

# IMPLEMENTATION OF GUIDED INQUIRY LEARNING MODEL IN IMPROVING STUDENTS' UNDERSTANDING OF PARAPHRASING

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**ABSTRACT:** Improving the quality of student writing through guided inquiry-based paraphrasing activities, where students are actively involved in the learning process and encouraged to gain a deeper understanding of the topic being studied. The holistic guided inquiry approach can provide benefits in improving students' paraphrasing skills by placing them as active subjects in the learning process. The method used in this study is based on the syntax of the guided inquiry learning model, which was implemented on 30 senior students in the geography education program Pattimura University. The study was then evaluated to determine the significance and impact of the implementation process towards the research objective of improving student writing quality through paraphrasing skills. The results showed that the improvement in students' skills by applying the guided inquiry model had a significant impact, as seen from the evaluation results of the pre-test and post-test. Furthermore, after conducting significance testing through the Wilcoxon test, the asymp. Sig. (2-tailed) value was 0.000, which means that the value is less than 0.05. This indicates a significant improvement in students' paraphrasing understanding through the guided inquiry method, and it was effective in being implemented by 80% of the students.

*Keywords: Implementation, Inquiry, Learning, Paraphrasing*

## 1. INTRODUCTION

Writing is an essential skill for students during their college years. However, many students face difficulties in writing their academic assignments, such as papers, essays, and reports. This problem can be caused by various factors, such as lack of writing experience, language limitations, or even lack of motivation and interest in writing. Students still have weaknesses in their ability to process words in writing, which is due to their low literacy in reading [1-3]. The level of difficulty in writing experienced by students also varies, depending on the program or major they take, the demands of their professors, and their language proficiency levels. For example, students from language programs may be more proficient in writing than students from engineering programs.

The purpose of the Introduction is to stimulate the reader's interest and to provide pertinent background information necessary to understand the rest of the paper. You must summarize the problem to be addressed, give background on the subject, discuss previous research on the topic, and explain exactly what the paper will address, why,

and how. Avoid your introduction as a mini review. There is a huge amount of literature out there, but as a scientist you should be able to pick out the things that are most relevant to your work and explain why. This shows an editor/reviewer/reader that you really understand your area of research and that you can get straight to the most important issues.

Writing is a crucial issue faced by many students. Problems in writing can affect the quality of academic assignments produced by students. When the quality of writing decreases, the received academic assignment grades also tend to decrease. This can affect the academic achievement of students as a whole and even their chances of receiving scholarships or academic awards. Writing is a skill that is widely used by students in educational activities, especially in writing scientific papers [4-7]. Poor writing skills can also affect the career and future of students. Many companies are looking for candidates who have good writing skills for various job positions, such as writers, editors, or even marketing managers. Therefore, the problem of students in writing can be one that limits their opportunities to enter the

workforce and build a career.

In today's digital era, technological advancements have had a significant impact on various aspects of life, including education. Various learning resources will emerge quickly in the world of education due to digitalization [8-9]. One of the negative impacts often highlighted is the increase in cases of student plagiarism in writing assignments or scientific works. Plagiarism can be defined as the act of copying or taking someone else's work and presenting it as one's own work without giving the proper credit. Plagiarism and self-plagiarism are ethical violations and can have a negative impact on academic integrity and the author's reputation [10]. The increasingly advanced technology, especially in the internet field, has made it easier to access information and allows people to easily find and discover the necessary reference sources. However, at the same time, technology also allows someone to easily copy and paste content from other sources into their own work without respecting copyright or giving proper attribution. Students nowadays can easily access lecture materials from electronic sources available, but unfortunately, there is a possibility that the material is copied directly without mentioning the source or also known as plagiarism [11].

Plagiarism is a significant challenge in the world of education, as it can reduce academic achievement and students' ability to develop writing skills. Efforts are needed to increase awareness of the importance of academic integrity and the use of appropriate sources of information in writing. In the current academic environment, there is a need for a sufficient understanding of academic ethics and compliance with the prevailing plagiarism rules. As educators, we need to move and break the chain of cheating in the academic world, particularly in the activity of plagiarism. Therefore, a holistic approach is needed to address plagiarism, namely by improving students' understanding and awareness of academic ethics and integrity, as well as providing training and resources to help them develop writing skills. To combat plagiarism, two approaches can be taken, namely prevention and enforcement. One way of prevention is to impose sanctions on the perpetrator of plagiarism [12]. Proper citation can also help prevent plagiarism [13].

