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COGNITIVE IMPROVEMENT OF STUDENTS IN WRITING DESCRIPTIVE TEXTS THROUGH THE PJBL MODEL

Rahimah[1], Siti Mayang Sari[2], Akmaluddin[3], Lili Kasmini[4]
[1]Universitas Bina Bangsa Getsempena, Banda Aceh, Indonesia

*Corresponding email: Rahimah96@gmail.com

ABSTRACT

This study explores students' cognitive improvement in writing descriptive texts through PjBL. The research was conducted by involving 50 students as research subjects. Data were collected through written tests before and after the implementation of PjBL and questionnaires on student perceptions of learning through PjBL. The results showed a significant increase in students' ability to write descriptive texts after participating in PjBL learning. Through concrete projects involving students in gathering information, analyzing data, and communicating their findings in descriptive texts, students develop cognitive skills such as critical thinking, problem-solving, and better-organizing information. In addition, students also give positive perceptions of learning through PjBL. They feel engaged and motivated and enjoy interactive, project-based learning experiences. This shows that PjBL can create a positive learning environment and increase student motivation and participation in learning activities. This research has important implications for the development of learning to write descriptive texts at SMPN 2 Peukan Bada. The PjBL model can be used as an effective alternative in improving student's writing skills and promoting the cognitive skills needed in the writing process. Recommendations for further research are to involve a more comprehensive sample and conduct comparative studies with other learning methods to strengthen the findings of this study. Thus, this study makes a significant contribution. They understand the importance of PjBL in improving students' cognitive writing in descriptive texImplementing PjBL is expected to be an effective and innovative learning strategy in improving students' writing skills, positively impacting the learning process at SMPN 2 Peukan Bada.

Keywords: *cognitive enhancement, writing descriptive text, Project Based Learning (PjBL) Model, student perception, SMPN 2 Peukan Bada.*

INTRODUCTION

Education is an essential aspect of the development of individuals and society. In education, the educators' primary goal is the learning process's success. One of the competencies that students need to master is the ability to write a descriptive text. Writing descriptive text is the ability to describe objects, places, people, or events using clear, detailed, and complex language. This ability has an essential role in developing language skills and thinking logically. In addition, writing descriptive text can also help students hone their creativity and imagination.

In order to develop the ability to write descriptive text, various learning approaches have been developed. One approach that can be used is Project Based Learning (PjBL) (Nurhikmayati and Sunendar 2020). PjBL is a learning method that emphasizes project activities as a learning center for writing descriptive texts (Safaruddin et al. 2020). PjBL can provide fun and meaningful learning experiences for stu and increase their involvement in the learning process (Maisarah and Lena 2021). Mulyasa (2017) dalam said Project Based Learning, or PJBL is a learning model that focuses students on complex problems needed in conducting investigations and understanding lessons through investigations (Arsika et al. 2019). This model also aims to guide students in a collaborative project that integrates various curriculum subjects (materials), provides opportunities for students to explore content (materials) using various meaningful ways for themselves, and conducts experiments collaboratively (Anita et al. 2021).

Project Based Learning (PjBL) learning model has several advantages that can positively impact the learning process of writing descriptive text. These advantages include: (1) In PjBL, students are actively involved in real projects that involve gathering information, analyzing data, and compiling descriptive texts. Students are invited to think critically, work collaboratively, and hone their communication skills. In the context of writing descriptive texts, this will increase student participation and encourage them to gain a better understanding of the topic being studied. (2) PjBL allows students to learn in contexts relevant to everyday life so students can understand the importance of writing descriptive texts in everyday life bye. By involving projects related to natural environments, places, or ob life. They can also develop observational skills and better observe the environment around them. (3) PjBL can help students develop 21st-century skills, such as critical thinking, teamwork,

