Journal of Mathematics Instruction, Social Research and Opinion
Vol. 4, No. 1, March 2025, pp. 17 – 32, https://doi.org/10.58421/misro.v4i1.275
ISSN 2962-7842

The Effect of Traditional Congklak Game Method on Students' Learning Outcomes in Learning Mathematics in Elementary Schools

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Article Info

Article history:

Received 2024-07-02
Revised 2024-08-29
Accepted 2024-08-30

Keywords:

Congklak
Learning outcomes
Mathematics
The influence of Congklak
Traditional games

ABSTRACT

Every level of education includes mathematics as one of its disciplines. However, due to ineffective teaching, children find mathematics less interesting in elementary school. Therefore, teachers must be able to choose the best teaching strategy for their students. By utilizing the classic congklak game, researchers hope to deliver learning media that teachers can use using a literature review study approach from various sources and related media. The analysis findings show that, in addition to helping children learn to count and recognize numbers, the classic congklak game also helps children develop moral principles and good behavior, such as the ability to act honorably, wisely, and obediently. The traditional congklak game can increase students' interest in learning. The traditional Congklak game is also considered one of the most effective ways of improving students' mathematical abilities. So, this game can be used as a reference for teaching mathematics methods. Thus, the traditional congklak game changes mathematics into something exciting and fun to learn.

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1. INTRODUCTION

Mathematics is a fundamental subject taught in elementary school from grades 1 to 6. Students must overcome challenges in understanding mathematical principles closely tied to real-world applications. Although mathematics often presents a steeper learning curve than other subjects, it plays a crucial role in students' education. However, despite studying mathematics more, students may not always pay sufficient attention or fully grasp the concepts taught. Therefore, it is essential that students actively strengthen their reasoning skills while learning mathematics. To support this, educators need to provide engaging and dynamic lessons.

Elementary school children have diverse characteristics; they enjoy playing, moving, working in groups, and engaging in hands-on activities. Consequently, teachers should develop math lessons that incorporate group activities, hands-on learning, and

opportunities for direct involvement, making mathematics both interactive and accessible for young learners.

Although the teaching given by the teacher is enjoyable, the thinking capacity of each student is different, mainly because the curricular requirements provide more restrictions on how the teaching and learning process is carried out, forcing them to move on to the next level. Students may develop a negative attitude about how challenging math classes are due to this; in other words, they may continue studying the following chapters without taking a break to ensure that they have understood the previous chapter thoroughly. Many math teachers still use the lecture technique as their primary teaching strategy, emphasizing the need to apply assignments and problem-solving exercises to advance the content. This shows that there are still few students who follow the math learning process, which reduces student creativity, and the material presented only relies on the teacher's memory, making it difficult for students to solve it. There may be unacceptable topics. Therefore, earnest attention is needed when studying mathematics.

One factor contributing to this problem is slow or monotonous learning methods. Traditional learning methods have so far been teacher-centered and have only used a few learning media, so the learning process in class is not enjoyable; students' skills are not strengthened much and are not optimal in stimulating students' memorization, as a result. Objective learning was not achieved fully, nor was the ability to be cognitive and solve the problem. The results showed that the study student was still low.

The results of the Acco Assessment survey come from data obtained from the 2022 PISA (Programmer for International Student Assessment) survey, a global tool for assessing education systems. Indonesian students' math ability scores dropped by 366 points in 2022, according to PISA statistics for 2015–2018. These statistics show a lack of public interest in mathematics, especially in learning basic arithmetic. This shows how mistakes can occur when applying knowledge during teaching and learning, making students reluctant to look forward to their math sessions [1].

One of the Indonesian classic games that is starting to fade is congklak. The congklak playing method is one of the alternative learning strategies that can be applied to overcome the problems above. The congklak playing approach provides the best opportunity for students because it involves them actively in the learning process, thus helping information stick in their minds. Helping students develop and increase their self-confidence. This student-centered approach makes teachers learning allies, resulting in student learning outcomes that meet the required criteria.

