

MACHINE IMAGES AS MEDIA TO IMPROVE CADETS' ABILITY IN WRITING DESCRIPTIVE TEXT

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Abstract

This study aims to determine the benefits of using machine images in improving the writing skills of cadets. Quasi-experimental designed was used by the researcher because the subjects were not randomly assigned. The population was the Polytechnic Bumi Akpelni of Marine Mechanical Engineering Technology Cadets in 2022/2023 academic year. In this study, the researcher used purposive sampling technique. The samples consisted of the cadets of Batch 57 semester 3 consisting of two classes. At the beginning of data collection, the researcher prepared the data through a lesson plan, namely the instruction instrument for the writing test and statements for the questionnaire. The teaching phase was carried out to measure whether both were appropriate, pre-test to find cadets' initial abilities and post-the test tests whether the treatment is effective in learning descriptive text. Through data analysis used, namely the scoring system in the form of rubrics, then to see significant differences in scores through studies of normality and homogeneity. From the pre-test result, the average score obtained was 56.66 from the experimental group, while it was 57.77 from the control group. After getting the treatment, the post-test average score of experimental group was 77.77 and control group was 70.10. From the t-test analysis, it was found that t-count was greater than t-table ($2.50 > 1.55$). It indicates that there is a significant difference of the scores from the two groups. Therefore, the researcher concluded that Learned Image Machine is very helpful in improving the ability to write Descriptive Text compared to ordinary teaching without this media.

Keywords: *Writing, Maritime English, Descriptive Text, Ship Machinery Image*

Introduction

Communication is mandatory and plays an important role in the work process on board, starting from communication with the Master, Head of the Engine Room and the crew on duty, especially now that ships operating both domestic and international cruises have implemented communication rules through the SMCP (Standard Marine Communication Phrases) and manual book for work. Particularly, the use of the SMCP should be made by seafarers as often as possible in order to manage the communication

gap with their colleagues coming from abroad. The SCMP enables individuals of all maritime nations to interact each other on the occasions when the languages are different. Thus, if there are crew members who come from different countries in a ship, then a leader on the ship preferably use English to communicate or give orders to his subordinates. It is purposefully to avoid miscommunication between them.

Unfortunately, many Indonesian seafarers are still weak in learning English. To avoid communication errors in operating machines and making documents, Maritime English is a subject that must be given to cadets, such as 4 important skills, namely listening, speaking, reading and writing. The four basic language skills namely listening, speaking, reading and writing are integrated. Thus, there is a fundamental and reciprocal relationship between oral language skills (listening and speaking) and written language skills (reading and writing). Consequently, mastery of the four language skills is essential for developing communication skills, namely the effective exchange of information and ideas (Al-Eiadeh, 2016).

In the Marine Mechanical Engineering Technology Curriculum, cadets gain the ability to write in explaining and describing reports such as engine log book, engine damage, spare parts and so on. Based on the statement above, descriptive text is one of the genres that must be mastered by cadets in learning English. According to Saragih (2019:78-87), descriptive paragraphs are paragraphs that clearly describe a person, place, or object in such a way that the reader can visualize the topic and enter into the author's experience. Furthermore, Murcia (2001: 461) states that media are tools or physical objects used by teachers to motivate students by bringing pieces of real life into the classroom and by presenting language in a more complex, more complete communication. Students interact with teachers in the teaching and learning process, this interaction serves to stimulate the five senses of cadets to receive information. Sometimes our cadets are required to use a combination of several senses in order to better understand the message conveyed. Images are the most frequently used visual tool compared to other media because they are easy to obtain by them selves.

Images that can be used for teaching can be made on cardboard or the like which are opaque, whether made by the teacher or taken from other sources. For example:

paintings, portraits, pictures from magazines and others. This image is used by the English lecturer of the Polytecnic Bumi Akpelni to provide an overview of the work, in the form of an object, a workplace, an event, an activity or everything so that the lecturer's explanation is more concrete and can be understood effectively by cadets rather than just explaining those things in words. With the image, the teaching-learning process will "increase the attractiveness of cadets. According to Andrew Wright (1989:2), images with various colors will be more interesting and arouse attention and interest in learning". This learning model relies on images as the main media in the learning process. By using the image provided for cadets, they can access via internet or books that they have studied in engineering class. Cadets will find it easier to understand learning material delivered by English lecturers, besides that cadets will be able to find out things they have never seen before (Utami, 2019). Seeing from the statement above, research on descriptive text is one of the genres to find out how effective descriptive text is in improving cadets' writing skills so that they can put ideas into sentences with pictures that they already know in engineering lessons.

