JAVANOLOGI
International Journal of Javanese Studies

Javanologi: International Journal of Javanese Studies
Vol.8 (2), Juni 2025, pp. 120-131
ISSN: 2580-6122, E-ISSN: 3025-1877
DOI https://doi.org/10.20961/javanologi.v8i2.96846

Implementation Of Dakon Game in Elementary School Mathematics Learning

Eko Sujaryanto
SD Negeri Ringinlarik, Indonesia
ekosujaryanto93@guru.sd.belajar.id

Article History:

Submitted December 22, 2024
Revised June 20, 2025
Accepted June 25, 2025
Published June 30, 2025

Citation:

Sujaryanto, E. (2025). Implementation Of Dakon Game in Elementary School Mathematics Learning. *Javanologi: International Journal of Javanese Studies,* Vol.8 (2), pp.120-131. doi: https://doi.org/10.20961/javanologi.v8i2.96846

ABSTRACT

The dakon game, as one of the traditional games that has been widely known in Indonesia, has great potential to be integrated into mathematics learning in elementary schools, especially in the material of integer arithmetic operations. This article aims to analyze the benefits and applications of dakon as an interactive learning media that supports the understanding of the concepts of addition, subtraction, multiplication, and division of integers. With a game-based learning approach, dakon not only functions as a learning aid, but is also able to increase students' motivation in learning mathematics. This game makes it easier for teachers to explain abstract concepts in a more concrete and interesting way. The results of the study show that the integration of the dakon game in mathematics learning can improve students' understanding of integer arithmetic operations, train critical thinking skills, and encourage collaboration among students. In addition, the use of dakon in learning is in line with the principle of independent learning which emphasizes a fun and meaningful learning experience. By making dakon part of the learning strategy, teachers can create a more dynamic and interactive learning atmosphere, so that students can more easily understand the material and be actively involved in the learning process. The novelty of this research lies in its systematic exploration of how local cultural heritage in the form of the dakon game can be transformed into a structured pedagogical model for teaching arithmetic, which has not been widely implemented or documented in formal education contexts. This article recommends the dakon game as a strategic innovation in mathematics learning, especially to improve the quality of learning in elementary schools.

Keywords: dakon, mathematics learning, integer arithmetic operations, elementary school, learning media

INTRODUCTION

Dakon is a type of traditional game that is widely known in Indonesia. As one of the nation's cultural heritages, dakon has an important role in preserving traditional values (Suyanto, 2016). In Central Java, especially by the people of Ringinlarik Village, Musuk District, Boyolali Regency, this game is very popular with children and teenagers. According to research conducted by Lestari (2018), traditional games such as dakon are not only entertaining but also have educational value, especially in training cognitive and social skills. From data collected by the Boyolali Regency Education and Culture Office, the dakon game is used as one of the branches of the traditional game competition which is participated by all representatives of elementary school students in the sub-districts in Boyolali

Regency. This competition activity aims to make dakon one of the cultural treasures that continues to be preserved so that it can be raised to become a national culture (Priyanto, 2020).

Historically, the dakon game—also known as congklak or mancala in other regions—has been played for centuries across the archipelago and is believed to have originated from ancient agrarian communities. In Javanese culture, dakon symbolizes the cyclical nature of life, harvest, and balance. The game board with its symmetrical holes represents the rice fields, while the seeds (biji dakon) represent the crops being sown and harvested. This philosophical meaning teaches players about patience, strategy, and sustainability—values deeply rooted in Javanese wisdom (Geertz, 1960; Soeroto, 2017).

This initiative is in line with the view of Wibowo (2019) who emphasizes the importance of involving children in culture-based activities as a strategic step to maintain the existence of traditional games in the era of modernization. This competition not only supports the preservation of local culture but also builds pride in the younger generation towards Indonesia's cultural heritage.

