The Effect of Wordwall Based Media on Students' Procedure Text Achievement in Ninth Grade Students

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ABSTRACT

The goal of this study was to analyse if there was a difference in student achievement in class IX when utilizing the Wordwall application to write procedure texts. Post-test In this study, only the Control Group Design was used. The students in this study were grade IX. One complete group cluster random sampling was utilized to collect the sample. There were two sample groups in this study: an experimental group that was taught using the Wordwall application, and a control group that was taught using traditional technique or without the use of the Wordwall program. A post-test was used to collect data after the two groups received different treatments for seven meetings. The data was then analyzed using descriptive statistical analysis and inferential analysis. The experimental group scored better in writing, with a mean score of 77.20 compared to 73.70 for the control group, according to descriptive statistical analysis. Furthermore, based on hypothesis testing in inferential analysis, the computed t value = 2.112 (t0.05) is greater than the t table value of 2.001 (t0.05) with a standard alpha level (α = 0.05). As a result, the first hypothesis is rejected in favour of the alternate hypothesis. As a result, it can be determined that there is a significant difference in the learning accomplishment of class IX students when it comes to creating procedural texts utilizing the Wordwall application.

1. INTRODUCTION

English is an international language that is used by people all over the world to interact with one another, particularly when speaking with people from foreign countries (Ismiyati & Saputri, 2020; Jin & Cortazzi, 2002; Le Ha, 2009; Shin, 2008; Singhal, 1997). Of course, we must master four skills to learn English: speaking, writing, listening, and reading. One of the most important skills to learn in English is writing. It can assist students in writing down their ideas, thoughts, feelings, opinions, beliefs, arguments, information, and even personal experiences (Adas & Bakir, 2013; Lin et al., 2018; Mehta & Al-Mahrooqi, 2015; Sadiku, 2015; Saraswati & Fifinova, 2018). Writing is one of the most efficient and effective ways for pupils to enhance their communication skills in English (Fageeh, 2011; Fareed et al., 2016; Velasco & García, 2014). There are two reasons why writing is so crucial in learning English. To begin with, writing is a means of communicating with people from other locations and countries. The second is that practically all jobs necessitate the ability to write. Students at junior high school are expected to be able to write in a variety of genres, according to the curriculum. Procedure, Narrative, Recount, Descriptive, Report, Explanation, Analytical, Exposition, Procedure, and Review are the several types of procedure (Aumüller, 2014; Minaee et al., 2021). Procedure text is one of the materials in ninth
grade junior high school (Suardana, 2012). A procedure text is one that instructs or guides pupils on how to make or use something (Aminah, 2018; Nasution, 2019; Noviarti & Adnan, 2018; Simbolon & Saragih, 2013; Suminar & Putri, 2018). A procedure text, they go on to say, is a sequence of instructions that performs a certain function (Shi et al., 2016). Based on the 2013 curriculum, students are asked to be able to compose a procedure text, whether it's how to make something or how to use something according to the structure and characteristics of a procedure text. Besides, the teacher teaches this text during this semester. Therefore, the researcher wants to know whether using Wordwall based media are effective or not to teach procedure text at SMP Negeri 4 Nusa Penida.

When the Covid-19 outbreak began to enter Indonesia, the Minister of Education issued a circular to all schools in Indonesia to carry out the online learning process or study from home (Ariyanti, 2020; Churiyah et al., 2020; Lestiyawati, 2020). Online learning can provide more opportunities to save time and money (Hashemi, 2021). This is also supported by the opinion who argue that distance learning has a number of drawbacks. Students feel bored for too long not meeting their teachers and friends, not all students have facilities for learning such as mobile phones or laptops (Bali & Musrifah, 2020; Sadikin & Hamidah, 2020). Teachers have difficulty controlling and maintaining the learning atmosphere due to the limited virtual space, teachers have difficulty controlling and maintaining the learning atmosphere due to the limited virtual space (Agustin et al., 2021; Ariyanti, 2020; Sreehari, 2020). Teachers have difficulty controlling and maintaining the learning atmosphere due to the limited virtual space, concentration and motivation of children learning from home and at school will undoubtedly be different. Students feel bored for too long not meeting their teachers and friends, lack of knowledge of teachers, students (Handarini & Wulandari, 2020; Trisiana, 2019; Yuzulia, 2021).

