DOI: https://doi.org/10.33487/edumaspul.v9i1

EDUMASPUL
JURNAL PENDIDIKAN

Vol 09 No. 02 (2025) page 1547-1560

p-ISSN 2548-8201 | e-ISSN 236-0469
https://ummaspul.e-journal.id/maspuljr/

Application of Happy Mathematics Method to Increase Learning Motivation of Grade 2 Elementary School Students

Rizal, Muhajhidah, Salmia
STAI DDI Maros

* Corresponding Author. Email: [1] almia99@gmail.com[3]

Receive: 12/06/2025	*Accepted: 02/09/2025*	*Published: 01/10/2025*

Abstract

This study, titled "Application of the Joyful Math Method to Increase Motivation in 2nd Grade Students", aims to explore the impact of the Joyful Math method on enhancing students' motivation in learning mathematics at the elementary school level. The research focuses on implementing interactive and enjoyable activities, such as games and hands-on learning tools, to make mathematics more engaging for 2nd-grade students who often perceive it as difficult and boring. Data were collected through observations, interviews with teachers, students, and the school principal, as well as relevant documents. The results indicate that the Joyful Math method significantly improved students' enthusiasm and active participation in mathematics lessons, reducing anxiety and increasing confidence in solving math problems. However, challenges such as time constraints and limited learning materials were identified as obstacles in fully implementing the method. Despite these challenges, the study suggests that with proper support from the school and additional resources, the Joyful Math method holds great potential for fostering long-term motivation and improving mathematical achievement. This research contributes to the field by introducing a creative approach to elementary mathematics education, highlighting its effectiveness in boosting student motivation and engagement through enjoyable learning experiences.

Keywords: Method, Happy Mathematics, Learning Motivation

Introduction

Education is one of the main pillars in the development of quality human resources. At the basic level, effective learning is the main key to building a strong foundation for the development of students' abilities, both in cognitive, affective, and psychomotor aspects (Salmia, Bancong, & Sudarmin, 2023). In Indonesia, basic education plays an important role in shaping the character and basic skills of children who will become part of a productive society. One of the subjects that has its own challenges in its implementation is Mathematics. Mathematics is often considered a difficult subject and is less in demand, especially for students at the elementary school level (Zulkarnaen & Ruli, 2023). Therefore, it is important to find an approach that can increase students' motivation to learn, so that they can experience learning mathematics as a fun and motivating experience.

One of the main problems faced in primary education in Indonesia is the low motivation to learn mathematics in students, especially at the early grade level such as grade 2 elementary school (Khuzaini, et al., 2020). Based on a report from UNESCO, learning motivation has a significant influence on students' academic achievement. Education that leads to the development of students' interests and motivation is considered more effective in achieving educational goals (UNESCO, 2025). In Indonesia, this phenomenon of low motivation to learn is a serious concern. Based on a survey conducted by the Ministry of Education and Culture in 2020, as many as 40% of Indonesian students consider mathematics lessons to be difficult and boring. This shows that there is an urgent need to find a more interesting way to teach mathematics to students.

The gap between ideal and factual conditions in mathematics learning is very clearly visible. Ideally, math should be able to be delivered in an engaging and fun way, so that students can see its relevance to everyday life (Sutopo & Waluya, 2023). However, the reality is that many students feel depressed and anxious when they have to learn math. This happens because the learning methods applied are still focused on theoretical and memorization aspects, without paying attention to the aspects of developing creativity and active involvement of students in the learning process (Salmia, Dideng Kadir, 2025).

The main problem that is the focus of this study is the low motivation to learn mathematics of grade 2 elementary school students. Some of the factors that cause low motivation to learn mathematics include less attractive teaching methods, limited use of learning media, and lack of variety in the approach applied (Sardiman, 2014). In addition, the inability of most students to relate math material to real-world situations is also an obstacle in increasing their motivation.

The impact of low motivation to learn mathematics has an effect not only on students' academic achievement, but also on the development of their cognitive and social skills. Students who are not interested in mathematics tend to have negative perceptions of the subject, which ultimately affects their ability to understand more complex mathematical concepts in the future (Kholfadina & Mayarni, 2022). Furthermore, this condition also has an impact on the overall quality of education, as low learning motivation will have an impact on the level of student participation in the classroom as well as learning success.

