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The Effect of Using Picture Word Inductive Model (PWIM) on Students Writing Descriptive Paragraphs Ability

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Abstract: Mastering writing is a fundamental skill that can be challenging even for native speakers. In this research, a quantitative experimental design was employed. Specifically, a quasi-experimental design with a non-equivalent control group design was utilized. The research subject is first grade students of SMPN 01 Sumberbaru Jember which covers up to 56 students which devided into two groups (experimental group and control group). The data are collected by using writing test and paying attention to content, organization, vocabulary, language use and writing mechanics. The findings of the research indicated a significant difference in scores between students who were taught using the Picture Word Inductive Model and those who were not. According to the statistical calculations, the experimental group attained a mean posttest score of 79.57, while the control group obtained a mean score of 60.14. The two-tailed significance value (sig) was found to be 0.00, which is below the alpha level of 0.05. Consequently, the null hypothesis (Ho) was rejected, and the alternative hypothesis (H1) was accepted. In conclusion, the Picture Word Inductive Model (PWIM) proved to be an effective approach for teaching writing descriptive paragraphs to junior high school students.

Keywords: Picture Word Inductive Model; Writing Ability; Descriptive Paragraphs

INTRODUCTION

Writing is one of the basic skills that students should master in their schools. According to Graham (2019), writing is a fundamental skill to master. Writing serves as the starting point, the foundation upon which our understanding grows. It represents the initial stage where ideas and thoughts are planted, giving rise to further development and exploration. Writing produces a tangible and valuable output. It represents the manifestation of our thoughts and ideas, providing a means for communication and sharing knowledge. Writing helps to solidify and deepen our understanding by capturing and retaining our thoughts and insights over time.Taylor (2009) states that writing is the seed, the fruit and the pickle of our understanding. It implies that if we want to write something, we should be just as certain as possible about what we are writing or talking about and bring the concept into creation, not only in utterances but we record and preserve it into script. In summary, writing plays a crucial role in the growth, fruition, and preservation of our understanding and knowledge.

However, the challenge lies in the fact that numerous students acknowledge writing as a complex skill that requires effort and proficiency to acquire and excel at. This opinion is also supported by Richards and Renandya (2003) who state that writing is the most difficult skill to master for second language learners. This is because writing evolves with generating the ideas and put the ideas into readable phrases, sentences or text. Rass (2018, p. 1) also agrees that writing is the most difficult skill to master even for native speaker because writing deals with the variety of topics such as content, organization, purpose, audience, vocabulary and the writing's mechanics such as capitalization, spelling, and punctuation. After doing little research and interviews with the teachers related to the students' writing test, it was found that there are some problems that faced by students during their writing activities. Difficulties in gaining idea, poor grammar mastery, lack of vocabularies, and low motivation in writing are some problems that occur in writing classes. A solution

that usually offered by teachers is using model of learning in the teaching and learning process, in this case Picture Word Inductive Model (PWIM) is used to teach writing descriptive text.

Picture Word Inductive Model (PWIM) is a model of learning to teach reading and writing using integrated language arts. This approach or method covers component skills of structural and phonetics analysis, spelling and mechanics of words and sentences. The familiar objects in the pictures can bring out and obtain words from learner's listening and speaking vocabularies (Calhoun, 1999) and with the help of picture that brings some clues and implicates the words, it will enhance their thinking about things or objects in the picture. Later after learners get the words from the picture, teacher will guide gradually to arrange the word into sentences than it will grow into paragraphs.

According to Calhoun (2009), the Picture Word Inductive Model (PWIM) is a teacher-facilitated process whereby teachers help students find words from pictures, expand their word lists for writing and sight reading, develop phonetic and structural rules, and then apply observation and logical reasoning analysis to their writing. This method is employed to direct pupils while they begin their initial writing process and help them develop their ideas. Furthermore, it enhances their vocabulary, grammar, phonetics, mechanics, and spelling as they write text. Additionally, the Picture Word Inductive Model (PWIM) is an efficient teaching method that may be used with the entire class, in small groups, pairs, or one-on-one. It involves simple actions like looking for new words, hearing the words, and identifying the pictures.

