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IMPROVING STUDENTS' VOCABULARY USING KUBIS APPLICATION

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STKIP MUHAMMADIYAH ACEH BARAT DAYA

ABSTRACT

Vocabulary is the first language component that students should master. However, many students faced problems in mastering vocabulary. This study aims to find out the improvement of students' vocabulary through the use of Kubis and to investigate the obstacles faced by the students in learning vocabulary by using the Kubis application. This research employed Mix-method. The data was collected using the test and interview. Seventh-grade students were involved in this study as the respondents of the research. The result of this study showed that students' vocabulary mastery was improved after learning by using Kubis application. However, the data also revealed that there are some obstacles students faced when using Kubis. The difficulties are caused by several reasons, such as technological barriers, passive students, the restriction on using smartphones by the parents, and the application is less interesting for students.

Keywords: Kubis Application, Improvement, Obstacles, Vocabulary

A. INTRODUCTION

English is a global communication language that is pivotal in various aspects of international discourse (Crystal, 2022). Proficiency in English opens up academic opportunities, enhances career prospects, and promotes cultural exchange. Furthermore, English influences other languages and cultures, shape global communication, and foster social mobility (Montgomery & Crystal, 2022). With its pervasive presence in various fields, English remains an essential tool for personal, professional, and social development. According to Richard (2001), vocabulary is a part of language proficiency and is the main foundation in determining how well a person can speak, listen, read, and write. For students, possessing a rich vocabulary is essential in facilitating their English learning journey, as it greatly improves their overall learning capabilities. To communicate effectively, students need to have adequate vocabulary (Huyen & Nga, 2013). Good vocabulary development becomes crucial in learning English, directly impacting overall language proficiency.

Furthermore, Fletcher & Miller (2021) defines that vocabulary is an inherent part of language learning as it is paramount and a cornerstone for effective and comprehension communication. Furthermore, Vocabulary encompasses the entire range of words and expressions that individuals understand and employ in their spoken and written language

(Jackson & Amvela, 2007). Vocabulary mastery allows students to express thoughts, ideas, and emotions effectively (Hiebert & Kamil, 2005). Vocabulary is the main point for students to perform well in using English. It provides the necessary tools for learners to construct sentences, engage in conversations, and comprehend written or spoken texts (Phye, 1996). A rich vocabulary enhances linguistic competence, enabling individuals to articulate their thoughts precisely and clearly. This fluency is vital in real-life communication scenarios, where choosing the right words swiftly and accurately is essential for effective interaction. A well-developed vocabulary enables learners to engage with complex subject matter, express sophisticated ideas, and participate effectively in intellectual or professional discourse. Effective vocabulary acquisition involves memorization and understanding words' usage, context, and nuances. Exposure to diverse linguistic contexts, regular reading, and active conversation participation all contribute to expanding vocabulary. Thus, vocabulary plays a crucial role in language fluency (Bender & Larkin, 2009).

However, vocabulary mastery is still difficult for students since they learn English as a foreign language. Based on the phenomena, the main challenge in English language learning at SMPN 1 Jeumpa is students' lack of vocabulary, affecting the problem in all English skills. When students are poor in vocabulary, they feel English learning is extremely hard. To solve students' problems, teachers can integrate the use of technology as learning media. Mobile application activities, games, and real-life contextual examples can make the learning experience more engaging and relatable. Integration of technology, such as interactive vocabulary applications or online resources, can also provide students with a dynamic and personalized learning environment (Chapelle, 2023).

According to Kame'enui dan Baumann (2012), media development in learning vocabulary has changed rapidly. It has transitioned from conventional methods to advanced media technology. Initially, conventional media such as textbooks, flashcards, and printed materials were the primary resources for vocabulary acquisition (Mishra & Sharma, 2023). However, these media forms were still one-directional, limiting the learner's interaction and control over the pace of learning (Nation, 2008). Thus, technology can be applied by teachers in teaching and learning vocabulary by providing innovative and interactive tools (Klimova, et al., 2023). According to Van (2021), vocabulary learning applications, online platforms, and software leverage multimedia elements, such as audio, visuals, and interactive exercises, to create engaging and personalized learning experiences: computer-assisted Language Learning (CALL) and Mobile-Assisted Language Learning (MALL).