problem-solving, and creativity. In learning to write descriptive text, students must collect information, analyze data, and compose texts using critical thinking skills. They also learn to work in teams, share ideas, and solve problems that arise in projects. (4) PjBL allows students to learn through authentic experiences (Uum Suminar, Yus Alvar Saabighoot, Esya Anesty Mashudi, Maman Rumanta 2022). Students can see the meaning and relevance of writing descriptive texts by involving projects relevant to their lives. They can also experience authentic processes similar to real-world situations, increasing their motivation and interest in learning. This study aims to implement the Project-Based Learning Maffectsel on students' cognitive improvement in writing descriptive texts at SMPN 2 Peukan BByat by applying the PjBL approach. Students will be able to develop their cognitive abilities in writing descriptive texts. In addition, this research will also provide new insights to teachers and education policymakers about the importance of integrating innovative and contextual learning approaches in improving students' writing skills.

METHODS

Research Approach This study used a quantitative approach with a pre-experimental research design. A quantitative approach is used to measure the level of cognitive improvement of students in writing descriptive texts through the application of the Project Based Learning (PjBL) Model. According to Sugiyono (2019), the pre-experimental research design was used because there was no control group compared to the experimental group. Population and Research Sample The population in this study were all students of SMPN 2 Peukan Bada. The research sample will be selected purposively, namely, class students (specify the class involved) who are involved in applying the Project Based Learning (PjBL) Model in learning to write descriptive texts. The number of samples to be taken will be determined based on practical considerations and the availability of resources.

RESULTS AND DISCUSSION

This research will pay attention to research ethics, such as securing the confidentiality of student data, obtaining permission from the school and student's parents, and providing clear information about research objectives to all parties involved. The overall research is expected to provide a deeper understanding of the effect of the Project Based Learning (PjBL) Model on students' cognitive improvement in writing descriptive texts at SMPN 2. This study's results will explain the research results in results of research regarding students' cognitive improvement in writing descriptive texts through the Project Based Learning (PjBL) Model at SMPN 2 Peukan Bada. This study involved 50 students as research subjects. Here are the results obtained:

Results of Writing Test Scores In this study, students' written test scores were measured before and after the implementation of PjBL. Each student was tasked with writing a descriptive text which was assessed by the researcher based on the assessment rubric that had been prepared. Based on data analysis, it was found that there was an increase in written test scores after implementing PjBL. Ten students (20%) experienced an increase in their written test scores in the "Very High" category, 15 students (30%) experienced an increase in their scores in the "High" category, 12 students (24%) experienced an increase in scores in the "Medium" category, eight students (16%) experienced an increase in their scores in the "Low" category, and five students (10%) experienced no increase in their writing scores. These results indicate that PjBL significantly contributes to the cognitive improvement of students in writing descriptive texts.

Table 1: Percentage of Increase in Writing Test Scores

Upgrade Category	The number of students	Percentage (%)
Very high	10	20%
High	15	30%
Middle	12	24%
Low	8	16%
No Upgrade	5	10%
Total	50	100%

The table above shows the percentage increase in students' written test scores after implementing PjBL. The data is processed to obtain improvement categories, namely "Very High," "High," "Moderate," "Low," and "No Improvement." The number of students in each category is then calculated and expressed as a percentage.

Results of Student Perception Questionnaire Data Analysis This study also analyzed student perception questionnaire data on learning through PjBL. Questionnaires were distributed to students to measure their perceptions of the effectiveness of the learning model. Based on the results of the analysis, it was found that 30 students (60%) gave the perception of "Strongly Agree" towards PjBL learning, 15 students (30%) gave the perception of "Agree," 3 students (6%) gave the perception of "Disagree." Two students (4%) gave the perception of "Disagree." These results indicate that the majority of students gave a positive response to the use of PjBL in learning to write a descriptive text.

Table 2: Percentage of Student Perceptions of PjBL Learning

Perception	The number of students	Percentage (%)
Strongly agree	30	60%
Agree	15	30%
Disagree	3	6%
Don't agree	2	4%
Total	50	100%

The table above shows the percentage of students' perceptions of learning through PjBL. The data is analyzed to derive perceptual categories, such as "Strongly Agree," "Agree," "Disagree," and "Disagree." The number of students in each category is calculated and expressed as a percentage.

