

THE IMPACT OF THE EDUCAPLAY APPLICATION ON STUDENTS' VOCABULARY MASTERY

Irma Ika Primadani ^{1*}, Nur Laila Molla², Rofiudin ³

¹²³ Program Studi Pendidikan Bahasa Inggris , Universitas Pancasakti Tegal.

^{*)} Corresponding author: irmaikaprimadani@gmail.com

Abstrak

Tujuan utama penelitian ini adalah untuk mengevaluasi dampak platform digital Educaplay terhadap kinerja kosakata siswa. Teknik kuantitatif digunakan, dengan desain pra-eksperimen dan model satu kelompok pra-tes dan pasca-tes. Peserta penelitian adalah siswa kelas X di MAN Kota Tegal pada tahun ajaran 2025/2026. Sampel penelitian dipilih menggunakan sampling purposif, yang mencakup 35 siswa. Ujian kosakata digunakan untuk mengumpulkan data sebelum dan setelah intervensi. Hasil menunjukkan bahwa skor rata-rata meningkat dari 52,77 pada pre-test menjadi 64,63 pada post-test. Selain itu, uji Paired Sample T-test menghasilkan tingkat signifikansi (Sig. 2-tailed) sebesar 0,000, yang lebih kecil dari 0,05. Hasil menunjukkan perbedaan yang signifikan antara skor pra-tes dan pasca-tes. Dengan demikian, penggunaan Educaplay berhasil membantu siswa meningkatkan kemampuan kosakata bahasa Inggris mereka.

Kata kunci: Aplikasi Educaplay; Penguasaan Kosakata;

Abstract

The main objective of this study was to evaluate the impact of the Educaplay digital platform on student vocabulary performance. A quantitative technique was used, using a pre-experimental design and a one-group pre-test and post-test model. The participants were tenth-grade students at MAN Kota Tegal during the 2025/2026 academic year. The investigation sample was selected using purposive sampling, which included 35 students. The vocabulary exam was used to collect data before and after treatment. The results revealed that the mean score increased from 52.77 in the pre-test to 64.63 in the post-test. Furthermore, the Paired Sample T-test yielded a significance level (Sig. 2-tailed) of 0.000, which was less than 0.05. The results showed a considerable difference between the pre-test and post-test scores. As a result, using Educaplay was successful in helping students improve their English vocabulary proficiency.

Keywords: Educaplay Application; Vocabulary Mastery;

1. INTRODUCTION

The rapid growth of technology and communication in today's modern era has significantly influenced many areas of human life, including education. One of the most meaningful changes can be seen in how knowledge is gathered, accessed, and shared. Technology has changed the way teachers deliver material material and the way students receive and process information. English is recognized as an important foreign language for Indonesian because it is a global communication tool that allows for widespread access to research, information, and technological advancement (Siregar et al., 2021). Information technology can be defined as the integration of computer systems and communication networks used to transmit data, audio, and visual information (Ramli, 2012, p. 1). It has two major components: computer technology and communication technology. Information technology is critical in education for effectively managing, processing, and distributing information. The introduction of digital tools into classroom activities promotes more effective

teacher-student engagement, which is critical for obtaining good learning outcomes.

Vocabulary mastery is essential when learning English. It relates to the ability of learners to understand, recall, and use words correctly in various communication circumstances. Furthermore, (Rahmadhani et al., 2016) emphasize that pupils with high language skills are more likely to communicate fluently and understand information efficiently. According to (Harmer, 2001), Vocabulary are an important component of language knowledge because it promotes productive involvement. In the context of language training, vocabularies relate to the words that students must learn in order to speak effectively. These students' poor vocabulary makes it difficult for them to communicate and express their ideas clearly. Moreover, according to (Widodo et al., 2022), vocabulary mastery is the ability to comprehend, use, and apply a collection of words in a language to communicate thoughts, ideas, and emotions. Because vocabulary is the foundation of communication, students who lack basic vocabulary knowledge are unable to construct acceptable sentences or express themselves correctly. (Thornbury, 2022) says that many students have trouble mastering vocabulary, especially when English is not their native language, making learning more difficult (Rofiudin, 2024). Furthermore, vocabulary mastery is directly linked to an improvement of the four major language abilities, reading, writing, listening, and speaking. (Molla, 2024). Pupils with a large vocabulary can communicate more successfully in a range of situations, such as casual talks, academic discussions, and formal presentations, as well as improve their knowledge of spoken and written texts.

Many students continue to face challenges in learning and retaining new vocabulary. Typical teaching approaches that rely mainly on memorization and textbook-based instruction frequently result in passive learning environments. As a result, pupils may quickly forget terms they learned and exhibit little interest in vocabulary lessons. This issue can have a detrimental impact on their overall English skills and limit their motivation to develop.