Methods

The method used by the researcher in this study was a quasi-experimental method (Quasi Experiment Method). According to Riyanto & Hatmawan (2020: 138-139), experimental research method is a research method used for seeking influence on something that is given treatment on another in controllable conditions. In quasi-experiments, the researcher uses all subjects in the study group (whole group) to be given treatment, which is not using random subjects. Both two groups are given pre-test and post-test. In the pre-test, the cadets were asked to make descriptive text about people, things or place. Before the pre-test and post-test, there had a try-out test to examine whether the items were valid and reliable. During the treatment, the experimental group was taught by using Learned Image machine, namely Main Engine and Boiler image. Meanwhile, the control group was taught using the usual treatment method without using images of ship engines, such as images that cadets are less familiar with in the engine room, such as working tools in the docks. In order to examine the effectiveness of learned image machine on the cadets' ability in writing descriptive

text, the researcher compared the cadets' achievement in the experimental and control groups.

The samples were cadets semester 3 batch 57 Study Program of Marine Mechanical Engineering Technology. According to Supriati (2015: 44), the research object is "The variables studied by the researcher at the place where the research was conducted." From the above understanding it can be concluded that the object of research is a description of scientific objectives that will be explained to obtain information and data with specific goals and uses. As a sample, the researcher chose an experimental class through observation for one semester where Technical Class B had poor English ability such as grammar in writing and machine understanding so that the researcher taught descriptive text about familiar images in the Engine room and then Technical Class A as a class control by using conventional methods even though their English skills both grammar and writing are better. Trials were conducted to find out whether the instrument was good for use.

In collecting data, the researcher did several steps. The first step was to do a test. There were two kinds of test given to the cadets namely the post-test and the pre-test. First, the pre-test was carried out prior to the study. This test aim was to measure the ability to write the descriptive text. It was held before giving treatment to find out the initial knowledge ability of cadets in descriptive texts. Then, the second was the post-test. Post-test was carried out after the treatment to measure the cadets' achievement. It was given after doing all the activities. The second step was giving the questionnaire. Questionnaires were given to cadets in the experimental group to get some information related to the research that had been done. The goal of giving the questionnaire is to collect supporting data to find out the cadets' responses about the use of learned image machine on ship engines that have been studied in the auxiliary engineering class will have an effective impact or not. Questionnaire was given to make sure the cadets understand the questions and avoid miss understanding. There were 10 statements based on the guidelines, they were interest, difficulty, advantage, relevancy and effectiveness. The cadets gave check mark to the agreed, strongly agreed, or strongly disagreed.

There are two aspects that have been analyzed related to a good instrument, namely the validity and reliability of the instrument with the material in the curriculum. All activities for each group were carried out in four meetings. First, the researcher looked at the pre-test and post-test. Before the experiment was carried out, the cadets in both groups were given a pre-test. The instruments used in the pre-test were the same as the instruments used in the try out and post-test. The pre-test aims to determine the ability of cadets to write descriptive texts before receiving treatment. All cadets from both groups were asked to write a descriptive text about an image machine. In the pretest, students were given 45 minutes to write a descriptive text about the machine image. The pretest results were then analyzed using normality and homogeneity tests.

Results and Discussions

Before carrying out the pre-test and post-test, a try-out test was carried out first to produce a valid and reliable instrument. The tryout was carried out in a class that was not used as the experimental group or the control group. From the results of the pretest, the average value of the cadets was analyzed. The mean value of the control group was 56.66 and that of the experimental group was 57.77. The data in this study can be said to be homogeneous if the F-value is smaller than the F-table. Therefore, I made a calculation to find the F-value. From the calculations, the researcher got the following results:

Table 1. Homogeneity

Pre-Test	
F_{value}	1.11
F_{table}	2.26

For $\alpha = 5\%$, $n_1 = 22$ and $n_2 = 24$, the F_{table} was greater than $F_{value} (1/2 (0.025)(30;33)) = 2.26$. Based on pre-test calculations, $F_{value} < F_{table}$. ($1.11 < 2.26$). This shows that the pre-test is homogeneous. For $\alpha = 5\%$, $n_1 = 24$ and $n_2 = 22$, the F_{table} was greater than $F_{value} (1/2 (0.025) (30;33)) = 2.42$.

