THE IMPLEMENTATION OF KAHOOT APPLICATION TO IMPROVE STUDENTS' VOCABULARY AT THE FIRST GRADE STUDENTS OF SMA KRISTEN SAUMLAKI

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ABSTRACT

Kahoot application is an interactive learning platform designed to increase students' engagement in learning through gamification elements. In learning English, Vocabulary is one of the fundamental problems because limited Vocabulary can hinder students' ability to speak, read and write. Besides that, at the first grade students of SMA Kristen Saumlaki who have difficulty in mastering vocabulary caused by a lack of vocabulary, minim of motivation, encouragement from within themselves or the environment, not being used to using new Vocabulary in exploring ideas and learning methods that are not interesting and interactive. so that, this research aims to find out whether the implementation of Kahoot application can improve students' Vocabulary at the first grade students of SMA Kristen Saumlaki and analysis students opinion. This research used qualitative method with the Classroom Action Research(CAR), the subject of this research were class X-1 with total number of students are 27. This research was conducted in one cycle consist of the planning, acting, observing and reflecting stages. Data were collected through observation, interviews, documentation and test(pre-test and post-test). The results shown that students more enthusiastic and motivated in learning vocabulary through Kahoot application. It can be seen in the students result of pre-test was (50) and post-test cycle I was (100). With this result indicates that there were significant difference between before and after treatment. From the data it can be known that the results score of research more than KKM (70). Based on this result researcher can concluded that, the implementation of Kahoot application to improve students Vocabulary at the first grade students of SMA Kristen Saumlaki is effective and it can be an alternative interesting and interactive learning media to increase another skills of students such as listening, reading, writing, speaking and motivation of learning English.
Keywords: Vocabulary, Kahoot Application, Teaching English.

RESEARCH BACKGROUND

Nowadays, in a globalization era technology is increasingly progressing in our life. According to Aghaei et al in Zhang (2022), Technology has become a part of our normal life. It means that various forms of tec hnology. Such as, electronic devices, the internet and digital applications have become so integrated into our daily routines so it is difficult to imagine life without them. Apart from that, technology has also changed the way we interact with people. By technology access to information has become easier, faster and allowing us to connect with people around the world.

Currently, technology has an important role in the world of education. Technology has developed into a tool that is very helpful in the world of education and also in terms of finding and searching for the new information. According to Titirloloby (2023) At the moment, the use of technology in the classroom is becoming increasingly important. The integration of technology into education has revolutionized the way we teach and learn, offering numerous benefits that enhance educational experiences. Overall, the use of technology in education enriches learning experiences, making them more efficient, effective and enjoyable.

Meanwhile, English has an important role as an international language that is widely used in various fields start from science, technology and business. There are general aspects

of English language learning such as reading, writing, listening, speaking, grammar and also vocabulary that can make students interact with people from various countries until different cultural backgrounds. This allows people to expand insight and improve cross-culture communication skill.

Based on the context of teaching English, Vocabulary plays the key role in the ability of students to communicate effectively in that language. Katemba, (2022) stated that, Vocabulary is one of the element of language proficiency that increase overall language skill. It suggests, having a sufficient vocabulary is essential to make communication effective, can make someone able to read, write, listen and fluent to speak. By understanding and using a variety of words, people will be able to communicate better and more effectively in English. Therefore, it is important to continue to increase vocabulary so that the language ability is getting better.

Apart from that, learning English cannot be separated from Vocabulary, because that is the main point for people to learn English and there are also supporting skills such as listening, reading, writing and speaking which help people to build new Vocabulary. Miseviciute & Speckauskiene (2021) stated that, Reading is the most essential ways in which student vocabulary can be built. It means that, when students read various text, they are automatically exposed to new words that they are not familiar with. Through the context of the sentence, students can guess the meaning of the words, which ultimately helps expand their vocabulary. In addition, the habit of reading also improves text comprehension, grammar and the ability to use the words in various situation.

Teaching vocabulary in English language can be done through various methods and strategies. Sarode (2018) claimed that, Teaching strategies refer to methods used to help students learn the desired course contents and be able to develop achievable goals in the future. Before starting the lesson, teachers must have a clear concept of what they want to achieve through the lesson including the specific behaviors or skill expected from students. In addition, teachers must design appropriate teaching tactics or methods to achieve these goals. These tactics can include various activities techniques and tools that will be used during the teaching and learning process to ensure that the planned strateggies can be implemented effectively and efficiently.

Moreover, the use of technology is like an application or online platform can also improve efficiency and effectivity of learning. They allow users to practice English speaking, listening, reading and writing skills anywhere and anytime. These apps can offer a variety of features from grammar and vocabulary exercises to interactive games and story based lessons. Therefore, there is one application that using by researcher to overcome the problem and make the class more effective.

Kahoot is a learning platform based games that allow teacher to create and participate in interactive quizzes online. According to Chiang (2020), Kahoot is a free game based application facilitate fun learning, activate learners with games and uncover students' learning potential. From this statement, teacher can make quizzes with various interesting questions and test students understanding vocabulary through fun and interactive games. Kahoot can also be played in individual and group depends to the teacher. Teachers can arrange this quiz or game by making questions from material that has been given, then share a pin code to students, after that students can enter using the code and can make names or characters based on what they want and online-based quiz using the Kahoot application begins.