To overcome these difficulties, the integration of technology into vocabulary teaching has been considered a promising approach. One digital platform that can support this process is Educaplay, an interactive educational website that enables teachers to design and share engaging learning activities such as quizzes, word searches, puzzles, matching exercises, and other interactive tasks. According to (Vargas-Saritama et al., 2024), the use of Educaplay enhances student participation and involvement in the learning process. By offering interactive features and immediate feedback, the platform helps students retain vocabulary more effectively.

Based on these viewpoints, this study assesses the effect of using the Educaplay digital platform on the vocabulary proficiency of students in 10th grade at MAN Kota Tegal. A search is primarily aimed at determining whether there is a significant statistical difference in the students' vocabulary command following the introduction of Educaplay into the pedagogical environment compared to their baseline performance levels.

2. METHOD

Types of Research

The present investigation took a quantitative method with a pre-experimental design. In this study, the researcher used a one-group pre-test and post-test technique to evaluate the Educaplay application's impact on students' vocabulary mastery. The study only included one group of participants, who were given a pre-test before treatment and a post-test after Educaplay implementation. The purpose of this study was to examine whether using the Educaplay platform increased students' vocabulary mastery.

Time and Place of Research

This research was conducted between August 4 and August 19. The research was carried out at MAN Kota Tegal.

Research Target/Subject

The population for this study was tenth-grade students at MAN Kota Tegal in the 2025/2026 academic year. There are twelve classes and a total of 379 students. This research sample consists of Class X E students. The researcher selects one group for this investigation, the experimental group. The presented research was a general population sample of 35 students.

Procedure

The investigation used an pre-experimental method including a pretest and post-test for one group. According to (Sugiyono,2019, p.74), this design is used to evaluate the efficacy of a treatment by comparing pre- and post-intervention results within the same group. Although the researcher did not use a control group, this design allowed the researcher to investigate increases in students' vocabulary knowledge after treatment implementation.

The first procedure in this investigation was pre-treatment. Before beginning the treatment on the sample, the researcher developed lesson plans, instructional materials, and research tools. The lesson plans were produced using the English curriculum for tenth-grade students.

Second, the treatment was given. The researcher used the Educaplay app to improve students' verbal abilities. The treatment was provided to a class of 35 tenth-grade students at MAN Kota Tegal. During the treatment sessions, students participated in Educaplay's interactive vocabulary activities, which included quizzes, matching exercises, and word games. The last step was a post-test. Following the course of treatment, the researcher gave the kids a post-test to assess their vocabulary skills after using the Educaplay application. The test consisted of multiple-choice questions. The post-test was designed to reflect on whether students' vocabulary competence had improved significantly following treatment.

Data, Instruments, and Data Collection Techniques

According to (Sugiyono,2017, p. 145), data collection is an important step in research since it tries to get the information required to meet the research objectives.

Throughout the present research, a multiple-choice vocabulary test served as both a pre- and post-test. The test was used to assess students' vocabulary mastery prior to and following treatment. The figures were derived from the students' scores on both exams.

Data Analysis Technique

Immediately following obtaining the data, the researcher analyzed it with IBM SPSS version 26. Because this study evaluated scores from the same group before and after therapy, the Paired Sample T-test was employed to see if there was a statistically significant difference between the pre- and post-test outcomes.

- Following the hypothesis test, the Shapiro-Wilk test was used with a significance threshold of 0.05 to assess normality. If the significance threshold was greater than 0.05, the data were presumed to be regularly distributed.
- The paired Samples T-test was performed at the level of significance (α) of 0.05. If the significance value (Sig. 2-tailed) was less than 0.05, the null hypothesis (H_0) was rejected, showing an important difference in students' vocabulary mastery between before and after implementing the Educaplay program.

3. RESULTS AND DISCUSSION

After conducting the study, the researcher obtained data on students' vocabulary mastery before and after establishing the Educaplay program. To facilitate comparison, the outcomes are shown in the table below.

Table 1. Descriptive Statistics of Pre-test and Post-test Scores

<i>Descriptive Statistics</i>					
	N	Minimum	Maximum	Mean	Std. Deviation
Pre-test	35	33.00	80.00	52.7714	12.98888
Post-test	35	47.00	87.00	64.6286	12.03203
Valid N (listwise)	35				

The table displays descriptive data for student vocabulary scores from the pre-test and post-test. The data was collected from 35 pupils. The pre-test was given throughout the treatment to assess beginning language competence. Meanwhile, the post-test was conducted after the therapy to see the students' development after learning vocabulary using the Educaplay program. As to the descriptive statistical analysis, the average pre-test score was 52.77. This result shows that initial vocabulary mastery was moderate. Many pupils still struggled to understand word definitions, recognize proper word usage, and retain terminology effectively. Following multiple Educaplay treatment sessions, the mean post-test score climbed to 64.63. The variation between pre-test and post-test mean scores was 11.86 points. This improvement definitely demonstrates that kids studied better after being taught using interactive digital activities.

