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ORIGINAL RESEARCH ARTICLE

Efforts to Improve Gross Motor Skills of Children Aged 5-6 Years Through the Traditional Game of Engklek

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ABSTRACT

This study aims to improve the gross motor skills of children aged 5-6 years through the traditional game of engklek at KB-TK Az Zaitun Bekasi. The problems found in the field indicated that most children still experience difficulties in gross motor activities such as jumping on one leg, maintaining balance, coordinating arm and leg movements, and understanding game rules. This study employed a Classroom Action Research (CAR) approach using the Kemmis and McTaggart model conducted in two cycles. The research subjects were 10 children from Group B, aged 5-6 years. Data collection techniques included observation, interviews, documentation, and field notes. The success criteria were set at 75%. The results showed an improvement in children's gross motor skills from the pre-cycle phase at 42.5%, increasing to 68.75% in cycle I, and reaching 80% in cycle II. Thus, the traditional engklek game is proven effective in improving gross motor skills of children aged 5-6 years while creating an enjoyable learning experience.

Keywords: Children's Gross Motor Skills, Traditional Engklek Game, Early Childhood

ABSTRAK

Penelitian ini bertujuan untuk meningkatkan kemampuan motorik kasar anak usia 5-6 tahun melalui permainan tradisional engklek di KB-TK Az Zaitun Bekasi. Permasalahan yang ditemukan di lapangan menunjukkan bahwa sebagian besar anak masih mengalami kesulitan dalam aktivitas motorik kasar seperti melompat dengan satu kaki, menjaga keseimbangan, mengkoordinasikan gerakan lengan dan kaki, serta memahami aturan permainan. Penelitian ini menggunakan pendekatan Penelitian Tindakan Kelas (PTK) dengan model Kemmis dan McTaggart yang dilaksanakan dalam dua siklus. Subjek penelitian adalah 10 anak kelompok B usia 5-6 tahun. Teknik pengumpulan data meliputi observasi, wawancara, dokumentasi, dan catatan lapangan. Kriteria keberhasilan ditetapkan sebesar 75%. Hasil penelitian menunjukkan peningkatan kemampuan motorik kasar anak dari tahap prasiklus sebesar 42,5%, meningkat menjadi 68,75% pada siklus I, dan mencapai 80% pada siklus II. Dengan demikian, permainan tradisional engklek terbukti efektif dalam meningkatkan kemampuan motorik kasar anak usia 5-6 tahun sekaligus menciptakan pengalaman belajar yang menyenangkan.

Kata Kunci: Motorik Kasar Anak, Permainan Tradisional Engklek, Anak Usia Dini

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1. INTRODUCTION

Early Childhood Education (PAUD) is a fundamental stage that determines the quality of children's holistic development. This period is often referred to as the golden age because brain development and various other aspects occur very rapidly and serve as the foundation for subsequent developmental stages (Watini et al., 2022). One crucial aspect that requires serious attention is gross motor development, which includes large movement abilities such as walking, running, jumping, and maintaining body balance. Optimal gross motor skills enable children to be more active, independent, and confident in carrying out daily activities and interacting with peers.

Gross motor development in early childhood is the ability to use large muscles to perform various movements such as walking, running, jumping, climbing, and maintaining body balance (Siti Maharani & Yusuf Muslih, 2021). This ability develops gradually through physical activities performed repeatedly in daily activities and during play. Each child has a different level of gross motor development, depending on age, physical condition, and stimulation received from their environment. Gross motor development is very important because it helps children become more independent in performing daily activities and supports interaction and cooperation with peers.

The phenomenon in the field shows that gross motor skills in early childhood in several educational institutions are still not optimal. Based on preliminary observations conducted at KB-TK Az Zaitun Bekasi from April to May 2026, out of 10 children in Group B aged 5-6 years, as many as 75% of children still experienced difficulties in performing basic movements such as maintaining balance, jumping on one leg, and being less active in physical activities. This is in line with research findings that many young children still face challenges in activities requiring movement coordination, balance, and agility.

This condition is influenced by several factors, including a learning process that tends to be passive and less varied, causing children to be less active during the learning process. Children spend more time on static activities such as writing, coloring, or watching digital content. As a result, children's coordination and agility skills have not developed according to their age stage. This lack of gross motor stimulation can impact children's physical development, self-confidence, and social abilities, necessitating more active and enjoyable activities to optimize children's gross motor development.

Play is an activity very close to the lives of young children. Children tend to learn more easily through play activities because the atmosphere created feels enjoyable and not burdensome (Noviarti & Ismet, 2021). Play activities can help children move actively while gaining new learning experiences. Play can also train body coordination and improve children's motor skills. Teachers need to utilize games as learning media so that the learning process feels more interesting and meaningful for children. The use of games in learning activities can help optimize children's gross motor development through diverse and repeated movement experiences.