Futhermore, the teacher can monitor students vocabulary development individually, this makes it possible to adjust personal learning and provide additional assistance to

students who need it. Besides helping students expand their vocabulary, Kahoot application can also increase critical thinking skills and students learning motivation skills through the features provided by this platform. By using Kahoot features designed to improve critical thinking skills, students can learn to solve problems in a more effective way. Through interactive quizzes that require fast thinking, deep analysis and can help students to develop their critical thinking skill.

Based on the pre-observtion conducted by the researcher at first grade students of SMA Kristen Saumlaki. The researcher found that there were some indicators identified as: Students are lack of Vocabulary, lack of understanding the meaning of the word, they are not able to memorize new word, they are unfamiliar to using words in the right context, they fear to explore their idea, they didn't know how to build sentence and lack of motivation.

Based on the background, the teacher must find the right way to overcome the problems. So the teacher must use good and appropriate methods or strategies to solve the problem faced by students. Using the right technique can help students active in learning and capable to mastered the vocabulary. Learning strategies are also meaningful as patterns or sequences that are carried out by the teacher consciously and systematically to make the learning process run effectively Jovanovi et al. (2017). So that, it is one of the strategies used to solve the problem in vocabulary is to use the Kahoot application as an interactive learning media to make learning more fun and effective.

From the statement above, the researcher interested to do the research in this school with the title: *"the implementation of kahoot application to improve students' vocabulary at the first grade students of sma kristen saumlaki".*

METHODOLOGY

In conducting this research, the researcher used Classroom Action Research(CAR). This research was conducted to find out the basic of practical knowledge to improve methods achieved on a small scale in the classroom, researcher use this method to improve the quality of research and also researcher aims to find know the effect of students' difficulties in learning vocabulary so they can find ways to improve students' vocabulary.

According to Gaspersz & Uktolseja (2020), Classroom Action Research is reflective research by taking certain actions aimed at improving learning practices in the classroom professionally and has an essential role in scientific research because it determines the quality of research result. It means that by the research design can help teachers to find out the problems that faced by students during the lesson in the classroom.

Classroom Action Research function as a tool for solving problems that arise in class, as a tool for practice students learning understanding of some topic and as a tool for creating innovation learning. From this eplanation the researcher want to solve the problems in teaching and learning activity that the teacher has found in her own class as first grade students of SMA Kristen Saumlaki.

RESULTS AND DISCUSSION

In this section, the researcher discuss the result of the research that has been conducted. but before that, the researcher review the problems obtained from the pre-observation result. Pre-observation is done to find out the pre-ability of students Vocabulary. Based on the pre-observtion conducted by the researcher of first grade students at SMA Kristen Saumlaki. The researcher found that there were some indicators identified as: Students are lack of Vocabulary, difficult to understanding the meaning of the word, unable to memorize new word, unfamiliar to using words in the right context, fear to explore their

idea, unable to build sentence and lack of motivation.

Result of Pre-Test

        The purpose of Pre-Test that conducted in August 21th, 2024 at grade X-1 was to identified students' knowledge in vocabulary. In pre-test, students have to answer the questions that consist of 20 questions divided into two types such as 15 questions for multiple choice and 5 questions for true or false. When taking the test, they were very enthusiastic and competitive in answering the questions. Their timing only 20 seconds to finished the questions, so they had to answer quickly and accurately.

        The pre-test lasted for 45 minutes, before starting the students were directed to listen to a vidio story about cinderella first, most of the students had begun to understand the contents of the text well. The questions consist of 20 multiple choice and true or false were arrangged according to the students' abilitie, so that students could do them well. To doing the pre-tes, the class divided into two session. The first session are them who bring the smartphone able to play first. and second session who did not bring the sma rtphone have to wait until the first session finished.

        After the pre-test finished, the teacher looked at the result and make the correction of their answer and guided them to be more focuse. For the result of pre-test can be seen in the next page:

Table 1. The Result of Students' Pre-Test

No	Students' Initial	Pre-test
1	AL	50
2	AB	45
3	BL	15
4	CB	55
5	DW	60
6	DF	55
7	FT	20
8	GW	50
9	GO	60
10	GK	50
11	IL	50
12	JS	5
13	KD	40
14	ML	50
15	NL	5
16	OT	45
17	SM 1	50
18	SM 2	45
19	VF	50

Table 2. The Rubric score of Students' Pre-Test

No	Criteria	Score	Frequency	Categories
1	Excellent	91-100	-	Passed
2	Good	79-90	-	Passed
3	Average	61-75	-	Passed
4	Poor	51-60	2	Failed
5	Verry Poor	<50	17	Failed
Total			**19**	

Based on the table above, there were 19 students follow the pre-test. But it shown that, students have not fully mastered the Vocabulary. In addition, no students got excellent, good and average criteria. However, there were 2 students who got poor criteria and 17 students who got very poor criteria. From the data above, it can be conclude that students' Vocabulary was still low, and has not fulfilled the Minimum Completion Criteria (KKM) of 75%. Therefore, the researcher need to improve their vocabulary by using Kahoot application.