Lenci (2021) stated that CALL refers to using computer technology in language teaching and learning, while MALL involves using handheld mobile devices for language learning. Although both approaches have been employed, CALL is evident in its dominance. Additionally, the use of CALL has been prevalent in English education, but over time, as students have acquired smartphones, learning has shifted to MALL. Smartphones' convenience and flexibility have driven this shift to MALL. Unlike traditional computer labs, which may have limited access, students can seamlessly integrate language learning into their daily lives through mobile devices (Luo & Watts, 2024). MALL applications allow students to engage in vocabulary learning during commutes, breaks, or any other free time (Sam & Shalini, 2022). As a result, MALL accommodates the changing technological landscape and aligns with the dynamic and mobile-oriented preferences of contemporary students, fostering a more integrated and continuous language learning experience.

Mobile applications designed for language learning offer a convenient and accessible platform for users to enhance their vocabulary mastery (Irwansyah, & Izzati, 2021). Previous studies on the use of mobile phone applications has been conducted by Aulia et al. (2020), which showed that using the Duolingo application significantly improves students' ability to master English vocabulary. Furthermore, Imran (2023) tried to conduct research by applying the Babble application which showed that the Babble application could improve students' vocabulary mastery better than a conventional method. Then, similarly, Khrisna (2023) suggested Beelinguap as another application for learning vocabulary. Moreover, English Quiz (Kubis), is an interactive game designed to improve understanding and mastery of English. In this game, users can test their abilities through multiple-choice quizzes. Players must select the correct answers corresponding to the given words or questions. The game offers various question themes, including Animals, Plants, Nature, House, and more. Each theme consists of progressively challenging levels, containing 20 challenging levels (Khallieva et. al., 2024). Therefore, the researchers were highly interested in implementing this Kubis application and examining its effectiveness in improving students' vocabulary. Thus, the research questions guiding this study are: (1) Can the Kubis application improve students' vocabulary mastery? and (2) what obstacles do the students encounter in learning vocabulary using the Kubis application?

B. METHOD

The study uses a mixed method as a research design that was conducted at Junior High School 1 Jeumpa for the seventh class, Aceh Barat Daya. A mixed methods approach is a research methodology that combines both qualitative and quantitative techniques in a single study (Creswell, 2019). The population is all the 7th-grade students at Junior High School 1 Jeumpa. The total number of populations is 90 students. Moreover, the sample is separated into three classes. Class VII.1 consisted of 30 students, Class VII.2 consisted of 30 students and the students of class VII.3 consisted of 29 students. Then, the data collected from the pre-test and post-test are used to determine the improvement of students' vocabulary mastery (Jones et al., 2023). Meanwhile, the interview is an instrument to find out students' difficulties in learning vocabulary by using Kubis. Subsequently, the writer uses statistical analysis, particularly the t-test, to compare the means of the pre-test and post-test scores (Ivey, 2023). The t-test is a statistical method used to determine if there is a significant difference between two means. SPSS 26 version was employed for data analysis.

C. FINDINGS AND DISCUSSION

1. Kubis application improve students' vocabulary mastery

The research results are presented in the table below.

Tabel. 1 Descriptive Statistical Data of Pre-Test and Post-Test

No	Descriptive statistical	Pre-Test	Post-Test
1	Minimum	10	60
2	Maximum	75	100
3	Mean	43	77.5
4	Std. Deviation	16.42	12.41

As shown in the table above, the minimum score of 10 indicated that some students scored relatively low on the pre-test. The maximum score of 75 demonstrated that there were students who performed exceptionally well on the pre-test. The mean score of 43 showed a

measure of central tendency, indicating the average performance of the students as a whole. The data obtained showed that the mean was closer to the middle of the minimum and maximum scores, suggesting a somewhat balanced distribution around the midpoint. The standard deviation of 16.42 quantifies the spread of scores around the mean.