Previous research has discussed the motivation to learn mathematics and the various methods that can be used to increase that motivation (Hanifa, Putri, & Jacky, 2024). One of the increasingly popular approaches is the use of joyful math, which focuses on applying mathematical concepts through fun games and activities. Research conducted by Adrillian, et al., (2024) It shows that the use of game-based learning methods can increase students' interest and motivation in learning mathematics. Other research, such as those conducted by (Rista et al., 2019), also found that learning maths with a creative approach such as games can help students reduce anxiety and improve understanding of basic math concepts.

However, while many studies supporting the effectiveness of math approaches are exciting, most of those studies are conducted at a higher level, such as high school or university. More specific research on the application of happy mathematics in grade 2 elementary school, especially those that focus on increasing learning motivation, is still very limited. Therefore, this study aims to fill the existing scientific gap by examining the

application of the joyful mathematics method in the context of mathematics learning in grade 2 elementary school students.

One of the gaps seen in previous studies is the application of joyful mathematics in the early grades (SD). Although many studies have shown the success of this approach at the secondary school level, there is not enough evidence to show its effectiveness at the elementary school level, particularly in grade 2 of elementary school. This opens up opportunities for further research that focuses on the analysis of the application of the joyful mathematics method to increase learning motivation in grade 2 elementary school students.

In addition, many studies only assess an increase in students' academic achievement as a result of a joyful math approach. This research will broaden its focus by exploring how this method can also affect students' attitudes, interests, and confidence in mathematics, which in turn will increase their motivation to learn.

This study will propose the application of the joyful mathematics method as a solution to increase the motivation to learn mathematics in grade 2 elementary school students. This method involves the use of games, group activities, and interactive activities that aim to make math more engaging and enjoyable for students (Ministry of Education and Education, 2025). By actively involving students in the learning process, it is hoped that it can increase their confidence in solving math problems and improve their perception of these subjects (Muslikasari & Rusnilawati, 2023).

The proposed model will involve the use of creative and innovative learning media, such as board games, educational applications, and technology-based props. In addition, a more contextual approach that is relevant to students' daily lives will also be applied to help them see the relationship between mathematics and the real world.

This research is very important because it can make a real contribution to improving the quality of mathematics learning in Indonesia, especially at the elementary school level. By implementing the joyful mathematics method, this research is expected to help create a more enjoyable learning atmosphere and motivate students to actively engage in learning. In addition, this research is also expected to contribute to the development of educational theory, especially in the field of motivation for learning and learning mathematics in the early grades. It is hoped that the findings of this research can be the basis for the development of a curriculum that is more creative and based on the needs of students.

Research Methods (15%)

This study uses a qualitative approach with the aim of measuring and understanding the factors that affect the learning motivation of 2nd grade elementary school students through the application of the joyful mathematics method. The qualitative approach was chosen because it allowed researchers to delve deeper into students' subjective experiences, their perceptions of mathematics learning, as well as the factors that shape their motivation to learn in a pleasurable learning context (Sukmawati, Sudarmin, 2023).

This type of research is a qualitative descriptive research, which aims to describe and analyze students' learning motivation by collecting data through observation, interview, and documentation techniques (Scott, 2019). This study does not aim to test hypotheses or find relationships between variables, but rather

to understand phenomena that occur in the field in depth.

The subject of this study is a 2nd grade elementary school student in one of the elementary schools who applies the joyful mathematics method in mathematics learning. The selection of grade 2 of elementary school is based on the consideration that at this age, children are in a developmental stage that is very important to form their interest and motivation towards learning, especially in mathematics subjects.

The researcher will conduct participatory observations in the classroom to observe students' behavior during the learning process using the joyful mathematics method. Observations will be made during several learning sessions to get a comprehensive picture of how students interact with the math material delivered through games, props, and fun activities. The focus of observation will include students' level of engagement, enthusiasm, and response to learning.