Mathematics is often considered a difficult subject by elementary school students because of the many abstract concepts that must be understood. One of the materials that often causes difficulties is integer arithmetic operations, especially in addition, subtraction, multiplication, and division (Saragih, 2017). This difficulty can be overcome with an innovative learning approach, one of which is by integrating traditional games into learning. Traditional games can help students understand abstract concepts concretely through direct experience (Rahman & Suryadi, 2019). On the other hand, the dakon game has great potential to be applied in mathematics learning, especially in the context of the Merdeka Curriculum which encourages activity-based learning. Dakon can be used as a tool to teach various mathematical concepts that are in accordance with students' cognitive development. In the past, dakon was primarily played as a form of leisure and social interaction, often involving family members or peers during free time. It functioned as a medium to pass down values of patience, calculation, and turn-taking informally. Today, with the shift in educational paradigms, dakon is no longer viewed merely as a recreational game but has been recontextualized as a pedagogical tool to support formal learning. This transformation reflects how traditional knowledge systems can be adapted to modern curricula while preserving their original cultural essence (Rohman, 2021).

The game-based learning approach, as proposed by Daryanto (2020), is in line with the principles of the independent curriculum which emphasizes experience-based learning, collaboration, and character development. With the dakon game, students can learn actively, interact with friends, and develop critical thinking and problem-solving skills (Santoso & Utami, 2021). In addition, the use of dakon as a learning medium also supports the implementation of contextual learning, as stated by Trianto (2019), where students learn through activities that are relevant to everyday life. In the context of mathematics learning, dakon can be used to introduce basic concepts of integer arithmetic operations, such as addition, subtraction, multiplication, and division, in a more concrete and fun way (Wahyudi, 2020).

Research conducted by Sari and Nugroho (2021) shows that the integration of traditional games in mathematics learning can increase student motivation and strengthen the understanding of abstract concepts. Thus, dakon not only functions as a learning aid, but also as a means to preserve culture while improving the quality of learning in elementary schools. The integration of traditional games such as dakon in mathematics learning also makes a significant contribution to the development of students' social skills. Through the interactions that occur during play, students learn to work together, obey the rules, and respect the opinions of friends. This is in line with the character-based learning approach which emphasizes the importance of developing affective aspects in education. In addition, the use of dakon as a learning medium creates a more enjoyable and contextual learning atmosphere, so that students can more easily understand the mathematical concepts taught. As a result, learning becomes more meaningful because students not only understand the material cognitively, but also experience the learning process emotionally and socially.

This research is in line with previous research conducted by Rahmawati and Lestari (2019) and by Sari and Nugroho (2021), which found that traditional games can improve students' logical thinking skills in learning mathematics. Rahmawati and Lestari's research emphasizes more on the cognitive aspect. In Sari and Nugroho's research, they pay more attention to developing motivation and understanding concepts holistically. Types of traditional games used; Rahmawati and Lestari used the congklak game, which has a more complex calculation pattern, while Sari and Nugroho used dakon with a simpler approach and this is in line with our research. However, this study has a difference in the aspect of students' critical thinking skills which will also be a benchmark for research achievement. This study will further show that traditional games can be an effective medium for bridging abstract concepts in mathematics with real experiences that are relevant to students and how to improve critical thinking skills possessed by students.

According to Ennis (2011), who stated that critical thinking skills include the ability to analyze, evaluate, and construct arguments based on relevant evidence. In the context of mathematics learning, these skills can be honed through activities that involve creative and reflective problem solving, such as those provided by traditional games. In addition, Arends' (2012) research confirms that interactive and contextual learning media, such as traditional games, can facilitate students to think critically because they are directly involved in the exploration and decision-making process. By integrating traditional games such as dakon, students not only understand mathematical concepts in depth, but are also trained to think critically through discussion and reflection during the learning process. Therefore, this study provides added value by making critical thinking skills one of the indicators of the success of traditional game-based learning in elementary schools.

