

GASING LEARNING METHOD TO IMPROVE ELEMENTARY SCHOOL STUDENTS' LEARNING OUTCOMES IN MATHEMATICS LEARNING

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Abstract

This study aims to analyze the application of the GASING (Easy, fun, enjoyable) learning method in improving elementary school students' learning outcomes in mathematics. The study used a qualitative descriptive method with a literature study approach. Data were obtained through a systematic analysis of relevant journal articles. The research findings indicate that the GASING learning method can improve students' understanding and abilities in mathematics learning. Thus, improved learning outcomes are obtained. Thus, the application of the GASING method can have a positive impact on the learning process. This study also contributes to the development of innovative learning methods in elementary education, especially for mathematics.

Keywords: *spinning top method, learning outcomes, mathematics*

A. Introduction

Education plays a vital role in developing high-quality and potential individuals. To achieve national education goals, the national education system comprises all interrelated and integrated educational components. It can be concluded that interrelated, collaborative, and supportive educational components are necessary to achieve educational goals. The components of national education include the environment, facilities and infrastructure, resources, and society. (Diah & Siregar, 2023) The aim of education is for students to actively develop in religiousness, self-control, personality, intelligence, noble morals, and the skills needed for themselves, their families, the nation, and the state.

Mathematics is a subject studied from elementary school through college. It comes from the words *mathema*, meaning knowledge, and *mathein*, meaning to think or study. Mathematics is a science that studies numbers and discusses calculations, numerical problems, magnitude, quantity, and the system of understanding mathematical concepts (Lina, 2018 in Damopolli, 2024). Mathematics is a subject that makes students think logically, analytically, systematically, critically

and creatively, as well as the ability to work together which is useful in solving problems in everyday life. However, it cannot be denied that many students believe that learning mathematics is difficult and boring. As a result, many students do not like mathematics. Students who do not like mathematics can experience learning difficulties and produce low learning outcomes. This is in accordance with the opinion (Hasibuan et al., 2022) that negative attitudes towards subjects can cause learning difficulties. Learning is a process and changes that occur as a result of this process are learning outcomes. Teachers must master the material and have good teaching skills to teach mathematics. In addition, teachers are also required to choose appropriate learning methods (Pujiwidodo, 2016 in Naeli et al., 2024). This can increase student participation both inside and outside the classroom, and have an impact on improving learning outcomes. The learning process depends on learning outcomes. Poor learning outcomes can indicate that students are not really learning or that the learning methods used are ineffective. As a result, the purpose Mathematics learning has not been fully achieved. Consequently, it is crucial for every student to achieve optimal learning outcomes (Kurniawan, 2017). Learning outcomes are defined Diah & Siregar (2023) as the level of success or mastery of the material taught by the teacher in the classroom learning process, expressed in grades in several subjects.

Based on the description above, it can be concluded that teachers need to use effective, interactive learning methods that can attract students' attention to learning, especially in mathematics learning. A learning method is a systematic conceptual framework for organizing learning experiences and achieving learning objectives. Learning methods can help teachers plan and implement learning and teaching activities. One learning method that can optimize the learning process to take place well, which is easy, fun, and enjoyable is the GASING learning method. The GASING method (Gampang, asyIk, menyenaNGkan) is an innovative learning method developed by Prof. Yohanes Surya. The GASING method makes learning easier, fun, and enjoyable. Easy means that students are introduced to using the mathematical logic that is learned and is easy to remember. Fun means that during the learning process students have the desire to learn without being forced to learn. Fun is defined as satisfaction that leads to external factors such as the use of teaching aids and games. The GASING method is not only memorizing formulas but is first provided with an understanding with the simplest possible logic. According to Husna & Sari (2018) the GASING method it emphasizes learning in the form of direct (concrete) exploration of the material taught,

making students more interested and believing that mathematics has benefits in life. This study aims to analyze the application of the GASING (GAMPANG, ASYIK, MENYENANGkan) learning method to improve elementary school students' mathematics learning outcomes.

B. Research Method

This research is qualitative and descriptive and uses a literature review method. The descriptive method aims to provide a methodical description or overview of the research problem. This method is carried out by identifying, reviewing, evaluating, and interpreting. In this study, the researcher systematically reviewed the obtained journals and followed established steps (Triandini et al., 2019 Khairunnisa et al. (2022)). Data were obtained from scientific articles related to the GASING learning method in increasing the activeness of elementary school students. The article search conducted by the researcher used the keywords "GASING learning method" and "elementary school students' mathematics learning outcomes."

