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THE EFFECT OF DIGITAL PICTURE SERIES ON STUDENTS' WRITING PROCEDURE TEXT AT TENTH GRADE OF SMAN1 KRAMATWATU

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ABSTRACT

This study aimed to determine the effect of digital picture series as media on the writing skills of procedure texts of class X students of SMAN 1 Kramatwatu. This study uses a quasi-experimental research method with a nonequivalent control group design. The population in this study were all students of class X SMAN 1 Kramatwatu totaling 314 students with two classes as samples, namely class X4 totaling 40 students as the experimental class and class X1 totaling 40 students as the control class. The data collection technique used was a procedure text writing test. To test the pretest hypothesis, the t-test was used and the results of the study showed a calculated t value = 0.541 and t table = 2.000 which means there is no difference between the experimental class and the control class. To test the posttest hypothesis, the results of the t-test showed a calculated t value = 12.662 and t table = 2.000 which showed a significant difference between the experimental class and the control class after the teaching and learning process was carried out. This shows that the use of digital picture series media has a significant effect on the writing skills of class X students of SMAN 1 Kramatwatu.

Keywords: digital picture series, writing, procedure text

INTRODUCTION

English is considered a crucial foreign language, as it is used to advance science, technology, art, and culture, and it is also vital for establishing international relationships. In formal education, English is studied from elementary school to college level. Therefore, English is one of the subjects that must be learned by students. In English, there are four skills that must be learned, namely; listening, reading, writing, and speaking. Among those skills, writing is often regarded as one of the important skills for students to master.

Writing not only helps students express their thoughts more clearly but also enhances their reading, organizing abilities, and vocabulary. Through writing, students can also better organize and communicate their ideas, which is vital for academic success. Writing skills also enhance expression by allowing individuals to communicate indirectly with others, convey messages, stimulate imagination, and foster creativity (Suroiya, 2022).

However, as writing is thought to be one of the difficult skills, it is often perceived as a challenging skill to learn, particularly in the context of procedure texts. A procedure text is a type of text that provides instructions or steps on how to accomplish something. It is designed to explain how tasks are completed in a sequential manner (Saputri, 2021). this type of text is commonly used to explain how to create or prepare something related to daily activities

Writing procedure texts allows students to express their ideas and opinions about the learning material. For instance, they might write a procedure text with the theme "how to make something (e.g., food)." However, based on observations at SMAN 1 Kramatwatu, it was found

that many students faced difficulties in the writing process with writing procedure texts because they did not fully understand the structure or purpose of such texts, making it hard for them to express their ideas effectively. To help students overcome challenges in writing, teachers must adopt engaging and effective teaching media.

Learning media is a communication tool between teachers and students, facilitating learning and stimulating students' thoughts, feelings, attention, and interests (Sugiantara et al., 2024). One of the interesting teaching media is digital picture series. The digital picture series presentation comprises sequential images that depict the story from beginning to end. This media fosters the connection of students' imagination, aiding in vocabulary acquisition, sentence formation, and paragraph organization. Digital picture series, utilizing the Canva application, is a modern and captivating learning medium. This media is designed attractively using the Canva application, and its application involves the use of LCD or projectors (Aulia & Liansari, 2023). The digital picture series presentation comprises sequential pictures that depict the instructions from beginning to end. This media fosters the connection of students' imagination, aiding in vocabulary acquisition, sentence formation, and paragraph organization.

There have been numerous of research studying the use of digital picture series as an interesting teaching media. For example, a research conducted by Aulia, T., & Liansari, V. (2023) entitled "The Effect of Digital Pictures Series Media on Simple Essay Writing Skills in Elementary School." This study aimed to determine the effect of digital picture series media on simple essay writing skills in the Indonesian language subject for third-grade students at SDN Tawangrejo II Pandaan. The research method used in this study was quantitative with a pre-experimental design, specifically the one-group Pre-Test-Post-Test design. The subjects of this study were 32 third-grade students. The sampling technique used in this study was saturated sampling. The data collection technique used in this study was a test to measure third-grade students' simple essay writing skills. The test was conducted with a Pre-Test and a Post-Test. The test consisted of writing a simple essay based on five indicators. The data analysis technique differed significantly between the pre-test and post-test results. This was indicated by the hypothesis test using the paired sample t-test with a significance value of 0.000, which means the sig value < 0.05. Therefore, the null hypothesis (H0) was rejected, and the alternative hypothesis (Ha) was accepted. The use of digital picture series media significantly affects simple essay writing skills.