One of the factors that cause the students' achievement to decline is due to effective teaching techniques. Students tend to get bored quickly with the way the teacher provides materials and assignments (Davis et al., 2018; Sintawati & Abdulrahman, 2020; Suma et al., 2020). In learning process, the teachers just used learning media like Google Classroom, WhatsApp group, and Google Meet to teach students in this situation (Adnan, 2020; Day et al., 2021; Haryadi & Safitri, 2021). There are so many applications that teachers can use when teaching because usually in the application there will be games that can be played with students, so students will not be bored while studying. On the other hand, online learning has caused most students to experience health problems such as fatigue, headaches, or fever caused by too many tasks that must be completed in a very short time (Gustiani, 2020).

During a pandemic like this, teachers are expected to be able to use technology beside Google Classroom, WhatsApp group, and Google Meet such as learning applications that can make students not bored while at the same time making students more aware of the material presented by the teacher (Febliza & Okatariani, 2020; Qekji-Thaqi & Thaqi, 2021; Suroto et al., 2021). One of the learning applications that can be used by teachers to improve students' abilities in procedure text material is the Wordwall application. Wordwall is an application that can be used by anyone, especially teachers and students in the learning process (Ismiyati & Saputri, 2020). In this application there are eighteen free templates that can be used by teachers as learning media for students. Teachers can use templates such as Match Up, Missing Word, Unjumble, Open the Box, Anagram, Maze Chose, Quiz, Group Sort, Matching Pairs, Labeled Diagram, Gameshow Quiz, True or False, Random Wheel, Find the Match, Wordsearch, Random Cards, Flip Tiles, and Image Quiz. In this Wordwall also users or teachers can easily switch from one activity to another (Yuniar et al., 2021).

There are several previous studies related to wordwall. One of them is a study that aims to determine whether word walls are effective or not in teaching writing descriptive texts to tenth graders of high school. The research was conducted in the form of pre-experimental research using measurement techniques as data processing techniques and writing tests as a way of collecting data (Kurniasih & Arifin, 2015). Based on data analysis, it was found that the effectiveness measure of this study was 2.38. It can be concluded that there is a significant effect of using word walls in teaching writing descriptive texts to high school students. This is also in line with previous research which observed the effect of word wall on students’ vocabulary (Lubis, 2015). The result found improvement in students to be motivated toward English especially, in learning vocabulary. Related to the interview result, it could be known that students’ vocabulary mastery had improved. It asserted that by using word wall media improve students' vocabulary mastery in teaching reading. The studies above indicate that the use of wordwall is very suitable in teaching English language especially writing skill. Therefore, researcher in the present study aimed to analyse the use of the effect of wordwall based media on students' procedure text achievement in ninth grade students in SMP Negeri 4 Nusa Penida. This school is suitable to be the object of research because there have not been many similar studies that have analysed the effect of wordwalls on procedure text material, especially those carried out in junior high schools in Bali.

2. METHOD

This research is a quantitative study with an experimental design. Typically, the researcher used this experimental design to see if there is a relationship between the two variables or if they have an effect on each other (Miller et al., 2020). The Post-Test Only Control Group Design was employed in this study because one
class served as the control group, and another served as the experimental group. The population of this study is the ninth grade, which comprises of five classes at SMP Negeri 4 Nusa Penida, with specifics of classes IXA, IXB, IXC, IXD, and IXE. This sample represents the total number of ninth-grade students at SMP Negeri 4 Nusa Penida in the first semester, which totaled 149 students. At SMP Negeri 4 Nusa Penida, two classes were divided into an experimental and a control group. The experimental group was given the name IXE, while the control group was given the name IXD. The experimental group was given Wordwall to learn with, whereas the control group was given traditional media to learn with. The experimental and control groups were given a post-test after the treatment and pre-test to examine the influence of using Wordwall on students' procedural writing achievement. The post-test scores are used to establish whether the treatment was successful.

3. RESULT AND DISCUSSION

Result

The data was evaluated (descriptively and inferentially) and reviewed in this chapter to determine the impact of various therapies on students' writing achievement. The mean, median, mode, standard deviation, variance, range, maximum, and minimum writing achievement of both groups were determined using descriptive statistical analysis in this study.