When discussing the prevention of plagiarism, it is essential to address paraphrasing. Improving students' paraphrasing skills is important in avoiding plagiarism. Plagiarism is the act of taking or copying someone else's work without giving clear source references. Plagiarism is highly detrimental to the original authors and can also harm the academic career of students who engage

in plagiarism. Even if the sources are cited, plagiarism can still be detected by plagiarism detection software. Plagiarism detection software works by comparing the text (sentence similarity) of the uploaded written work with a database from the internet.

Based on the above, there is a need for contributions to the development of human resources in improving students' ability to reduce plagiarism. A holistic guided inquiry approach can be a solution to improving students' paraphrasing skills in an effort to reduce the level of plagiarism among students. This approach prioritizes comprehensive and thorough learning, involving teaching and learning by linking the knowledge and skills possessed by students. A holistic approach can form individuals with strong character [14]. In this approach, students are actively involved in the learning process and encouraged to gain a deeper understanding of the topics being studied.

The holistic guided inquiry approach can provide benefits in improving students' paraphrasing skills by placing them as active subjects in the learning process. Students are not only given knowledge and skills, but also practical experience in using those skills. In addition, this approach can help students develop critical and analytical thinking skills, which can help them understand the material and formulate their ideas better. The application of guided inquiry methods can bring about improvements in learning outcomes for students. The guided inquiry process in this holistic approach can help students understand how to draw accurate conclusions based on the data available. This is important in the paraphrasing process, as students must be able to take important ideas from the original text and reconstruct them in their own language. Thus, students not only learn to understand the material being studied, but also to develop skills that can help them complete academic tasks better.

## 2. RESEARCH METHODS

This research was developed by using the syntax in the learning process using the guided inquiry learning model. The object of this research is the final year students of the Geography Education study program, Faculty of Teacher Training and Education, Pattimura University. There were 30 students who participated in this research. The design used in this study is pre-experimental with a one-group pretest-posttest design method. Simply put, the research design used can be understood in the following Table 1.

**Table 1.** Research design

Sample	Initial Survey	Treatment	Final Survey
Student	Pre test	Application of guided inquiry learning model	post test

Measurement of pre-test and post-test is crucial in applying guided inquiry to improve students' paraphrasing skills. Pre-test is conducted before the learning begins, while post-test is conducted after the completion of the learning process. Here are some steps that can be taken in measuring pre-test and post-test in the application of guided inquiry in this research: (1) determining evaluation



**Fig 1.** Guided Inquiry-Based Learning Stages for Improving Paraphrasing Skills.

The normalized gain (N-gain) formula used to analyze the effectiveness of the guided inquiry method applied in this study is as follows:

$$N - gain = \frac{Posttest\ Score - Pretest\ Score}{Ideal\ Score - Pretest\ Score}$$

After obtaining the normalized gain data from each student, the effectiveness of the guided inquiry method used will be categorized using the N-gain criteria. Furthermore, to determine the significance of changes in students' understanding of paraphrasing, Lilliefors analysis will be performed to test the normality of the distribution of data from the pre-test and post-test surveys. The Wilcoxon signed-rank test will be used to examine the effect of the guided inquiry method that has been implemented.

Lilliefors has a criterion that if the sig value is greater than 0.05, the data is normally distributed, whereas if the data is less than 0.05, the data is not normally distributed. The Lilliefors formula can be understood as follows:

$$Z_i = \frac{Xi - X}{S}$$

The Wilcoxon analysis is performed using the following formula, with the condition that if the sig. value is less than 0.05, then the guided inquiry method used has a significant effect on improving students' understanding:

$$Wilcoxon\ test\ formula: W = n1n2 + (n1(n1+1)/2) - T$$

where:

- W is the Wilcoxon statistic
- n1 and n2 are the sample sizes for the pre-test and post-test, respectively

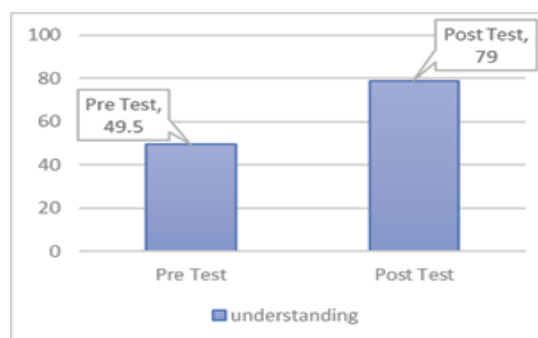
criteria; (2) creating evaluation instruments; (3) conducting pre-test; (4) implementing guided inquiry learning; (5) conducting post-test; (6) analyzing the evaluation results.

