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Child Development through the Traditional Game of Congklak

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Abstract

Although traditional games have received considerable scholarly attention as learning media and instruments for child development, research specifically synthesizing the contribution of *congklak* to children's cognitive, social, emotional, and motor development remains limited. This study aimed to explore the role of *congklak* in supporting the holistic development of primary school–aged children. A qualitative literature review was conducted using relevant scientific articles, books, and academic documents. Data were collected through documentation and analyzed using content analysis to identify recurring themes concerning the developmental benefits of *congklak*. The findings indicate that playing *congklak* supports numeracy, strategic thinking, concentration, social interaction, cooperation, sportsmanship, and fine motor coordination. The game also contributes to the preservation of local cultural values and the cultivation of positive character traits. These findings extend the literature on culture-based education by demonstrating the potential of traditional games as meaningful educational media. The study concludes that integrating *congklak* into learning and child development activities can support children's holistic growth while preserving local wisdom. The findings have practical implications for teachers,

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parents, and educational institutions seeking to incorporate enjoyable, culturally relevant learning activities and provide a foundation for further empirical research across diverse educational contexts.

Keywords: Child Development; Culture-Based Education; *Congklak*; Local Wisdom; Traditional Games

INTRODUCTION

The development of digital technology has changed children's play patterns in many countries, including Indonesia. Children now spend more time playing device-based games than engaging in traditional games that have long formed part of community culture. This situation raises concerns because reduced face-to-face play may affect children's social, emotional, motor, and cognitive development. Play is essential to children's growth and development because it provides learning experiences that support multiple areas of ability. According to Fadlillah (2019), play is an effective means of optimizing children's potential. However, children's declining interest in traditional games has caused the educational and cultural values embedded in these games to receive less attention.

Congklak is one of the traditional games that remains well known in various regions of Indonesia. It serves not only as entertainment but also as an educational activity that can support child development. Fydarliani, Muslihin, and Mulyadi (2020) found that congklak stimulates children's cognitive development through counting, decision-making, and strategic planning. Rambe et al. (2023) further reported that congklak can develop multiple aspects of early childhood development, including moral, social, language, cognitive, motor, and artistic abilities. These findings demonstrate that congklak has educational value that remains relevant to children's learning and development in the modern era.

Based on these conditions, the researcher argues that the traditional game of congklak should be preserved and used as a medium for child development. This argument is grounded in Piaget's theory of cognitive development, which states that children construct knowledge through active interaction with their environment (Piaget, 2018). Vygotsky's (2019) social constructivist theory also explains that child development is shaped by social interaction within play and learning environments. In congklak, children learn not only by

counting and planning strategies but also by interacting with peers, which facilitates social learning. Therefore, congklak has the potential to support children's holistic development.

Previous studies have examined the benefits of congklak from various perspectives. Fydarliani et al. (2020) focused on stimulating early childhood cognitive development through congklak. Nurhayati, Pratama, and Wahyuni (2020) investigated the influence of congklak on social interaction and the social-emotional abilities of children aged 5–6 years. Alvi et al. (2022) examined the effectiveness of the traditional game of congklak in strengthening children's honesty. Meanwhile, Lily et al. (2023) highlighted the use of congklak-based media to improve children's numeracy skills. Although these studies reported positive results, most focused on specific developmental domains and did not comprehensively examine the contribution of congklak to multiple aspects of child development within a single integrated study. A research gap therefore remains concerning a comprehensive understanding of congklak's simultaneous role in supporting children's cognitive, social, emotional, motor, and character development.

To address this gap, the present study offers a comprehensive literature-based examination of the contribution of the traditional game of congklak to multiple aspects of child development. It integrates findings from previous studies to provide a more complete understanding of congklak's benefits. The theoretical foundation draws on Piaget's theory of cognitive development, Vygotsky's social constructivist theory, and the concept of local wisdom-based learning, which positions traditional games as meaningful educational media. Through this approach, the study is expected to enrich scholarship on the use of traditional games in education and child development.

