

## THE EFFECTIVENESS OF USING EDUCAPLAY IN TEACHING VOCABULARY TO YOUNG LEARNERS AT SDN TASIKHARJO

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### ABSTRACT

This research aimed to determine the effectiveness of Educaplay, a game-based digital platform, in improving English vocabulary acquisition of 5th grade students at SDN Tasikharjo. Using a quantitative pre-experimental design, data were obtained from 24 fifth grade students. The treatment consisted of vocabulary learning on the topic of “Body Parts” through Educaplay. Data were collected using pre-test, post-test, observation, and questionnaire, then analyzed with descriptive statistics, a normality test, and a paired sample t-test. The results showed a significant increase in vocabulary scores from a mean of 67.21 to 89.67 and a decrease in standard deviation from 22.529 to 10.32. The paired t-test resulted in a significance value of 0.000 ( $p < 0.05$ ), indicating a statistically significant difference. Observations showed active participation, and questionnaires indicated a completely positive student response. Overall, Educaplay proved effective in improving vocabulary acquisition and creating an interesting and fun learning atmosphere.

**Keywords:** educaplay, vocabulary mastery, young learners, game-based learning, digital media

### INTRODUCTION

In the digital era, vocabulary acquisition had an important role in students' language development, especially young learners. Young learners are defined as children between the ages of five and twelve who are in the early stages of formal education and are still developing their cognitive, social, and language skills (Nuralisa & Nirwanto, 2023). Vocabulary acquisition is a critical component of language learning, as it directly influences reading comprehension and overall communication skills (Pascual *et al.*, 2022). Good teaching of vocabulary was able not only to enhance the ability of the students to communicate, but also their knowledge in all areas of language skills such as reading, writing, listening and speaking. But the conventional teaching techniques could not appeal to young learners and they could not easily recall the vocabulary. Therefore, it was very important to use interactive digital platforms such as Educaplay to support vocabulary development in a more interesting and motivating way.

Educaplay was an online educational tool, which enabled teachers to create vocabulary games including matching, quizzes and fill-in-the-blank tasks. Educaplay allowed students to memorize vocabulary by means of developmentally relevant game-based activities through the use of a gamified learning experience. Educaplay is known as a flexible and easy-to use platform, making it an efficient medium in teaching various subject areas (Salazar *et al.*, 2019).

There are many previous studies already confirm that Educaplay is effective in the learning process. The first, research by Alpatikah (2022) carried out this study with the purpose of examining the efficacy of Wordwall as an online site platform among the first-grade students of the facilities of MTs Negeri 10 Jakarta. The findings indicate the significance effect of the use of wordwall on the mastery of vocabulary in the student. Winingsih (2022) conducted the second research with the purpose to define whether there was a significant difference in vocabulary mastery in the group of students who were taught using quizzizz and those who were not taught using quizzizz at SMP IT AL-Fityah Pekanbaru. Based on the data analysis findings, the researcher came across the conclusion that there existed a considerable difference in vocabulary mastery between students taught with quizzizz and students not taught with quizzizz. Different from other studies, which have concentrated on junior high school, the current study concentrates on young learners, a group of study learners with distinctive developmental needs that need teaching strategies. The difference also lies in the learning media, this study involves the Educaplay media, an interactive online platform prepared to keep the students occupied by different educational games that fit the learning styles of young learners.

This study aims to determine the effectiveness of using Educaplay in improving students' vocabulary mastery by comparing students' learning outcomes before and after treatment. In addition, this study also aims to determine students' behavior and response to the vocabulary learning process conducted through this interactive digital platform.

## METHODOLOGY

This study involved a quantitative study with pre-experimental one-group, pre-test and post-test research design. One method that was employed to test objective theories entailed quantitative research that involves investigating the association between variables (Creswell, 2018). Voxco (2021) states that the simplest type of research design is a pre-experimental research design, in which one or more groups of people are monitored following some form of treatment that is assumed to bring about change. This study involved a total of 24 fifth grade students of SDN Tasikharjo to evaluate the effectiveness of the application of game-based learning media. The data collection tools were split into pre-test and post-test assessment of vocabulary mastering of the students, observation sheets to see how the participants were engaged during the learning sessions, and Likert scale questionnaire to examine how the students reacted to the Educaplay media.

During the first meeting, students had a pre-test in order to learn their level of initial vocabulary mastery. Then, the Educaplay interactive game demonstrating vocabulary material on the subject Parts of Body was shown with the help of the projector in the classroom setting and the treatment session was conducted. The post-test was administered after the treatment to determine the enhancement of vocabulary abilities of students. Learning was observed to capture the degree of participation and interaction of the students with the media used as well as questionnaires were employed to ascertain the response of the students with the learning media.

Normality test Kolmogorov-Smirnov test was applied as a way of testing normality in this research work since it was determined that the data is normally distributed. The normal test properties based on Thode (2019) are, When the significance value (Sig.) is greater than 0.05, the data is normally distributed and when the significance value (Sig.) is less than 0.05, the data are not normally distributed. Then, after the data was normally distributed, hypothesis testing was conducted using the paired sample t-test method to evaluate the mean difference between pre-test and post-test scores in the same group. The decision for hypothesis testing was based on the significance value (p-value); if  $p \leq 0.05$ , it was concluded that there was a significant difference between the pre-test and post-test scores (Field, 2024). Statistical analysis was processed using SPSS version 20 software with the significance level set at 0.05.