Traditional games such as dakon can also support the development of students' collaborative skills. According to Johnson and Johnson (2014), cooperative learning allows students to share ideas, listen to others' opinions, and work together to achieve the same goals. In the dakon game, students are invited to collaborate while playing, which indirectly trains their ability to communicate and solve

problems collectively. Piaget's research (1972) also emphasized that social interaction in play activities can accelerate students' cognitive development and critical thinking skills. Therefore, through traditional games integrated into learning, students not only get cognitive benefits but also social aspects that support 21st century skills. Thus, this research is expected to be able to provide a positive contribution to improving the quality of learning in elementary schools.

The selection of dakon games as a learning medium in mathematics has a strong urgency, especially in the context of elementary school learning. Dakon is a traditional game that is not only easily accessible, but also has rich cultural values so that it is relevant to be preserved in this modern era. According to Suparno (2015), learning media based on local culture can increase student engagement because they feel emotionally closer to the material being taught. According to Suparno (2015), learning media based on local culture can increase student engagement because they feel emotionally closer to the material being taught. In addition, dakon involves counting activities, strategic thinking, and patterning, which are in line with the mathematical competencies that students want to develop. Hadi's research (2018) shows that strategy-based games such as dakon are effective in training logical thinking and problem-solving skills. Thus, the use of dakon not only supports contextual-based learning but also helps students understand abstract mathematical concepts through a concrete, interactive, and fun approach. Therefore, this study tries to explore the application of dakon as a mathematics learning medium for integer arithmetic operations in elementary schools, especially at SDN 1 Ringinlarik, Musuk District, Boyolali Regency. Furthermore, the practice of playing dakon in the classroom can be interpreted as a form of character education that aligns with Javanese philosophical concepts such as kawruh basa—the awareness to act and speak with respect and humility—and eling lan waspada—the ability to stay mindful and alert in any situation. As students take turns, anticipate moves, and respond thoughtfully during the game, they are indirectly trained to internalize these values, which are central to both cultural identity and ethical behavior in Javanese society (Endraswara, 2009; Suseno, 2001).

METHOD

This study uses a descriptive qualitative approach with a case study method to analyze the application of the dakon game in learning integer arithmetic operations in elementary schools. This approach was chosen because it allows researchers to explore and explain phenomena in depth based on data collected directly in the field. This method aims to provide a rich and accurate picture of how the dakon game is integrated into learning without any manipulation or experimentation. According to Sugiyono (2019), the descriptive qualitative method is very suitable for understanding the context and meaning of a phenomenon in a natural situation. Thus, this approach is expected to provide broader insight into the effectiveness of dakon as a learning medium in elementary schools.

The subjects of this study were samples taken randomly from several students from phase B as many as 6 students and as many as 8 students from phase C at SDN 1 Ringinlarik, Musuk sub-district,

Boyolali Regency. The dakon game was carried out as many as 1 activity with a time allocation of 2 learning hours (2 x 35 minutes). From the time allocation, it was divided into 3 sessions, namely the phase B play session, the phase C play session, and the session of implementing the game into mathematics lessons in the form of integer arithmetic operations. Implementation activities were carried out by involving several students from representatives of the phases due to the limited tools owned by the school and so that researchers were able to measure the differences in the achievement of the implementation of the dakon game on the integer operation material at different phase levels, as well as measure the effectiveness of the dakon game on the achievement of implementation results. To ensure data validity, triangulation was carried out through observation, interviews, and documentation during each session. Observational data were collected using an observation sheet that had been validated by two education experts in mathematics learning and cultural integration. The instrument measured indicators such as student engagement, accuracy in solving arithmetic problems, collaborative behavior, and responsiveness to the contextual use of dakon. Inter-rater reliability was tested with a coefficient agreement above 0.85, indicating a high level of consistency among observers.