Based on the preceding discussion, this study focuses on analyzing the role of the traditional game of congklak in child development. It aims to describe and analyze the contribution of congklak to children's cognitive, social, emotional, and motor development and to identify the character and cultural values embedded in the game. The findings are expected to contribute theoretically to the development of child education studies and serve as a practical reference for teachers, parents, and educational institutions in using traditional games to support child development and preserve local culture.

METHODS

This study employed a qualitative approach using library research. A qualitative approach was selected because the study sought an in-depth understanding of the role of the traditional game of congklak in supporting child development based on relevant scholarly sources. Library research enabled the researcher to review, analyze, and synthesize theories, concepts, and previous research findings related to traditional games and child development. The study's main characteristic was the descriptive analysis of secondary data obtained from scholarly literature.

This study used a qualitative descriptive design within a literature review framework. The design was used to identify, collect, evaluate, and interpret research findings related to the contribution of the traditional game of congklak to child development. The research process began by defining the focus of the review, followed by searching for and selecting relevant literature, grouping the data according to specific themes, and analyzing and interpreting the findings. This design was selected because it aligned with the study's objective of developing a conceptual understanding of congklak's benefits for children's cognitive, social, emotional, and motor development.

Because this study was a literature review, it did not directly involve participants or respondents. The data sources consisted of documents and scholarly literature relevant to the research topic. The literature comprised 20 sources, including national and international journal articles, academic books, conference proceedings, and other scholarly documents discussing traditional games, child development, and local wisdom-based learning.

Data sources were selected through purposive sampling by choosing literature that met specific criteria. These criteria included: (1) relevance to the traditional game of congklak and child development; (2) publication within the previous ten years to ensure the currency of information; and (3) publication in credible scholarly sources that could be academically verified.

The researcher served as the primary instrument, identifying, selecting, reviewing, and analyzing data from various literature sources. A documentation sheet was also used to record important information from each source reviewed.

Data were collected through documentation in several stages. First, the researcher searched for literature using academic databases such as Google Scholar, Garuda, and other reliable scholarly sources. Second, the researcher selected literature according to the

established inclusion criteria. Third, the selected literature was read thoroughly, and information relevant to the research objectives was recorded. Fourth, the data were classified into relevant themes, including cognitive, social, emotional, and motor development and the cultural values represented in congklak. To maintain data trustworthiness, source triangulation was conducted by comparing information across different references.

The data were analyzed using content analysis. The analysis involved several stages. The first stage was data reduction, in which information relevant to the research focus was selected and simplified. The second stage was data presentation, in which the findings were grouped into specific categories or themes. The third stage involved interpreting the data to identify patterns, relationships, and meanings emerging from the analyzed sources. The final stage was drawing conclusions based on the synthesis and interpretation of the data.

RESULTS

Based on the analysis of 12 relevant sources concerning the traditional game of congklak and child development, four main themes were identified: (1) cognitive development, (2) social and emotional development, (3) motor skill development, and (4) the preservation of cultural values and character formation.

1. Development of Children's Cognitive Abilities

The review findings show that congklak makes a significant contribution to children's cognitive development. Trisnadewi et al. (2024) reported that the traditional game of congklak effectively improves children's cognitive, fine motor, and social-emotional development. Most of the literature analyzed explains that counting congklak seeds during play can improve numeracy, concentration, problem-solving, and strategic thinking. Lily et al. (2023) also stated that congklak can serve as a medium for supporting early childhood numeracy development.

Several studies reported that children who frequently played congklak demonstrated improved basic counting and decision-making abilities during the game. Children also learned to predict moves and consider possible outcomes before taking action. These findings indicate that congklak can effectively stimulate logical and analytical thinking among primary school-aged children. Fydarliani et al. (2020) similarly found that congklak can

stimulate early childhood cognitive development through counting, decision-making, and strategic planning during play.