Second study was conducted by Fitri, Z. H., et al. (2022) entitled “The Implementation of Picture Series in Teaching Writing Procedural Text at Tenth Grade of SMAN 1 Sakra in Academic Year 2022/2023” This study intended to determine whether the use of digital picture series is effective in teaching writing procedure text and which components of writing increase after the use of picture series in teaching writing procedural text at the tenth grade of SMAN 1 Sakra. The research method was quasi experimental with a control group pretest and post-test design. The population was tenth-grade students. The sample was 50 students from 2 classes, 10 E was the experimental group, and then 10 J was the control group. Samples were taken using random cluster sampling. The instrument of data collection was a written test. The result of the t-test was 3.953, and the t-table was 2.011 for df 48 (50-2) at a significant level of 0,05 (95%). It can be concluded that H0 was rejected and Ha was accepted. Thus, the use of picture series was effective in teaching writing procedural text in the tenth grade of SMAN 1 Sakra. While, the components of writing in the experimental group which increased overall after using picture series in writing procedure text were content, organization, and grammar.

The latest research was conducted by (Effectiveness et al., 2022). entitled “The Effectiveness of Using Sequence Picture Media in Teaching EFL Students in Writing Procedure Text”. This study was aimed to investigate the use of sequence picture media and its effectiveness in teaching EFL students how to write a procedure text. This study was conducted by using quantitative research with one group pretest-posttest design at Universitas Prima Indonesia. The steps involve administering pretest measuring the dependent variable, applying the experimental treatment X to the subjects; and administering a posttest again measuring the dependent variable. There were 40 students taken as the subject of the study. The data were collected through a pretest and a posttest. The result on this study showed that the students’ responses and performances were

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improved. It can be seen from the finding which showed that students' percentage in using the language components such as grammar, sequence words, commands or imperative sentences, and adverbial phrases accurately. The result of the questionnaire also showed that the students considered sequence picture technique was effective in helping them write procedure text correctly.

The three previous studies showed that the use of picture series as a learning medium can provide a positive contribution to students' ability to write procedure texts. This can be seen from the increase in students' understanding of the systematic steps in composing texts, as well as their ability to express ideas in a coherent and structured manner. These findings underline the importance of utilizing attractive and interactive visual media in learning to write, especially for procedure texts. This study continued similar explorations with different contexts, in order to enrich insights into the effectiveness of digital picture series in supporting learning to write procedure texts.

RESEARCH METHODOLOGY

This research was conducted using an experimental research design. Experimental research aims to determine the effect of specific treatments or interventions (Embungganda, 2020) It involved two groups of students: an experimental group and a control group. The experimental group was taught using digital pictures series, while the control group received instruction through conventional media. Both groups were given a pretest and posttest. In this research, the researcher took purposive sampling technique. The goal of the purposive sampling technique was to find people in the population who would likely to have specific traits or experiences and were willing to share them with the researcher (Tondang et al., 2023). In this way, the researcher selected the individuals or cases that focused on a relatively small sample. By using purposive sampling technique, the sample used in this research consists of two classes, namely X4 consisting of 40 students for the experimental class and X1 consisting of 40 students for the control class at SMAN 1 Kramatwatu and the total of the sample was 80 students. The reason why the researcher chose these classes because the two classes had the same number of students, namely 40 students for each class.

This study used two groups: the experimental class and the control class. As for the design of the quasi-experiment, Sugiyono (2017) represents it as follows:

Table 1
Non-equivalent Control Group Design

Group	Pretest	Treatment	Posttest
Experiment Class	YE	X	YE
Control Class	YC	-	YC

Description:
YC = Data result of pretest/posttest of the experimental class
YE = Data result of pretest / posttest of control class
X = Treatment using digital pictures series

In this research, the researcher used instrument for collecting data. the research instruments are tools used to measure and observe natural and social phenomena, referred to as research variables, (Sugiyono, 2018). The instrument was an English writing test of procedure text. The research data appears in the form of students' writing performance. Researchers should conduct two tests, namely the initial test and the final test. The initial test was a test given to all students of grades X4 and X1 of SMAN 1 Kramatwatu. This test was conducted to determine the skills of writing procedures/instructions before being given treatment. In this initial test, the researcher asked students to write a procedure text whose contents were determined by the researcher. This writing consists of a title, objectives, tools & materials, and steps. While the final test was a test given to all students of grades X IPS 1 and X IPS 2 of SMAN 1 Kramatwatu to measure the ability to write procedure texts. In this final test, the researcher used the same test as the initial test, but the researcher asked students to write different topics in a clear general structure, which was explained by the researcher in the treatment.