Table 1. The Descriptive Analysis of Post-Test

<table>
<thead>
<tr>
<th>The Description of Data Analysis</th>
<th>Experimental Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students (N)</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Mean</td>
<td>77.20</td>
<td>73.70</td>
</tr>
<tr>
<td>Median</td>
<td>75.00</td>
<td>75.00</td>
</tr>
<tr>
<td>Mode</td>
<td>75</td>
<td>75</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>7.256</td>
<td>5.164</td>
</tr>
<tr>
<td>Variance</td>
<td>52.648</td>
<td>26.668</td>
</tr>
<tr>
<td>Range</td>
<td>26</td>
<td>21</td>
</tr>
<tr>
<td>Minimum</td>
<td>67</td>
<td>67</td>
</tr>
<tr>
<td>Maximum</td>
<td>93</td>
<td>88</td>
</tr>
<tr>
<td>Sum</td>
<td>2316</td>
<td>2213</td>
</tr>
</tbody>
</table>

As shown in Table 1, the descriptive analytical measurement revealed a significant difference between two groups. There are 30 pupils in each of the experimental and control groups. The experimental group had a mean score of 77.20, while the control group had a mean score of 73.70. It means that the experimental group's students' arithmetic average was higher than the control group's mean score. The median score of the experimental group was the same as that of the control group. The experimental group had a 75.00 median score, while the control group received a 75.00 median score. It means that the experimental group's middle score was identical to that of the control group. The control group's mode was 75, while the experimental groups was 75. It's safe to assume that the most often occurring score in the experimental group was higher than in the control group.

In terms of standard deviation and variance, the control group scored higher. The standard deviation for the experimental group was 7.256, whereas the standard deviation for the control group was 5.164. It meant that the mean score of the experimental group did a better job of representing the score of the full group. Furthermore, the experimental group had a variation of 52.648, whereas the control group had a variance of 26,668. The control group's variance was higher than the experimental group's, therefore their mean score was closer together; the experimental group's mean score, on the other hand, was more spread out. The experimental group had 26 students in its range, while the control group had 21. Statistical analysis can be used to describe the distribution of data for each group in the form of a table and histogram. The overall number of participants in the experimental group was 2316, while the total number of participants in the control group was 2213.

Classical assumption

Table 2. Test of Normality

<table>
<thead>
<tr>
<th>Group</th>
<th>Kolmogorov-Smirnov*</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistic</td>
<td>df</td>
</tr>
<tr>
<td>Score</td>
<td>Experimental</td>
<td>0.186</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>0.172</td>
</tr>
</tbody>
</table>
The significant value of the experimental group was 0.186, whereas the significance value of the control group was 0.172, according to the Shapiro-Wilk in Table 2. Both classes have a significance value larger than 0.05 (p > 0.05). It means that both groups were evenly dispersed.

Table 3. Test of Homogeneity of Variance

<table>
<thead>
<tr>
<th></th>
<th>Levene Statistic</th>
<th>df 1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score Based on Mean</td>
<td>2.776</td>
<td>1</td>
<td>58</td>
<td>0.101</td>
</tr>
<tr>
<td>Based on Median</td>
<td>1.491</td>
<td>1</td>
<td>58</td>
<td>0.227</td>
</tr>
<tr>
<td>Based on Median and with adjusted df</td>
<td>1.491</td>
<td>1</td>
<td>49.209</td>
<td>0.228</td>
</tr>
<tr>
<td>Based on trimmed Mean</td>
<td>2.524</td>
<td>1</td>
<td>58</td>
<td>0.118</td>
</tr>
</tbody>
</table>

According to Table 3, the homogeneity test's significance value (sig.) based on the mean was 0.101. Based on the median, the significance value (sig.) was 0.227. The significance value (sig.) was 0.228 based on the median and adjusted df. The trimmed mean yielded a result of 0.118. Both groups' variance was assessed to be more than 0.05 (p > 0.05). Both groups were homogeneous, according to the data. After the data had been checked for normality and homogeneity, a t-test was conducted to see if there was a significant difference in writing achievement between students who were taught using the “Wordwall Application” and those who were not. The results of the Independent Sample Test (t-test) are displayed in the table below.

Hypothesis testing

Table 4. Independent Sample Test

<table>
<thead>
<tr>
<th>Statistic</th>
<th>F</th>
<th>Sig.</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Differe</th>
<th>Std. Error</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>2.776</td>
<td>0.101</td>
<td>2.112</td>
<td>58</td>
<td>0.039</td>
<td>3.433</td>
<td>1.626</td>
<td>0.179, 6.688</td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td>2.112</td>
<td>52.380</td>
<td>0.040</td>
<td>58</td>
<td>0.039</td>
<td>3.433</td>
<td>1.626</td>
<td>0.171, 6.696</td>
</tr>
</tbody>
</table>