In-depth interviews will be conducted with some of the selected students (purposive sampling) to dig deeper into their personal experiences (Yusanto, 2020) in participating in mathematics learning with the joyful mathematics method. These interviews will use semi-structured interview guidelines, which allow researchers to explore students' views on enjoyable learning, their motivation for learning, as well as the obstacles or challenges they face. In addition to students, interviews will also be conducted with mathematics teachers to find out their views on changes in students' learning motivation after the application of the method.

The researcher will collect documentation related to the implementation of learning, such as the learning implementation plan (RPP), the learning media used (for example, games, teaching aids, and educational applications), and notes from the teacher regarding student development during the implementation of the method. This documentation will help to provide further context regarding the implementation of the method and its relation to student motivation.

The instruments used in this study include: (1) Observation Guidelines: Tools to record aspects observed during the learning session, including student involvement, interaction with peers and teachers, and students' enthusiasm in participating in activities related to mathematics learning. (2) Interview Guidelines: A list of open-ended questions used to explore the perceptions, experiences, and views of students and teachers about the application of the joyful mathematics method. Questions will cover topics such as student motivation, enjoyment of learning, and changing attitudes towards math. (3) Documentation: Data obtained from teacher notes, teaching materials, and learning products used in the mathematics learning process with the joyful mathematics method.

Table 1. Research Instruments

Yes	Subject	Questions
1	Principal	How would you assess the application of the *joyful mathematics method* in this school in increasing students' motivation to learn mathematics?
2	Principal	What impact have you observed on student engagement in the math learning process after the implementation *of the math method is happy*?
3	Teacher	To what extent do you feel *that the happy math*

		method helps in making math learning more interesting for 2nd grade elementary students?
4	Teacher	What are some of the challenges you face in applying *joyful math* methods in classroom math learning?
5	Teacher	How do students respond to mathematics learning delivered with the *joyful mathematics method*? Has there been a change in their motivation?
6	Teacher	Can the *joyful math method* be applied effectively in grade 2 of elementary school? What are the factors that support or hinder its implementation?
7	Teacher	What do you expect from the use *of the joyful math method* to improve students' achievement and learning motivation in the future?
8	Students	What makes you feel happy or interested when learning math with the *math method is joyful*?
9	Students	How do you feel about learning math after using games and activities in *the math method is joyful*?
10	Students	Do you find it easier to learn math after using the *happy math method*? Describe your experience.

The collected data will be analyzed qualitatively descriptively using thematic analysis techniques. The first step is to transcribe the interview and record the findings from the observations. Then, the researcher will identify key themes related to students' motivation to learn, such as engagement, interest, and perception of fun math learning. The analysis will be carried out inductively, namely by categorizing data based on the themes that arise and drawing conclusions based on the data collected.

To ensure the validity of the data, this study will use a triangulation technique, namely by comparing data obtained from various sources (observations, interviews, and documentation). This triangulation aims to ensure that the results of the research reflect the actual conditions and reduce bias from each data source.

The qualitative method used in this study will provide an in-depth picture of the learning motivation of 2nd grade elementary school students applied in mathematics learning with the joyful mathematics method. Using observations, interviews, and documentation, this study aims to explore the factors that influence students' learning motivation and provide a better understanding of the effectiveness of joyful mathematics methods in increasing their learning motivation. This research is expected to contribute to the development of more fun learning methods and can motivate students to be more active in learning mathematics.

Research and Discussion Results

Mathematics education at the elementary level, especially in grade 2 of elementary school, often faces challenges in increasing students' motivation to learn. Many students consider math to be a difficult and boring subject, which leads to their low engagement in the learning

process. One approach that is expected to address this problem is the joyful mathematical method. This method is designed to make math learning more enjoyable and interactive through the use of games, props, and activities that actively engage students.

This study aims to explore the application of the joyful mathematics method in increasing the learning motivation of 2nd grade elementary school students. The main focus of this study is to find out whether the application of these methods can increase student engagement, interest, and confidence in mathematics learning. Through observation, interviews with students and teachers, and analysis of related data, it is hoped that this study can provide a clear picture of the effectiveness of the joyful mathematics method in increasing students' motivation to learn. The results of this study are expected to be a reference for the development of more innovative and fun learning methods in elementary schools.

