

THE EFFECT OF EDUCANDY APPLICATION ON STUDENTS' ENGLISH WRITING SKILLS

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Keywords

Educandy Application, Writing Skill, Vocational High School, Web-based media

Abstract

This study investigates the effect of using the Educandy app in improving the English writing skill of vocational high school students, particularly in writing procedure texts. Writing is one of the productive language skills that is considered more complex than listening, speaking, or reading because it requires command of different aspects, including content, organization, grammar, mechanics, and style. To address this, the researcher employed the Educandy application game platform with interactive quizzes, matching games, and memory tests in the writing learning process.

The research was conducted using a quantitative method with a quasi-experimental study design in the form of two groups: an experimental group treated using the Educandy app and a control group taught using conventional methods. The sample was 43 students from tenth-grade Visual Communication Design students at a private Vocational High School in Jember. Student compositions were evaluated on a rubric that scored the five writing fundamentals. According to the statistical results from the Mann-Whitney U test, the value of 0.001 indicates a very highly significant positive effect of the application on the students' compositions. The results of this study show that Educandy has a significant effect on students' English writing skills in writing procedure texts.

Keywords: Educandy application, Writing skill, Vocational High School, Web-based media

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INTRODUCTION

Writing is not easy. Providing teachers with the knowledge, tools, and support to teach writing effectively is more important than anything (Deane, 2022). Writing is a skill that is fairly mandatory for students at all levels of education. Writing skills are often considered more complicated than other skills because they require attention to vocabulary and proper grammar. In most educational institutions around the world, students are assessed mainly through writing; they are expected to communicate and share their ideas in examinations, reports, term papers, etc. (Walker et al., 2010). When students answer exam questions or complete English assignments, such as reporting results or reading textbooks provided by the teacher, developing writing skills should be a teacher's concern to make it easier for students to complete project assignments and exams.

Writing skills are needed in English; there needs to be creative innovation for students, especially for those who do not deepen their English knowledge, such as in vocational schools. Vocational high school students usually focus more on vocational subjects, but their ability in other subjects, such as English, also needs to be explored. English writing proficiency is required for vocational reasons. It is the mental activity in which students generate their ideas, consider how to communicate them, and organize their thoughts into sentences that can be read (Siregar et al., 2022). In my experience teaching English at a vocational school, students were previously taught with a very monotonous, unvaried method, which made them more passive and led them to know little about English writing material, as they were only asked to listen and not practice. Students have difficulty expressing even simple ideas in writing, and they are less active in learning to write because they feel bored and less motivated to explore their ideas (Dhuge et al., 2021). Teachers in school exam activities directly apply this general phenomenon of English writing practice. Even though they are only asked to write 3 lines, they often feel confused about what to write. According to Nugraheni et al. (2024), in writing, when students master vocabulary, they can write essays with engaging word choices that are easy for readers to understand. In writing, they can explain what they understand in class, ask for clarification on anything they do not understand, and also explain what they need to know in subsequent meetings (Siregar et al., 2022). Weaknesses in word choice and writing skills should be a habit students must develop; teachers should focus on creating an exciting and fun classroom atmosphere so students feel comfortable and can more easily remember what they learn.

Technology is the best alternative in this era to help students improve their English skills easily. The media can take the form of game applications such as Duolingo, Quizizz, Wordwall, and the current popular one is *Educandy*. This kind of learning technology is widely used by teachers at various levels of education. Technology becomes an important resource for students and teacher assistants to facilitate learning and create a more engaging environment, so students can more easily absorb the material teachers provide. According to Islamiah et al. (2024), *Educandy* is emerging as a learning platform, especially in language learning. The *Educandy* application is not as well-known to some students as other applications. Its slogan, 'making learning sweeter,' shows that learning using this application or website is very fun, and it is also eye-catching because of the colorful display. *Educandy* was used as a learning medium that helps develop vocabulary knowledge through fun learning activities and builds students' active participation and motivation in learning (Arifatin et al., 2025; Dwi Saputri et al., 2023; Non Syafriaedi et al., 2025).