C. Discussion

Based on an article search through online journals using the keywords "GASING learning method" and "elementary school students' mathematics learning outcomes," the researcher found various articles that had been selected according to the discussion criteria. The discussion criteria were regarding the application of the GASING method to improve elementary school students' mathematics learning outcomes. The research findings will be presented in two tables that provide a summary of the journals used in the literature review. Table 1 will present the findings in the form of article titles, journal names, year of publication, and journal indexes. Meanwhile, Table 2 will present the results of the literature review examination including the names of authors, type of research, and a summary of the discussion.

Table 1. *Journal Publications*

Article Title	Journal Name	Year	Number of Articles
The Effect of the Modified TGT (<i>Teams Games Tournament</i>) Learning Model Using the Gasing Method on Students' Mathematics Learning Outcomes	EDUKASIA: Journal of Education and Learning	2023	1
The Use of the Gasing Method in Improving Mathematics Learning Outcomes for Multiplication Arithmetic Operations in	Scientific Journal of Educational Vehicle	2024	1

Grade III Students of SDN Inpres 6/84 Walehunian Sagerat			
The Effectiveness of the GASING Mathematical Method in Improving the Ability to Understand the Mathematical Concept of Two-Digit Multiplication for Grade VI Elementary School Students	Journal of Citizenship	2022	1
The GASING Method in Mathematics Learning to Improve Student Interest and Learning Outcomes	JUPIKA: Journal of Mathematics Education, University of Flores	2024	1
Effectiveness of Applying the GASING Method in Multiplication of Two-Digit Numbers in Elementary Schools	Formosa Journal of Applied Sciences (FJAS)	2024	1

After presenting Table 1, which presents the journal titles, journal titles, and publication years related to the application of the GASING learning method to elementary school students to improve mathematics learning outcomes, Table 2 will then present the authors' names, research methods, and discussion findings.

Table 2. *Research Findings*

No	Writer	Method	Research Findings
11	Rahmi Diah, Nurdiana Siregar	Quantitative	The results of the study showed that there was an influence of the modified TGT learning model using the GASING method on students' mathematics learning outcomes, which was indicated by the difference in the learning outcomes of grade III elementary school students before and after using the modified TGT learning model using the GASING method.
22	Janet Kezia Damopolii, Widdy Rorimpandey, Kartini Ester	Classroom Action Research (CAR)	Based on the results of the research and discussion, it can be concluded that "The use of the GASING Method can improve the learning outcomes of Mathematics Multiplication Arithmetic Operations". This can be seen from the students' learning outcomes in cycle I, which achieved 79%, and the learning outcomes in cycle II, which achieved 93%.
33	Olifvia Rizky Lestari, Agustina Tyas Asri Hardini	Quantitative	The results of the study showed that there was a difference in the ability to understand mathematical concepts of students in the two-digit multiplication material whose learning process used the Gasing Mathematics method and those who used the conventional method. This was proven by the <i>p-value</i> of the t-test results ($0.000 < 0.05$). The results

			of the study also proved that the application of the Gasing Mathematics method was more effective than the application of the conventional Mathematics method in improving the ability to understand mathematical concepts of students. This was proven by the large mean N-Gain value of the Gasing Mathematics method (Mean N-Gain Value = 0.73) > the mean value of the conventional Mathematics method (Mean N-Gain Value = 0.37)
44	Maria Filimtika Tawa Gou, Ariswan Usman Aje, Stefania Baptist Seto	Quantitative	Based on the results of this study, it shows that there is an increase in the average interest and learning outcomes of students in mathematics before and after the GASING method is applied. Furthermore, based on inferential analysis, it can be concluded that the GASING method has an effect on students' interest and learning outcomes in mathematics. GASING can improve student learning outcomes.
55	Ni Putu Yuliani, Ni Wayan Astri Antari, Putu Sintya Wulandari, Kadek Darma Saspanya, I Wayan Eka Agus Prayoga, I Made Bayu Putra Yasa, Basilius Redan Werang	Literature study research	Based on the results and discussion obtained, it can be concluded that the GASING method can improve students' abilities in two-digit numbers. Based on field studies, there was an increase in student scores. These results are supported by relevant studies on learning strategies using the GASING method to improve students' abilities in two-digit multiplication. The GASING method can be a solution to students' low interest in learning Mathematics.