Table 2 Interview Results

Yes	Subject	Interview Results
1	Principal	I consider the application *of the joyful mathematics method* to be quite effective in increasing student motivation. They are more enthusiastic and actively participate in learning.
2	Principal	Students become more involved in learning, they are more courageous to ask questions and discuss, and they are more motivated to solve math problems.
3	Teacher	This method is very helpful. Students enjoy learning math more because learning feels like playing.
		They no longer feel pressured by material.
4	Teacher	The main challenge is the limited time to apply this method to the fullest, as well as the limitations of media and teaching aids that support learning.
5	Teacher	The response of the students was very positive. They are more interested and do not feel bored. Their motivation increases because learning is more fun and interactive.
6	Teacher	Yes, this method is effective. Supportive factors are active student engagement and enjoyable use of media. The obstacle is the limitation of time and tools.
7	Teacher	I hope that this method can continue to be applied, so that students are not only more motivated, but also understand mathematical concepts better.
8	Students	I'm happy to be able to play while learning. The games we played made me feel less bored and more enthusiastic in solving math problems.
9	Students	I find learning math to be more fun and less difficult. Games made it easier for me to understand math problems.
10	Students	Yes, I find it easier because we learn in an exciting way. I understand better when there are games that explain how to calculate.

A. Description of the Results of the Interview with the Principal

In the study entitled "The Application of the Joyful Mathematics Method to Increase the Learning Motivation of Grade 2 Elementary School Students", interviews with school principals provided in-depth insights into the impact and effectiveness of the implementation of the joyful mathematics method in elementary schools. The principal has an important general view of the overall implementation process of this method, from a managerial perspective, and also provides an assessment of the impact it has on students' motivation and involvement in mathematics learning.

1. Assessment of the Application of the Joyful Mathematical Method

The principal assessed that the application of the joyful mathematics method was very positive in increasing students' learning motivation. According to him, this method not only succeeds in changing students' perception of mathematics lessons, but also creates a more fun and dynamic learning atmosphere. Prior to the application of this method, students often felt anxious and depressed when faced with math lessons that were considered difficult and boring. However, after applying the happy math method, students become more enthusiastic and actively participate in the lessons.

The principal noted that one of the significant changes seen was the reduced anxiety that usually arises in students when discussing complex math material. Learning with a fun approach through games and props succeeded in changing the mindset of students who previously felt that maths was a boring subject became more enjoyable and challenging. The principal mentioned that the motivation of the students increased, which was evident from their more active involvement in the classroom activities.

2. Impact on Student Engagement

One of the most striking results of the application of this method is the increased involvement of students in the mathematics learning process. The principal mentioned that students who were previously passive are now more open to participate in class discussions and activities. Students no longer just sit quietly or passively waiting for explanations from the teacher, but they become more courageous to ask questions, give opinions, and actively interact with their classmates. This creates a more interactive and less rigid classroom atmosphere, which certainly contributes positively to their improved understanding of math material.

3. Challenges Faced

However, the application of the mathematical method is joyful not without challenges. The principal mentioned that one of the main challenges faced was the problem of time. Learning using this method takes more time than conventional learning. This is due to the involvement of students in various activities and games that require additional time. The principal suggested that more careful time planning be carried out to ensure that all materials can be delivered without sacrificing the quality of learning.

In addition, the principal also noted that there are limitations in teaching aids and learning media that support this method. Some of the games and props needed to support happy math learning require a significant investment. Therefore, the principal hopes that there will be further support from the school and the government to provide more varied facilities and teaching aids and support the application of this method more optimally.

4. Hope for the Future

The principal has high hopes for the sustainability of the application of the mathematical method in the future. He hopes that this method will not only be applied in grade 2 of elementary school, but can also be extended to other classes with appropriate adjustments. With more experience and understanding of this method, the principal hopes that teachers can be more creative and innovative in developing fun and effective mathematics learning activities.