In the guided inquiry learning model, students are encouraged to be active and engaged in their own learning process. Through the stages involved, students will learn and practice paraphrasing skills and avoid plagiarism in the right way. This model also helps students improve their overall academic writing skills. The stages of guided inquiry learning for improving paraphrasing can be seen in the following figure.

- T is the smaller of the sum of the ranks of the post-test minus the sum of the ranks of the pre-test or the sum of the ranks of the pre-test minus the sum of the ranks of the post-test.

### 3. RESULTS AND DISCUSSION

Guided inquiry learning was conducted over three sessions, covering two main topics: explaining and providing examples of good paraphrasing. One additional session was held to evaluate the learning activities. The improvement in students' paraphrasing skills is implicitly reflected in Figure 2.



**Fig 2.** Students' Understanding in Learning before and after the Implementation of Guided Inquiry Model

Based on the above figure, the average pre-test score is 49.5 and the average score on the post-test is 79. The highest score based on the pre-test survey is 40 and the highest score is 60. There is an increase in students' understanding of paraphrasing, on the post-test survey the lowest

score is 70 and the highest score is 85. Furthermore, the effectiveness of the guided inquiry method used can be seen in the following N-Gain recapitulation table.

**Table 3.** Result of Lilliefors Normality Analysis

Test	Statistic	Df	Sig.
<i>Pre test</i>	.232	30	.066
<i>Post test</i>	.216	30	.105

According to Table 3 of the Lilliefors normalization analysis, the p-values for the pre-test and post-test are 0.066 and 0.105, respectively. These p-values indicate that the data obtained are normally distributed, as they are greater than 0.05. Based on these results, the Wilcoxon test will be used to analyze the significance of the effect of guided inquiry method on improving students' understanding of paraphrasing.

**Table 4.** Summary of Wilcoxon Test Results

Test Statistics	Postest-Pre test
Z	-4.829
Asymp. Sig. (2-tailed)	.000

Based on Table 4, it is known that the value of asymp. Sig. (2-tailed) is 0.000, which means that the value is smaller than 0.05. This indicates a significant improvement in students' understanding of paraphrasing through guided inquiry method. Guided inquiry method is a learning technique that emphasizes the active role of students in the learning process. In the context of understanding paraphrasing, guided inquiry method can be used to help students improve their understanding of the concept of paraphrasing. The guided inquiry process allows students to actively engage in understanding the concept of paraphrasing, and also helps them build problem-solving and critical analysis skills.

During the guided inquiry process, the teacher or tutor can provide guidance and direction to help students understand the concept of paraphrasing more deeply. Students can also engage in group discussions or presentations about what they have learned during the inquiry process. With guided inquiry method, students have the opportunity to actively and interactively deepen their understanding of paraphrasing. This can increase their motivation and engagement in the learning process, as well as help them develop the skills needed to apply the concept of paraphrasing in real-life situations.

The use of guided inquiry method can also increase students' interest in learning. In this method, students are invited to ask relevant questions about paraphrasing and find answers through independent investigation. This process allows students to actively engage in understanding the concept of paraphrasing, while also helping them build problem-solving and

critical analysis skills. The reason why the implementation of guided inquiry teaching method can significantly improve students' understanding of paraphrasing.