The traditional game of congklak, cherished by children across various cultures, embodies a spirit of joy and camaraderie that transcends generations. This engaging board game, often played in a lively atmosphere, fosters social interaction and strategic thinking among its players. With its simple yet captivating mechanics, Congklak invites children to gather with friends and family, creating a vibrant environment filled with laughter and friendly competition. As players take turns distributing seeds or stones across the board, they hone their cognitive skills and strengthen social bonds, making Congklak a beloved pastime that enriches cultural heritage and community ties. The game's enduring popularity is a testament to its ability to provide entertainment while imparting valuable life lessons in

cooperation and strategy [2], [3], [4], [5]. Game Traditional congklak is also a game that emphasizes children's counting skills. The traditional Koncrack game allows teachers to monitor children's cognitive development because this traditional game can train children's left-brain thinking, such as creating strategies to collect as many seeds as possible to defeat the enemy.

One of the school subjects that can use the traditional Congklak game is mathematics learning. The traditional game of Congklak has been identified as an effective tool for enhancing mathematics learning among elementary school students. Research indicates that engaging students in traditional games like Congklak fosters cognitive development and enhances their numeracy and cooperative learning abilities. For instance, studies have shown that participation in Congklak significantly improves children's cognitive skills, particularly in areas such as numeracy and analytical thinking, which are crucial for mathematical understanding [6], [7]. Furthermore, the game promotes cooperative learning, requiring players to work together and develop strategies, enhancing their social skills and teamwork [8], [9]. When studying mathematics, students must deepen their understanding and actively construct knowledge based on previous knowledge and experience [10].

Using the Congklak method in the mathematics learning process in class can eliminate the impression that mathematics is complicated to understand. Therefore, students can quickly learn mathematical knowledge and skills using this method and understand what the teacher conveys. Having students perform arithmetic operations with the help of congklak in elementary school will make them enthusiastic about participating in the learning process. Make sure that student activities and understanding are achieved at the same time.

Through this activity, students are enthusiastic about completing the Congklak game and responsible for completing the LKS made by the teacher. Therefore, in this case, students have two responsibilities at once. You are responsible for winning the game and completing the worksheet.

Game-based learning theory emphasizes the importance of game context in facilitating enjoyable and meaningful learning. Some of the main principles in this theory that are relevant to congklak are:

1. **Intrinsic Motivation:** The game of congklak, with its rules and challenges, can trigger children's curiosity and intrinsic motivation to learn.
2. **Active learning:** Congklak players are involved in decision-making, calculation, and strategy, stimulating cognitive development.
3. **Constructivism:** Children build their understanding of mathematical concepts through play according to their experiences and learning styles.
4. **Collaboration:** Congklak games can be played individually or in groups, facilitating social and collaboration skills.

Research has shown that congklak games positively impact children's cognitive development in various aspects of mathematics, namely counting skills. Congklak involves simple to complex calculations, training children to master numbers, arithmetic operations,

and problem-solving. Through the game, children can better understand mathematical concepts such as place value, fractions, and number patterns. Congklak requires children to think logically, analyze situations, and decide based on available information. This game encourages children to develop different strategies, stimulating creativity and thinking flexibility.

To maximize the potential of congklak, several aspects must be considered: 1. Game modification. Congklak can be modified to teach more complex mathematical concepts like algebra or geometry. 2. Integration with the curriculum. Congklak games can be integrated into mathematics learning in schools as a complement or substitute for more traditional learning activities. 3. Development of aids. Visual aids, such as interactive congklak boards, can increase learning effectiveness. 4. Evaluation. A comprehensive evaluation is needed to measure the impact of the congklak game on student learning achievement.

Given the above context, this study aims to ascertain the impact of conventional congklak game methods on elementary school mathematics education through literature observation using data from previous studies.