The study that was conducted by Rachel and Samban (2022) shows that Picture Word Inductive Model is effective to teach students writing descriptive text. This study was focus on senior high school students. It also only covers 4 writing criteria to rate the students' writing. Apparently, there are some differences in language level and mastery between senior high school students and junior high school students and also the resercher adds some writing criteria of previous research from content, vocabulary, language use, and writing mechanics into 5 components of writing, those are; content, organization, vocabulary, language use, and writing mechanics. Therefore, in this study the researcher aims to investigates the effectiveness of Picture Word Inductive Model (PWIM) to write descriptive paragraphs for junior high school students.

As written by Yuniyarsih and Saun (2014) that there are several advantages of using the Picture Word Inductive Model (PWIM) that can affect the fluency in writing descriptive text, the benefits are:

1. The Picture Word Inductive Model (PWIM) provides concrete visuals for learning new words, phrases and sentences
2. The students will feel that they are part of the class community and feel confident to participate in class activities because they label the pictures together and try to arrange the word together. As a part of the community, it will engage students' self-confidence and motivate them to participate in class. Thus, students can classify words into various word groups
3. The students are taught to know how to inquire in a word and sentence structure based on the picture that have been labelling with the PWIM strategy. And later the students can easily classify the words into variety of groups of words.
4. The students can make sentences using new words that they found in the picture by using the Picture Word Inductive Model (PWIM) strategy. It also encourages them to understand the connection between reading and writing. A part from that, students are assisted in discovering new patterns and relationships in English, enabling them to apply this learning to newly discovered words.
5. By using the Picture Word Inductive Model (PWIM), students can get benefit from teacher's modelling of keywords and concepts. With practice, they can learn how to make sentences and paragraphs related to the subject matter.
6. Picture Word Inductive Model (PWIM) can help teachers to provide a better curricular and teaching balance by focusing lessons on composing and understanding subjects.

METHODOLOGY

Research Design

In this research, the researcher choses qualitative research as the type of research, since data that collected one in the form of number. Quasi-experimental design specifically non-equivalent control group design is used for the type of this research.

Population and Sampling

Since the chosen research design was quasi-experimental design (non-equivalent control group design), there will not be randomization on the sample that will be used. The sampling technique that used in this method was probability sampling which includes Cluster Sampling (area sampling). In this research, the population was first grade students of SMPN 01 Sumberbaru Jember Academic year 2022/2023. The number of first grade students in SMPN 01 Sumberbaru is 150 students. The classes that chosen were class VII A (30 students) where they became experimental group and class VII B (30 students) where they became control group. These two classes were selected because there were still low student English learning outcomes, the learning process was slow and conveyed in only one direction there has not done this research before.

Intervention Procedure

This research was conducted for 2 weeks from 22nd May 2023 to 3rd June 2023. The treatment given were three times on each experimental group and control group after they got examined by pre-test. After that, the post-test was given to know the effectiveness of Picture Word Inductive Model on students' writing descriptive paragraphs ability.

Instrument

The instrument that used to measure the students' writing ability was in the form of writing test that were made by researcher. The scoring rubric was adapted from ESL Composition Profile of Jacobs *et al.* (1981 in Weigle, 2002). It rates the writing by five categories and each category have their own points; content (30 points), organization (20 points), vocabulary (20 points), language use (25 points), and writing mechanics (5 points). What is meant by content here is how the writing has complete and clear topic and it also has some details related to the topic. And for organization of writing here is how identification section is complete and the arragement of the description section is well-arranged using proper connectives. Vocabulary component is the effective choice of words and word forms. Language use in this components means the writing should has few errors of agreement, tense, number, word order/function, articles, pro-nouns, and preposition. And for writing mechanics in this components means the writing uses correct spelling, punctuation and capitalization.