The researcher conducted in-depth observations of students' responses in participating in the dakon game and related to its application to mathematics learning. This was done to measure the effectiveness of the integration of the dakon game to mathematics learning, especially in the material of integer arithmetic operations. Observations were made by directly observing the enthusiasm of students while playing the game and when students were given mathematics learning materials by the author. The final results of this activity conclusion can be taken from the results of direct interviews with students and written exams related to the mathematics learning material. In this study, the researcher acted not only as an observer, but also as an active participant by serving as a learning facilitator. The researcher was directly involved in guiding the rules of the dakon game, assisting students in connecting game strategies to mathematical concepts, and providing scaffolding when students encountered difficulties in problem solving. This participatory role allowed the researcher to gain deeper insight into the students' cognitive and affective responses, while also ensuring that the learning process ran smoothly and adaptively according to each group's needs. Such active involvement aligns with the qualitative participatory approach, in which the researcher becomes part of the learning interaction being studied.

RESULT AND DISCUSSION

The implementation of the dakon game at SDN 1 Ringinlarik by the author was carried out on Saturday, November 16, 2024 as many as 1 activity with an allocation of 2 hours of learning (2 x 35 minutes). From the time allocation, the author divided it into 3 sessions, namely the phase B play session, the phase C play session, and the session of applying the game to mathematics lessons in the form of integer arithmetic operations. The implementation activity was carried out by involving several students from the phase representatives, namely phase B represented by class 3 with 6 students and

phase C represented by class 5 with 8 students with an allocation of 1 lesson hour in each phase. In addition to the limited tools owned by the school, this was intended so that the author was able to measure the differences in the achievement of the implementation of the dakon game on the integer operation material at different phase levels, as well as measure the effectiveness of the dakon game on the achievement of implementation results.

In the first session (Figure 1), the game was started by six 3rd grade students who were students from phase B. The researcher explained the rules of the dakon game, the steps of the activities that must be carried out, and gave motivation to the students so that they were more enthusiastic. The six students were then divided into three groups, and the game was played alternately in each group. During this session, the students looked very enthusiastic about the game and tried hard to win each round. The game continued to the second and third groups with the same dynamics. Until the specified time ended, all groups had finished the game, and the winner of each group had been determined.

Figure 1. Dakon game session 1

The next game is the second session game played by students from phase C as many as 8 students. Four playing groups were formed who played alternately. Students in phase C looked very enthusiastic in playing this dakon, they tried to be able to win the game. After the game of one group was finished, it was continued for the next group until all groups had finished playing and a winner was obtained from each playing group. A sense of joy and satisfaction enveloped the students who had been able to become winners. In this case, the author provides encouragement for students who have not been able to become winners and gives appreciation to students who have become winners.

Next, the third session was filled by the author to implement this dakon game into learning materials, especially mathematics. All students from the phase representatives were given reinforcement of the results of the game and related the steps of the game to the mathematics material. Students were invited to find the relationship between each step of the dakon game and the arithmetic operations that had been learned in class. The author provided an explanation of several relationships between integer arithmetic operations from the game in the form of addition, subtraction, multiplication

and division as well as the existence of critical reasoning towards predictions that can be calculated from the steps of the game.

The third session was the session that took the most time compared to the previous two sessions. The author distributed a piece of paper to all participants of this activity and gave several examples of arithmetic operations that could be practiced using dakon media. In phase B, the author asked students to count the total number of dakon seeds on each row of the dakon board by adding all the dakon seeds in each hole of the dakon board. Students were very enthusiastic about counting through the dakon seeds so that accurate results were obtained. In addition, in this phase the author asked students to calculate the difference in the acquisition of dakon seeds between the winner and the loser, then obtained by subtracting the most and least results, so that students would be able to use the material on subtracting numbers. In the material on simple multiplication and division, in this phase B the author asked students to answer simple multiplication from the results of repeated addition on each dakon seed on the dakon board, so that an understanding was obtained that multiplication is repeated addition and division is repeated subtraction.