2. THEORITICAL REVIEW

2.1 Mathematics Learning in Elementary School

Education significantly impacts people’s daily lives by providing essential skills and knowledge for personal and professional development [11]. However, numerous obstacles to effective education persist, one of which is the fear experienced by many elementary school students. This fear can stem from various sources, including academic pressure, social dynamics, and environmental factors, significantly hindering their learning experiences [12]. Research indicates that fear, particularly in educational settings, can lead to anxiety and avoidance behaviors, ultimately affecting students' academic performance and emotional well-being [13]. For instance, fear of failure or negative evaluation can inhibit students' willingness to participate in classroom activities, limiting their educational engagement [14].

Furthermore, the COVID-19 pandemic has exacerbated these fears, with many students experiencing heightened anxiety related to health concerns and the uncertainty of their educational futures [15]. Addressing these fears through supportive educational policies and interventions is crucial for fostering a positive learning environment that promotes resilience and academic success among elementary school students [16]. Their interest in mathematics decreases due to a perception that the subject is too complex and because the classroom environment may feel unsupportive. Developing strong mathematics skills is crucial, as it lays the foundation for learning other disciplines. This situation undeniably affects students' critical thinking abilities and achievement of mathematics learning objectives.

Developing students' understanding of mathematics is crucial for equipping them with the skills to navigate future changes in a rapidly evolving world. Mathematics education enhances cognitive abilities and fosters critical thinking and problem-solving skills essential in various fields, particularly in Science, Technology, Engineering, and

Mathematics (STEM) education [17]. Research indicates that integrating STEM approaches into mathematics learning can significantly improve students' mastery and application of mathematical concepts [18]. Furthermore, as we transition into the Fourth Industrial Revolution, mathematics education must incorporate technology-based teaching methods that encourage innovation and adaptability among students [19]. The foundational role of mathematics in shaping students' attitudes and competencies is evident, as early exposure to mathematical concepts has been linked to tremendous success in later academic pursuits [20]. Therefore, educators must prioritize developing robust mathematics curricula that address current educational needs and prepare students for the complexities of future challenges [21].

In line with research by Meidianti et al. [22], students' capacity to apply mathematical ideas to real-world situations and to express or explain mathematical ideas in their terms determines how well they understand the concepts. Teaching and learning mathematics extend beyond memorization, visualization, and auditory learning; they encompass a dynamic process where students can develop their abilities and deepen their understanding of mathematical concepts through engaging and interactive methods. Research indicates that effective mathematics education involves using diverse teaching strategies that cater to different learning styles, enhancing students' comprehension and retention of mathematical knowledge [23]. For instance, the Contextual Teaching and Learning (CTL) approach has significantly improved students' mathematical communication skills compared to traditional methods, suggesting that contextualized learning experiences can foster a deeper understanding of mathematical concepts.

In Padang, mathematics is taught as a challenging subject for students. Because arithmetic is a common element in the mathematics curriculum, educators are expected to provide exciting mathematics learning that inspires students to be active, imaginative, and creative. Instructors must be able to design a learning environment that utilizes teaching strategies to increase student motivation, foster creativity, and help them achieve learning goals. Teachers are expected to create learning conditions that use learning methods to increase student creativity and motivation and achieve learning objectives to provide optimal teaching-learning [24].

The classic Congklak game offers a fun alternative method of learning arithmetic. In addition to being entertaining, the classic Congklak game helps improve students' understanding of mathematics [25]. Teachers can use the Congklak game as a teaching tool to help students understand the principles taught by breaking down the subject into simpler terms. Using the Congklak game in mathematics education is an effective pedagogical tool for enhancing students' understanding of multiplication concepts. Research indicates that integrating traditional games like Congklak into the curriculum can significantly improve student engagement and achievement in mathematics. For instance, studies have shown that students exposed to game-based learning environments, such as those utilizing Congklak, tend to outperform their peers taught through conventional methods [26], [27]. The interactive nature of games fosters a playful learning atmosphere, which aligns with the notion that mathematics can be approached as a game, making complex concepts more accessible to young learners [28], [29].