The data of the post-test showed that the minimum score achieved by students on the post-test was 60. This indicated that even the lowest performing student scored above half of the total possible points. The maximum score achieved was 100, implying that some students performed exceptionally well on the post-test. The mean score of 77.5 students performed relatively well on the post-test. This indicates that there was a difference in the mean scores between the pre-test and post-test assessments. Specifically, the mean score on the pre-test was 43, while the mean score on the post-test increased to 77.5. This indicates a substantial improvement of 34.5 points between the two assessments. The increase in the mean score from the pre-test to the post-test suggests that students made significant progress in their understanding and mastery of vocabulary after implementing Kubis. It is in line with the statement of Aulia et al. (2020); and Imran (2023) that Kubis can help students improve their English vocabulary and consequently their language proficiency.

Normality Test

This test aims to determine whether the data follows a normal distribution. The data were evaluated using the Kolmogorov-Smirnov test. The pre-test results are presented in the table below.

Table. 2 The Normality of Test

No	Data	Statistic	df	Sig
1	Pre-Test	.122	59	.201
2	Post-Test	.158	59	.104

The table analysis of students' vocabulary in both tests indicated that the significance (sig.) value was 0.201 for the pre-test and 0.104 for the post-test. Since the sig. values are greater than 0.05 with a 5% significance level, the data are considered to follow a normal distribution. Thus, it can be inferred that the vocabulary test data for both the pre-test and post-test were normally distributed.

Homogenity Test

This test was conducted to determine whether the sample variance was homogeneous. The researchers employed Levene's test to assess homogeneity. The data are shown in the table below.

Table.2 The Homogeneity of Test

Lavene Statistic	Sig.	Description
.602	.564	Homogeneous

The table indicates that the significance level from the homogeneity test was 0.564, which exceeds the 0.05 threshold at a 5% significance level. Therefore, it can be inferred that the post-test data distribution was uniform.

Then, collected data was analyzed by using Paired Sample T-test to answer this research problem formulation whether there were significant differences between the mean scores both tests.

Paired Samples Test

		Paired Differences			95% Confidence Interval of the Difference		t	df	Significance	
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			One-Sided p	Two-Sided p
Pair 1	Pre test - Post test	2.620.000	648.294	167.389	2.979.014	2.260.986	-15.652	59	<.000	<.0010

The table above presents the data analyzed from the pre-test and post-test for both classes using the Paired Sample Test in SPSS 26. The results indicate a significant value (2-tailed) of 0.000 for the experimental class and 0.009 for the control class ($p<0.05$). This indicates that the Kubis app enhances students' vocabulary mastery. It is in line with Fadiah et al., (2023), that mobile phones are useful tools for learning English, particularly in the context of vocabulary mastery.

2. Obstacles faced by the Students in Learning Vocabulary by Using Kubis application

The data from the interview showed that the students faced difficulty in learning vocabulary by using the Kubis application due to several aspects, such as technological barriers, passive students, the restriction on using smartphones by the parents, and the application being less interesting for students.

First, one significant obstacle is technological barriers. Based on the result of the student's statements, technological barriers encompass challenges related to access, proficiency, and compatibility with devices. For instance, some students lack access to smartphones, hindering their ability to engage with the Kubis application effectively. Additionally, students with limited technological literacy or unfamiliarity with mobile applications struggle to navigate the features and functionalities of Kubis, impeding their learning experience. Most students stated that:

> My main issue is that my phone is quite old, and the app crashes a lot. It's annoying because I lost my progress. (S2) (Interview, translate version)

Since Kubis is a digital application, not all students can access the technology. The discrepancy in access could hinder students from using the Kubis application, disadvantaging students from lower-income backgrounds or those in rural areas with limited infrastructure. Additionally, students encountered technical difficulties while using the application, disrupting their learning process and causing frustration. As stated by Hasan (2021), students often face problems in using learning applications, including Kubis because they have limited access, and not all students are ready to pay best mobile.