Discussion

The GASING (Easy, fun, enjoyable) method is an innovative learning method developed by Prof. Yohanes Surya. The GASING method makes learning easier, more fun, and enjoyable for students. Easy means that students are introduced to the mathematical logic they are learning and are easy to remember. Fun means that during the learning process, students have the desire to learn without being forced to learn. Fun is defined as satisfaction that leads to external factors such as the use of teaching aids and games. The GASING method does not only memorize formulas but is first provided with an understanding with the simplest possible logic. According to Husna & Sari (2018) the GASING method, it emphasizes learning in the form of direct (concrete) exploration of the material taught, making students more interested and believe that mathematics has benefits in life. This method is a simple way to learn mathematics because it does not use many formulas. The learning process presented is systematically designed and arranged sequentially, sequencing the

material from the simplest to the most complex. The learning process is then connected to daily activities related to the curriculum and specific problems. In the GASING mathematics method, is the activity of calculating continuously in one's head.

The results of several studies related to the GASING method, such as those conducted by Armianti et al. (2016) namely discussing the influence of the GASING method on mathematics learning using *a pretest and posttest group research design*. Research by Armianti concluded that there is an influence of the use of GASING mathematics seen from the increase (N-gain) in learning outcomes for the concept of integer multiplication which is in the medium criteria of 0.59. In line with research by Sunarti (2021) on the use of the GASING mathematics learning method can improve student learning outcomes in mathematics subjects at SDN 3 Gandusari. Obtained a percentage of completion of 63.64% in cycle 1 to 81.82% in cycle 2. Thus, this research was declared successful because the average value at the end of cycle 2 reached above the KKM which was only 60, and the completion reached above 75%. So the use of the gasing mathematics learning method can improve student learning outcomes in mathematics subjects at SDN 3 Gandusari. Research was also conducted by Lestari et al. (2022) there are differences in the ability to understand mathematical concepts of students in two-digit multiplication material whose learning process uses the Gasing Mathematics method and those using conventional methods.

The Gasing method is a step-by-step method for achieving a result. The stages of the learning process presented are systematically designed and arranged sequentially, ordering the material from easiest to most difficult with real exploration activities of the material taught, then linked to activities in daily life at school according to the curriculum and concrete problems. The dominant activity in the Gasing Mathematics method is *mencongak*, namely the activity of calculating by rote through continuous practice. In Gasing mathematics learning, there are five stages, namely:

- 1) Simple Dialogue. The teacher simply talks with students about the material to be learned. The involvement of both teacher and students in this activity is expected to create a strong connection between the achievement of objectives, allowing students to share their opinions later.
- 2) Imagination and Fantasy. Imagination and fantasy are very important, and it is hoped that teachers and students can assist in the imaginative process. This is useful during subsequent material delivery because it allows students to think about activities or events related to the material, which allows them to generate new ideas, creativity, and concepts.

- 3) Presenting relevant questions. Relevant questions are simple questions related to everyday life. These questions are designed to improve, strengthen, and practice students' skills in dealing with numerical problems.
- 4) Presenting Material in Depth After students complete simple problems, the teacher must provide an explanation of the subject or elements of the problem so that students can understand the unique concepts or events in mathematics learning.
- 5) Providing a Variety of Questions: After students have completed simple questions, teachers should return to providing math problems that are relevant to the material but in a different way, such as a story. (Mulyawati and Sawinda, 2020 inLestari et al., 2022)

The advantages of the GASING Mathematics method include: 1) Making mathematics an easy, fun and enjoyable learning activity because there is no formula memorization activity at all at every stage of the learning process; 2) The time used by students in solving questions given by the teacher is faster when using the Gasing Mathematics method compared to when using conventional methods; 3) Stimulating students' interest in learning to be more active. However, there are disadvantages to this Gasing Mathematics learning method, namely: 1) During the test in the form of essay questions, students do not include calculations with formulas, even though the answer is correct it will be declared wrong; 2) This method cannot be used to solve mathematics problems at higher school levels; 3) This method can only be applied to basic material, and cannot be applied to various scopes of material in mathematics; 4) Dependence on teaching aids, this method requires teaching aids in its implementation.(Damopolli, 2024)

D. Conclusion

Based on the results and discussions obtained, it can be concluded that the GASING method can improve elementary school students' learning outcomes in mathematics learning. Based on studies on the GASING learning method, it can improve students' understanding and abilities in mathematics learning. Therefore, it is recommended for teachers to be able to use the GASING method because in using this method, learning will be easier, more fun and enjoyable, especially in mathematics learning for children, which is a boring or monotonous thing. In addition, teachers must also master the use of the GASING method so that learning is more optimal and in accordance with the goals expected by the teacher and meaningful for students.

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