hasil Belajar Siswa | Post-Test Eksperiment (Kahoot) | 26 | 70.38 | 8.593 | 1.685 |
|  | Post-Test Kontrol (Konvensional) | 26 | 62.31 | 10.792 | 2.116 |

It was found that the mean score of post-test experiment class and control class was 70.38 > 62.31. From the table above, the mean score of post-test in experiment class was higher than control class. It can be concluded that the students' vocabulary who taught by using kahoot application in experiment class better than the students who taught conventionally in control class.

**Discussion**

Vocabulary is one of the important components that should be mastered by the students. It is important to master vocabulary because it affects to four language skills. The teacher should found an effective way to teach vocabulary to the students by using kahoot application. Based on the data analysis above, the researcher had found the effect of using kahoot application to retain students' vocabulary. According to Kingsley and Hagen (2017), gamification framework can provide a layer of fun to increase student motivation and engagement and the opportunity to engage in wordplay to support vocabulary development. The students are encouraged to retain vocabulary through competitive games on the kahoot application. It means that the use of kahoot application gives positive impact on students' vocabulary.

In analysis data, the researcher used t-Test formula by using SPSS 24 in pre-test and post-test to calculate the data. Firstly, the data of post-test in experiment class and control class were obtained from independent sample t-test. The result showed that there was significant effect of using kahoot application on students' vocabulary. In line with Hadijah and Rondiyah (2020), using kahoot in teaching vocabulary is considered effective for students

since it can improve their vocabulary and at the same time get fun from learning. It means that the use of kahoot application had an effect to the students' vocabulary.

Secondly, the data of the pre-test and post-test in experiment class were obtained from paired sample t-test. The result proved that there was the difference of students' vocabulary between the students who taught by using kahoot application and the students taught conventionally. In line with Masoud and Aljehani (2020), kahoot as a tool in educational technology is more effective for vocabulary learning than traditional methods. It means that kahoot makes a difference for students in learning vocabulary that has been taught than traditional methods (conventionally).

Thirdly, the data of the mean scores of post-test in experiment class and control classes were obtained. The result prove that the students' vocabulary who taught by using kahoot application in experimental class better than the students who taught conventionally in control class. In line with Pede cited in Masoud et.al (2020), using kahoot twice a week is able to increase students' vocabulary score. It means that the students' vocabulary retained by using kahoot application.

Based on hypothesis testing, the result of Independent sample t-test was 0.004 < 0.005 and Paired sample t-test was 0.000 < 0.005. Because the value of Sig. (2-tailed) in Independent and Paired sample t-test is lower than 0.05, Ha is accepted and Ho is rejected.

## CONCLUSION

The purpose of this research was to know whether there is significant effect of using kahoot application to retain students' vocabulary at the second grade of SMP N 3 X Koto. Based on the research questions and finding about the effect of using kahoot application to retain students' vocabulary, the researcher concluded that kahoot application had an effect to retain students' vocabulary, it can be shown as follows

First, there is significant effect of using kahoot application to retain students' vocabulary at the second grade of SMP N 3 X Koto. It can be proven by the finding of Independent sample t-test. The value of Sig. (2- tailed) < 0.05 that was 0.004 < 0.005. It means that the Ha or alternative hypothesis of this research is accepted.

Second, there is significant difference between the students who were taught by using kahoot application and students who were taught conventionally. It can be seen from the finding of Paired sample t-test. The value of Sig. (2-tailed) < 0.05 that was 0.000 < 0.005. It means that Ha or alternative hypothesis of this research is accepted.

Third, the students' vocabulary was taught by using kahoot application better than the students taught conventionally. It can be proven by the output of group statistic of independent sample t-test. The mean score of post-test experiment class and control class was 70.38 > 62.31. It means that the mean score of post-test in experiment class (70.38) was higher than the mean score in control class (62.31).

In conclusion, the use of kahoot application to retain vocabulary for the second grade of SMP N 3 X Koto gave significant effect on retention students' vocabulary. In addition, there is significant difference between the students who were taught by using kahoot application and students who were taught conventionally. Furthermore, the students' vocabulary was taught by using kahoot application better than the students taught conventionally. In brief, kahoot application was recommended to retain vocabulary.

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