Result of Cycle 1

The process of teaching and learning in the first cycle was conducted on July 29th until September 23rd 2024. The description of the research result is elaborated as follow:

1. Planning Stage

In the planing stage, the researcher collaborated with the advisor and English teacher to arrange research instrumen, lessons plan and materials. The researcher focused on learning Vocabulary using Kahoot Application. The learning process was using a lesson plan or RPP based on the existing curriculum. Besides that, to prepare the lesson plan, the researcher also made an observation sheet and interview guidline. The observation sheet used to observe the students from the reseacher side during the learning process and used to observe the researcher from English teacher side in the last meeting of learning process. Additionally, the interview guidline used to interview the teacher and students before and after implementing Kahoot application. Apart from that, the researcher would provide steps in conducting research in cycle I, for more complete information can be seen in the table bellow:

Table 3. Planning Stage

Meeting	Topic	Sub topic	Instructionl Activities	Implementi on Strategy
1st Meeting Aug 21th, 2024 at 07:45-10:00	Narrative Text	The fairytale of Cinderella	1. Do the pre-test of students Vocabulary 2. Do the observation 3. Do the interview for English teacher and students	1. The teacher split the students into two sessions 2. Guided the students to use Kahoot application
2nd Meeting Aug 26th, 2024 at 07:45-10:00	Narrative Text	1. Read fairytale of Cinderella and analyze the generic structure 2. Language features: Action verb, adverb of time and time conjunction	1.Students listening about the recording 2. Read the story of Cinderella 3. Do the Exercises about identify the generic structure, social function and language features	1. Split the students into four groups (each group consist of 5-6 students) 2.Discussion 3. Give feedback (checking for students understanding) 4. The teacher split the students into two sessions

				5. Guided the students to use Kahoot application
3rd Meeting Sept 02nd, 2024 at 07:45-10:00	Narrative Text	1. Legend stories about The King Athur and the Keris of Mpu Gandring 2. Noun and Verb of The King Athur and the Keris of Mpu Gandring stories	1.Students Read the stories of The King Athur and the Keris of Mpu Gandring 2. Find out the Noun and Verb of both the stories 3. Do the Exercises	1. Ask the students to work in individual 2. Give feedback (checking for students understanding) 3. The teacher split the students into two sessions 4. Guided the students to use Kahoot application
4th Meeting Sept 09th, 2024 at 07:45-10:00	Narrative Text	1 Fantasy story about The Superman 2. The adjactive of Superman story	1. Students read the story individually in front of the class 2. students discuss the task with friends 3. Find out the adjactive that discribe every character of the Superman story 4. Do the test of students' vocabulary	1. Split the students into four groups (each group consist of 5-6 students) 2.Discussion 3. Give feedback (checking for students understanding)
5th Meeting Sept 23th, 2024 at 07:45-10:00	Narrative Text	1. Make the story related with the narrative text	1. Reviewing the material 2. Each group choose one of the story from four stories 3. Do the excercise 4. Each group do the presentation in front of the class 5. Do the post-test of students' vocabulary	1. Split the students into four groups (each group consist of 5-6 students) 2.Discussion 3. Give feedback (checking for students understanding) 4. The teacher split the students into two sessions 5. Guided the students to use Kahoot application

Based on the table above, the researcher designed fifth meetings in the first cycle. The researcher prepared every aspect that needed in the teaching and learning process, such as the material and the test using Kahoot application in every meetings except in 3rd meetings. The researcher expected that used Kahoot application can solve the problem of students vocabulary.

2. Acting Stage

1. First Meeting

The first meeting held on August 21th, 2024 at 07:45-10:00, researcher entered the class and for the first time researcher opened the class by follow the lesson plan. At this meeting, researcher had not given the material but gave the pre-test for the students by using Kahoot application. The pre-test questions consist of 20, 15 for multiple choice and 5 for true or false. Before going to the Kahoot application, researcher split the students into two sessions, next guided them in pre-test using Kahoot application. The purpose of giving the pre-test to students is to find out how much vocabulary the students got previously.

2. Second Meeting

The second meeting start on August 26th, 2024 at 07:45-10:00 at this meeting, researcher started the learning process with the topic Narrative text about fairytale of Cinderella story, generic structure and language features. For the activities in this meeting were follow, first students listening the recording about Cinderela story, read the text, do the exercise and identified the social function, structure text and language features of Cinderela story. In addition, researcher split the students into 4 groups that consist of 5-6 in each group and do the discussion, next checking their understanding about the material. after that, split them into two sessions to use kahoot application to test their Vocabulary.

3. Third Meeting

The third meeting started on September 02nd, 2024 at 07:45-10:00, at this meeting researcher provide the Narrative text by the sub topic legend story, noun and verb of The King Arthur and The Keris of Mpu Gandring based on the Pathway to English book page 3 for phase E grade X by Erlangga. at those stories, students have to read and understanding the meaning after that find out the noun and verb by individually of those story. The next, checking students understanding of Vocabulary, split the students into two sessions and use Kahoot application to test their Vocabulary.

4. Fourth Meeting

The fourth meeting held on September 09th, 2024 at 07:45-10:00, with the fantasy story and adjactive of Superman. furthermore, teacher started the learning by asking for the students to read the story. Each students had one sentence and must to read it individually in front of the class. After that, students discussed the exercise about the adjactive that discribe every character of the story by work in group based on the Pathway to English book page 12 & 13 for phase E grade X by Erlangga about the next, checking for students understanding.

5. Fifth Meeting

The fifth meeting conducted on September 23th, 2024 at 07:45-10:00, at this meeting, researcher reviewing the last material and then giving some topic for the students to discussed in group after that each group doing the presentation in front of the class. But before that, students split in 4 group consist of 5-6 students. After presentation, checking students understanding of Vocabulary. And the last, split the students into 2 sessions and do the post-test using Kahoot application to know their final score of Vocabulary that had been taugh. And finally, close the class.

