



The Influence of the Inquiry Method on Critical Thinking Skills in Learning to Write Explanatory Texts for Grade XI Students at Senior High School

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Abstract

This study aims to describe students' ability to write explanatory texts before using the inquiry method, describe students' ability to write explanatory texts after using the inquiry method, and test the effect of applying the inquiry method on the ability to write explanatory texts of eleventh-grade students at SMAN 19 Gowa. This research uses a quantitative research method. Data collection techniques were carried out using essay tests, and the data were analyzed using descriptive and inferential statistics (SPSS 29.0.10). The results of this study show an improvement in students' critical and creative thinking skills in writing explanatory texts after using the inquiry-based learning method. The analysis of the pretest and posttest results shows that before the inquiry method was applied, the majority of students were in the fair and very good categories, with some students in the poor and good categories. After implementation, the majority of students moved to the good and very good categories, showing a significant improvement in their abilities. This improvement is evident in the distribution of student scores, where the average score increased from 58.23 in the pretest to 77.30 in the posttest. Statistical tests using the Paired Sample T-Test showed a t-value of 7.018 with a significance level (p-value < 0.001). Since the p-value is less than 0.05, the null hypothesis (H₀) is rejected, and the alternative hypothesis (H_a) is accepted. This indicates a significant difference between the pretest and posttest scores, supporting the hypothesis that the inquiry method has a meaningful impact on students' critical and creative thinking abilities. Thus, this research proves that the application of the inquiry method is effective in improving students' abilities in writing explanatory texts, both in terms of quality and variation in critical and creative thinking skills.

Keywords: *Inquiry method, explanatory text writing skills, education.*

Introduction

Education plays a crucial role in the advancement of a nation, especially in the era of globalization, which demands an improvement in the quality of education in line with the demands of the times (Arini & Winda, 2019). 21st-century education requires a paradigm shift, as students need to be equipped with skills relevant to the rapidly evolving modern world. According Jayadi et al., 2020, students need to be encouraged to become creative, innovative individuals who think critically, collaborate, and are capable of utilizing technology. Therefore, curriculum analysis is essential to ensure that the learning applied in schools can meet the needs of this era.

In a world increasingly connected through advances in information technology, the challenges faced by schools have become more complex. In addition to technological advances, the need for students who are prepared to face global challenges has become increasingly urgent (Hadi & Salsabila, 2023). This highlights the important role of a curriculum that equips students with critical and analytical thinking skills, as well as effective writing skills, one of which is through learning to write explanatory texts. Tarigan (as cited in Yani, 2020) states that writing skills not only help students organize ideas logically but also develop critical thinking skills that are essential in various fields of life.

21st-century teachers also play a central role in shaping a generation ready to face future challenges (Muhammad Rusdi & Marwah, 2022). They must be able to apply teaching methods that meet students' needs, one of which is the inquiry method, which, according to Sipahutar et al., (2023), is highly effective in supporting the development of critical thinking skills. Through the inquiry method, students are encouraged to actively seek knowledge, conduct independent research, and critically analyze information.

Given this background, this study will examine the effectiveness of the inquiry method in enhancing students' critical thinking skills, particularly in the learning of writing explanatory texts in Grade XI at SMAN 19 Gowa. This research is expected to contribute to the development of more effective and relevant teaching methods to meet the educational needs of the 21st century.

Method

This study applies a quantitative approach with an experimental design, specifically a Pre-Experimental type using a One Group Pretest-Posttest design. This method was chosen to explore the impact of explanatory text learning using the inquiry approach on students' critical thinking skills. The research location was at SMAN 19 Gowa during the even semester of the 2024 academic year, involving a population of 170 students from Grade XI MIPA. The research sample was randomly selected (simple random sampling) and consisted of 118 students, considered representative. The two main variables in this study are the independent variable (X), which is the explanatory text learning using the inquiry

method, and the dependent variable (Y), which is critical thinking competence. Critical thinking competence was measured through an evaluation instrument that assesses students' ability to analyze, evaluate, and conclude information in the learning context. Data were collected through a writing test designed to measure students' skills in writing explanatory texts. The validity and reliability tests of the instrument showed excellent results, with a Cronbach's Alpha of 0.918. Data analysis was conducted using SPSS, with both descriptive and inferential statistical approaches. Hypothesis testing was done using the Paired Sample T Test, where the alternative hypothesis was accepted if the significance value was less than 0.05, indicating that the inquiry method had an effect on students' critical thinking skills.