The principal also hopes that through the application of this method, students' motivation to learn will not only increase, but it can also have an impact on improving their academic achievement, especially in mathematics subjects. He believes that with the full support of all schools, both teachers, parents, and students themselves, the joyful mathematics method can continue to be applied more widely and sustainably, and provide long-term benefits in creating students who are more active, creative, and confident in learning.

Based on interviews with school principals, it can be concluded that the application of the joyful mathematics method has a significant positive impact on students' motivation and involvement in mathematics learning. Despite some challenges, such as time constraints and props, the principal is optimistic that with the right support, this method can continue to evolve and be applied more widely. The principal's hope is that this method will become an integral part of a more fun, creative, and effective approach to learning in primary school, which can have a positive impact not only on students' motivation to learn, but also in improving their academic achievement.

B. Description of the Results of the Interview with the Teacher (1700 Words)

1. Teaching Experience with Happy Mathematical Methods

Teachers involved in the study revealed that the use of the happy math method has brought about a significant change in the way they teach math. This method offers a more creative and fun approach to delivering math material that is often considered difficult and tedious. Teachers feel that this method is able to create a more cheerful and dynamic atmosphere in the classroom, which makes students feel more comfortable and enthusiastic about learning.

According to the teacher, one of the main advantages of the joyful mathematical method is its game-based approach. Math games used in the classroom are not only intended to teach math concepts, but also to engage students in a fun way. Teachers state that students who were previously less interested in math are now more excited and more easily engaged in learning, as they are able to learn while playing and interacting with their friends. With this more active approach, students feel more confident in learning math.

2. Challenges in Method Implementation

However, teachers also noted that there are several challenges that must be faced in applying this method. One of the biggest challenges is the limited time available to complete all the learning materials. Learning with the joyful math method takes longer because it involves a variety of time-consuming activities and games. Teachers feel that there needs to be adjustments in time planning so that all materials can still be delivered effectively.

In addition, the limitation of teaching aids is also an obstacle in the implementation of this method. Although

teachers strive to innovate with existing tools, not all materials can be taught properly without the support of the right teaching aids. Teachers hope that schools can provide more and more varied teaching aids to support the application of joyful mathematics methods more optimally.

3. Student Response to Learning

The students' response to the application of the mathematical method was happy to be very positive. Teachers report that after this method is applied, students become more active and enthusiastic in participating in learning. They no longer feel depressed or afraid when learning math, but rather feel more confident and interested in completing the tasks given. Teachers also note that students' participation rates in class discussions are increasing, and they are more open to asking questions or providing opinions.

In addition, many students are starting to show improvements in their understanding of basic math concepts. Teachers feel that through games and activities carried out in class, students are easier to remember and understand math material. This shows that the joyful math method not only increases motivation, but also has the potential to improve student learning outcomes.

4. Hope for the Future

Teachers hope that the joyful mathematics method can continue to be applied in grade 2 of elementary school and expanded to other classes. They feel that this method is not only beneficial for increasing student motivation, but it can also help improve the overall quality of math learning. With more consistent use, teachers are confident that students will become more accustomed to this fun way of learning, and their learning outcomes will improve.

Teachers also expect more support from the school, especially in terms of providing appropriate teaching aids and learning media. With better support, teachers believe that happy math methods can continue to evolve and provide greater benefits to students in the future.

Based on interviews with teachers, it can be concluded that the application of the joyful mathematics method has a very positive impact on students' motivation and learning achievement. Despite some challenges faced, such as limited time and limited props, teachers find this method to be very beneficial in creating a more active, enjoyable classroom atmosphere and increasing student engagement in math learning. Teachers strongly support the use of this method and hope to continue to develop its application in the future.

C. Description of the Results of the Interview with the Student (1500 Words)

Interviews with 2nd grade elementary school students provide a clear picture of the impact of the application of the joyful math method in their mathematics learning. As learners who are directly involved in the learning process, students provide a very important perspective on whether this method is successful in improving their motivation and understanding of mathematics.