3. Observing Stage

a. Observing from the teacher side to researcher

Based on the result of observing, the teacher watched directly in class how the teaching and learning process was carried out. For the observation checlist there were 17 indicators, which divided into 3 activities, pre-activities, while-acivities and post-activities. moreover, observations made by the English teacher to the researcher who acted as a teacher to conduct the research showed that the respons given by the teacher was very good from pre-activities, while-activities to post-activities. there was only one indicator that was not carried out, but it can be concluded that the indicators listed on the observation sheet were carried out well during the teaching and learning process.

b. Observing from the researcher's side to students

At the observing stage, the researcher conducted observation at the first grade students of SMA Kristen Saumlaki in 5 meetings. To conduct this observation, there are 10 indicators that have been made and filled it based on the each meeting. In addition, the researcher also conducted observation on students outside of the indicators. For that, at the first meeting the researcher conducted a pre-test on students' Vocabulary using Kahoot application. However the average score obtained was 50 even the very poor was 5, it was very different from the KKM which is 75. It because students were late in answering questions so that affected of their score. Not only for the time delay in answering the pre-test questions but also poor of internet connection and students who still do not understand how to use Kahoot application. Therefore, the researcher saw this into consideration to guide students so that even with the same questions and time, they could answer all of the questions. Finally when working on the post-test they got Excellent score above the KKM which is 75.

Apart from that, the researcher would provide the result of observing from researcher side to students based on the observing guidline for more complete information can be seen in the table bellow:

Table 4, Observation from the researcher's side to students

No	Indicators	Students' responds
1	Students like to learn English	1. (1st Meeting), most students were not like learning English. 2. (2nd Meeting), students started to like learning English because they considered it something new and interesting. 3. (3rd Meeting), students start to get used to learning English and show happiness in participating in learning activities. 4. (4th Meeting), students show happiness when they succeed in using English to communicate. 5. (5th Meeting), students like learning English because they feel real benefits from learning it, such as the ability to communicate with foreigners and keep up with the times.

2	Students are motivated to learn English	1. (1st Meeting), most students are not motivated and feel difficult to learn English vocabulary.
		2. (2nd Meeting), students show enthusiasm and interest in getting involved in English learning.
		3. (3rd Meeting), students begin to get used to English learning and show improvement in understanding the material.
		4. (4th Meeting), students begin to show courage in speaking English, although there was still mistaken
		5. (5th Meeting), students show significant improvement in English language skills. especially in Vocabulary
3	Students actively find out new words and show coriosity about expanding their vocab ulary	1. (1st Meeting), many of them did not show interest in exploring or finding new words during the lesson.
		2. (2nd Meeting), students began to show interest in finding new words, but there were still students who tended to be passive.
		3. (3rd Meeting), students showed greater initiative in finding new vocabulary.
		4. (4th Meeting), students actively found new vocabulary and showed high curiosity.
		5. (5th Meeting), the class showed a very positive atmosphere, with all students involved in the process of finding and learning new vocabulary.
4	Students are focus on learning Vocabulary in the classroom	1. (1st Meeting), most students seemed confused and not interested in participating in English learning.
		2. (2nd Meeting), students showed improvement in learning. However, there were still some students who seemed less involved.
		3. (3rd Meeting), students showed enthusiasm and were actively involved in learning because of technology-based learning.
		4. (4th Meeting), students were increasingly involved and showed greater interest in Vocabulary learning.
		5. (5th Meeting), the class showed a very positive atmosphere with high students

		involvement. They were more independent and showed a desire to learn more Vocabulary.
5	Students pronounce vocabulary correctly in English	1. (1st Meeting), most students showed difficulty in pronouncing new vocabulary in English. 2. (2nd Meeting), most students seemed hesitant and sometimes avoided pronouncing difficult words. 3. (3rd Meeting), students began to show progress in pronunciation. 4. (4th Meeting), students were able to pronounce vocabulary correctly in more complex contexts. 5. (5th Meeting), most students showed improvement in pronunciation and were more confident when speaking in front of the class.
6	Students use precise and specific vocabulary to express their thoughts and ideas	1. (1st Meeting), Most students still use general and less specific vocabulary when expressing their ideas. 2. (2nd Meeting),students tend to use simple and sometimes inappropriate words to explain their thoughts. 3. (3rd Meeting), students trying to use more specific vocabulary, although there was still mistakes in word choice. 4. (4th Meeting), students begin to actively use more precise and specific vocabulary in expressing their ideas. 5. (5th Meeting), most students have shown significant progress in using richer and more precise vocabulary.
7	Students actively ask when they don't understand the vocabulary	1. (1st Meeting), some students confused, and no one actively asked questions. 2. (2nd Meeting), most students seemed embarrassed to ask when they did not understand the vocabulary. 3. (3rd Meeting), students began to ask more questions, both when the material was delivered and in group discussions. 4. (4th Meeting), students were more actively to ask and the classroom atmosphere

