Al-Ishlah: Jurnal Pendidikan
Vol.14, 4 (December 2022), pp. 7261-7268
ISSN: 2087-9490 EISSN: 2597-940X, DOI: 10.35445/Alishlah.v14i4.2204

The Influence of Discovery Learning Method and Reading Interest on Explanatory Text Writing Skills

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ARTICLE INFO

Keywords:

Discovery Learning;
Reading Interest;
Explanation TextWriting skills

Article history:

Received 2022-02-18
Revised 2022-08-22
Accepted 2022-12-31

ABSTRACT

The purpose of this research is to provide a detailed account of how discovery learning affects students' capacity to write explanatory texts and how this capacity interacts with students' overall reading interests. Competence with texting and writing. Quantitative research with a quasi-experimental design is the approach of selection. The participants in this analysis were all eighth graders. Purposeful sampling was employed (Class VIII.1 as the experimental class, 30 students and class VIII.2 as the control class, 30 students). A reading interest questionnaire and an evaluation of the participant's ability to write explanatory texts served as the research instruments. Explanatory text writing ability in the experimental group was found to be greater than that of the control group (Fcount(k) = 4.91 > Ft(k) = 4.20). Students in both the experimental and control groups who reported a high level of interest in reading produced better explanatory texts than those in the low-interest group (Fcount (b) = 11.47 > Ftable = 4.20). Writing explanatory texts is not moderated by a combination of discovery learning and reading interest (Fcount = 0.33 < Ftable 4.20).

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1. INTRODUCTION

The 2013 Curriculum places emphasis on Indonesian language instruction. In the updated 2013 Curriculum that was released in 2017, students are expected to comprehend and create written explanations. Core Competency (KI) IV entails "demonstrating the skills of reasoning, processing, and presenting creatively, productively, critically, independently, collaboratively, and communicatively in the concrete and abstract realms in accordance with what is learned in the classroom," which includes exercises in writing explanatory texts. Basic Competence 3.9, which identifies information from explanatory texts in the form of exposure to natural phenomena that is heard or read by paying attention to structure, linguistic elements, and content in writing, and Basic Competence 4.10, which

is presenting data information in the form of explanatory text about the process of occurrence of phenomena orally or in writing by paying attention to the struc

Explanatory text writing skills in Indonesian language learning are used to express ideas effectively and innovatively in conveying natural, social, and cultural. The explanatory text explains the process of natural, social, and cultural phenomena. Students' ability to write explanatory texts can be classified into several criteria: text structure, language context, word spelling, and language syntax (Yulistiani&Indihadi, 2020) . Writing an explanatory text is not the easiest thing. In the activity of writing an explanatory text, students must collect facts about the events they will write. The quality of explanatory texts made by students depends on the accuracy of the facts collected as well as the language rules used by students and learning styles (Azmi&Aburahman, 2019) .

For the learning of explanatory text writing skills to be effective and of high quality, the researcher uses one of the learning methods, namely the discovery learning method. This method can formulate problems, observe, make observations, analyse and present student-centred conclusions. This is in accordance with the opinion of Rosarina et al. (2016) , that the discovery learning method is very useful for students in learning because the application of this method uses direct experience activities so that students are directly involved in learning. Based on the research results from Inde, K. et al. (2020), the use of discovery learning methods can improve student learning outcomes because this method can provide opportunities for students to find, process, and map independently. This method is also able to strengthen the student's personality by increasing self-confidence through the discovery process.

Learning to write explanatory texts using the discovery learning method has been studied by Sarju (2020); the discovery learning method is predicted to be quite effective to be applied to subjects, especially learning to write explanatory texts. Based on the research results, students' explanatory text writing skills using the discovery learning method obtained high scores compared to conventional methods because this method was designed to improve students' conceptual understanding and knowledge.

Reading interest is listed in Basic Competence (KD) 3.9, which is to identify information from explanatory texts in the form of exposure to natural phenomena that are heard or seen, so researchers are interested in both methods for teaching students to write explanatory texts and how students learn to write them. Read with an awareness of the text's organisation, language, and topic. Their level of interest in reading may influence students' ability to write effective explanation texts. Having a passion for reading is crucial to a student's academic success. Students' progress in class will be affected by their level of interest in reading. According to findings by Winita et al. (2020), students' capacity to write explanatory texts is strongly influenced by their level of interest in reading. Students' ability to generate writing ideas is another benefit of reading for enjoyment. The findings indicated that students' ability to write explanatory texts had room for growth; this was owing to students' strong reading interest, which made it simpler for them to uncover and develop writing ideas.