In order to assess if the improvement was statistically significant, the researcher used a Paired Sample T-test using IBM SPSS version 26. The results showed that while the

significance level (Sig. 2-tailed) was 0.000. A significance level of 0.000 (<0.05) shows a significant difference between pre-test and post-test results.

Those finding suggests that using the Educaplay application during the learning process has an impact on students' vocabulary acquisition. The null hypothesis (H_0) that Educaplay has no substantial effect on students' vocabulary mastery is rejected. However, the alternative hypothesis (H_1) is accepted. The development might be attributed to Educaplay's interactive features, which include quizzes, matching tasks, and word games. These exercises make the learning process more exciting and keep students interested throughout the course. During the treatment sessions, the pupils appeared more excited and actively engaged in completing the vocabulary assignments.

Furthermore, the application's fast feedback allowed pupils to detect their errors and develop the proper responses more quickly. As a result, students improved their ability to learn and remember words. Overall, the study found that using Educaplay can assist children in increasing their vocabulary mastery.

4. CONCLUSION

On the basis of the research findings, using Educaplay as an instructional tool greatly enhances students' vocabulary mastery. This study recruited 35 students and used a pre-test and post-test to examine students' vocabulary knowledge before and after implementing Educaplay. These results show that using Educaplay significantly improves pupils' vocabulary mastery. The descriptive statistical analysis revealed that the mean pre-test score was 52.77, indicating that students' initial vocabulary competence was moderate. Following the installation of Educaplay as an instructional tool, the mean post-test score climbed to 64.63, representing an 11.86-point improvement.

Furthermore, the paired-sample using IBM SPSS version 26 produced a significance level (Sig. 2-tailed) of 0.000, which is less than the threshold of 0.05. This indicates a statistically significant difference between the pre-test and post-test scores. The null hypothesis (H_0) was rejected, whereas the alternative hypothesis (H_1) was accepted. These findings indicate that Educaplay is an excellent educational tool for improving students' vocabulary mastery through interactive exercises that boost student engagement and facilitate better vocabulary acquisition.

Finally, Educaplay can be considered an excellent teaching method for increasing students' vocabulary mastery. The application's interactive elements stimulate active participation, boost student engagement, and help students understand and retain terminology during the learning process

REFERENCES

Abdullah, N. K., Yuvita, Y., & Molla, N. L. (2024). The Effect of Using Apples to Apples Game on Students' Vocabulary Achievement. In *Prosiding Seminar Nasional Literasi dan Pedagogi (SRADA)* (Vol. 5, No. 1, pp. 22-27). Fakultas Keguruan dalam Ilmu Pendidikan, Universitas Pancasakti Tegal.

- Harmer, J. (2001). *The Practice of English Language Teaching*. (3rd ed.). Longman. Retrieved from <https://doi.org/10.1080/03626784.1987.11075294>.
- Pandili, R. P., Sulistianingsih, E., & Rofiudin, R. (2024). Efektifitas Penggunaan Mnemonik Terhadap Prestasi Belajar Kosakata Siswa. In *Prosiding Seminar Nasional Literasi dan Pedagogi (SRADA)* (Vol. 5, No. 1, pp. 96-101). Fakultas Keguruan dan Ilmu Pendidikan, Universitas Pancasakti Tegal.
- Ramli, M. (2012). *Media Teknologi Pembelajaran*. IAIN Antasari Press
- Ramadhani, A. P. (2016). Techniques in teaching vocabulary to young learners at LIA english course. *TELL-US JOURNAL*, 1(2).
- Sugiyono. (2019). *Quantitative, Qualitative, and R&D Research Methods*. Bandung: Alfabeta.
- Siregar, A. S. B., Tobing, E. G. L., & Fitri, N. R. (2021). Developing of teaching materials: using animation media to learning english vocabulary for early childhood. *ETDC: Indonesian Journal of Research and Educational Review*, 1(1), 9-16.
- Thornbury, S. (2002). *How to teach vocabulary*. Longman Group Limited.
- Vargas-Saritama, A., & Celi, V. S. E. (2024). Educaplay as a tool to potentiate English vocabulary retention and learning. *European Public & Social Innovation Review*, 9, 1-16.
- Widodo, U., Sudarto, S., Walyono, W., Suyatno, T., & Dewi, M. P. (2022). Improving students' vocabulary mastery: Strategy, obstacles, and problems. *Edukatif: Jurnal Ilmu Pendidikan*, 4(5), 6814-6822.