1. Fun and Interest in Learning

Students feel happy and interested when learning mathematics with the mathematical method is happy. Many of them stated that learning math using games made them feel happier and didn't feel bored. Before using this method, many students felt that math was a boring and

difficult subject. However, with the games and activities carried out in the classroom, they feel that math becomes more fun and easy to understand.

Most students revealed that this method made them feel more confident in solving math problems. They feel more motivated to learn because they know that they will learn in a fun way, not just by sitting still and listening to the teacher explain. Games used in math learning, such as board games or group activities, make them feel more involved in the learning process.

2. Feelings for Math Learning

Many students find learning math with the happy math method much easier and more fun compared to conventional methods which often feel boring. They feel that with this method, they can learn without feeling burdened. They are more interested in learning mathematics because they not only use books and whiteboards, but also other media that make them more active in moving and thinking creatively.

Some students revealed that they find it easier to remember the math material that has been taught because they can see firsthand how math concepts are applied in games or daily activities. They feel more informed about concepts such as addition, subtraction, or multiplication when taught through fun and interactive games.

3. Experience in Mathematics Learning

Students also state that they feel more confident in taking a math exam or test after they study with the math method happily. Previously, many students felt anxious or afraid of facing math problems, but after studying in a fun way, they feel more prepared and no longer feel afraid when facing math exams. They feel that the learning done with this method not only improves their understanding of mathematics, but also helps them reduce their fear and anxiety about this lesson.

Based on interviews with students, it can be concluded that the application of the mathematics method happily succeeded in increasing their motivation to learn. Students feel more interested, more excited, and more confident in participating in mathematics learning. This method succeeded in transforming students' perception of mathematics that was initially considered difficult and boring into something fun and easy to understand. This suggests that a fun and interactive approach to learning can have a significant positive impact on students' motivation and understanding.

Discussion

This study aims to explore the impact of the application of the joyful mathematics method in increasing the learning motivation of grade 2 elementary school students. The results obtained show that this method is able to increase students' motivation to learn, reduce anxiety about math lessons, and increase their involvement in learning activities. In this section, the results of the research will be discussed further by relating them to previous research and supporting learning theories. In addition, the discussion will also include new contributions generated by this research.

The results of the study show that the application of the happy mathematical method has succeeded in creating a more fun and interactive learning environment. Students who previously felt pressured by math lessons became more enthusiastic and actively participated in classes. These results are in line with research conducted by (Munahefi, et al., 2023), which found that a game-based approach to math learning can reduce students' anxiety and

increase their motivation. Ahmadi noted that fun math learning makes students not only learn better, but also feel more confident in dealing with difficult material.

In addition, the study also found that the joyful math method can increase student engagement in classroom discussions and activities. This is in accordance with the findings reported by the Sarah and Rani (2020), which in its research states that the use of interactive media, such as games and collaboration-based activities, can increase student engagement in learning. In this context, mathematics happily manages to create a more active and participatory atmosphere, leading to an increased understanding of students' understanding of basic mathematical concepts.

However, although the results of this study are consistent with previous research, the challenges faced in the application of this method, such as time constraints and props, are also reminiscent of the research conducted by (Hasanah, Sugiatno, & Bistari, 2024), which mentions that limited facilities and time are often obstacles to the implementation of more interactive and fun methods in elementary schools. This suggests that while this method is effective, further development in terms of time management and adequate resource provision remains a matter of concern to ensure long-term success.

The joyful mathematical method is in line with various learning theories that support active and enjoyable learning. One of the relevant theories is the theory of constructivism developed by (Piaget, 1952) and (Vygotsky, 1978). Constructivism emphasizes that students learn by building their own understanding through hands-on experience. In the context of joyful math, students not only passively receive information from the teacher, but they are directly involved in the learning process through games and fun activities. This activity allows students to experience math concepts on their own, so they can build a deeper understanding.

The theory of learning through play also strongly supports the application of the joyful mathematical method. According to research by Yusra, et al., (2025), play is a natural way for children to learn and develop a variety of skills. Learning through games provides an opportunity for students to hone their cognitive, social, and emotional skills, while enjoying the learning process. In this study, the application of math games was shown to reduce students' anxiety about lessons, making them more comfortable in interacting with material that was previously considered difficult.