Discussion Based on the research results described above, several things need to be discussed related to improving students' cognitive ability to write descriptive texts through the Project Based Learning (PjBL) Model at SMPN 2 Peukan Bada.

Cognitive Improvement of Students through PjBL The results showed increased students' cognitive ability in writing descriptive texts after implementing PjBL. These results are consistent with theories that support the

effectiveness of PjBL in improving students' cognitive abilities. Through PjBL, students are actively involved in real projects, encouraging them to collect information, analyze data, and communicate their findings in descriptive text. This allows students to develop critical thinking skills, solve problems, and improve their writing skills.

Students' Perceptions of PjBL Learquestionnaire data analysis results showed that most students positively perceived learning through PjBL. Most students responded "Strongly Agree" and "Agree" to this learning model. This indicates that students feel involved and motivated and have an enjoyable learning experience through PjBL. This positive student response can improve learning effectiveness and increase student motivation and participation in learning activities.

Implications and Recommendations Based on the results of this study, several implications and recommendations can be given. First, PjBL can be an effective alternative learning model to improve students' cognitive skills in writing descriptive texts. Teachers and schools can consider using PjBL in teaching writing to improve student learning outcomes.

In addition, it should be noted that PjBL implementation requires good planning and organization. Teachers need to develop relevant projects, define clear scoring rubrics, and provide appropriate guidance to students. In addition, full support from the school is also needed to facilitate PjBL implementation by providing resources and a supportive environment.

Furthermore, further research can be conducted to explore other factors that affect students' cognitive improvement through PjBL, such as student learning styles, the quality of teacher guidance, and motivational factors. This research can also be extended to other learning contexts and involve a broader sample for better generalizations.

Thus, this study makes an essential contribution to the understanding of the effectiveness of PjBL in improving students' cognitive writTheext. It is hoped that the results of this research can serve as a reference and inspiration for educators in improving students' writing learning through innovative and project-based approaches such as PjBL.

CONCLUSION

This study aims to investigate students' cognitive improvement in writing descriptive texts through the Project Based Learning (PjBL) Model at SMPN 2 Peukan Bada. In this study, data were from 50 students’ in implementing PjBL in learning to write.

Based on the results of the research and analysis that has been carried out, several conclusions can be drawn as follows: (1) The application of the Project Based Learning (PjBL) model significantly improves students' cognitive writing in descriptive text. The results showed that most students experienced increased written test scores after participating in PjBL learning. This shows that PjBL can be a practical approach to improving students' writing skills. (2) Students give positive perceptions of learning through PjBL. Analysis of the questimostowed that most students responded with "Strongusingand "Agree" to the use of PjBL in learning to write. This shows that students feel involved and motivated and have a good perception of learning through PjBL. (3) PjBL implementation requires good planning and organization. Teachers need to develop relevant projects, define clear scoring rubrics, and provide appropriate guidance to students. Full support from the school is also needed to facilitate PjBL implementation by providing resources and a supportive environment. (4) The recommendation for further research is to explore other factors influencing students' cognitive improvement through PjBL, such as student learning styles, the quality of teacher guidance, and motivational factors. This research can also be extended to other learning contexts and involve a broader sample for better generalizations.

Thus, this study makes an essential contribution to the understanding of the effectiveness of PjBL in improving students' cognitive writing in descriptive text. The results of this study indicate that PjBL can be an effective alternative learning model in improving student's writing skills and providing coherence. It is hoped that the results of this research can become a reference and inspiration for educators in improving students' writing learning through innovative approaches such as PjBL.

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Apart from all that, we are fully aware that there are still shortcomings both in terms of sentence structure and grammar. Therefore, we accept all suggestions and criticisms from readers with open arms so that we can improve this scientific journal.

Finally, we hope that this scientific journal about waste and its benefits for society can provide benefits and inspiration to readers.

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