The researcher also analyzed the normality of the data before proving a significant difference in scores. Data can be considered normal or normal distribution if χ^2 is lower than χ^2 table. Therefore, I made a calculation to find χ^2 and got the following results:

Table 2. Normality

	Pre-Test Experimental Group	Pre-Test Control Group
χ^2	5.15	1.71
χ^2_{table}	7.61	7.71

For $\alpha = 5\%$, (total class) $k = 5$ and (degrees of freedom) $df = 5 - 3 = 2$, table χ^2 is χ^2 (0.05) (5) = 7.61. Based on the pre-test calculations of the experimental group, $\chi^2 < \chi^2_{table}$ (5.15 < 7.61). The results of the pre-test control group showed that $\chi^2 < \chi^2_{table}$ (1.71 < 7.71).

After conducting the pre-test, the researcher gave treatment to both groups. The experimental group was treated using machine images, while the control group was treated without any media. The post-test was carried out after the cadets were given treatment. The post-test aims to determine the ability of cadets to write descriptive texts after being given treatment. In the post-test, The cadets were given 45 minutes to write a descriptive text about people. After conducting a post test for both groups, the researcher assessed and analyzed the results of the students' work. The post-test results showed that the average post-test score of the experimental group was 77.77 and that of the control group was 70.10. It can be considered that the experimental group had a higher score than the control group. Table 3 presented the homogeneity post-test result.

Table 3. Homogeneity

Post-Test	
F_{value}	1.48
F_{table}	2.32

For $\alpha = 5\%$, $n_1 = 22$ and $n_2 = 24$, the F-table is $F_{\frac{1}{2}(0.025)(30;33)} = 2.32$. The result of post-test showed that $F_{value} < F_{table}$ ($1.48 < 2.32$) which meant that the post-test was homogeneous. Thus, it was concluded that the data in this study were homogeneous.

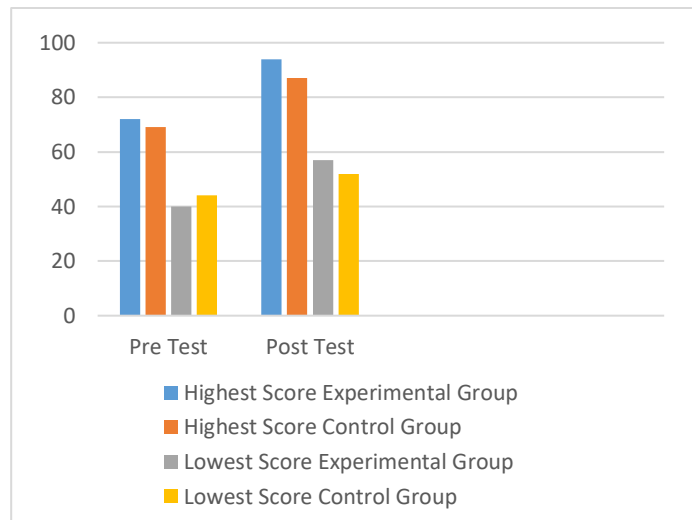
Before computing the t-test, the normality of post-test data needed to be checked first. The data should have normal distribution. The following is the computation of experimental group and control group normality of post-test.

Table 4. Normality

	Post-Test Experimental Group	Post-Test Control Group
χ^2	0.65	6.37
$\chi^2_{t_i}$	7.71	7.71

For $\alpha = 5\%$, (total class) $k = 5$ and (degree of freedom) $df = 5 - 3 = 2$, the χ^2_{table} is $\chi^2_{(0.05)(2)} = 7.71$. The result of post-test of the experimental group showed that $\chi^2 < \chi^2_{table}$ ($0.65 < 7.71$) and the control group also showed that $\chi^2 < \chi^2_{table}$ ($6.73 < 7.71$). It was concluded that the data in post-test of the experimental and control groups were normally distributed. The significant difference of the experiment could be seen through the difference of mean scores in two groups. The data were obtained from the students' pre-test and post-test result. Chart 1 shows the scores of pre-test and post-test of experimental group and control group.

Chart 1. Test Results of Experimental and Control Groups



In the chart, the highest pre-test score in the experimental group was 69, and in the control group was 62. In the pre-test, the lowest score in the experimental group was 40, and the lowest score in the control group. The experimental group was 44, in the post test the highest score in the experimental group was 90, and the highest score in the control group was 80. Meanwhile, the lowest score in the post test in the experimental group was 55, and the lowest score in the control group was 48. Based on the chart, it can be seen that both groups showed an increase after getting treatment. However, the increase in the experimental group was higher than the control group.