## FINDING AND DISCUSSION

The results of this research showed a significant increase in students' vocabulary mastery after learning using Educaplay. The mean score increased from 67.21 in the pre-test to 89.67 in the post-test. The highest score increased from 92 to 100, and the lowest score increased from 12 to 60. The standard deviation decreased from 22.529 to 10.32, indicating a more even score distribution.

Table 1 Normality Test Result

Results	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pre-test	.107	24	.200	.971	24	<b>.697</b>
Post-test	.147	24	.196	.965	24	<b>.539</b>

### a. Lilliefors Significance Correction

The Kolmogorov-Smirnov and Shapiro-Wilk normality tests conducted on the pre-test and post-test data consistently showed results with p-values  $> 0.05$ . These results statistically indicated that the distribution of data on both measurements was normal. The implication of data normality

was very important as it fulfilled one of the basic assumptions for the use of parametric statistical tests.

After it was known that the data were normally distributed, the Paired Sample t-Test was conducted to determine whether there was a significant difference between the pre-test and post-test scores of students after being given the treatment.

Table 2 Paired Sample t-Test Result

		Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
Pair 1	Pre-test - Post-test	-22.458	17.767	3.627	-29.960	-14.959	-6.193	23	.000

The paired sample t-test showed that the mean difference between the pre-test and post-test was -22.458 with a standard deviation of 17.767. The calculated t score was -6.193 with a degree of freedom (df) of 23, and a significance score (Sig. 2-tailed) of 0.000. Because the significance score was lower than 0.05 ( $0.000 < 0.05$ ), it could be concluded that there was a significant difference between the pre-test and post-test results. Thus, the use of learning media used in this study proved effective in improving students' vocabulary mastery.

Table 3 Results of Student Activity Observations

Aspect Observed	Number of Students	Notes
Active participation	20	Most of the students were very enthusiastic in participating in this activity.
Ability to answer correctly	18	Some students were able to choose the correct answer.
Engagement with the activity	21	The students were actively engaged and responded well during the lesson.
Collaboration skills	16	Some students helped each other, especially in the group session.
Time management	14	Some students completed the task on time.
Retention of vocabulary	17	Some students were able to remember the vocabulary that had been taught during the activity.
Reaction to feedback	22	Positive responses were shown by students during the activity
Creative usage of vocabulary	13	Only a few students tried to use new words in creative ways.
Focus and attention	20	The majority of students showed good concentration during the activity.

Observation data supported the research results by showing that most students showed enthusiasm and active engagement during the activity, with many demonstrating good focus and positive responses to feedback. Several students answered correctly, retained the vocabulary taught, and collaborated well in group work. However, only a few used the new vocabulary creatively, and time management varied among students.

Table 4 Results of Questionnaire

Statement	Frequency				Percentage			
	SA	A	D	SD	SA	A	D	SD
1	24	0	0	0	100%	0%	0%	0%
2	24	0	0	0	100%	0%	0%	0%
3	24	0	0	0	100%	0%	0%	0%
4	22	2	0	0	91.67%	8.33%	0%	0%
5	24	0	0	0	100%	0%	0%	0%
6	22	2	0	0	91.67%	8.33%	0%	0%
7	20	4	0	0	83.33%	16.67%	0%	0%
8	23	1	0	0	95.83%	4.17%	0%	0%
9	21	3	0	0	87.5%	12.5%	0%	0%
10	24	0	0	0	100%	0%	0%	0%

The questionnaire results showed that most students gave very positive responses about vocabulary learning using Educaplay. All students strongly agreed that the activity was fun, useful and easy to understand (Statements 1, 2, 3, 5 and 10). Almost all students also agreed that Educaplay helped them learn better and made them more motivated (Statements 4, 6, 7, 8, and 9). None of the students disagreed or strongly disagreed. The findings supported that Educaplay was effective not only in improving vocabulary acquisition but also in creating a fun and motivating learning atmosphere for students.

This study was in line with Cameron's (2001) opinion that vocabulary is fundamental in language learning for learners. Educaplay, by providing a game-based learning experience, supported visual memory and student engagement as proposed by Paivio's Dual Coding Theory (2013). It also reflected Harmer's (2015) distinction between active and passive vocabulary by helping students move towards active use. According to Dauletova (2022) and Graça *et al.* (2022), learning platforms such as Educaplay can increase student engagement and motivation.

In addition, this finding was also supported by Scott and Ytreberg's (in Hartina *et al.*, 2019) theory on the characteristics of young learners. These students benefited greatly from active learning, sensory input, and imaginative play. Educaplay was able to fulfill these needs by providing visual and interactive games suitable for students' short attention spans and their preference for concrete, hands-on learning.

## CONCLUSION

Based on the results of the research, it could be concluded that Educaplay was an effective digital learning media for improving English vocabulary in young learners. The significant increase in test scores, the high level of student engagement, and the very positive responses from the questionnaire demonstrated the effectiveness of this learning media. Educaplay was not only effective in improving vocabulary acquisition but also in increasing students' motivation and active participation during the learning process. Educaplay was able to provide an interactive and fun learning experience; this media also supported the achievement of more optimal learning outcomes. Therefore, to support the continuous improvement of students' English ability, teachers were suggested to integrate interactive media such as Educaplay in their English teaching methods. The use of this kind of media could help learning become more interesting and effective, while helping students master the material better.

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