The result was read in multiple phases based on Table 4, to interpret this outcome, the first step was to decide which row should be read. Under the headings "equal variances assumed" and "equal variances not assumed," there are two rows. To accomplish so, the "Levene's Test for Equality of Variances" was used as the initial set of statistics. According to the table above, the Levene test's significance value (Sig.) was 0.101. It had surpassed the threshold of 0.05. (The standard alpha level). It signifies that in terms of data variances, the sample groups were judged homogeneous. Finding t crucial values in the collection of t tables was the next stage. The t observed (t) of 2.112, its degree of freedom (df) of 58, and its observed level of significance (Sig.) are all listed in the "equal variances assumed" row of the second set of data under the heading "t-test for Equality of Means." The two-tailed sig. was 0.39. Sig. (1-tailed) x 1/2 = 0.039 x 1/2 = 0.0195. Sig. (2-tailed) x 1/2 = 0.039 x 1/2 = 0.0195. The degree of freedom (df) of 25 and the conventional alpha level (=0.05) were required to determine the correct t critical values in the set of t tables. A portion of t table is shown in the table below. The t critical values for degree of freedom, which is 58, and the standard alpha level of 0.05, which is 2.001, may be found in the table above. The t observed (tobs) and t critical values (tC) from the t table were then compared. The observed t is 2.112, and the t critical value is 2.001. It is evident that the observed t value is greater than the t critical value (tobs > tC). Furthermore, the observed level of significance (Sig. 1-tailed) = 0.0195, which is lower than the normal alpha level (≠0.05). The alternative hypothesis (H1) was accepted since the value of Sig. (1-tailed) was less than 0.05 (p 0.05) and t observed was more than t crucial values (tobs > tC). It indicates that there was a substantial difference in writing achievement between pupils who were taught using the "Wordwall Application" and those who were not.
Discussion

This was an experimental study that looked at the impact of the "Wordwall Application" on ninth-grade students at SMP Negeri 4 Nusa Penida's procedure writing achievement in the academic year 2021/2022. The value of t was 2.112, and the value of Sig. (1-tailed) was 0.0195, according to the inferential statistical analysis. The alternative hypothesis (H₁) was accepted because the value of Sig. (1-tailed) was less than 0.05 (p 0.05) and t observed was more than t crucial values (2.112 > 2.001). It suggests that there was a substantial difference in writing achievement between pupils who were taught using "Wordwall Application" and those who were not. It was discovered that in the academic year 2021/2022, the "Wordwall Application" had a substantial impact on ninth-grade students' procedure writing achievement at SMP Negeri 4 Nusa Penida. The students were given "Wordwall Application" as advice in writing process text in this study. There were numerous "Wordwall Application" templates available for the researcher to employ in the learning process. However, the researcher in this study only used Find the Match, Missing Word, and Random Cards. Wordwall is an online program with several features, including bulletin boards with diverse themes or templates and activities, as well as a game as a learning aid. With several themes or templates available, it will make it easier for the teacher to prepare or create material according to the teacher's wishes.

This result of study in line with previous study that investigated middle school students' perspectives and understanding of word walls by conducting individual interviews (Harmon et al., 2009). After the six-week intervention observations, along with the post-interviews with the students, revealed that the interactive word wall instructional framework is an engaging and valuable means of learning and retaining vocabulary and concepts for middle school students. It is also supported by other study that investigate whether students' writing skills is improved through word wall as media of students of the eighth year at SMP Negeri 2 Sumowono (Elyana & Rini, 2021). It showed that the implementation of word wall was successful to improve progressively by knowing the passing grade, that is 70. In conclusion, the writers can conclude that word wall can be used as media to improve the students' writing. In addition, by using applications in learning, especially learning English, students will become more enthusiastic in learning, because by using conventional methods or lecture methods without any media supporting learning, students will become bored more quickly. Using applications, especially for ninth graders, will help them to use their smartphones, not only in searching for news or other things, but can also be used for studying. The researcher's suggestion is that other researchers who are interested in conducting further research conduct this study on a wider and more diverse population and genre of writing material. The research is limited to junior high school students and the procedure writing text type.

4. CONCLUSION

Based on the data and discussion in this study, it can be stated that at SMP Negeri 4 Nusa Penida in ninth grade, there is a substantial difference in students' procedure writing achievement between students who are taught using "Wordwall Application" and students who are not. The "Wordwall Application" can help students enhance their writing skills during the learning process. Students become more active and confident as a result of being able to study while playing games, and they are more motivated to learn English, especially while composing procedural manuals.

5. REFERENCES