Some researchers have reported that the use of *Educandy* is an effective medium to improve students' English learning skills, particularly in mastering English vocabulary (Aenurrifah et al., 2025; Alchorni, 2024; Ardianti et al., 2022; Novia Ramadhanti et al., 2024; Salsabila et al., 2024). However, previous research on the use of the *Educandy* application media to improve writing skills is still very limited. A classroom action research has investigated the use of *Educandy* to improve elementary students' skills in

writing active sentences (Holisoh et al., 2025). Further, Research and Development (R&D) conducted by Tarisna et al (2025) focused on the use of *Educandy* to improve reading and writing literacy in elementary school students. So far, research by Tarisna et al. (2025) and Holisoh et al. (2025) still does not focus on the use of *Educandy* to improve each element (organization, content, grammar, mechanics, and style) required for students' writing skills, especially for vocational high school students writing procedural texts. Therefore, to address the research gap above, this study aims to investigate the use of *Educandy* to improve writing skills in vocational high schools. The researcher uses *Educandy* to introduce material related to the subject to be taught and explains how to play a game using the *Educandy* app. The key research question of this study was whether *Educandy*, as a learning medium, enhances students' writing skills.

METHOD

This study employed a quantitative, quasi-experimental design to examine the effect of the *Educandy* application on students' English writing skills, particularly *Procedure Text* (Ary et al., 2019). The design used was a non-randomized control group pre-test and post-test, selected to accommodate existing classroom conditions without disrupting instructional schedules.

The population consisted of 43 students of a private vocational high school in Jember. The population were divided into an Experimental group (21 students) and a control group (22 students). Cluster random sampling was applied by selecting two intact classes (DKV 1 and DKV3) through a lottery method to assign groups.

Data were collected using a writing test administered as a pre-test and post-test to measure students' ability to write procedure texts. The research was conducted in four meetings. In the first meeting, students completed a 30-minute pre-test, followed by an introduction to procedure texts (including structure, language features, and sentence patterns) using *Educandy* in the experimental group. In the second and third meetings, the experimental group learned writing procedure texts through *Educandy* activities, while the control group received conventional instruction. Both groups then produced a procedure text that included the structure of Goals, materials/tools, and steps. In the final meeting, students completed a post-test.

Data were analyzed using statistical techniques based on pre-test and post-test scores from both groups. As the normality test indicated a non-normal distribution (Table 1), the Mann-Whitney U Test was used as a non-parametric alternative to compare the two independent groups. The data were analyzed to determine whether there was a significant difference in writing performance between the groups.

Table 1. Tests of Normality

Groups		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Pre	Control	.271	23	.000	.793	23	.001
	Experimental	.149	24	.181	.922	24	.066
Post	Control	.156	23	.150	.909	23	.038
	Experimental	.096	24	.200*	.975	24	.781

*This is a lower bound of the true significance.

^a Lilliefors Significance Correction

RESULT

The experimental group learned the writing procedure text with treatment using the *Educandy* application/web. In comparison, the control group were taught in conventional learning. In the experimental group, after opening the *Educandy* website or downloading the application, students were asked to enter the code to play the games. The code that needs to be entered can be seen in Table 2. The code was given by the researcher to be

filled in the white column, as in the menu listed, for example, as in Figure 1 and Figure 2, to start the game.

Table 2. Game codes to input on *Educandy*

Components of Writing	Game Code	Type of Game
Learning Organization on Writing	138574	Multiple choice
Learning Content on Writing	13a123	Multiple choice
Learning Grammar on Writing	13a131	Multiple choice
Learning Mechanics on Writing	13851b	Match-up
Learning Style on Writing	13a16c	Memory



Figure 1. Educandy on desktop asked to enter code



Figure 2. Educandy on application asked to enter code

After entering the code, several games appeared as shown in Figure 3. Researchers had created fun games using the features of *Educandy*. Multiple-choice games were created to learn Organization, Content, and Grammar (Figure 3). Mechanics used a match-up game (Figure 4), while Memory games were used to learn style in writing (Figure 5). Each game has 5 questions for students to play.



Figure 3. Multiple choice games



Figure 4. Match-up games

When starting the game, *Educandy* does not display instructions or an explanation of the material that can be found at the end of the game. Hence, researchers need to explain the contents of the game and the material students learn verbally.



Figure 5. Memory games

After conducting all treatments and obtaining student scores, this section will discuss the results of T-test analysis to measure the difference in scores between the Pre-Test and Post-Test in the Control group and experimental group.

Based on the results of the normality test (Table 2), in the Pre-Test Control group, the significance value is 0.001; this shows that the data distribution is not normal because this value is less than 0.05. Meanwhile, in the Pre-Test experimental group, the significance value is 0.066; this value is normally distributed because it is more than 0.05.