2. METHODS

Quantitative research describes this study since it is analysed numerically. Reading interest questionnaire scores and eighth graders' explanatory text writing abilities test scores are presented in this research. According to Ahyar et al. (2020), quantitative research is a method used to investigate a certain population or sample through quantitative/statistical data gathering and analysis to verify or disprove a predetermined hypothesis. This study uses a quasi-experimental type (quasi-experimental). This method has a control group but actually cannot function to control external variables that affect the implementation of the experiment. This study will look at the effect of a treatment on variables with two sample groups, namely the experimental group and the control group. An experimental group is a group of students who learn using the discovery learning method, while the control group is a group of students who learn using conventional methods. The design

used in this study is a 2x2 factorial design, Ahyar et al. (2020) explain the factorial design by considering the possibility of moderating variables influencing the treatment (independent variable) on the outcome (dependent variable).

The population in this study were students of class VIII. The population is large and more than 100, so it is necessary to take a sample. According to Ahyar et al. (2020), researchers derive conclusions about a population by treating it as a statistically significant group of things or people who share particular attributes and characteristics. Purposive sampling was employed, with the experimental and control groups selected using a predetermined set of criteria. As defined by Ahyar et al. (2020), Purposive sampling involves selecting participants without regard to demographic factors such as location, age, or education. Given the small sample size, this study will only draw from two classes.

3. FINDINGS AND DISCUSSION

2.1 Explanatory Text Writing Skills Data for Experimental Classes Taught by the Discovery Learning Method

The explanatory text writing skill data are grouped into the frequency distribution of the explanatory text writing skill experimental class in the t table below.

Table 1. Frequency Distribution of Experimental Class Explanatory Text Writing Skills

Score	Frequency	Percentage (%)
100.00	1	6.25
95.83	1	6.25
91.66	2	12.50
87.50	3	18.75
83.33	3	18.75
79.16	3	18.75
75.00	2	12.50
62.50	1	6.25
Amount	**16**	**100**

Data analysis revealed that students in the experimental class who were subjected to treatment using the discovery learning method had a mean score of 83.85 (with a standard deviation of 9.11) on a scale from 100.00 (the highest possible score) to 62.50 (the lowest possible score) on an assignment testing their ability to write explanatory texts.

2.2 Data on Explanatory Text Writing Skills for Control Class Taught by Conventional Methods

Based on data analysis, the value of students' explanatory text writing skills in the control class who applied treatment with conventional methods obtained the highest score of 95.83, the lowest score of 58.33 and an average value of 78.38 from a sample of 16 people. The standard deviation obtained in the control class is 11.51. The following is data on the skill of writing the explanatory text for the control class grouped in the frequency distribution table for the skill of writing explanatory text.

Table 2 . Frequency Distribution of Control Class Explanatory Text Writing Skills

Title 1	Title 2	Title 3
95.83	1	6.25
91.66	1	6.25
87.50	4	25.00
83.33	2	12.50
79.16	1	6.25
75.00	2	12.50
70.83	1	6.25
66.66	1	6.25
62.50	2	12.50
58.33	1	6.25
Amount	**16**	**100**

The tests administered to the experimental and control groups look the same on the surface. As far as I can tell, the questions are worded exactly the same. The exam is a performance evaluation of your capacity to write analytical texts. The purpose of this evaluation is to compare and contrast students' learning outcomes in class VIII in terms of their ability to write explanatory texts using the discovery learning technique. Analysis of test results shows that students who were taught to write explanatory texts using the discovery learning approach performed better on subsequent tests than students who had been taught using more traditional approaches. While the highest score in the control group was 95.83 and the lowest score in the experimental group was 58.33 (for an average of 78.79), the scores ranged from 100 to 62.50 (for an average of 83.85) in the experimental group. The value of the ability to write explanatory texts was found to be significantly higher in the experimental group than in the control group.

The acquired score is linked to the Minimum Completeness Criteria (KKM) for the ability to write explanatory texts, which are set at 70 and are the same as those used for the experimental group. The conventionally taught control class has 75% of its students at or above proficiency, while the conventionally taught experimental class has 75% of its students at or below proficiency. When using the discovery approach, 93.73% of students graduated, while 6.25 % did not. Both classes received distinctive instruction, though. The discovery learning strategy is used to instruct the experimental group, whereas the tried-and-true approach is used with the control group. The same thing occurs in a classroom with a unique dynamic. The discovery approach to education fosters greater engagement and originality in the classroom. This is due to the fact that experiential learning operates in a unique fashion in comparison to more traditional forms of education. Students in the experimental class were more engaged in the material and asked more pertinent questions. Students in the experimental group were less vocal during instructional time compared to those in the control group. Students in the control group were not motivated to learn new material and instead asked questions out of boredom.

The results of testing the first hypothesis show that, in general, the results of the explanatory text writing skills test of students using the discovery learning method are higher than those of the explanatory text writing skills taught using conventional methods. The scores obtained by the experimental class were higher than those obtained by the students in the control class. In addition, there are also differences in the average value of the indicators between the experimental class and the control class.