2. Development of Social and Emotional Abilities

The second theme concerns social and emotional development. Most sources state that congklak is played by two players, allowing children to interact directly with their peers. During the game, children learn to follow rules, wait for their turn, respect their opponent, accept victory and defeat, and regulate their emotions. The literature analyzed also indicates that playing congklak can improve children's communication and cooperative skills. Thus, congklak contributes to the development of social abilities needed in everyday life. Nurhayati et al. (2020) found that congklak positively influences social interaction and improves the social-emotional abilities of children aged 5–6 years.

3. Development of Children's Motor Skills

The analysis also shows that congklak contributes to children's fine motor development. Moving congklak seeds from one hole to another repeatedly involves hand-eye coordination. Several studies found that children who actively participated in traditional games demonstrated better motor coordination than children who interacted only with digital games. These findings indicate that congklak can provide fine motor stimulation that supports children's optimal physical development.

4. Preservation of Cultural Values and Character Formation

The final theme concerns congklak's role in cultural preservation and character formation. Harbiah (2022) stated that the traditional game of congklak can develop moral, social, language, cognitive, motor, and artistic values in early childhood. All the literature analyzed emphasizes that congklak forms part of Indonesia's cultural heritage and contains educational values. Honesty, discipline, responsibility, patience, sportsmanship, and hard work emerge during gameplay. Moreover, using traditional games in learning introduces local culture to younger generations and supports the preservation of national culture. Alvi et al. (2022) found that congklak can strengthen children's honesty and positively influence honest behavior.

Table 1. Summary of Literature Review Findings on the Benefits of Congklak

Domain	Main Finding
Cognitive	Improves counting, concentration, logical thinking, and problem-solving abilities
Social	Improves social interaction, communication, cooperation, and adherence to rules
Emotional	Develops emotional regulation, patience, and sportsmanship
Motor	Develops hand-eye coordination and fine motor skills
Character and Culture	Instills honesty, discipline, responsibility, and appreciation for local cultural preservation

Although most of the literature indicates that congklak positively affects child development, several studies found that its effectiveness depends on the intensity of use, teacher or parental guidance, and children's interest in traditional games. Some studies reported that children accustomed to digital games initially showed less interest in congklak. Limited facilities and insufficient exposure to traditional games in schools may also reduce the use of congklak as a medium for child development.

These findings indicate variations in the implementation of congklak across educational contexts and social environments. Nevertheless, the data were retained in the findings to preserve objectivity and transparency in research reporting.

DISCUSSION

1. Analysis and Interpretation of Findings

The findings show that the traditional game of congklak makes a significant contribution to child development, particularly in the cognitive, social-emotional, and motor domains, as well as in character formation and cultural preservation. These findings demonstrate that congklak functions not only as entertainment but also as a learning medium capable of supporting children's holistic development.

In the cognitive domain, congklak develops counting, concentration, problem-solving, and decision-making abilities. During play, children must count the seeds, determine strategies, and predict subsequent moves. These findings show that play involving active thinking can effectively improve children's cognitive abilities. The findings therefore address the research objective of identifying congklak's contribution to child development, particularly logical thinking and numeracy.

In the social and emotional domains, congklak allows children to interact directly with peers. Children learn to wait for their turn, follow the rules, respect their opponent, and accept both victory and defeat with sportsmanship. These findings indicate that traditional games can effectively develop children's social skills and emotional regulation.

Congklak also contributes to fine motor development through the activity of moving seeds from one hole to another. This repeated activity involves hand-eye coordination and can improve movement accuracy and motor skills. Other findings indicate that congklak contains character values such as honesty, discipline, responsibility, patience, and sportsmanship, which can support children's personality development from an early age.

2. Comparison with Theories and Previous Literature

These findings align with Jean Piaget's theory of cognitive development, which states that children acquire knowledge through active interaction with their environment. In congklak, children directly engage in counting and strategic planning, making the learning process concrete and meaningful. The findings also support Lev Vygotsky's social constructivist theory, which emphasizes the importance of social interaction in children's cognitive and social development. Through congklak, children learn to communicate, cooperate, and understand social rules within a play environment.

The findings are consistent with Fydarliani, Muslihin, and Mulyadi (2020), who stated that congklak can stimulate early childhood cognitive development through counting, problem-solving, and decision-making activities. Their study demonstrates that congklak is an educational game capable of improving children's thinking abilities.