In this study, we use the Congklak game to discuss the concept of arithmetic operations (addition, subtraction, multiplication, and division). When using the Dakon or Congklak game to teach mathematics about multiplication and division, the standard rules are not used, but the rules are modified to suit your needs and provide your students with the ability to perform multiplication and division operations.

One of the situational learning approaches is the use of classic games. Traditional games are integral to the cultural heritage of communities, offering educational benefits at minimal costs. These games, often rooted in local customs, serve as a medium for children to engage in social interactions, learn discipline, and develop various skills. For instance, traditional games promote emotional and physical development, as they are designed not only for recreation but also for educational purposes, fostering values such as cooperation and respect for rules [30], [31], [32]. The enculturation process facilitated by these games allows children to understand and adapt to their cultural environment, which is essential for their socialization and cognitive development [30], [33].

Furthermore, traditional games are recognized for their role in preserving cultural identity and values, as they encapsulate the wisdom and practices of previous generations, thus serving as a bridge between the past and the present [34], [35]. The educational potential of these games is significant; they can enhance learning experiences by providing a dynamic and interactive environment that encourages creativity and critical thinking [36], [37]. Overall, traditional games are not merely pastimes but are vital educational tools that contribute to the holistic development of children while promoting cultural preservation [38], [39].

Children begin to develop their math skills in elementary school (also known as primary school), where they learn math. In addition, primary school is also a time when children learn math because their abilities develop significantly in various aspects. According to Attachment Number 22 of the Regulation of the Minister of Education and Culture of 2006 concerning Content Standards, mathematics learning aims to ensure that students acquire the following skills:

1. Flexible, accurate, precise, and efficient use of ideas and algorithms to solve problems.
2. You are making generalizations through mathematical operations, collecting data, analyzing mathematical concepts and statements, or applying arguments based on patterns and attributes.
3. Problem solving includes understanding the problem, continuously building a mathematical model, solving the model, and interpreting the results.
4. Visual aids such as tables, graphs, and symbols can explain concepts and make situations and problems more straightforward to understand.
5. A person must have an attitude that recognizes the usefulness of mathematics in life, especially curiosity, attention, and interest in studying mathematics, as well as a persistent and confident attitude in problem-solving.

2.2 Congklak Game

An essential component of Indonesia's rich cultural heritage is traditional games. Traditional games are a great way to pass the time and a valuable tool for learning

mathematical ideas. One of the traditional activities that adds to the joy of learning mathematics is congklak. As expressed by Suminar [40], the findings of the game study point to three central values: social, emotional, and cognitive. Children do not feel burdened, encouraged, or worried about the game's outcome when they play. Congklak is a game component that helps train digital skills [41].

Congklak is a traditional game played throughout Indonesia with several names. Congkak is the more common name for the game of congklak in various regions of Sumatra. Congklak is more often called dakon, dhakon, or dhakonan in Javanese. While the game of congklak is most often known as *dentuman lamban* in Lampung and mokaotan, maggaleceng, aggalacang, or nogarata in Sulawesi. The name of the English game of congklak is mancala. The game of congklak is a game that uses a wooden board with holes and shells that are moved sequentially from one hole to another in a circular pattern.

Figure 1. Board and congklak

The congklak game can also be a helpful teaching tool to improve students' arithmetic skills. Following the level of cognitive development of elementary school students, namely the concrete operational stage, which covers the age range of 7 to 11 years, concrete objects can be used in the game. To improve his/her counting skills. In addition to being fun, playing helps children grow and develop. Playing in a universe that also belongs to children is very enjoyable. As Homo Ludens or playful creatures, humans engage in play at every stage of their lives, from infancy to old age. Play is a fun pastime driven by desire, not pressure from others. Research indicates that play remains crucial for children's well-being beyond early childhood, as it fosters emotional and social development during middle childhood [42]. Through various forms of play, children engage in self-directed exploration, vital for honing their cognitive and physical skills. For instance, outdoor play provides opportunities for children to learn through unstructured experiences, promoting autonomy and adaptive behavior [43]. Moreover, play-based learning approaches emphasize the importance of observing children's interests and abilities to tailor learning experiences that extend their play [44]. This individualized support enhances children's engagement and encourages them to take risks and explore their environment, which is essential for their overall development [45].