		increasingly supported two-way communication.
		5. (5th Meeting), there was a significant increase in students' activeness in asking questions. The habit of asking about vocabulary that was not understood had begun to form.
8	Students able to memorize new vocabulary	1. (1st Meeting), most students have difficulty remembering new vocabulary that is introduced.
		2. (2nd Meeting), students were more likely to remember words that they have heard or used frequently in their daily lives.
		3. (3rd Meeting), most students start to remember new vocabulary faster, especially when using the Kahoot application.
		4. (4th Meeting), most students start to be more confident in memorizing new Vocabulary after using the interactive technology-based application, namely Kahoot.
		5. (5th Meeting), most students are able to remember more complex vocabulary better with the Kahoot application.
9	Students actively engage in vocabulary building activities, such as reading and word games	1. (1st Meeting), most students are less active in trying to find out new words from the texts they read.
		2. (2nd Meeting), some students are still passive in reading activities and tend to wait for instructions from the teacher.
		3. (3rd Meeting), most students begun to show initiative in finding the meaning of new words while reading.
		4. (4th Meeting), most students are increasingly active during reading sessions, some even take the initiative to note down new words and discuss with friends.
		5. (5th Meeting), most students show significant vocabulary improvements and feel more confident in using Vocabulary
10	Students differentiate between formal and informal vocabulary	1. (1st Meeting), most students are not familiar with the concept of formal and informal Vocabulary.

		2. (2nd Meeting), most students still confused to distinguishing some words that are considered formal but are often used in informal situations.
		3. (3rd Meeting), some students still have difficulty using formal Vocabulary correctly in academic situation.
		4. (4th Meeting),There is an improvement in students' Vocabulary formal and informal.
		5. (5th Meeting), most students showed significant improvement in using appropriate formal and informal Vocabulary to the context.

4.2.3. Result of Students' Post-test

The post-test that conducted in September 23th, 2024 at grade X-1 was aims to know the improvement of students' vocabulary while using Kahoot application. To doing the post-test, students have to answer the questions that consist of 20 questions divided into two types such as 15 questions for multiple choice and 5 questions for true or false. The time for each questions were 20 seconds, Vocabulary used in this test is related to the Narrative text material in the last meeting.

Then before continue, the students divided into two session. The first session are them who bring the smartphone able to play first. and second session who did not bring the smartphone have to wait until the first session finished so they could used their friend's smartphone.

Table 5. Result of Students' Post-test

No	Students' Initial	Post-test Cycle I
1	AL	90
2	AB	90
3	BL	90
4	CB	90
5	DW	95
6	DF	100
7	FT	100
8	GW	85
9	GO	95
10	GK	95
11	IL	95
12	JS	95
13	KD	85
14	ML	90
15	NL	100
16	OT	75
17	SM 1	100
18	SM 2	90
19	VF	95

Table. 6. Rubric Score of Students Result

No	Criteria	Score	Frequency		Categories
			Pre-test Score	Post-test Score	
1	Excellent	91-100	-	10	Passed
2	Good	79-90	-	8	Passed
3	Average	61-75	-	1	Passed
4	Poor	51-60	2	-	Failed
5	Verry Poor	<50	17	-	Failed
	Total		19	19	

Based on the post-test results cycle I in the table above, it shown that there was a comparison between the pre-test and post-test results. Where the pre-test results shown that no students got score above the KKM which is 75, while for the post-test results shown that students have got the KKM. From the results of the post-test, there were 19 students who took the test. Which is, 10 students got 91-100 with excellent criteria, 8 students got 79-90 with good criteria and 1 students got 75 with average criteria. While for the poor and very poor cirteria there are none. Therefore it can be concluded that, students have got the criteria and there had been improvement of students Vocabulary. It was evident from the post-test value of cycle I which is better than the pre-test after using Kahoot application.
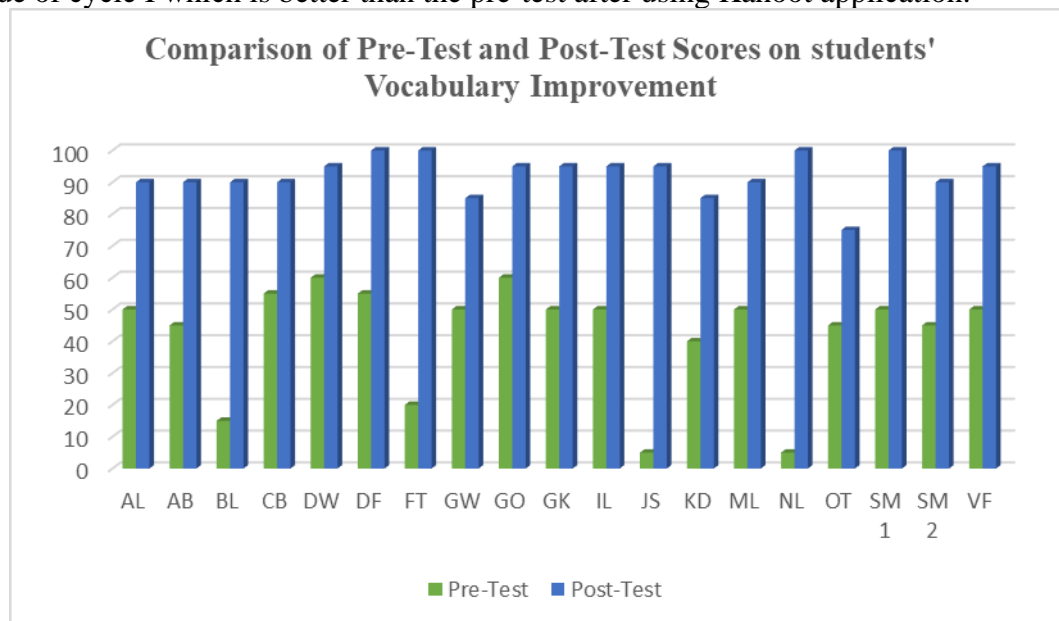

Diagram 1. Comparison of Pre-Test and Post-Test Scores

This is the bar chart that comparing the pre-test and post-test scores of students regarding the Implementation of Kahoot application to improve students' Vocabulary at the first grade students of SMA Kristen Saumlaki. In addition, the green bars represent t o the pre-test scores and the blue bars represent to the post-test scores showing a clear improvement after using Kahoot application.