Population and Sample

According to (Kuupole, 2017). population develops a detailed view of the meaning of a

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phenomenon or concept for individuals. The population of this research was the students in the grade X of SMAN 1 Kramatwatu in the academic year in 2024/2025. The total number of students in tenth grade is around 314 students. See this table for more information:

Table 2. Population

Class	X 1	X 2	X 3	X 4	X 5	X 6	X 7	X 8
Students	40	40	37	40	38	39	40	40
Total	**314**							

In this study, the researcher used purposive sampling to determine the sample. In the purposive sampling technique, the researcher selects a group of subjects based on certain characteristics that are considered related to the study. Therefore, the researcher chose two classes, namely X4 as the experimental group consisting of 40 students, and X1 as the control group consisting of 40 students. The reason for taking the class as a sample was because the students in that class can represent the general characteristics of class X students of SMAN 1 Kramatwatu.

Table 3. Sample Spread

Class	Description	Sample
X1	Control Class	40
X4	Experiment Class	40
Total		**80**

Data Collection Technique

Data collection technique is how research collects data (Wulandari, 2024). In this study, the researcher used written tests as the data collection technique. The researcher assigned the students to write a procedure text. The purpose of this test was to assess students' abilities to write procedure text based on the language features used in the text such as the correct use of simple present tense, the correct use of command or imperative sentences, the correct use of adverbial phrases such as adverbs of time, manner, and place and the accurate use of order adverbs such as first, second, third, etc. The tests were in the form of pretest and posttest given to both the control class and the experimental class.

RESULTS AND DISCUSSION

Referring to the hypotheses of the study, the results are divided into two parts:

Pretest Hypotheses:
H0 : $\mu 1 = \mu 2$
H1 : $\mu 1 \neq \mu 2$
Post-test Hypotheses:
H0 : $\mu 1 = \mu 2$

In conducting the study, the researcher gave a pre-test on writing test to the students before the teaching and learning process. And then, right after the teaching learning process was conducted, the researcher gave a post-test on writing test to the students. After the results of the tests were analyzed, the following data was obtained:

Table 4. Descriptive Statistics of Pretests

Groups	N	Highest Score	Lowest Score	Mean	Median	Mode	Standard Deviation (S)
Experiment	40	79.00	65.00	71.00	71.00	68.00	3.816
Control	40	79.00	45.00	70.35	70.5	68.00 & 70.00	6.577

The results of the pretest in the experimental class by writing procedure text and carried out before treatment using digital picture series media showed the highest score was 79.00 and the lowest was 65.00, The average score was 71.00, the median was 71.00 and the mode was 68.00. Meanwhile, the results of the pretest in the control class showed the highest score was 79.00 and the lowest was 45.00. The average score was 70.35, the median was 70.5 and the mode were 68.00 and 70.00. These scores indicate that students' writing test in the experimental class was a little bit better than the control class.

Table 5. Normality Testing of the Pretests

One-Sample Kolmogorov-Smirnov Test			
Group	**Statistic**	**df**	**Sig**
Experiment	0.134	40	0.068
Control	0.158	40	0.13

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The image provided above was used to determine the normality test results using the one-sample Kolmogorov-smirnov test results for the pre-test of experiment data indicates a value of 0.068 which is greater than 0.05. Similarly, the pre-test of control data indicates a value of 0.13 which is greater than 0.05 too. Based on the explanation and the data presented, it can be concluded that the data follows a normal distribution.

Table 6. Homogeneity Testing of the Pretests

Levene Statistic	dfl	df 2	Sig.
2.384	1	78	0.127

The result on the image above shows that the sig value of pretests between experimental class and controlled class is 0.127. Therefore, the data of pretest is homogenous because it is higher than 0.05.

Table 7. Hypotheses Testing of the Pretests

Group	t-count	t-table	Sig (2-tailed)	Result
Experiment Control	0.541	2.000	0.590	H0 Accept H1 Reject

To answer the pretest hypothesis question, the researcher calculated and analyzed the writing test data using SPSS Version 25.0. Based on the data output below, it can be seen that the sig. value (2-tailed) is 0.590 > 0.05. Furthermore, from the t-test calculation, it can be seen that the t-count < t-table (0.541 < 2.000). Thus, it was concluded that H0 was accepted and H1 was rejected, which meant there was no difference in students' writing ability between the control class and the experimental class before the teaching and learning process using digital picture series media.