- a) Active and engaged learning: student have a more active role as knowledge seekers. They are encouraged to think critically and creatively when encountering the concept of paraphrasing. They are prompted to ask questions about what they don't understand, apply the knowledge they already have, and discover their own answers through exploration and discovery. Through these activities, students become directly involved in the learning process. They can participate in group discussions, work in teams, or engage in individual projects that allow them to apply the concept of paraphrasing in real-life situations. They can collaborate with classmates, share ideas, and provide feedback to enhance their collective understanding. During this process, students learn through firsthand experiences. They develop skills such as problem-solving, critical thinking, communication, and collaboration. They also sharpen their research skills while conducting investigations to gain a better understanding of the concept of paraphrasing. Students greatly need active learning strategies to achieve optimal learning outcomes.
- b) Enhancing critical thinking skills: the guided inquiry process encourages students to develop problem-solving skills. As they explore the concept of paraphrasing, they encounter challenges and obstacles that require them to think critically and devise strategies to overcome them. They learn to identify patterns, make connections between different pieces of information, and come up with creative solutions. The development of critical thinking skills through guided inquiry is not limited to the specific topic of paraphrasing. These skills are transferable and applicable to various aspects of students' lives. They learn to approach problems and decision-making in a systematic and analytical manner, considering different perspectives and weighing evidence. This ability has significant benefits in their daily lives, enabling them to make informed choices, solve complex problems, and navigate the complexities of the modern world. Moreover, the enhancement of critical thinking skills has long-term implications for students' future careers. In many professional fields, critical thinking is highly valued as it enables individuals to analyze complex situations, evaluate options, and make informed decisions. Whether it's in scientific research, business, law, or any other field, the ability to think

critically is crucial for success. Through the guided inquiry process, students develop a foundation for these skills, which can significantly contribute to their future academic and professional endeavors. Improving critical thinking skills can help students develop a broader perspective of the world and improve their ability to make important decisions in learning.

- c) Interactive learning: students have the opportunity to share their thoughts, ideas, and questions about paraphrasing with their peers. They can engage in meaningful conversations, exchange perspectives, and challenge each other's thinking. This interactive dialogue stimulates critical thinking as students analyze and evaluate different viewpoints, supporting them in constructing a more comprehensive understanding of paraphrasing. Furthermore, interacting with classmates provides students with a diverse range of perspectives. Each individual brings their unique insights and experiences to the discussion, which broadens the understanding of paraphrasing beyond a single viewpoint. Through this process, students develop empathy, respect for diverse opinions, and the ability to consider multiple perspectives—an essential skill in today's interconnected world. In addition to group discussions, students may engage in presentations where they have the opportunity to present their own understanding of paraphrasing to their peers. By explaining the concept in their own words and sharing examples, students reinforce their understanding and solidify their knowledge. Presentations also allow other students to engage actively by listening, asking questions, and providing feedback, promoting a collaborative and interactive learning environment. Interactive learning fosters a sense of ownership and responsibility for learning. By actively participating in discussions and presentations, students become more invested in their own learning process. They take on an active role in constructing knowledge, rather than passively receiving information. This active engagement promotes deeper cognitive processing, enabling students to internalize and apply the concept of paraphrasing more effectively. Effective interactive learning can improve students' mastery of the material.
- d) Developing problem-solving skills: Problem-solving skills refer to the ability to identify, analyze, and effectively resolve challenges or obstacles encountered in various contexts. As students engage in the guided inquiry process, they may encounter difficulties, questions, or

uncertainties related to paraphrasing. They are encouraged to actively seek solutions and overcome these obstacles. This requires them to employ critical thinking, creativity, and resourcefulness. When faced with a problem or challenge, students are prompted to analyze and understand the underlying issues. They need to break down the problem into smaller components, identify relevant information, and clarify their goals or objectives. By doing so, they develop analytical skills and the ability to identify the root cause of the problem. Once students have a clear understanding of the problem, they are encouraged to generate possible solutions. This involves brainstorming ideas, exploring different perspectives, and evaluating the feasibility and effectiveness of each option. They may also draw upon existing knowledge or research to support their decision-making process. Through this, students enhance their creative thinking and decision-making skills.

#### 4. CONCLUSION

Based on the results and discussion, it can be concluded that the learning process to improve paraphrasing skills for students of the Geography Education program at Pattimura University is categorized as quite effective, where 24 or 80% of the students actively participated in the implementation. The improvement of students' skills by applying the Guided Inquiry model has a significant impact, as shown by the evaluation results of the pretest and posttest. Furthermore, after conducting a significance test through the Wilcoxon test, the asymp. Sig. (2-tailed) value was 0.000, which means that the value is less than 0.05. This indicates a significant improvement in the students' understanding of paraphrasing through the Guided Inquiry method.

#### 5. ACKNOWLEDGEMENT

Based on the research findings, the authors suggest that regular and continuous paraphrasing training should be conducted. In addition, students can be equipped with skills to use plagiarism-checking applications, enabling them to independently improve their academic work.

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