Still in the third session (Figure 2), the author focuses on the application of number arithmetic operations for phase C, namely grade 5. The application in this phase is carried out almost the same as the material in phase B, but only the change in the number of numbers used is greater and the use of reason and predictions can be done during the calculation. Students in phase C are asked to add up all the dakon seeds needed to play by one group, namely by counting the total number of dakon seeds arranged on the dakon board. In the subtraction material, students are asked to calculate the lack of seeds in each hole of the dakon board with various conditions. The author tries to provide more complex arithmetic operations, namely with HOTS questions from addition, subtraction, multiplication and division materials as well as questions about predictions that can be calculated from several events in the dakon game. This is intended by the author so that in phase C students are able to develop critical reasoning, as well as more optimal arithmetic operations.

Beyond cognitive skills, the practice of learning through dakon in this session also reflects the embodiment of Javanese cultural values such as *ngeli* (adaptively navigating situations without confrontation), *srawung* (social interaction and building relationships), and *tepa slira* (empathy and respecting others). For example, when students take turns and negotiate seed-sharing strategies during the game, they are not only calculating but also practicing tolerance and mutual understanding. This integration aligns with contextual pedagogy, where local wisdom becomes an active component of the learning environment (Tilaar, 2004; Suryanto, 2019). Through dakon, mathematics is not taught in isolation, but woven into the social and cultural fabric familiar to the students, making the learning experience more holistic and rooted in identity.

Figure 2. Dakon game session 3

The enthusiasm of students in the dakon game shows that this media is able to attract their interest in learning while playing. This game not only involves counting skills, but also trains strategy and cooperation between group members. The game process which is carried out alternately provides an opportunity for each student to be actively involved in the activity, so that they can better understand the concepts learned through direct experience. In addition, interactions between group members during the game also train students' social skills, such as sharing opinions, respecting turns, and accepting the final results of the game with sportsmanship.

At the end of the session, the author conducted a joint reflection to discuss the experiences that students had gone through during the game. The author gave appreciation to students who managed to show their best abilities and encouraged other students to keep trying. This discussion also became a moment for students to express their opinions or difficulties they faced during the game. With this approach, learning becomes more meaningful because students not only learn mathematical concepts, but also understand the values of cooperation and healthy competition. This shows that the integration of traditional games such as dakon can be an effective strategy in improving the quality of learning in elementary schools.

In addition to reflection, the author also noted the development of students' thinking skills during the game. The dakon game process provides an opportunity for students to hone their logical thinking skills, design strategies, and solve problems directly. Traditional game-based activities like this not only help students understand concepts but also involve them emotionally so that learning becomes more memorable. The author then designed a simple evaluation to measure the extent to which the dakon game succeeded in helping students understand integer arithmetic operations. The results of this evaluation will be the basis for improving learning activities in the next session.

The success of the integration of the dakon game is also influenced by the active involvement of the author in facilitating the course of the activity. The author does not only act as a supervisor, but also as a motivator and facilitator who provides direction and support to students. Thus, this game is not only a means of learning mathematics, but also creates a fun and dynamic classroom atmosphere. On the other hand, challenges such as time constraints or variations in student abilities can be a concern

to be improved in the future. However, the dakon game has proven its effectiveness as a learning medium that not only supports cognitive aspects, but also social skills and student character values.

In the next learning session, the author designed variations of the dakon game so that students remained motivated and did not get bored. This variation was done by adding new challenges, such as the use of negative numbers or calculations with certain patterns, which were more complex according to the students' ability level. In addition, the author also arranged a more structured playing time to ensure that each group had an equal opportunity to participate. Students were invited to reflect on the strategies they had used previously and find more effective ways to win the game. With this approach, students not only learned to adapt to new challenges, but also improved their analytical skills and creativity during the learning process.

After the game session was over, the author held a class discussion to explore students' experiences during the game. Students were invited to share the strategies they used, the challenges they faced, and the solutions they found. This discussion not only deepened the understanding of mathematical concepts, but also trained students to think reflectively and express their opinions confidently. The author also provided reinforcement by re-explaining important concepts that emerged during the game, so that students could connect their experiences with theoretical learning materials. This process helped students understand that learning is not only limited to textbooks, but can also be done through relevant and fun activities.