3. METHOD

According to Snyder, this study uses a literature review to find or extract relevant findings from previous studies and evaluate various expert opinions and texts therein [46]. The research sources used were seven journals, namely journal papers that discuss the impact of congklak game techniques on elementary school students' mathematics learning outcomes as research sources. Research journals are located online and in electronic databases such as Google Scholar. The criteria for reviewing mathematics journals include similarities to the learning environment in elementary schools and an emphasis on learning outcomes in many numeracy domains.

4. RESULTS AND DISCUSSION

After analyzing data from several journal article samples collected from various sources, the following results were obtained:

Table 1. Results of Literature Review

Title	Author/Year	Subject	Measuring instrument	Results
Penerapan Permainan Tradisional Congklak untuk Meningkatkan Hasil Belajar dan Kepercayaan Diri Siswa	Adika Hanafia, Wiryanto, Rooselyna Ekawati, Hendratno (2021) [47]	Students in classes 6A and 6B at SDN Gunung Kesang, Sampang, Madura	Quasi-experimental method with qualitative analysis design	The P-value obtained was (0.001) < 0.05, so realistic integer learning with the traditional Congklak game significantly influenced student learning outcomes in the control and experimental classes.
Efektivitas Penggunaan Media Congklak Terhadap Hasil Belajar Materi Penjumlahan dan Pengurangan Siswa Sekolah Dasar	Fanny Rahmasari, Wulan Sutriyani, (2023) [48]	Students of grade 2 of SDN 3 Menganti (33 students)	Quantitative Experimental approach	The paired sample t-test showed a significant difference between the mean pre-test learning scores of 77.93 and 91.21. Congklak Judging students' progress using media games is considered an effective assessment method, proven by a student success rate of 95%.
Pengaruh Model Pembelajaran Student Teams Achievement Division (STAD) Dan Media Congklak Terhadap Hasil Belajar Matematikalearning outcomes	Ayunissa Cahyaningrum, Arief Cahyo Utomo (2022) [49]	56 students of class III MIM Gonilan Kartasura, Sukoharjo Regency	*Unequivalent Control Group Design*. STAD learning model	Research findings show a significant difference in cognitive learning outcomes mathematics between students using traditional teaching methods and those using Congklak media to support the STAD learning paradigm (t count = 3.426 > t table = 2.021). Regarding average results in Study mathematics, the experimental group performs better than the control group. The first group scored 79.64 on the post-test and 73.57 on the pre-test. The t-test of 3.426 is more significant than 2.021 on the t-

Title	Author/Year	Subject	Measuring instrument	Results
				table, as observed. This shows that the STAD learning paradigm supported by Congklak media has an impact. On the cognitive learning outcomes of mathematics for grade III students, if t-count > t-table and H0 calculation is rejected or Ha is accepted,
Upaya Meningkatakan Hasil Belajar Matematika Materi Penjumlahan Bilangan Bulat dengan Menggunakan Metode Permainan Congklak	Syahrina Anisa Pulungan (2021) [50]	There are 25 students in grade V.	Classroom action research.	The indicators of the success of the student learning outcomes research have been met, which aligns with the cycle II evaluation test findings based on the test results. This shows an increase in the average score of students from 65.54 in cycle I to 78.12 in cycle II. The percentage of students who met all learning objectives at the end of cycle II was 93%, up from 55% at the end of cycle I. The results of the cycle I and cycle II evaluation tests show that learning has increased. Before the cycle, the average score of student learning outcomes was 51.32; However, it increased to 65.54 in cycle I and 78.12 in cycle II. The number of students who achieved KKM increased from 6 pre-cycle to 12 in cycle I and 25 in cycle II.
Pemanfaatan Media Permainan Congklak dalam Meningkatkan Kemampuan Berhitung Siswa	Sahrunayanti, Magdalena Dema, (2023) [51]	Students of Class IV MIN Filial Land Pantai.	Classroom action research (CAR) consists of two cycles: planning, action implementation, observation, and reflection.	The results of the study showed that learning outcomes increased in each cycle. This increase is reflected in the average value before the cycle of 58.6, cycle I of 58.7, and cycle II of 80.5.
Penggunaan Media Congklak Untuk Meningkatkan Hasil Belajar Peserta Didik Pada Materi Pembagian Bilangan Cacah di SD	Jurinih, Yusuf Suryana, Nana Ganda (2022) [52]	Class II SDN 1 Pagerageung	Classroom Action Research (CAR)	The research findings show that learning objectives increase in each cycle. The increase is shown in the average score of learning outcomes in cycle I of 79% and the average score in cycle II of 90%. Thus, the results of this study strengthen the assumption that the use of congklak media can improve students' understanding of the concept of dividing numbers in mathematics class II of SDN 1 Pagerageung.