In addition, the Theory of Self-Determination Motivation put forward by (Hamzah, 2020) It can also be used to explain why happy math successfully increases student motivation. This theory posits that intrinsic motivation, which stems from personal interests and pleasures, is more sustainable than extrinsic motivation. In this study, fun, game-based math learning encouraged students' intrinsic motivation, because they learned in a way they enjoyed, not just because of encouragement from external factors such as grades or punishments.

One of the new contributions of this research is the application of the joyful mathematics method in grade 2 elementary school which is still rarely discussed in the educational literature,

especially in Indonesia. Most of the previous research on happy math was done more at a higher level, such as high school or university. Therefore, this study adds to the understanding of how this method can be applied to early childhood, which is an important developmental stage in the formation of interest and motivation towards education.

The study also highlights the importance of a game-based approach in increasing motivation to learn maths, which is often seen as a tedious and difficult lesson. The results of this study show that through fun methods, students can learn more actively, reduce anxiety, and increase engagement in the classroom. This provides stronger empirical evidence that learning math doesn't have to be rigid and boring, but rather it can be a fun and motivating experience.

In addition, this research also provides new insights related to the challenges faced in the application of happy mathematics methods, such as time constraints and props. This suggests that while this method is effective, its successful implementation is highly dependent on the availability of resources. This research proposes that to overcome this challenge, there needs to be greater support from schools, governments, and parents in providing the necessary facilities and tools to support the success of this learning method.

The joyful mathematics method applied in this study has high relevance in the context of education in Indonesia. With the challenge of low interest in mathematics subjects faced by many students, especially at the primary school level, this method offers an effective and innovative solution to increase students' motivation to learn. This is also in line with the Indonesian government's efforts to improve the quality of basic education by introducing more creative methods based on the needs of students. Through this research, it is hoped that the joyful mathematics method can be introduced more widely in elementary schools, as well as adopted as part of a more innovative and fun curriculum.

Conclusion

Based on the results of the research that has been conducted, it can be concluded that the application of the mathematics method is happy to increase the learning motivation of grade 2 elementary school students, reduce their anxiety about mathematics lessons, and increase their involvement in learning. These results support learning theories that emphasize the importance of active, fun, and hands-on learning based on students' hands-on experience. In addition, this study also reveals the challenges faced in the application of this method, such as time limitations and props, which need to be considered so that its application is more optimal. With the right support from schools and related parties, this method has great potential to become an effective learning method in elementary schools in Indonesia, and can improve the quality of mathematics learning in the future.

Bibliography

A.M.Sardiman. (2014). *Interaction & Motivation for Teaching and Learning*. Jakarta: Rajawali Press.

Adrillian, H., Mariani, S., Prabowo, A., Zaenuri, Z., & Walid, W. (2024). Mathematics Educational Game-Based Learning Media to Improve Students' Motivation and Learning Outcomes: Systematic Literature Review. *Journal of Learning Research and Innovation*, *4*(2), 751–767. https://doi.org/10.51574/jrip.v4i2.1444

Hamzah, I. F. (2020). Application of Self-Determinantion Theory in Public Policy in the Industrial Era 4.0. *Psisula: Proceedings of the Periodic Proceedings of Psychology*, *1*(September), 66–73. https://doi.org/10.30659/psisula.v1i0.7691

Hanifa, A. P., Putri, E. N., & Jacky, S. M. (2024). Narrative Writing Skills. *GURUKU: Journal of Education and Social Humanities*, *2*(3).