Traditional games are cultural heritage that have existed since ancient times and have been passed down from generation to generation (Syafira et al., 2023). Traditional games are generally known for their simplicity, both in terms of rules and the materials used. This simplicity makes traditional games have educational value that can support children's learning process through direct interaction with the surrounding environment. In practice, children not only play but also learn to cooperate, communicate, and develop motor and social skills. Furthermore, the tools used in traditional games generally do not require significant costs because they utilize materials easily found in the surrounding environment.

Various studies have proven the effectiveness of traditional games in developing children's gross motor skills. Research conducted by Sari et al. (2021) shows that the engklek game contributes significantly to improving children's gross motor skills, which include aspects of balance, physical strength, agility, speed, body flexibility, and the ability to solve problems independently. Other research by Darmawati & Widyasari (2022) also found that the traditional engklek game can train agility and strengthen body muscles, especially the leg muscles. Research by Sefiamanda (2023) shows that the engklek game is effective in improving gross motor skills in children in Group B of kindergarten.

However, these studies are still limited to specific contexts and locations, while research on the application of the traditional engklek game to improve gross motor skills of children aged 5-6 years at KB-TK Az Zaitun Bekasi has never been conducted. This creates a research gap that needs to be filled considering that each educational institution has different child characteristics, environmental conditions, and challenges. Therefore, further research is needed to determine the effectiveness of the traditional engklek game in improving children's gross motor skills in different learning contexts and environments.

The novelty of this research lies in the application of the traditional engklek game as an intervention to improve gross motor skills of children aged 5-6 years at KB-TK Az Zaitun Bekasi using the Kemmis and McTaggart Classroom Action Research (CAR) design. This research not only measures the improvement of gross motor skills quantitatively but also qualitatively describes

the learning process and changes in children's behavior during the engklek game activities. Additionally, this research integrates traditional games with ongoing learning themes, making learning more contextual and meaningful for children.

Based on the background and problem identification above, this study aims to: (1) determine whether the traditional engklek game can improve the gross motor skills of children aged 5-6 years at KB-TK Az Zaitun Bekasi; and (2) describe how the gross motor skills of children aged 5-6 years at KB-TK Az Zaitun Bekasi develop through the traditional engklek game. The results of this study are expected to provide both theoretical and practical contributions to the development of early childhood education, particularly in efforts to improve gross motor skills through traditional games.

2. RESEARCH METHODS

This study uses a Classroom Action Research (CAR) approach with the model developed by Kemmis and McTaggart (1988). This model was chosen because it is systematic and easy to apply in the learning process, making it one of the most widely used CAR models in early childhood education research. This model consists of four main stages that recur in each cycle, namely planning, action and observation, and reflection. This research was conducted in two cycles, where each cycle consisted of three meetings.

The research was conducted at KB-TK Az Zaitun Bekasi, located at Jl. Yanatera Raya No.15, Komplek Bulog, RT 001/RW 001, Kelurahan Jatimelati, Kecamatan Pondok Melati, Kota Bekasi, Jawa Barat 17415. The research took place for approximately three months, from April 2026 to June 2026. The research subjects were students of Group B aged 5-6 years at KB-TK Az Zaitun Bekasi, totaling 10 children, consisting of 4 boys and 6 girls. Subject selection was based on preliminary observations which indicated that the children's gross motor skills in that group were still relatively low.

The research procedure was carried out in two cycles. Cycle I was conducted in three meetings on May 7, 21, and 29, 2026. The planning stage included preparing the Daily Lesson Plan (RPPH), preparing the engklek game media, and preparing research instruments. The action was implemented according to the prepared RPPH, with the core activity being the traditional engklek game linked to the learning theme (family and plants). Observation was conducted during the learning process using validated observation sheets. Reflection was conducted to evaluate the results of the action and plan improvements for the next cycle.

Cycle II was implemented as an improvement from Cycle I on June 4, 9, and 11, 2026. Based on the reflection results from Cycle I, improvements were made in the following aspects: (1) warm-up before the game, (2) clearer and slower movement demonstrations, (3) providing motivation and positive reinforcement, (4) organizing play activities more directionally, and (5) providing simple rewards to increase children's enthusiasm. The implementation procedure for Cycle II followed the same steps as Cycle I with adjustments based on the reflection results.