For the closing session, the author designed an evaluation activity involving the dakon game in a new context, such as a daily life simulation involving calculations. This activity was designed to measure the extent to which students were able to apply the concept of integer arithmetic operations in real situations. In addition, this evaluation also aims to see the development of students' skills in logical thinking, working together, and making decisions. With this innovative approach, mathematics learning is no longer a bugbear for students, but rather an activity that is awaited and provides a meaningful learning experience. The author continues to develop similar learning methods to ensure that students get maximum benefits from each learning session.

In developing traditional game-based learning methods such as dakon, the author also needs to consider the diversity of student abilities in the class. Each student has a different learning style and level of understanding, so the author needs to provide appropriate assistance so that all students can be actively involved in the activities. For example, students who have difficulty understanding the rules of the game can be given additional explanations or direct examples. Conversely, students who are already proficient can be directed to help their friends, so that a collaborative learning atmosphere is created. In this way, dakon-based learning not only improves students' academic abilities, but also strengthens social relationships and mutual respect among them.

The author documented and analyzed the learning outcomes to evaluate the effectiveness of using the dakon game in more depth. The results of this evaluation can be a reference in designing future learning, both to adjust the level of difficulty of the game and to explore variations in other

learning media. The author involved students in the evaluation process, such as providing feedback on what they liked or the challenges they felt during the game. By involving students, learning is more relevant and centered on student needs. This shows that traditional games are not only a learning tool, but also a means to encourage active student involvement in the entire learning process.

CONCLUSION

Traditional games in the form of dakon games that are played in daily activities have extraordinary benefits for students and for teachers, especially at SDN 1 Ringinlarik by implementing them in mathematics learning. The benefits of dakon games in mathematics learning at SDN 1 Ringinlarik are not only seen from the increase in students' understanding of mathematical concepts, but also in terms of developing other skills. For students, this game trains logical, strategic, and problem-solving skills directly through fun activities. In addition, dakon games also strengthen students' social skills, such as cooperation, sportsmanship, and communication, because they have to interact with friends in a competitive but positive atmosphere. From the teacher's perspective, dakon games provide an alternative effective learning media, so that the classroom atmosphere becomes more dynamic and not monotonous. By using traditional games, teachers also help preserve local culture while creating more meaningful and contextual learning for students.

In a more holistic sense, the dakon game supports cognitive development by sharpening numerical reasoning and mental calculation, particularly in repetitive operations such as addition and subtraction. Socially, dakon fosters collaboration, mutual respect, and emotional intelligence as students learn to take turns, negotiate outcomes, and respond to winning or losing gracefully. Culturally, the game functions as a living heritage that connects students with ancestral knowledge and values. Playing dakon reinforces awareness of Javanese traditions such as *rukun* (harmony), *andhap asor* (humility), and *gotong royong* (mutual cooperation), making the classroom not only a place for intellectual development but also a space for cultural continuity.

Overall, dakon games become a bridge that connects abstract mathematical concepts with students' real experiences, so that learning feels more relevant and enjoyable.

REFERENCES

Arends, R. I. (2012). *Learning to Teach*. New York: McGraw-Hill.

Daryanto. (2020). *Strategi Pembelajaran Inovatif*. Yogyakarta: Gava Media.

Endraswara, S. (2009). *Falsafah Hidup Jawa*. Yogyakarta: Cakrawala.

Ennis, R. H. (2011). *The Nature of Critical Thinking: An Outline of Critical Thinking Dispositions and Abilities*. University of Illinois.

Geertz, C. (1960). *The Religion of Java*. University of Chicago Press.

Hadi, S. (2018). "Efektivitas Permainan Tradisional dalam Meningkatkan Kemampuan Berpikir Logis Siswa Sekolah Dasar." *Jurnal Pendidikan Indonesia*, 7(3), 45-58.