Results And Discussion

Critical and Creative Thinking Competence in Learning to Write Explanatory Texts Before Using the Inquiry Method (Pretest)

The pretest results for 30 Grade XI students on their ability to write explanatory texts showed that the majority of students (73.33%) had abilities in the "Sufficient" to "Very Good" categories. A total of 40% of the students were in the "Sufficient" category, which was the largest group, while 33.33% were in the "Very Good" category. About 13.33% of students were in the "Poor" and "Good" categories. No students scored below 25 or failed. The average pretest score was 58.23, with a range of scores from 25 to 75. This indicates that most students had intermediate abilities, with significant room for improvement. The standard deviation of 11.584 indicates a considerable variation among students, meaning that some students scored far above or below this average. A standard error of 2.115 suggests that the average score was fairly stable. This data reveals that before the inquiry learning method was implemented, students' critical and creative thinking skills still needed further development.

Critical and Creative Thinking Competence in Learning to Write Explanatory Texts After Using the Inquiry Method (Posttest)

The posttest results from 30 students showed an improvement in critical and creative thinking abilities after the inquiry method was implemented. A total of 73.33% of students were in the "Good" (43.33%) and "Very Good" (30%) categories, while 16.67% of students were in the "Poor" category, and 10% were in the "Sufficient" category. No students scored below 65. The average posttest score was 77.30, which was higher compared to the pretest average (58.23), indicating a significant improvement in students' abilities. The posttest score range was wider, from 24 to 91, with a standard deviation of 12.587. This shows that although the average increased, the variation in scores between students also grew, indicating differing levels of improvement among individuals. A standard error of 2.298 suggests that the average results remained stable and

representative.

The Significant Influence of Using the Inquiry Method on the Critical and Creative Thinking Competence in Writing Explanatory Texts Among Grade XI Students of SMAN 19 Gowa

Data analysis shows that the inquiry method has a significant impact on improving students' critical and creative thinking skills in writing explanatory texts. The normality test on the pretest data indicates that the score distribution is close to normal, with skewness and kurtosis values near zero, and the Kolmogorov-Smirnov test yielding a significance value of 0.119, which is greater than 0.05, indicating normally distributed data.

The hypothesis test using a paired sample t-test shows a significant difference between the pretest and posttest means. The pretest mean score was 58.23, while the posttest mean score was 77.30, with a mean difference of -19.067. The calculated t-value was -7.018 and the p-value was less than 0.001, indicating that this difference is statistically significant, thus the alternative hypothesis (H_a) is accepted. In other words, the inquiry method has been proven to have a positive and significant impact on improving students' critical and creative thinking skills in writing explanatory texts.

The discussion of this study shows that the inquiry method is effective in enhancing students' critical and creative thinking competence in writing explanatory texts. Before the method was implemented, students' abilities varied, with the majority in the "Sufficient" category. After the method was applied, most students improved to the "Good" and "Very Good" categories, although some students still had low scores. The challenges faced included time constraints and variations in student skills, but the strength of this method lies in its ability to increase engagement, critical thinking skills, and student creativity. The study's results are consistent with previous research, supporting the idea that the inquiry method significantly influences the improvement of writing skills. The paired sample t-test confirmed a significant difference before and after the inquiry method was applied, leading to the acceptance of the alternative hypothesis. This method has been proven effective in developing students' competence.

Conclusion

Based on the results of data analysis and discussion, it can be concluded that the students' ability to write explanatory texts before using the inquiry method ranged from 25 to 75, with an average score of 58.23 and a standard deviation of 11.584. After using the inquiry method, students' explanatory writing abilities significantly improved, with the average score increasing to 77.30 and a standard deviation of 12.587, indicating slightly more variation in the results compared to the pretest. This improvement was due to the intervention, namely learning explanatory text writing using the inquiry method. Therefore,

the results of this study support the rejection of the null hypothesis (H_0) and the acceptance of the alternative hypothesis (H_a). The inquiry method has a positive effect on enhancing students' critical and creative thinking competence in writing explanatory texts in Grade XI at SMAN 19 Gowa. This method has proven to be effective in developing students' critical and creative thinking skills in learning to write explanatory texts.

Based on this conclusion, the author suggests that teachers implementing the inquiry method receive adequate training and mentoring. This is important to ensure that the method can be applied effectively and consistently, as well as adapted to the needs and characteristics of the students. Secondly, the author recommends that future researchers develop inquiry-based learning models tailored to the specific needs and characteristics of certain students, such as high-achieving students, students with learning difficulties, or students in less supportive environments.

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