Data collection techniques in this study included observation, interviews, documentation, and field notes. Observations were conducted using observation sheets that had been validated by experts

(expert judgment). The observation instrument measured six indicators of gross motor skills: (1) ability to maintain body balance while performing movements, (2) ability to jump using one leg or both legs, (3) ability to follow movement rules in the game, (4) ability to move agilely, actively, and purposefully, (5) ability to perform physical activities confidently and independently. The success criteria for the action were set at 75%, where a child was considered successful if they achieved a minimum percentage of 75%, equivalent to the Developing as Expected (BSH) or Developing Very Well (BSB) category. Data were analyzed descriptively quantitatively by calculating the percentage of achievement in each cycle.

3. RESULTS AND FINDINGS

This research was conducted at KB-TK Az Zaitun Bekasi, located in Komplek Bulog, Kelurahan Jatimelati, Kecamatan Pondok Melati. This institution has the vision "Educating a cheerful, intelligent, quality generation, virtuous in faith and piety" with the mission of developing children's abilities naturally, developing learning processes, fostering and developing potential, and establishing social cooperation with the community. The research subjects were 10 children in Group B aged 5-6 years, consisting of 4 boys and 6 girls.

The application of the traditional engklek game in this study was carried out in a structured manner and integrated with the ongoing learning theme. At each meeting, the activity began with the teacher demonstrating the correct way to play engklek, starting from how to throw the gaco (stone or piece of tile) into the target box, jumping on one leg over the box containing the gaco, to retrieving the gaco while maintaining balance. Children were divided into small groups and played in turns, with each child getting the opportunity to try several times. The teacher also varied the game by adding challenges, such as mentioning the number on each box jumped over, or linking movements to the theme (for example, jumping while mentioning family member names or plant parts). In Cycle II, the game was supplemented with warm-up activities, positive reinforcement in the form of praise and simple rewards, and movement repetition so that children became more confident and skilled. During the game, the teacher conducted direct observations using validated observation sheets, noting the children's ability to maintain balance, movement coordination, agility, and adherence to rules. With this gradual and enjoyable approach, children were not only actively engaged physically but also showed significant improvement in every measured gross motor aspect, as reflected in the increase in achievement percentages from pre-cycle to Cycle II.



Figure 1. Gross Motor Skills of Children Aged 5-6 Years Through the Traditional Game of Engklek

Pre-Cycle Stage

Before the implementation of the action in Cycle I, the researcher conducted an initial observation on May 4, 2026, to determine the initial condition of the children's gross motor skills. The results of the pre-cycle observation showed that the children's gross motor skills were still relatively low, with an achievement percentage of 42.5%. Most children were still in the categories of Starting to Develop (MB) and Developing (SB). Children still had difficulty maintaining balance when jumping on one leg, were unable to perform consecutive jumps, were less accurate in throwing the gaco into the engklek boxes, and were unable to coordinate leg and body movements well.

Table 1. Pre-Cycle Observation Results

No	Indicator	MB	%	SB	%	BSH	%	BSB	%
1	Maintaining body balance when standing on the engklek box	4	40%	4	40%	2	20%	0	0%
2	Jumping on one leg without falling	5	50%	3	30%	2	20%	0	0%
3	Jumping according to the correct engklek boxes	3	30%	6	60%	1	10%	0	0%
4	Jumping using one leg	5	50%	4	40%	1	10%	0	0%
5	Moving according to game instructions	5	50%	3	30%	2	20%	0	0%
6	Coordinating leg and body movements	4	40%	3	30%	3	30%	0	0%

Cycle I

Cycle I was conducted in three meetings on May 7, 21, and 29, 2026. In the first meeting, children were introduced to the engklek game through an engklek board media with pictures of boxes containing numbers 1 to 10. The teacher explained the game rules and demonstrated how to play. The children seemed enthusiastic about participating in the activity, although many still had difficulty maintaining balance and following game rules.

In the second meeting, the activity continued with the engklek game combined with loose part activities using ice cream sticks to make pictures of family members. Children began to show improvement in jumping and maintaining balance, although there were still some children who needed the teacher's assistance. The third meeting was linked to the theme of corn plants, where children were invited to sing the song "Menanam Jagung" (Planting Corn) and practice the engklek game. The results of the Cycle I observation showed an increase in children's gross motor skills to 68.75%, an increase of 26.25% from the pre-cycle stage.