The second obstacle in using Kubis is the potential for passive learning, which refers to a learning approach where students are more passive recipients of information rather than actively engaging with the material. The interviews with students are as follows:

> In most of my classes, I sit and listen to the teacher. We take notes, but there's not much interaction. It's mostly just absorbing information. it's hard to stay focused sometimes, and I don't always remember everything. I think I learn better when I can do something with the material. (S5). (Interview, translated version)

The data above indicates that Kubis offers interactive features and gamified elements to engage students which is not appropriate for active learning. Ozatan dan Keskin (2024) claimed that mobile applications are not appropriate for active learning since students prefer kinesthetic learning. According to Roy (2023), students with are passive learning style have a good reason for learning by using mobile applications. Kubis, like many online learning platforms, presents content in a way that encourages passive consumption, such as through lengthy readings, recorded lectures, or multimedia presentations without opportunities for active participation or interaction. Passive learning involves receiving information without actively processing or engaging with it meaningfully. Instead of actively participating, asking questions, or critically analyzing the material, passive learners may passively consume content without fully understanding or internalizing it.

The third obstacle faced by students when using Kubis is the lack of parental permission to spend extended periods with their smartphones. Students stated that their parents have strict rules about how much time they can spend on their phones. It can be frustrating because sometimes they need to access Kubis for assignments or to communicate with classmates, but they have to limit their time on the phone.

> For me, one of the biggest problems is that my parents don't like me spending too much time on my phone. They think I'm just playing games or chatting with friends. (S1). (Interview, translated version)

Many parents limit how much time their children can spend on their smartphones, which can hinder students' ability to access and utilize Kubis effectively. Since Kubis likely requires students to use their smartphones for extended periods to engage with course materials, complete assignments, or participate in online discussions, parental restrictions on smartphone usage may prevent students from fully utilizing the platform. As a result, students may encounter difficulties accessing and fully utilizing the Kubis application to improve their vocabulary skills. As stated by Abdurahman et al., (2023), parents who act as primary teachers can positively impact a child's development. Parents' guidance also dramatically influences their child's development; the students feel their limitation on internet use because parents' control can hinder their learning.

The last obstacle faced by students in using Kubis includes the perception that Kubis lacks the same level of engagement as popular mobile games like Mobile Legends, leading to a lack of motivation to engage with the application for learning purposes actively. According to the student's statements, students sometimes felt more like a chore. It doesn't have the same level of excitement or motivation. When they access the Handphone, they play other games, such as mobile Legend.

> For me, the Kubis app is helpful for learning, but it doesn't grab my attention like other games I play, like Mobile Legends. (S3). (Interview, translated version)

Based on the situation, students encountered distractions or competing priorities, such as religious studies or other activities, which can divert their attention away from using Kubis consistently for vocabulary mastery. Fitria and Abidin (2023) pointed out that students may prefer different games over those offered in Kubis due to various factors such as the perceived level of entertainment, engagement, and social interaction provided by those games. Games outside of Kubis, like popular mobile games or gaming platforms, often offer immersive experiences, competitive elements, and social connectivity that are more appealing to students. Additionally, the perceived educational value of games in Kubis may not be as immediately evident or rewarding compared to the instant gratification and enjoyment provided by other games. The cases can hinder students from learning vocabulary by using Kubis.

D. CONCLUSION

There is a significant difference in students' vocabulary mastery when using the Kubis application. The students can easily remember the meaning of words using Kubis features such as games, puzzles, etcetera. Nevertheless, the Kubis application has some challenges. Those include parental consent on electronic use, such as mobile phones. The obstacles students face in using Kubis are: first, most students face technological barriers including in using Kubis. Second, Kubis is inappropriate for students with active learning, especially students who prefer teachers' explanations. Third, parental permission is lacking to spend extended time on their smartphones. Lastly, students prefer accessing gaming and English learning applications using mobile phones.

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