On the other hand, the data on the post test results on students' writing obtained in the form of descriptive data and inferential data as we can see in the following table:

Table 8. Descriptive Statistics of Post-tests

Groups	N	Highest Score	Lowest Score	Mean	Median	Mode	Standard Deviation (S)
Experiment	40	89.00	78.00	82.68	82.5	78 & 82	3.452
Control	40	79.00	45.00	66.73	67.50	65.00	3.627

The experimental class with the question of writing procedure text and carried out after treatment using digital picture series media showed the highest value was 89 and the lowest was 78, the average value of 82.68, the median of 82.5 and the modes were 78 and 82. While the results of the post-test in the control class showed the highest value was 79.00 and the lowest was 45.00. The average value was 66.73, the median was 67.50 and the mode of 65.00. The post-treatment condition of digital picture series media showed that the average value of the experimental class was much higher than the control class.

Table 9. Normality Testing of the Posttests

One-Sample Kolmogorov-Smirnov Test			
Group	**Statistic**	**df**	**Sig**
Experiment	**0.106**	**40**	**2.00**
Control	**0.096**	**40**	**2.00**

The image provided above was used to determine the normality test results using the one-sample Kolmogorov-smirnov test results for the post-test experiment data indicates a value of 2.00, which is greater than 0.05. Similarly, the post-test control data indicates a value of 2.00 which is greater than 0.05 too. Based on the explanation and the data presented, it can be concluded that the data follows a normal distribution.

Table 10. Homogeneity Testing of the Posttests

Levene Statistic	dfl	df 2	Sig.
0.30	1	78	0.863

The result on the image above shows that the sig value of posttests between experimental class and controlled class were 0.863. Therefore, the data of posttest is homogenous because it is higher than 0.05.

Table 11. Hypotheses Testing of the Post-tests

Group	t-count	t-table	Sig. (2-tailed)	Result
Experiment Control	**12.662**	**2.000**	**0.000**	**Reject H0 Accept H1**

To answer the post-test hypothesis question, the researcher calculated and analyzed the vocabulary mastery test data using SPSS Version 25.0. Based on the data output above, it can be seen that the sig. (2-tailed) value is 0.000 <0.05. Furthermore, from the T-Test calculation, it can be seen that t-count> t-table (4.972> 2.000). Thus, it can be concluded that H0 is rejected and H1 is accepted, meaning that there is a significant difference in writing procedure texts in students between the control class and the experimental class after the teaching and learning process using digital picture series media. It can also be concluded that the use of digital picture series media has a significant influence on the mastery of English vocabulary of class X students of SMAN 1 Kramatwatu.

CONCLUSION AND SUGGESTIONS

Conclusions

Based on the results of the research conducted in class X of SMAN 1 Kramatwatu in 2024, it can be seen that the results of the experimental class pretest obtained the highest score was 79.00, the lowest score was 65.00, mean was 71.00, median was 71.00, mode was 68.00, and standard deviation (S) was 3.816. While the results of the control class pretest obtained the highest mean score of 79.00, the lowest score was 45.00, mean was 70.35, median 70.5, modes was 68.00 & 70.00. Then from the results of the experimental class posttest, the highest score was 89, the lowest score was 79.00, mean 82.68, median 67.50, mode 78.00 and 82.00, and standard deviation (S) 3.452. Meanwhile, the results of the control class posttest obtained the highest score was 40, the lowest score was 45, mean was 66.73, median was 67.50, mode was 65.00, and standard deviation (S) was 3.627. The results of the pretest t-test of the experimental class and the control class obtained a calculated t value of 0.541 <t table 2.000 and a sig. (2-tailed) value of 0.590> 0.05. This meant that H0 was accepted and H1 was rejected, or there was no difference in the ability to write procedure texts of students in the control class and the experimental class before the teaching and learning process.Meanwhile, from the calculation of the t-test on the results of the post-test of the experimental class and the control class, the calculated t value was 12.662 > t table 2.000 and the sig. value of 0.000 < 0.05. This means that H0 was rejected and H1 was accepted, or there was a difference in the writing test of students in the control class and the experimental class after the teaching and learning process. Thus, it could be concluded that digital picture series had a positive effect on the writing ability of procedure texts of class X students of SMAN 1 Kramatwatu.

Suggestion

This study aimed to offer valuable insights for schools in providing the necessary facilities and infrastructure to support the teaching and learning process, ultimately enhancing the quality of learning outcomes in the future. In the context of teaching and learning, teachers can utilize digital picture series as a medium to make lessons more engaging, diverse, and conducive, thereby improving students' cognitive development. The findings of this research can serve as a resource for future researchers and as a reference for continuing studies that can be more innovative and evolve in line with the progress of the modern era.

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