The validity test used is content validity, in this case the instrument was considered to be valid because it was suitable with applicable curriculum in the junior high school. Inter-rater reliability test is used to measure the tendency of the instrument. The researcher compute the correlation coeficient using Cohen's Kappa to know the reliability and the consistency of the measurement. The researcher compute the correlation coeficient using Cohen's Kappa to know the reliability and the consistency of the measurement. The result of Symmetric Measures of Inter-Rater Reliability was 0.734 on the number of 21 respondents for each raters.

Table 1. Kappa Score Interpretation

Kappa	Interpretation
< 0	Less than chance agreement
0.01 - 0.20	Slight agreement
0.21 - 0.40	Fair agreement
0.41 - 0.60	Moderate agreement
0.61 - 0.80	Substantial agreement
0.81 - 0.99	Almost perfect agreement

And after compared to Kappa score interpretation, it could be summarize that the two raters has substantial agreement.

FINDING AND DISCUSSION

This chapter showed the result and discussion of the research. It included description of the data and a series of hypothesis tests. The description of the data shows the scores of students' writing test, meanwhile the hypothesis tests consist of the normality test, homogeneity test and hypothesis test or t-test.

Descriptive Statistics of The Data

Table 2. Descriptive Statistics of Pre-Test Score

Descriptive Statistics					
	N	Min	Max	Mean	Std. Deviation
Pre-Test Experimental	28	25	89	59.21	18.719
Pre-Test Control	28	25	75	46.29	16.092
Valid N (listwise)	28				

The table 2. shows that the mean score of pre-test experimental group was 59.21 and the standard deviation was 18.719 with the minimum score of 25 and the maximum score of 89. In the other hand, the mean score of pre-test control group was 46.29 and the standard deviation was16.092 with the minimum score of 25 and the maximum score of 75.

Table 3. Descriptive Statistics of Post-Test

Descriptive Statistics					
	N	Min	Max	Mean	Std. Deviation
Post-Test Experimental	28	50	100	79.57	14.237
Post-Test Control	28	25	99	60.14	21.543
Valid N (listwise)	28				

The table 3. shows that the mean score of post-test experimental group was 79.57 and the standard deviation was 14.237 with the minimum score of 50 and the maximum score of 100. In the other hand, the mean score of post-test control group was 60.14 and the standard deviation was 21.543 with the minimum score of 25 and the maximum score of 99.

Normality Test

Normality test was carried out to know whether the data is normally distributed or not. To know the normality of the data, Shapiro-Wilk normality test was used to calculate the distribution of the data since the amount of respondent is less than 30 respondent. In the normality test of Shapiro-Wilk, the decision making is if the significant level > value $\alpha = 0.05$, the data is normally distributed and if the significant level < value $\alpha = 0.05$, the data is not normally distributed.

Table 4. Normality Test of Pre-Test Score

Tests of Normality						
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Pre-Test Experimental	0.153	28	0.092	0.937	28	0.094
Pre-Test Control	0.173	28	0.032	0.932	28	0.070

a. Lilliefors Significance Correction

Based on the table 4. Of normality test above, significant level of experimental group was 0.094 and control group was 0.070. The conclusion is the result of pre-test experimental group and control group were normally distributed because both data have higher value than $\alpha = 0.05$.

Table 5. Normality Test of Post-Test Score

Tests of Normality						
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Post-Test Experimental	0.162	28	0.057	0.932	28	0.068
Post-Test Control	0.138	28	0.186	0.935	28	0.084

a. Lilliefors Significance Correction

Based on the table 5. of normality test above, significant level of experimental group was 0.068 and control group was 0.084. The conclusion is the result of post-test experimental group and control group were normally distributed because both data have higher value than $\alpha = 0.05$.

Homogeneity Test

Homogeneity test is used to know whether the two groups; the experimental and control group were homogeneous or not for the purpose of conducting hypothesis test or t-test. If the significance is more than (>) 0.05, it means the null hypothesis (Ho) is accepted and there is no different variance between experimental and control group (homogeneous). But, if the significance is less than (<) 0.05, the null hypothesis (Ho) is rejected and there is different variance between experimental and control group. Below are the result calculation of homogeneity test of experimental and control group data.