In the Post-test control group, the significant value obtained is 0.038; this value indicates the data is not normally distributed because it is less than 0.05. On the other hand, in the Post-Test experiment, the significant value is 0.781; this indicates that the data is normally distributed because it is more than 0.05.

Further, the Homogeneity test was conducted to determine whether the difference between the control group and the experimental group is homogeneous. The homogeneity test in this study was conducted using SPSS Version 27 with a significance level of 0.05. The results of the homogeneity test can be seen in Table 3.

Table 3. The Data of Homogeneity Test

		Levene Statistic	df1	df2	Sig.
Pre	Based on Mean	3.085	1	45	.086
	Based on Median	.459	1	45	.502
	Based on Median and with adjusted df	.459	1	38.901	.502
	Based on trimmed mean	2.835	1	45	.099
Post	Based on Mean	7.926	1	45	.007
	Based on Median	5.097	1	45	.029
	Based on Median and with adjusted df	5.097	1	37.659	.030
	Based on trimmed mean	7.969	1	45	.007

Pre-Test scores in both classes based on the mean have a significance value of 0.086, and based on the median, 0.502, which means that this data is homogeneous because it is more than 0.05. Meanwhile, in the Post-Test results of both classes, based on the mean, the significance value is 0.007 and based on the median with a value of 0.029; this value indicates that the two data are not homogeneous because they are less than 0.05.

Due to the normality test, the results found were not normal; the authors used the Mann-Whitney test as an alternative to analyze data from the control group and experimental group, with the results as in Table 4

**Table 4. The Data of Homogeneity Test
Test Statistics^a**

	Pre	Post
Mann-Whitney U	188.000	93.000
Wilcoxon W	464.000	369.000
Z	-1.874	-3.897
Asymp. Sig. (2-tailed)	.061	.001

a. Grouping Variable: Kelompok

In statistical analysis using Mann-Whitney, the significance (2-tailed) value on the Pre-Test is 0.061; this value indicates that before treatment, there is no significant difference between the control group and the experimental group.

The Post-Test significance value (2-tailed) obtained is 0.001, which indicates a significant effect after treatment using Educandy on writing procedure text for class X students at SMK MA'ARIF Bangsalsari.

DISCUSSION

The results of the calculation using Mann-Whitney show that there is a significant difference in the Pre-Test and Post-Test results on the writing procedure text scores of the Control group and the experimental group. The data can be seen in Table 4.4, which shows the results of the analysis of the Post-Test score of the two groups on the significance (2-tailed), obtained as 0.001, which means that this value shows a significant effect of the use of Educandy on students' English Writing Procedure text. This result is also supported by Siregar et al. (022), which states that Educandy has a significant effect on students' writing skills.

According to Lubis & Harahap (2023), with various game features such as multiple-choice, memory, match-up, crosswords, hangman, and anagrams, teachers can create a

variety of learning materials to be taught using *Educandy* media as a medium of learning that aims to get students' attention and increase their understanding of the material being studied.

The use of *Educandy* in learning activities can make it easier for students to understand learning materials well. (Islamiah et al., 2024) In her research, she argues that *Educandy* combines interactive elements and games strategically to increase student motivation and adopts a fun approach; this application can ignite student interest and encourage active participation in the learning process.

Based on the research, the results of the mean scores from the Pre-Test and Post-Test show that the use of *Educandy* significantly increases English procedural text writing skills among high school students. Through its interactive features, *Educandy* can create an easy-to-understand learning environment and encourage active involvement of learners in the learning process. This makes *Educandy* an effective and innovative learning medium that supports the development of students' writing skills more optimally compared to traditional learning methods (Aqabah et al., 2025; Natalia et al., 2024).

CONCLUSION

Based on the results of the research that has been conducted, it can be concluded that there is a significant effect of the use of *Educandy* on the English Writing skills of vocational high school students in the procedure text material for tenth-grade students. This result is evidenced by the calculation results, which show that the Post-Test value of the experimental group is much higher than the Post-Test value of the control group. It would be better if the use of *Educandy* test questions helps students understand the material learned in procedure text as well as develop students' writing skills in English. The limitation of this research was that the duration of the treatment was relatively short, consisting of only a few meetings. As a result, the study may not fully capture the long-term effects of using *Educandy* on students' writing development, particularly in terms of retention and transfer of skills. Future research is therefore recommended to involve a longer treatment duration to strengthen the validity and applicability of the findings.

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