The findings also support Alvi et al. (2022), who found that the traditional game of congklak contributes to strengthening children's honesty. During the game, children must follow the rules and display sportsmanship in responding to the outcome. Therefore, congklak plays an important role in character education.

The findings on social-emotional development are also consistent with Nurhayati, Pratama, and Wahyuni (2020), who showed that congklak can improve the social interaction of children aged 5–6 years. Through shared play, children gain opportunities to develop communication, cooperation, and emotional regulation.

Rambe (2023) further showed that congklak can develop multiple aspects of child development, including moral, social, language, cognitive, motor, and artistic abilities. This

result reinforces the present finding that congklak's benefits are not limited to one developmental dimension but encompass children's development comprehensively.

Although most studies indicate that congklak has positive effects, several studies reported that the effectiveness of traditional games is influenced by environmental factors, children's interest, and the level of guidance provided by parents or teachers. Children accustomed to digital games tend to require an adjustment period before developing an interest in traditional games. This difference indicates that social context and technological development influence the implementation of congklak in children's contemporary lives.

3. Research Implications

Theoretically, this study contributes to the development of local wisdom-based education by demonstrating that traditional games can serve as effective media for supporting children's holistic development. The findings strengthen constructivist and cognitive development theories, which emphasize the importance of direct learning experiences in child development.

Practically, the findings can provide a basis for primary school and early childhood teachers to integrate congklak into learning activities. Traditional games can offer an enjoyable learning alternative while supporting the achievement of educational objectives. For parents, the findings highlight the importance of introducing traditional games to children to reduce dependence on digital devices and improve the quality of social interaction.

From a policy perspective, the findings can serve as a reference for governments and educational institutions in developing programs to preserve traditional games as part of character education and the strengthening of local culture. Thus, congklak functions not only as a medium for child development but also as a means of preserving the nation's cultural heritage.

4. Research Limitations and Directions for Future Research

This study has several limitations. First, because it used library research, its findings depend on the availability and quality of the literature analyzed. Second, the study did not involve direct field data collection and therefore could not describe children's empirical experiences of playing congklak in specific contexts. Third, most of the literature focused on

early childhood and primary school-aged children, meaning that the findings cannot yet be generalized to other age groups.

In view of these limitations, future research should conduct field studies using quantitative, qualitative, or mixed-methods approaches to obtain more in-depth empirical data. Future studies could also compare the effectiveness of congklak with other educational games or examine the integration of traditional games into school curricula. Longitudinal research is also needed to determine the long-term effects of congklak on children's cognitive, social, emotional, and character development.

CONCLUSION

This study aimed to analyze the contribution of the traditional game of congklak to child development through a review of relevant literature. Based on the analysis and discussion, congklak plays a significant role in supporting children's holistic development. It contributes not only to cognitive development through counting, logical thinking, and strategic planning, but also to social and emotional development through interaction between players, adherence to rules, and the cultivation of sportsmanship. Playing congklak also stimulates fine motor development through hand-eye coordination and promotes positive character traits such as honesty, discipline, responsibility, and patience. These findings indicate that congklak is a local wisdom-based learning medium that remains relevant to supporting child development amid the challenges of the digital era.

This study contributes a comprehensive review of congklak's benefits across multiple dimensions of child development, including cognitive, social, emotional, and motor development, as well as character formation and cultural preservation. Theoretically, the findings strengthen the view that play is an essential component of children's development and learning, as explained by cognitive development and social constructivist theories. Practically, the findings can serve as a reference for teachers, parents, and educational institutions in using traditional games as educational, enjoyable, and culturally oriented learning media.

Based on the findings and limitations, future research should conduct field studies involving students directly to obtain more in-depth empirical evidence concerning the effects of congklak on child development. Future studies may also use experimental designs to compare the effectiveness of congklak with other learning media or educational games.

Further research could examine different age levels and sociocultural contexts and use mixed-methods approaches to generate a more comprehensive understanding of the role of traditional games in education and child development.

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