Identification of journal articles relevant to this study: six journal articles on utilizing traditional congklak games in elementary schools for mathematics learning were identified, and these have been proven to improve students' mathematics learning outcomes. The details are explained below.

Article 1 Application of Traditional Congklak Game to Improve Student Learning Outcomes and Self-confidence. The study produced a P value (0.001). Experimental students who played the classic game Congklak showed significant activity, engagement, and increased enthusiasm. This means that introducing the Congklak game can improve students' cognitive skills. Learning tools that touch students' senses and change their thinking are concrete or direct learning, such as the classic game of Congklak in realistic learning. This also aligns with Verawati Wote, Sasingan, and Yuunita (2020) statement that using Congklak games in class can enliven the learning experience and encourage students to complete assignments. This enables students to acquire the basics to recognize, understand, and improve arithmetic skills.

Article 2 The effectiveness of traditional congklak games in improving mathematics learning outcomes in elementary schools. The paired sample t-test results showed a significant difference in the average pre-test learning scores between 77.93 and 91.21. Assessing student progress using Congklak game media is considered an effective assessment method, as evidenced by the student success rate of 95%. This proves that in this study, the Congklak game was proven to significantly improve students' cognitive abilities, which affects their mathematics learning outcomes.

Article 3, Congklak Game in Team Achievement Department (STAD) Learning Model and Mathematics Learning Outcomes produced a significant average of mathematics learning outcomes, and the experimental group achieved better final results than the control group. The first group scored 79.64 on the post-test and 73.57 on the pre-test. The t count of 3.426 is more significant than 2.021 on the t table. This proves that learning with Congklak games positively impacts student learning outcomes. This study shows the impact of the Congklak game method on improving mathematical problem-solving abilities in elementary schools. This is obtained from the average before and after the use of Congklak.

Article 4 Efforts to Improve Mathematics Learning Outcomes Regarding the Addition of Integers Using the Congklak Game Method, this study shows significant results, namely an increase in students' mathematics learning outcomes. The results of cycle I and II evaluation tests show that mathematics learning has increased. Before the cycle, the average score of student learning outcomes was 51.32; However, it increased to 65.54 in cycle I and 78.12 in cycle II. The number of students achieving KKM increased from 6 pre-cycle to 12 in cycle I and 25 in cycle II. This proves that the congklak game method can positively affect students' cognitive abilities.

Article 5 The Utilization of Congklak Game Media in Improving Students' Arithmetic Skills has a significant influence. This is evidenced by the increase in learning outcomes in each cycle, with an average pre-cycle score of 58.6, cycle I of 58.7, and 80.5 in cycle II after using congklak. Implementing the congklak game in this study greatly influenced students' arithmetic skills and mathematical problem-solving.

Article 6, The Use of Congklak Media to Improve Student Learning Outcomes in the Material of Integer Division in Elementary Schools, shows the results of an increase in the average score of learning outcomes in cycle I of 79% to an average score in cycle II of 90%. Thus, the results of this study strengthen the assumption that the use of congklak can improve the understanding of the concept of dividing numbers in grade II students of SDN 1 Pagerageung.

