

## **IMPLEMENTATION THE PROBLEM BASED LEARNING MODEL USING THE GASING METHOD TO INCREAS THE LEARNING MATHEMATICS**

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### **ABSTRACT**

Education is one of the most important things to prepare for future success in the era of globalization. Education has three main components, namely teachers, students, and curriculum. This third component cannot be eliminated in the teaching and learning process. Learning is an interaction that occurs between students and teachers as well as open source materials in the learning environment. The aim of this research is to apply the PBL model based on the GASING method to increase the mathematics learning focus of class IV students at SD Negeri 14 Banda Aceh. The research method used is descriptive qualitative, with data collection techniques through observation, interviews and documents. The results found after the research was carried out were that there was an increase in student focus which was seen with students being able to understand the abstract concept of whole numbers into concrete concepts, students could easily understand the differences in numbers (units, tens, hundreds, thousands, etc.) just by distinguishing colors. Ice cream sticks can help students develop their creativity during learning. Learning succeeded in increasing student focus as seen from student responses during learning. This research makes an important contribution in the field of education. this research emphasizes the importance of creating an effective and enjoyable learning process. Focusing on interactions between teachers, students, and relevant learning media allows students to increase their understanding of abstract mathematical concepts to become more concrete.

**Keywords:** *PBL, GASING, Method*

## INTRODUCTION

Education is one of the most important things to prepare for future success in the era of globalization. Education can be achieved in various ways, one of which is education at school.(Setyawan et al., 2023). an education has three main components, namely teachers, students, and curriculum. These three components cannot be separated in the teaching and learning process. Learning is an interaction that occurs between students and teachers and sources of teaching materials in the learning environment. Teaching is an effort to help students gain knowledge through the learning process, as well as develop skills and habits, and is able to form attitudes and self-confidence in students.(Gulo & Tafonao, 2023). It can be said that learning is a process to guide students to be able to carry out learning well. The learning process is said to be successful when the three components in question, namely teachers, students, and curriculum, can carry out the learning process in accordance with the agreed rules and provisions(Mariani et al., 2024).

Learning takes place well if teachers and students have good collaboration. However, elementary school students often have difficulty focusing on learning. This is because the age of students who still like to play and only focus on what interests them so that during the learning process, students' playfulness often occurs in the classroom. Education is a cornerstone for preparing individuals to meet the demands of the modern world, particularly in this globalized era (Yusari et al., n.d.). In primary education, fostering an engaging and effective learning environment is critical to ensuring students achieve their potential. However, maintaining students' focus in class remains a challenge, especially for younger learners who are easily distracted by external stimuli or their playful nature. This research explores the integration of innovative teaching methods and materials to address this challenge, focusing on the PBL model based on the GASING method and the use of ice cream sticks as learning aids. By turning a distraction into a learning tool, this study seeks to transform students' engagement and understanding of mathematical concepts, making learning not only effective but also enjoyable.

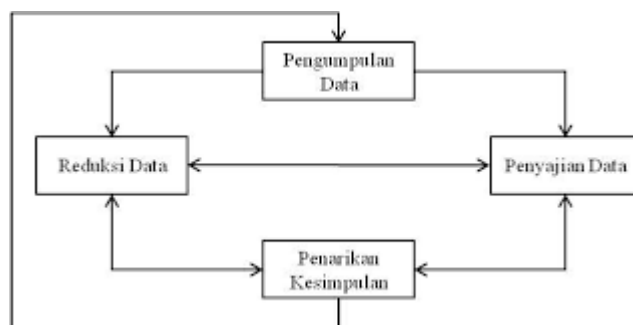
What often happens to fourth grade students of SD Negeri 14 Banda Aceh is that when learning takes place, students still like to play with the ice cream sticks they have. For students, the stick game is an interesting and fun game so that even though it is time to study, students still want to play with sticks. In learning, of course, teachers try to meet learning objectives that are in accordance with the curriculum. Teachers also always look for solutions to each problem that is considered the most challenging. Including the problem of student learning focus. with a lack of student learning focus, it will affect

the information and knowledge they get during learning. So as a teacher, you have to find out what students like. In this problem, the researcher found that students really like playing sticks so that the researcher uses student play tools in the form of sticks as a fun teaching medium. According to the researcher, the tool in the form of ice cream sticks is appropriate and interesting to make learning fun.

Not only the selection of the right teaching media, teachers must also use appropriate learning models and methods so that the learning media used also becomes meaningful with structured learning. Researchers chose PBL as the right learning model to be combined with students with ice cream stick media. The PBL learning model is a learning model that uses problems as triggers for new knowledge in learning. The method used by researchers is the GASING method which means easy, fun and enjoyable. That way the model, method, and media used become a suitable combination to be used in learning. The purpose of this study was to determine the application of the PBL model based on the GASING method in increasing the focus of learning mathematics for grade IV students of SD Negeri 14 Banda Aceh.