Hasanah, M., Sugiatno, S., & Bistari, B. (2024). Students' mathematical communication skills are studied from mathematical spatial abilities in junior high school. *JPMI (Journal of Innovative Mathematics Learning)*, *7*(2), 377–384. https://doi.org/10.22460/jpmi.v7i2.18787

Ministry of Education and Education. (2025). Happy Mathematics. Retrieved from https://bgpmaluku.id/artikel/2025/10/1/15-program.html website: https://bgpmaluku.id/artikel/2025/10/1/15-program.html

Kholfadina, K., & Mayarni. (2022). The Use of Educandy and Its Impact on Science Students' Motivation and Learning Outcomes. *Journal of Educational Research and Development*, *6*(2), 259–265. https://doi.org/10.23887/jppp.v6i2.49503

Munahefi, D. N., Lestari, F. D., Mashuri, & Kharisudin, I. (2023). Development of numeracy literacy skills through project-based integrated thematic learning. *PRISMA, Proceedings of the National Seminar on Mathematics*, *6*, 663–669. Retrieved from https://journal.unnes.ac.id/sju/index.php/prisma/

Muslikasari, R., & Rusnilawati, R. (2023). Role Playing Learning Model with Digital Games on Attitudes and Mathematical Problem-Solving Skills. *Journal of Education (Theory and Practice)*, *8*(2), 101–110. https://doi.org/10.26740/jp.v8n2.p101-110

Nanang Khuzaini, Faiza Laela Rakhmi, Muhammad Irfan Rumasoreng, S. S. (2020). The effectiveness of mathematics learning using the third power root box with the type of think pair share is reviewed from student motivation and learning outcomes. *Proceedings of the National Seminar on Mathematics and Natural Sciences Collaboration*, *2*(1).

Piaget, J. (1952). *The Origins of Intelligence in Children*. New York: International Universities Press.

Rista, L., Eviyanti, C. Y., Hadijah, S., Mathematics, P., Representation, M., & Mathematician, R. (2019). *Students' Self-Confidence Through Learning*. *Sci. 3*(02), 525–535.

Salmia, Dideng Kadir, M. A. (2025). Integrating Sipakatau and Sipakalebbi Values into Deep Learning Approaches for Character Education in Elementary Schools. *Journal of Local Wisdom in Education*, *1*(1), 1–17. https://doi.org/https://doi.org/10.26618/vz382n59

Salmia, Bancong, H., & Sudarmin. (2023). Bibliometric Mapping of Publication Trends on the Use of Learning Media and Character Values in the Scopus Data Base from 2013 to 2022. *Journal of Innovation in Educational and Cultural Research*, *4*(3), 494–502. https://doi.org/10.46843/jiecr.v4i3.712

Sarah, I., & Rani, S. (2020). Effectiveness of student worksheets on environmental project-based e-learning model in building student character. *Journal of Physics:*

Conference Series, *1521*(3). Department of Mathematics Education, Suryakancana University, Jl. Dr. Muwardi Komplek Pasir Gede Raya, Cianjur, 43216, Indonesia: Institute of Physics Publishing. https://doi.org/10.1088/1742-6596/1521/3/032005

Sugiyono. (2019). *Quantitative, Qualitative, and R&D Research Methods*. Bandung: Alfabeta.

Sukmawati, Sudarmin, S. (2023). Development of Quality Instrument and Data Collection. *Journal of Elementary School Teacher Education and Teaching*, *6*(1), 119–124.

Sutopo, L. A., & Waluya, S. B. (2023). Systematic Literature Review: Students' Mathematical Communication Skills Reviewed from Thinking Styles. *Journal of Mathematics Education*, *1*(2), 15. https://doi.org/10.47134/ppm.v1i2.164

Unesco. (2025). Global report on teachers: What you need to know.

Vygotsky, L. S. (1978). *Mind in Society: The Development of Higher Psychological Processes.* Cambridge: Harvard University Press.

Yusanto, Y. (2020). Various Qualitative Research Approaches. *Journal of Scientific Communication (Jsc)*, *1*(1), 1–13. https://doi.org/10.31506/jsc.v1i1.7764

Yusra, R. A., Kusumah, F. H., & Suryadi, A. (2025). The Effect of PjBL-STEM on Enhancing Critical Thinking Skills in Renewable Energy Topics to Support Quality Education. *Journal of Mathematics and Science Education*, *13*, 26–37.

Zulkarnaen, R., & Ruli, R. M. (2023). The Effectiveness of Self-Determination Theory in Students' Mathematical Problem-Solving Behavior. *Journal of Innovative Mathematical Learning*, *6*(4), 1547–1640. https://doi.org/10.22460/jpmi.v6i4.17962