The six journal articles prove that there is an increase in the achievement of mathematical objectives after implementing the congklak game method in elementary school mathematics learning. The first objective is to improve students' cognitive abilities, the second objective of mathematics learning is to improve problem-solving abilities, and the third objective is to improve student learning outcomes, so these journals are very relevant to this study.

Children's numeracy ability is influenced by two types of elements, namely 1) external factors, namely things that come from outside the child, and 2) internal factors, namely motivation, maturity, and uniqueness of the child's learning style. Less attractive learning is one type of education that can contribute to children's low numeracy ability. Using the congklak game can help students become proficient in numeracy.

The study's results showed that realistic learning with classic congklak games improved students' learning outcomes in integer learning. This is because learning through authentic experiences such as playing congklak is easier for students to understand than traditional learning. Students are given direct learning experiences through classic congklak games, encouraging participation and innovative thinking—students' well-developed conceptual knowledge results from learning materials experienced through their five senses.

In STAD learning using congklak media, children aged 7 to 12 years learn to continue to see natural objects according to their level of cognitive development, making it easier to calculate multiplication and division faster. This follows Piaget's statement (that "Concrete operational thinking refers to how children think in elementary school, between the ages of 7 and 11. Students in each group enthusiastically welcomed the use of Congklak media when teaching.

The mathematics learning outcomes of children taught through congklak games have a significant impact. Cognitive changes occur in students. This is following what was stated by Nataliya [25]. Congklak games are one of the learning methods teachers can use to explain learning materials so that it is easier for students to understand the concepts of the material being taught.

The results of strict and mechanical mathematics teaching and learning activities cause the development of students' numeracy potential to be less than ideal because an environment that supports this development is not created. Students who consider mathematics challenging and tedious will also continue to think so. To close and improve this gap, applying the cultural development learning paradigm must provide space for effective teaching. Teaching and learning activities are fun and follow the students' developmental stage. In addition, to avoid intervention and so that students can construct their knowledge from the learning environment created during the process, the media and

learning methodology used in teaching mathematics must pay attention to the potential and development of the students.

Purwanti [41] reported that research on elementary school students revealed that playing classic games, such as counting to change the number of holes and seeds accessed, can help develop cognitive skills. The number of academic works consulted to write this journal provides confidence. Educators must be creative in choosing learning models and tactics for their students. Teachers must use their creativity when choosing teaching strategies and learning models during the learning process. Innovative educators can utilize available educational resources, allowing students to actively participate in the teaching and learning process in the classroom.

Several journal samples analyzed found that the congklak game method could improve student learning outcomes in all aspects of mathematics because this traditional game involves the mathematical abilities of its players, including addition, subtraction, multiplication, and division. Because elementary school students can access it and it is easy to obtain, this congklak game method is one of the choices to attract students' interest in mathematics. The congklak game can also increase students' motivation to learn mathematics and create a fun learning environment, maximizing the learning process and outcomes. In addition, it will facilitate students' understanding of the information conveyed by the teacher, encouraging them to participate more actively in class activities.

From the data collected and examined, it can be concluded that the learning process has achieved the desired results. This study is expected to help educators become more proficient in utilizing differences in the learning process, thus broadening the understanding of educators and researchers and providing a practical and enjoyable learning experience for students.

5. CONCLUSION

Based on previous research and discussion, the researcher concluded that choosing the right approach is very important for learning. The researcher is interested in the Congklak game because it allows students to freely make thoughts and conclusions during learning activities while presenting abstract concepts to them. Many research projects have been conducted, producing significant findings that have improved the learning objectives of mathematics courses. It is hoped that in further research, many schools in various regions will use traditional games as a teaching method. The researcher also believes that by introducing the ancient game to students, they will be inspired and involved in playing other traditional games that they may not be familiar with.

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