

The Effectiveness of Socratic Application for Formative Assessment on The Eighth Grade Students' Vocabulary at SMPN 16 Kota Tangerang Selatan

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Abstract

The aim of the research is to investigate whether Socratic application is effective to be used on the Eighth Grade Students in learning vocabulary at SMPN 16 Kota Tangerang Selatan in the academic year 2021/2022. The participants of this research were 64 students, which were classified into the controlled class and the experimental class through saturation sampling technique. The research methodology was used quantitative research and the design used was quasi-experimental study and the instrument of this research was test that consisted of pre-test and post-test. The result can be seen that using Socratic application for formative assessment as the technique was effective and appropriate on the students in learning vocabulary.

Keywords: Socratic Application, Formative Assessment, Teaching Vocabulary, Vocabulary

INTRODUCTION

English has become one of the important subjects for secondary school level. It also becomes the subject that should be passed by students in the national final examination. In Indonesia, English is a foreign language because Indonesia is a developing country. Therefore, Indonesian people still find some difficulties in learning English. The effectiveness of technology in education has gained significant attention in recent years, as educators seek innovative ways to enhance teaching and learning experiences. One such technological tool that has emerged is the Socratic application, which offers a platform for formative assessment in the classroom.

Listening, speaking, reading and writing are skills that must be mastered by students. In addition to these skills, students must be able to master the elements in English. The English elements that must be mastered is vocabulary. According to Risnawati, Nuhung, & Thamrin (2014) There are some important knowledge to learn in English, such as structure and vocabulary. However, vocabulary also plays an

important role in English learning. It means, vocabulary is the most important aspect that will make students easy to learn English and mastered the skills of English. Therefore, interesting techniques to teach vocabulary to the students is the important thing for the students because vocabulary is the key for students, the students will not be able to understand the meaning of English if they cannot master the vocabulary well.

There are so many techniques to improve student's vocabulary. One of them is by using mobile learning. ElHussein & Cronje (2010) state that Mobile learning refers to the implementation of mobile devices in any branch of study. The features of mobile technology such as the portability and information accessibility play a major role in the enhancement of English language teaching and learning. Therefore, mobile learning is electronic media technology devices such as smartphones, computers, and laptops that are used in language learning, by mobile learning the student can be more flexible in learn English. The Socrative application offers several features that make it suitable for formative assessment in the classroom. Teachers can create quizzes, polls, and exit tickets, allowing them to gauge student understanding, identify areas of weakness, and adjust instruction accordingly. Additionally, students can actively participate in the learning process by responding to questions in real-time, receiving immediate feedback, and tracking their progress over time. These interactive features of the Socrative application hold the potential to enhance vocabulary instruction and improve student learning outcomes.

In order to measure students' vocabulary, English teachers need to make an assessment at the end of the learning process of English teaching. However, students are usually uninterested in the formative assessment process, and it can influence to their achievement in vocabulary. One of the suitable solutions that can be selected is to increase students' interesting while formative assessment is by using mobile learning namely Socrative Application. According to Dervan, Paul (2014) defines Socrative as a cloud-based response system which is available free of charge and can be accessed by students over a WiFi or mobile data connection using PCs, mobile phones and tablet devices. The teacher can create quizzes, exit tickets, quick questions, or space races to assess students in the classroom. Therefore, Socrative application is a media for formative assessment to improve student vocabulary.

Based on journal from Fitriani Nurhasanah, English Education Department Faculty of Education and Teacher Training State Institute of Islamic Studies Ponorogo. The title is "The Effectiveness of Socrative Application for Formative Assessment in Teaching Vocabulary at SMA Muhammadiyah 1 Ponorogo". The student's engagement is improved when the teacher uses Socrative application for formative assessment which leads to creating effective teaching and learning environment. It means that there

is any significant difference score in vocabulary mastery between students who used Socrative application for formative assessment and who are not use Socrative application.

RESEARCH METHOD

This research was conducted on the eighth-grade students' of SMP Negeri 16 Kota Tangerang Selatan which is located on Jl. Bhayangkara 1, Paku Jaya, Kec. Serpong Utara, Kota Tangerang Selatan, Banten 15220. The researchers chooses this school because when the researchers have an internship at this school the researcher found that the students still have difficulties in learning vocabulary.

The implementation of the research carries out from 13th July 2021 until 30th August 2021. The purpose of the design is to find out the cause- effect between two variables. This research involves two class. One class as an experimental class, and the other one as control class. The students in each class will be gives pre-test and post-test. In experimental class, treatment teaching through Socrative Application applied. Meanwhile, in the control class only uses conventional technique.

After giving the treatment to the experimental class, the researchers distributed post-test for both classes to see the effect of Socrative Application for formative assessment in teaching vocabulary. In the end, the researchers analyze the data that the researcher got from both experimental and control class. It also means that the researchers selected the sample from the classes in the school. There showed the general overview of quasi- experimental design.