Result of Interview

For the interview result researcher divided into two, one for the English teacher and one for the students. For the complete explanation could be seen bellow:

a). Result of teacher's interview

Before the teaching and learning process began, the researcher interviewed the English teacher first to know how far she used Kahoot application in the teaching and

learning process. Here is the interview results of the teacher, with the name's initial T.A.H.

Based on the results of the interview on questions number 1, 2 and 3 shown that, the informant has known the Kahoot application and has used it but rarely in class especially for the research subject. It can be seen in the answer bellow "I rarely to use Kahoot application". It means that, only a small number of students know about it. After that in the following answer, "I feel difficult when using Kahoot, sometimes I forgot how to use or play it in the classroom" from this answer shown that informant still lack of technology. However when researcher asked about students participation the informant said that, "Students were very happy and anthusiastic" and supported by the following answer "According to me, Kahoot is very good and interactive that can make students enjoy when playing it" It can be said that, Kahoot has a positive impact on students by increasing students involvement and enthusiasm in Vocabulary learning. However there are difficulties faced by students during the Vocabulary learning process using Kahoot where some of the students do not have handphones and internet data. "The difficulties faced by students are they don't have handphone and internet data" Having handphone and internet data is very influential in technology-based learning so that, it must be concern for teachers. Apart from that, the informant hope in the future she wants to improve reading and speaking skill using Kahoot application. "I want to improve their reading and speaking because when they play Kahoot, they can reading new Vocabulary and try to speaking in English."

b). Result of students's interview

In the second interview was conducted with students after the teaching and learning process completed to find out their opinions about Kahoot application in improving their vocabulary. This interview was conducted with 3 students from 27 students in class X-1 and for the questions consist of 10 and for the types of interview researcher used structured interview where the researcher only give questions based on the list that have been prepared. From the results of students interview, it can be seen in the interview result bellow with the first informant ML:

Firstly, researcher asked about in formantopinions about English then the answer "English is a foreign language that can help us to speak with foreigners or can be a teacher too." This makes students have a focused motivation to learn English because of the practical benefits they feel. Such as the ability to communicate with people from various countries, broaden cultural horizons, and increase career opportunities in the global world. With this understanding, they not only see English as a compulsory subject, but also as an important tool that supports personal and professional success in the future. Next, the informant answered regarding the use of technology in learning in the context of Vocabulary. "In my opinion, using technology is very helpful to expand my Vocabulary." As we know that, the use of technology such as application, media or website can help students to develop their English in Vocabulary context. In addition, technology is considered a learning support tool that makes it easier for students to access vocabulary learning materials effectively. With various learning applications and websites, students can learn Vocabulary anytime and anywhere, according to their needs and learning speed. Beside that informant replied, ""Kahoot is more fun than conventional methods." It means that, the interactive and gamification features of Kahoot create an interesting learning experience, so that students are more involved in the learning process. with elements such as competitive quizzes, time challenges and direct feedback, Kahoot change the learning atmosphere to be more effective. This is supported by following answered, "Kahoot is very helpful." and "I feel more confident using Vocabulary after using Kahoot application." So it's concluded that, Kahoot application provide an effective learning experience and

supports the development of language skills both cognitive and affective. In this way, Kahoot not only facilitates mastery of Vocabulary but also supports the development of students' social and emotional skills such as self-confidance, motivation and enthusiasm for learning.

The next is interview results of second informant SM:

As the same way, researcher started with students' opinion of English then the answered "English is not only focused on speaking but also on writing and reading." It shown that students have a comprehensive understanding of the importance of English in various aspects of communication. Thus, students have a holistic view of the role of English in facilitating intercultural interactions and preparing them to face the challenges of an increasingly connected world. Therefore, students have to improve their skill on technology because in the modern era technology is considered to provide greater convenience and accessibility to improve English vocabulary. It can be supported by informant answer "Using technology is very helpful to expand my Vocabulary." Means that, technology brought that positive impact in informant life. In addition, technology also allows for more personalized learning, where students can learn at their own pace and needs, and get immediate feedback that accelerates the learning process. Besides that, researcher asked about the main point which is Kahoot application then informant said "Kahoot can improve my interest." and also "Kahoot is a more fun method". The Kahoot application utilizes gamification and interactive elements to attract students' attention, thereby increasing learning motivation. These interactive elements trigger curiosity and competitive spirit, which significantly increase students' learning motivation, so that they feel more motivated to master the material and try harder to achieve better results. "Kahoot can help me to mastering Vocabulary" and "I feel more confident." Application-based learning such as Kahoot not only helps in cognitive aspects, but also improves affective aspects, such as students' confidence in speaking English.