## **METHODS**

The research method used is descriptive qualitative, with data collection techniques through observation, interviews, and document analysis. Descriptive qualitative methods that display data scientifically without any fraudulent or other irregularities.(Sari et al., 2023).Descriptive research is a research strategy in which researchers investigate events, phenomena of individuals' lives and ask one or a group of individuals to tell their lives. This information is then retold by the researcher in a descriptive chronology.(Purnamasari et al., 2024). Descriptive qualitative can be said as a formulation of the problem that becomes a guide to investigate social situations in depth and comprehensively for depiction and investigation. The purpose of this study is to present a complete picture of something that happens to expose and clarify a phenomenon. The steps taken in this study are: formulating the problem, selecting data, selecting data collection techniques, and making conclusions. The sample in this study was grade IV students of SD Negeri 14 Banda Aceh. The steps taken in this experiment include:



## RESULTS AND DISCUSSION

Based on the results of initial observations found in the field. Researchers have been able to determine the right strategy for implementing learning. By focusing learning on certain objects, focus on learning plays an important role because it can support student learning success (Deswanti et al., 2020)(Khairunnisa et al., 2023). When students experience a decrease in focus during learning, teachers must be able to use strategies to restore student focus. Based on the results of analysis and review of various literature sources, almost all survey results or research conducted on teacher effectiveness in implementing classroom management have reported that the competence and classroom management skills mastered by a teacher greatly determine the success of the student learning process, therefore it is very crucial and fundamental.(Silaswati, 2022). With rainbow ice cream stick learning media, students can directly perform addition and subtraction operations using concrete objects, thereby attracting students' interest and making learning fun and meaningful.(Silaswati, 2022). The following are the learning steps implemented by combining the PBL model, GASING method and ice cream stick media:

1. Opening activities that contain opening learning by praying, greeting, reading/writing/listening habits, and delivering learning objectives. With the opening activities, students can prepare themselves to enter learning.
2. The core learning activity contains how teachers and students learn whole numbers from checking, examining, confirming, and making various numbers. This core activity is the main learning activity using popsicle sticks. Where students use their popsicle sticks to count whole numbers according to the color of the stick and the sequence of numbers determined together.
3. Closing activities include learning evaluations by summarizing, providing reflections by communicating obstacles and providing mutual motivation and appreciation.

All series of activities are carried out in a structured manner so that learning takes place without obstacles. The ice cream stick media used has a positive effect on learning that is seen, namely: students can understand the abstract concept of whole numbers into concrete concepts, students can easily understand the differences in whole numbers (units, tens, hundreds, thousands, etc.) just by distinguishing the color of the ice cream stick, can help students develop their creativity during learning, and the use of ice cream sticks can clarify the meaning of the learning that is carried out. Based on the results of the implementation of learning and student responses. there is an increase in student learning focus using ice cream sticks. Students before being given the right learning media are noisy and busy with sticks during learning. While students who have been given learning with the right strategy and ice cream stick media are active, cheerful, and focused students. All of these things can be seen based on the results of the assessment rubric and student responses and are also seen directly in the video of the learning process carried out by researchers in class IV of SD Negeri 14 Banda Aceh.



video learning application of PBL model based on GASING  
<https://youtu.be/Lv68bUm2N-Y?feature=shared>

## CONCLUSION

Based on the results of the research and discussion, this study can be concluded as follows. Observations made on the lack of student focus during learning found the main factor is the stick game played during the learning process. With the problems found, researchers used a strategy using the GASING-based PBL model to improve student focus during mathematics learning. and the results found after the research was carried out were an increase in student focus which was seen with students who could understand the abstract concept of whole numbers into concrete concepts, students could easily understand the difference in whole numbers (units, tens, hundreds, thousands, etc.) just by distinguishing the color of ice cream sticks, can help students develop their creativity during learning. Learning succeeded in increasing student focus as seen from student responses during learning.

In summary, the implementation of the GASING-based PBL model, combined with the creative use of ice cream sticks, significantly enhanced the focus and engagement of fourth-grade students during mathematics lessons. This approach successfully bridged the gap between abstract mathematical concepts and concrete understanding, fostering creativity and sustained attention among students. These findings underscore the importance of aligning teaching strategies with students' interests and learning styles to optimize educational outcomes. The study highlights a promising pathway for educators to innovate classroom practices, ensuring that learning remains both impactful and enjoyable.

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Application of a pbl model based on the gasing method to increasing the focus of learning mathematics in class iv students of sd negeri 14 banda aceh (Laura Oktaviany Marantika<sup>1</sup>, Siti Mayang Sari<sup>2</sup>, Mhd Syafii<sup>3</sup>, Rita Novita<sup>4</sup>, Joni Sitorus<sup>5</sup>)

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