From the results of the cadets' test, their ability of writing descriptive texts increased after being given treatment using machine images in workshops that they have learned in the auxiliary engineering class, in this case the use of images that were known to improve learning descriptive texts in Marine Engineering Class.

The second thing the researcher found was that after the post-test was completed, the questionnaire was given to cadets in the experimental group to obtain information related to the research I was conducting. There were ten questions I provided and I have interpreted them in Indonesian so they understand well. In the first statement, the purpose of the item is to find out whether cadets likes writing descriptive text in English or not. The result was that 35.5% of cadets agree with this statement. This means that many cadets like to write in English.

The second item is to find out whether writing descriptive text in English using machine photo media is effective in improving the skills to write descriptive text in English for cadets or not. The results showed that 51.2% of cadets agreed. This means that the media can increase their skills and understanding to write descriptive texts in English.

The third statement is to find out whether cadets enjoys writing descriptive texts in English using image machine that have been studied or not. The data shows that 62% of cadets agreed. Hence, using the machine images that have been studied in writing descriptive text in English makes it easy to learn English.

The fourth point is intended to find out whether more attractive machine images are needed or not. The data showed that 45.8% of cadets strongly agreed with this statement. This means that interesting media are needed in writing descriptive texts in English with pictures that they already know and learn.

The fifth questionnaire item is to find out whether cadets easily understand writing descriptive texts in English or not. The results showed that 35.5% of cadets were unsure and disagreed with this statement. This means that 35.5% of cadets did not know their abilities and 35.5% of cadets had difficulty of understanding the writing descriptive texts in English.

For the sixth item, 55.3% of cadets agreed with the item. That is, writing descriptive texts in English using machine images that have been learned helps cadets more easily understand the material.

The seventh item is to find out whether machine images are used in writing English descriptive text or not. The results showed that 65% of cadets agreed. That is, the machine images that have been studied is suitable for use in writing English descriptive text.

For the eight statements, 59.5% agreed with the statements. That is, the machine images which are known to help cadets overcome their difficulties in writing descriptive text in English.

The ninth item is to find out whether cadets easily understand the benefits of familiar machine images or not. The data shows that 40.8% of cadets easily understand the use of machine image.

The last item is to find out whether the machine images that the cadets have learned can be used in the next class or not. The data showed that 60% of cadets agreed.

From the analysis above, the researcher can conclude that most cadets agreed that the machine images that have been studied is effective for improving cadets' writing abilities in descriptive texts as well as providing positive things for the enthusiasm for learning English for TRPK cadets Batch 57.

Conclusion

From the results of pre-test, the ability of writing descriptive text of the cadets of the Polytechnic Bumi Akpelni of Marine Mechanical Engineering Study Program Batch 57 semester 3 was still relatively low. It was revealed from the two classes that there were still many students who scored low on the pre-test. The average value of the control group was 57.77 and the average value of the experimental group was 56.66.

During the treatment, both students in the experimental group and the control group gave explanations about descriptive texts, but the researcher gave different treatments between the two groups. The experimental group was taught using machine images that had been studied, namely the main engine and boiler, while the control group was taught without media.

After calculating the results of the post-test, it shows that there was a significant increase in cadets' ability to write descriptive texts after receiving the treatment. The average post-test score in the experimental group was 77.77 and that of the control group was 70.10. In addition, from the results of the post-test, and the difference in average scores between the pre-test and post-test of the experimental group and the control group, it can be concluded that the use of machine images were effective in writing descriptive texts. It was also supported by the results of the questionnaire given to the experimental group after being given a post-test. It shows that the ability of the experimental group in writing descriptive text was higher than the control group.

Suggestions

By conducting research entitled "Machine Images as Media to Improve Cadets' Ability in Writing Descriptive Texts", I provide suggestions for future researchers and English lecturers in the Maritime Vocational Higher College.

First, in order to be a good model and facilitator for cadets in writing classes, lecturers must be creative in choosing media, make the teaching and learning process more outstanding and educative, and must be able to choose good writing materials for students so that cadets can improve their skills in writing. Campus lecturers can choose the use of media machine images that are learned in teaching – learning process, especially when the material is about descriptive text.

It is also suggested for the cadets in Maritime Vocational Higher College, they are expected to improve their English especially in writing descriptive texts because writing is the most complicated and requires precision skill in English. The ability of writing descriptive text is very useful for cadets to make reports, explain things on the ships and to foreign crews by studying the method of organization, content, grammar, punctuation and style, so that their writing results will be better. The perceived benefits are that the text is simple and easy to understand, so the descriptive text of machine images will help the cadets to understand writing in English easily.

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