Stimulation (offering stimulation), problem identification, data collecting, data processing, verification (evidence), and generalisation (drawing conclusions/generalisation) are the six procedures that must be carried out in teaching and learning activities. The first stage of the problem-based learning process is stimulation, during which the instructor poses questions, suggests books,

and engages the student in other learning activities that eventually lead to problem-solving preparedness. At this point, stimulation is meant to set the environment for the kind of learning interactions that might flourish and aid students when they venture forth into the material. The second type of statement is problem identification, in which the instructor encourages the class to come up with as many problems as possible that relate to the topic at hand. Then, a query or hypothesis is developed based on one of the options (temporary answer to the problem question). One effective strategy for teaching kids how to locate and evaluate difficulties is to give them practice in doing so. Third, the information gathered confirms or refutes the validity of the hypothesis. They can gather data by reading relevant materials, observing relevant things, conducting relevant interviews, performing relevant experiments, etc. Students learn to actively seek information that is relevant to the issue at hand as a result of this phase.

Fourth, the stage of data processing, which is also called coding or categorisation, is where the idea of generalisation is formed. From these generalisations, students will learn about other answers and solutions that need to be proven logically. Fifth is the verification stage, where students carefully look at the data processing results to see if they match up with the hypothesis set up in the first stage with alternative findings. Verification is based on the idea that students will learn well and creatively if the teacher gives them chances to figure out a concept, theory, rule, or understanding by looking at things they see in their everyday lives. Sixth, the generalisation stage (drawing conclusions/generalisations) is the process of drawing conclusions that can be used as general rules and apply to all events or the same problem by considering the results of verification. Based on the descriptions of how each class was treated differently, it's safe to say that using the discovery learning method to teach students how to write explanatory texts can improve their ability to do so. When you learn with traditional methods, you don't get good at writing explanatory texts. This is because traditional methods treat students like passive objects, so they can't explore their knowledge and skills in a wide range of ways.

The results of testing the second hypothesis indicate differences in the results of the explanatory text writing skills of students with high reading interest and students with low reading interest. It is in line with Winita et al. (2020) research. That is, the results of the explanatory text writing skills of students with high reading interest are higher than those with low reading interest in the experimental and control classes. The explanatory text writing skill score of students who had a high reading interest in the experimental class got the highest score of 100 and the lowest score of 75 with an average score of 85.41, while students with low reading interest had the highest score of 91.66 and the lowest score was 62.50. with an average value of 82.28. Furthermore, the value of the explanatory text writing skills of students who had a high reading interest in the control class obtained the highest score of 95.83 and the lowest score of 62.50 with an average score of 81.76, while students who had a high reading interest were 87.50 and the lowest was 58. 33, with an average score of 74.99.

The score shows that the discovery learning method can be used in the learning process to write explanatory texts for students with high and low reading interests. It is in line with Palu's (2012) research. Students with a high reading interest will automatically have high knowledge of writing explanatory texts, so it will be easy to follow every step of the discovery learning method. With high reading interest, students will have ease in writing texts. The discovery learning method is a method used to involve concepts based on student experience with teacher direction so that students can find, design, perform, and present depending on their own experience. The discovery learning method used by the teacher is able to guide students to answer or solve a problem. Therefore, the discovery learning method is a learning method that requires teachers to be more creative in creating situations that can make students learn actively in discovering their knowledge.

Interaction occurs when the influence of one factor depends on another factor in influencing something. This means that each factor between the discovery learning method and reading interest is thought to be interrelated in influencing the skill of writing explanatory text. The process of interaction between variables is described as follows. Based on the results of the third hypothesis test

of two-way ANOVA (factorial with a level of 2x2), it can be concluded that there is no interaction between discovery learning methods and reading interest in influencing explanatory text writing skills. After analysing the data, it is proven that some students have high reading interest and low writing scores, and vice versa. However, overall, the average score in learning explanatory text writing skills was higher for students with reading interest than students with low reading interest. As previously stated, interaction is the treatment effect of a particular learning method. However, reading interest does not necessarily fully determine the success of explanatory text writing skills. Writing proficiency in explanatory texts is not affected by the interaction of the discovery learning strategy and a preference for reading. It can be stated that the learning outcomes of explanatory text writing abilities in both the experimental and control groups are independent of the discovery learning method and reading interest elements. Though the discovery learning approach works well for both novice and advanced readers, it appears to be most useful for the former. To rephrase, prior studies have shown that kids with high and low reading interests can benefit from the discovery learning approach.

4. CONCLUSION

Students taught using the discovery learning approach scored higher on an explanatory writing test than those taught using the traditional approach. This is due to discovery learning's capacity to foster and apply acquired knowledge while also tapping into the potential of surrounding learning resources. The findings of the tests demonstrate that the discovery learning technique has a great deal of promise for developing students' explanatory text writing skills among those with a strong direct interest in reading. Consequently, the ability to write explanatory texts improves among students whose reading interests are fostered through the discovery learning approach to instruction.

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