Table 6. The Result of Homogeneity Test

Test of Homogeneity of Variances			
Students' Scores			
Levene Statistic	df1	df2	Sig.
1.983	3	108	0.121

Based on the table 6. homogeneity test of variance above, the result of pre-test and post-test were 0.121. Because the result is more than > (0.05), means the result is significant. In conclusion of homogeneity of variance test from pre-test Ho is accepted. It means that the variance of data were homogenous.

Hypothesis Testing

The hypothesis testing was conducted to check whether there was a significant difference in the result of pre-test and post-test after treatments were implemented. In this research, the null hypothesis (Ho) was formulated as there is no significant difference between students' writing ability who taught by using PWIM and those who are not using PWIM at first grade students' of SMPN 01 Sumberbaru Jember in the 2022/2023 academic year. While, the hypothesis alternative (Ha) was formulated as there is significant difference between students' writing ability who taught by using PWIM and those who are not using PWIM at first grade students' of SMPN 01 Sumberbaru Jember in the 2022/2023 academic year. This research used Analyze-Compare Means-Independent T-Test formula in SPSS Statistics 16 formula. The decision making if the sig (2-tailed) value < value $\alpha = 0.05$, H1 is accepted and Ho is rejected, and if the sig (2-tailed) value > value $\alpha = 0.05$, Ho is accepted and H1 is rejected. Below is the result of the t-test posttest of experimental and control group.

Table 7. Independent Sample Test of Post-Test Score

Independent Samples Test									
Result	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	2.95	0.09	3.98	54	0.00	19.42	4.88	9.64	29.21
Equal variances not assumed			3.98	46.8	0.00	19.42	4.88	9.61	29.24

According to the table 7. above, the value of sig. (2-tailed) equal variances assumed was 0.00, and it was smaller than the value $\alpha = 0.05$, it means H1 was accepted and Ho was rejected. Since H1 is accepted, it could be summarized that there is significant difference in post-test of experimental group and control group.

PWIM can improved students' ability in writing especially in writing descriptive paragraphs. This statement was based on the finding above. The high value growth of the experimental group after the treatment shows that PWIM can make it easier for students to make descriptive paragraphs. On the other hand, the control group did have an increase in scores but not as large and significant as the experimental group. Most of the control group still had difficulty writing descriptive paragraphs due to the difficulty in mapping thoughts, brainstorming and the lack of student activity in doing the mind-mapping method. According to Calhoun (1999), PWIM is intended to foster and encourage students' improvement in oral language development, particularly in expressing ideas clearly and giving oral responses to those of others or combining ideas. That is why this PWIM learning model could directly make students want to share their ideas with their other friends. The differences in opinion when interpreting pictures also create groups in diversity which can result a lot of vocabulary additions.

After the discussion above, it can be summarized that PWIM can be an effective model of learning to improve students' writing descriptive paragraphs. The PWIM involved the students to build up the vocabularies easily, express the imagination into writing forms and share and mix the ideas during learning process.

CONCLUSION

The results of the data analysis and discussion indicate that there is a significant effect in the writing abilities of the students between those who received instruction utilizing PWIM and those who did not. It denotes the rejection of the hypothesis (Ho) and acceptance of the alternative hypothesis (Ha). The average score's outcome revealed that the experimental group scored better than the control group overall. The findings of this study showed that PWIM could aid students in developing their vocabulary, structuring their sentences in a clear and concise manner, and improving their writing mechanics. As a result, their writing was improved. Consequently, it can be inferred that applying PWIM has a significant effect on students' writing skill at SMPN 1 Sumberbaru Jember in the academic year 2022–2023. This difference is between those who are taught using PWIM and those who are not. An alternative model of learning to junior high school pupils is the Picture Word Inductive Model.

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