The next is interview results of second informant CLB:

Based on the interview questions given by researcher to the informant then informant answered "English is an international language that can help us to communicate with other people." This view reflects students' intrinsic motivation to learn English as an international language.   The next is about the effectiveness of technology in expanding vocabulary. "Using technology can help us to expand our vocabulary". From this answer, technology is considered an effective learning media because it provides a more interactive and interesting learning experience than conventional methods of students learning. Furthermore, using technology such as application can help students to be more active, motivate and confidance in learning. " Kahoot can improve our increase in Vocabulary" and the next answered is "Because Kahoot is fun to used in learning." The interactivity and gamification factors that Kahoot has make learning more interesting and relevant to today's students.

The Demonstration of Implementing Kahoot application

Implementing Kahoot application was very good to improve students' Vocabulary but certainly researcher or students have to understand how to use Kahoot application. Such as, for students they have to know how to enter the pin, name, and how to play it. For the complite information can be seen in the figure bellow:

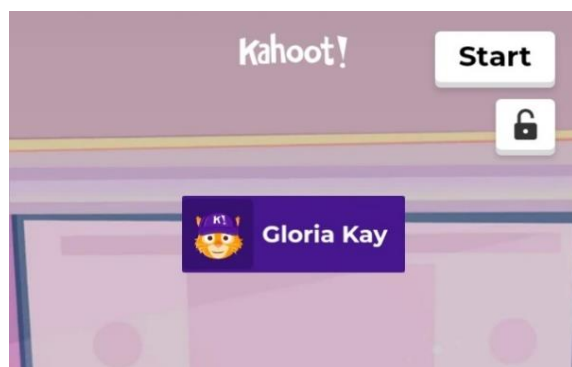complite information can be seen in the figure bellow:

1. Teacher ask students to access www.kahoot.it and enter the PIN.
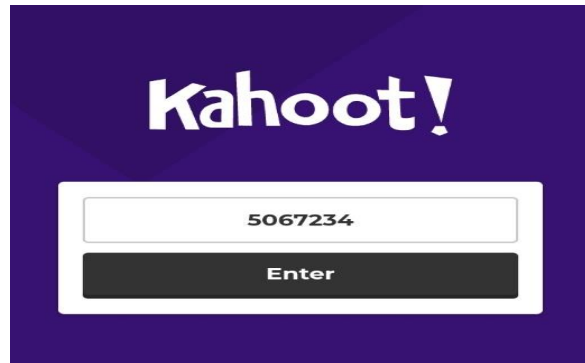
2. Students should access kahoot.it and enter the PIN using their own smartphone.

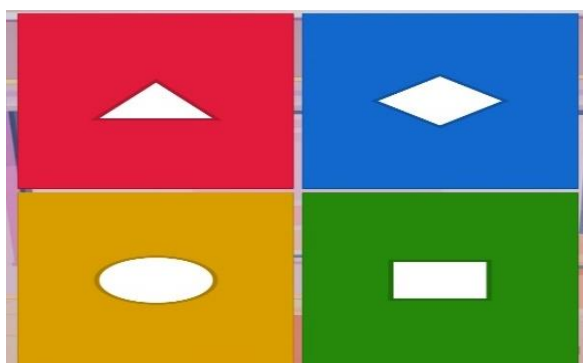3. After that, enter the Nicname and clik OK, go!

4. Students name who has registered their PIN will be shown in the teacher device.

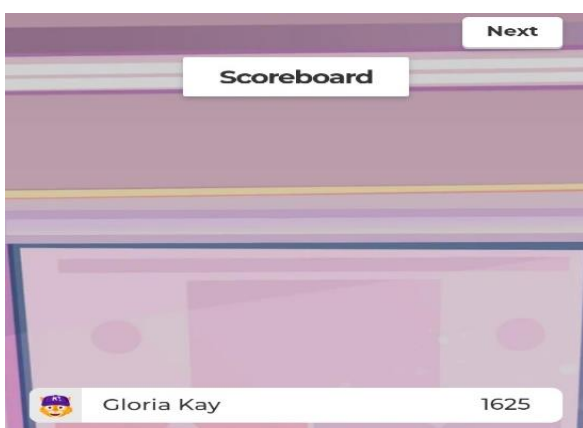5. From the teacher's device click start to conduct the test.

6. Teacher displays the question one by one. Students have 20 second to answer the correct option.

7. Students have to answer the questions that related with these colours.

8. After answer the questions, then it will be shown on the teacher's device

9. The scoreboard that shown the students' final score of each question.

10. At the end of the test, it will display the result which students have the highest score and be the winner.

Figure 2. Implementation Kahoot in the Classroom

4. Reflection

After implementing the cycle 1 and saw the results, the researcher felt sufficient with the results of students' vocabulary. For further explanation, can be seen in the table bellow:

Table 7. Reflection

No	Comparator	Before implementing Kahoot application	After implementing Kahoot application	Reflection
1	Students involvement in learning activities	Students tend to be passive and difficult in participated in discussion	students active in learning. However, there were still some students who seemed less involved.	-Students shown the interest in learning process - Lack of comprehension to used Kahoot application as media. - Lack internet connection - Lack of smartphone