RESULTS AND DISCUSSION

In Normality test chi square consisted of experimental and controlled class data. To observe the normality test of sample data was conducted by the test. Normal distribution data criteria will be obtained if $X^2 \text{ count} < X^2 \text{ table}$, but if $X^2 \text{ count} > X^2 \text{ table}$ then data is not normal. Normality Test of Students' Pre-test Score in Experimental Class Based on the pre-test score that was obtained from class VIII F as experimental class, the data calculation obtained $X^2 \text{ count} = 7.10$ and $X^2 \text{ table} = 11.07$ with significant level 5% 0.05 by the total of $n = 32$. If $X^2 \text{ count} = 7.10 < X^2 \text{ table} = 11.07$, it can be concluded that the distribution of experiment class pre-test is normal. Normality Test of Students' Pre-test Score in Controlled Class Based on the pre-test score that was obtained from class VIII G as controlled class, the data calculation obtained $X^2 \text{ count} = 3.98$ and $X^2 \text{ table} = 11.07$ with significant level 5% 0.05 by the total of $n = 32$. If $X^2 \text{ count} = 3.98 < X^2 \text{ table} = 11.07$, it can be concluded that the distribution of controlled class pre-test is normal. Normality Test of Students' Post-test

Score in Experimental Class Based on the post-test score that was obtained from class VIII F as experimental class, the data calculation obtained X^2 count = 8.62 and X^2 table = 11.07 with significant level 5% 0.05 by the total of $n = 32$. If X^2 count = 8.62 < X^2 table = 11.07, it can be concluded that the distribution of experiment class post-test is normal. Normality Test of Students' Post-test Score in Controlled Class Based on the post-test score that was obtained from VIII G as controlled class, the data calculation obtained X^2 count = 7.32 and X^2 table = 11.07 with significant level 5% 0.05 by the total of $n = 32$. If X^2 count = 7.32 < X^2 table = 11.07, it can be concluded that the distribution of controlled class post-test is normal.

Pre-Test Result of Experimental Class and Controlled Class

Based on the research calculation result of pre-test data from experimental class and controlled class by using T-test, the result showed that the students' vocabulary of experimental class and controlled class in the beginning had no different by using significant level of 5% ($\alpha = 0,05$). The data analysis was started by calculating the central tendency of pre- test data. From the calculation, the central tendency obtained result that the average score or mean of experimental class was 57.50 while the average score or mean of controlled class was 55.78 The standard deviation score of experimental class was 16.50 while the standard deviation score of controlled class was 15.46.

After that, the researcher conducted hypotheses test by using fisher test where the result showed that $t_{count} (0.43) < t_{table} (1.99)$, it means t_{count} is less than t_{table} . It indicated that H_0 is accepted where there is no significant difference of the students' vocabulary between the students in experimental class and the students in controlled class. This was happened because the researcher had not given Socratic Application for formative assessment as treatment method in experimental class.

Post-Test Result of Experimental Class and Controlled Class

After giving the pre-test, the researcher gave the learning treatments in the experimental class by using Socratic Application. In the controlled class, the researcher used the conventional method. After that, the researcher conducted the post-test for both classes. Based on the research calculation result of post-test data from experimental class and controlled class by using t-test, the result showed that the students' vocabulary in experimental class who were taught by using Socratic Application had improved rather than the students in controlled class who were not taught by using Socratic Application for formative assessment.

The post-test data analysis was started by calculating the central tendency of post-test data. From the calculation, the central tendency obtained result that the average score or mean of experimental class was 81.81 while the average score or mean of controlled class was 76.81. The standard deviation score of experimental class was 9.69 while the standard deviation score of controlled class was 9.21. After that, the researcher conducted hypotheses test by using fisher test where the result showed that $t_{count} 2.11 > t_{table} 1.99$, it means t_{count} is more than t_{table} . It indicated that H_1 is accepted where there is any significant difference of the students' vocabulary between the students in experimental class who were taught by using Socrative Application and the students in controlled class who were taught by using Socrative Application for formative assessment.

CONCLUSION

Based on the result of this research, it can be concluded that there are a significant different result between the students who were taught by using Socrative application for formative assessment and the students who were taught by using conventional method in term of English vocabulary at the eighth grade students of SMPN 16 Kota Tangerang Selatan in academic year 2021/2022. The result of this research showed that there are any significant in post-test of experimental class who were taught by using Socrative application than conventional method, it can be seen on the result of T-test with significant level $\alpha = 5\%$ or 0.05 showed that $t_{count} 2.11 > t_{table} 1.99$, then H_0 is rejected and H_1 is accepted. The implementation of Socrative application is one of the techniques that can help the students in learning vocabulary. The improvement of students' learning vocabulary in experimental class is a result from applying Socrative application for formative assessment. It is also engaged students' interest in learning English. In conclusion, the effectiveness of the Socrative application as a formative assessment tool for teaching vocabulary has been demonstrated in this study. The integration of technology in education holds great potential for improving language instruction, and the findings of this research contribute to the growing body of knowledge in this area.

By harnessing the power of educational technology tools like Socrative, educators can create engaging and interactive learning environments that foster vocabulary acquisition and enhance overall student learning outcomes.

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