Hidayat, A. (2018). "Pemanfaatan Permainan Tradisional untuk Pendidikan Karakter Siswa". *Jurnal Pendidikan Karakter, 9*(2), 145-154.

Johnson, D. W., & Johnson, R. T. (2014). *Cooperation and Competition: Theory and Research*. Edina, MN: Interaction Book Company.

Lestari, R. (2018). *Peran Permainan Tradisional dalam Membentuk Karakter Anak di Era Globalisasi*. Bandung: Alfabeta.

Nurhayati, L. (2020). "Penggunaan Dakon sebagai Media Pembelajaran Matematika di Sekolah Dasar". *Jurnal Pendidikan Dasar, 12*(1), 78-89.

Piaget, J. (1972). *The Psychology of the Child*. New York: Basic Books.

Priyanto, A. (2020). *Pelestarian Permainan Tradisional Sebagai Warisan Budaya Nusantara*. Surakarta: CV Andi Offset.

Rahman, M., & Suryadi, D. (2019). "Inovasi Media Pembelajaran Berbasis Permainan Tradisional". *Jurnal Teknologi Pendidikan, 21*(3), 102-117.

Rahmawati, D., & Lestari, R. (2019). "Pengaruh Permainan Tradisional terhadap Kemampuan Berpikir Logis Siswa pada Pembelajaran Matematika." *Jurnal Pendidikan Dasar Indonesia*, 6(2), 143-152.

Rohman, F. (2021). *Rekontekstualisasi Permainan Tradisional dalam Pendidikan Abad 21*. Jurnal Pendidikan dan Kebudayaan, 26(1), 45–54. https://doi.org/10.24832/jpnk.v26i1.401

Santoso, T., & Utami, W. (2021). "Pembelajaran Berbasis Permainan: Studi Implementasi di Sekolah Dasar". *Jurnal Inovasi Pendidikan, 16*(4), 215-229.

Saragih, S. (2017). "Analisis Kesulitan Siswa dalam Memahami Operasi Hitung Bilangan Bulat". *Jurnal Matematika dan Pendidikan, 14*(1), 65-72.

Sari, A., & Nugroho, B. (2021). "Integrasi Permainan Tradisional dalam Pembelajaran Matematika untuk Meningkatkan Motivasi dan Pemahaman Konsep." *Jurnal Ilmu Pendidikan*, 8(1), 34-45.

Soeroto, S. (2017). *Permainan Tradisional dan Nilai Budaya dalam Masyarakat Jawa*. Yogyakarta: Pustaka Pelajar.

Sugiyono. (2019). *Metode Penelitian Pendidikan: Pendekatan Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta.

Suparno, P. (2015). *Filsafat Pendidikan untuk Pembelajaran Kontekstual*. Yogyakarta: Kanisius.

Suryanto, W. (2019). *Pendidikan Kontekstual Berbasis Kearifan Lokal dalam Pembelajaran*. Jurnal Ilmu Pendidikan, 25(1), 15–23. https://doi.org/10.17977/um048v25i1p15

Suseno, F. M. (2001). *Etika Jawa: Sebuah Analisa Falsafi tentang Kebijaksanaan Hidup Jawa*. Jakarta: Gramedia.

Suyanto. (2016). *Pendidikan Karakter Berbasis Kearifan Lokal*. Yogyakarta: UNY Press.

Tilaar, H. A. R. (2004). *Multikulturalisme: Tantangan-Tantangan Global Masa Depan dalam Transformasi Pendidikan Nasional*. Jakarta: Grasindo.

Trianto. (2019). *Model Pembelajaran Inovatif Berorientasi Kontekstual*. Jakarta: Kencana.

Wahyudi, A. (2020). *Media Pembelajaran Kreatif untuk Sekolah Dasar*. Bandung: Remaja Rosdakarya.

Wibowo, S. (2019). *Strategi Pendidikan Berbasis Budaya untuk Anak Usia Dini*. Jakarta: RajaGrafindo Persada.