2	Understanding of concepts taugh	Students have difficulty understanding new material	Improved understanding is seen after usig Kahoot	-Kahoot helps students directly check their understanding of the material. -Students are more confident in working on the Kahoot.
3.	Students speed in answering the questions	Students are slow in solving questions and often hesitate	-Students are more confident -Students feel challenged and feel more motivated	-Students look confused in answering the questions. -Delay in answering the questions
4	Students motivation in learning	Students low of motivation and only some students seem interested	-Motivation increased because of the quiz interactive in Kahoot.	-Students feel happy with healthy competition in class -Students feel fair with the score they got.
5	Ability to remember the materil	Students have difficulty remembering material from previous meeting	Students are able to remember the material better with repetition through Kahoot	Kahoot help students reflect on mistakes and improve their understanding of Vocabulary

Based on the table above, it can be explained that, using Kahoot application in Vocabulary learning has proven effective in improving students' Vocabulary. Before using Kahoot, the learning method tended to be monotonous with passive activities, such as listening to teacher explanations or working on written questions. However after Kahoot was used,there was a positive change; students become more active, motivated and involved in the learning process. Kahoot also provides gamification elements that make learning more interactive, competitive and fun. In addition, this application also helps teacher monitor students understanding of vocabulary in real-time, allowing for faster and more accurate evaluation.

Research Discussion

This research aims to determine "The Implementation of Kahoot Application to Improve Students' Vocabulary at The First Grade Students of SMA Kristen Saumlaki." Based on the results of the research obtained through tests and interviews with students, the following discussion will describe the findings of this research:

The results of the research showed a significant increase in students' vocabulary mastery in using Kahoot application. It can be seen from the results of tests using Kahoot showing an increase in the average score of students. Most students have limited vocabulary mastery, indicated by the relatively low average pre-test score. However, after using Kahoot in cycle 1, the post-test results showed that students not only understood more new words, but were also able to use the vocabulary in appropriate contexts. This finding is supported by Zahro (2024), Kahoot could significantly aid in the improvement of their vocabulary acquisition for learning English and could increase their motivation to learn new vocabulary.

Kahoot success in improving students' vocabulary can be attributed to its interactive and competitive nature. Through Kahoot, students are actively involved in the learning process because the application provides a fun learning experience through interesting quiz games. Students tend to be more motivated to learn vocabulary because they feel like they

are learning while playing. Furthermore, the quiz format in Kahoot allows students to repeat the material in different ways, thus strengthening their memory of the vocabulary that has been taught.

Based on the interview results, the majority of students gave a positive response to the use of the Kahoot application in vocabulary learning. They stated that this application makes learning more fun and not boring. In addition, students feel more confident in remembering and using new vocabulary because they can practice through an easy-to-understand quiz format. Stated by Rojabi et al(2022), Kahoot are successfully introduced new content, and provide more interactive and fun learning so that students are motivated to compete and master the language material. Some students also said that Kahoot helped them understand the meaning of words faster because there are answer choices that make them think critically.

However, there were several obstacles expressed by students during the implementation of the Kahoot application. One of them is limited internet access which sometimes disrupts the smooth implementation of the quiz. In addition, some students felt that the time given to answer questions was sometimes too short, so they did not have enough time to understand the questions properly. However, these obstacles can be overcome with better planning and adjustments to student needs.

The findings of this research also support previous theories on technology-based learning which conducted by Wulan Zulfirah et al (2023) "The Effectiveness of Kahoot Game in Improving Students Vocabulary Mastery" In addition, followed by Dias Andris Susanto (2021) "The Effectiveness of Fun Game Kahoot as A Media in the Teaching of Vocabulary". This suggests that the integration of technology into the learning process can have a positive impact on language learning, especially in terms of vocabulary mastery.

Based on the results of the research and analysis, it can be concluded that the implementation of Kahoot application can significantly improve the vocabulary at first grade students of SMA Kristen Saumlaki. In addition, students gave positive responses to the use of Kahoot because this application presents a fun and effective learning atmosphere. Thus, Kahoot can be recommended as one of the innovative learning media that supports vocabulary teaching in the classroom.

CONCLUSIONS AND SUGGESTIONS

Transformasi digital dalam logistik berfokus pada peningkatan efisiensi operasional dan pengambilan keputusan melalui penggunaan teknologi seperti cloud computing, IoT, dan kecerdasan buatan. Proses ini tidak hanya melibatkan adopsi teknologi, tetapi juga perubahan dalam strategi bisnis, struktur organisasi, serta pengembangan kapasitas sumber daya manusia. Dalam konteks logistik, teknologi ini membantu mengintegrasikan seluruh rantai pasokan dan memungkinkan pemantauan inventaris serta distribusi barang secara real-time. Meskipun transformasi digital memberikan berbagai manfaat, seperti peningkatan efisiensi dan akurasi data, perusahaan harus mengatasi tantangan yang muncul, seperti ancaman serangan siber, kerusakan data, dan kebutuhan akan infrastruktur yang memadai. Dengan menerapkan strategi yang tepat, perusahaan dapat memanfaatkan peluang yang ditawarkan oleh digitalisasi logistik, seperti layanan e-logistik yang lebih cepat dan efisien, sekaligus memastikan kepatuhan terhadap protokol keselamatan dan keamanan. Adaptasi terhadap teknologi digital memerlukan pelatihan berkelanjutan bagi karyawan serta evaluasi berkala untuk mengoptimalkan kinerja logistik dalam jangka panjang.

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