Table 2. Cycle I Observation Results

No	Indicator	MB	%	SB	%	BSH	%	BSB	%
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1	Maintaining body balance when standing on the engklek box	2	20%	5	50%	2	20%	1	10%
2	Jumping on one leg without falling	4	40%	3	30%	2	20%	1	10%
3	Jumping according to the correct engklek boxes	5	50%	3	30%	1	10%	1	10%
4	Jumping using one leg	4	40%	3	30%	2	20%	1	10%
5	Moving according to game instructions	5	50%	2	20%	2	20%	1	10%
6	Coordinating leg and body movements	3	30%	4	40%	2	20%	1	10%

Cycle II

Cycle II was implemented as an improvement from Cycle I on June 4, 9, and 11, 2026. Based on the reflection from Cycle I, several improvements were made: (1) addition of warm-up activities (stretching) and simple gymnastics before the game, (2) clearer and slower movement demonstrations, (3) providing motivation and positive reinforcement, (4) organizing play activities more directionally, and (5) providing simple rewards.

In the first meeting of Cycle II, children were invited to do warm-up exercises before starting the engklek game. The teacher provided more detailed movement demonstrations and gave each child the opportunity to try several times. Children appeared more confident and enthusiastic about participating in the game. The second and third meetings continued with game variations linked to the plant theme, including watching educational videos and creative activities with corn materials.

The results of the Cycle II observation showed a significant increase with an achievement percentage of 80%. Most children had reached the categories of Developing as Expected (BSH) and Developing Very Well (BSB). Children were able to maintain body balance, jump on one leg consecutively without falling, throw the gaco accurately, and coordinate body movements well while playing engklek.

Table 3. Cycle II Observation Results

No	Indicator	MB	%	SB	%	BSH	%	BSB	%
1	Maintaining body balance when standing on the engklek box	2	20%	3	30%	2	20%	3	30%
2	Jumping on one leg without falling	2	20%	3	30%	3	30%	2	20%
3	Jumping according to the correct engklek boxes	2	20%	2	20%	4	40%	2	20%
4	Jumping using one leg	2	20%	2	20%	2	20%	4	40%
5	Moving according to game instructions	2	20%	4	40%	2	20%	2	20%
6	Coordinating leg and body movements	2	20%	2	20%	2	20%	4	40%

4. DISCUSSION

The results of this study indicate that the application of the traditional engklek game is effective in improving the gross motor skills of children aged 5-6 years at KB-TK Az Zaitun Bekasi. This is evidenced by the increase in achievement percentage from 42.5% in the pre-cycle stage, to

68.75% in Cycle I, and reaching 80% in Cycle II. This improvement shows that the engklek game provides appropriate stimulation for children's gross motor development through enjoyable and directed play activities.

In the pre-cycle stage, children's gross motor skills were still relatively low with a percentage of 42.5%. Most children still had difficulty maintaining balance when standing on one leg, jumping with good coordination, and following game rules. This aligns with research findings that lack of gross motor stimulation can hinder children's physical development and self-confidence. This condition is exacerbated by learning methods that tend to be passive and less varied, so children do not get enough opportunities to develop their gross motor skills.

After being given the action in Cycle I, there was an increase in children's gross motor skills to 68.75%. This improvement occurred because the engklek game provided diverse and repeated movement experiences, which are very important for children's gross motor development. Activities such as jumping on one leg, maintaining balance, and coordinating body movements in the engklek game indirectly train children's large muscles. Research by Sari et al. (2021) also found that the engklek game contributes significantly to improving children's gross motor skills, especially in aspects of balance, physical strength, and agility.

However, the results of Cycle I had not yet reached the predetermined success indicator (75%). Some obstacles identified in Cycle I included: (1) children still needed time to adapt to game rules, (2) some children were still not confident in jumping on one leg, (3) the teacher had not been optimal in demonstrating movements, and (4) the lack of warm-up before the game caused children not to be physically ready. This finding aligns with research by Noviarti & Ismet (2021) which states that young children need repetition and consistent guidance when learning new motor skills.

Based on the reflection from Cycle I, improvements were made in Cycle II which included: (1) adding warm-up activities before the game, (2) clearer and slower movement demonstrations, (3) providing motivation and positive reinforcement, (4) organizing play activities more directionally, and (5) providing simple rewards. These improvements proved effective with the achievement percentage increasing to 80% in Cycle II. Children appeared more confident, able to maintain balance better, and could follow game rules independently.

The significant improvement in Cycle II is also supported by motor development theories which state that repetition and variation of movements are very important to strengthen children's neuromuscular connections. The engklek game, performed repeatedly, helps children develop muscle memory and better movement coordination (Darmawati & Widyasari, 2022). Furthermore, the enjoyable play atmosphere and positive support from the teacher create a conducive learning environment for children's motor development.

The results of this study are in line with previous research conducted by Sefiamanda (2023) which showed that the engklek game is effective in improving gross motor skills of children in Group B of kindergarten. Research by Rachmawati et al. (2025) also found that the engklek game affects the gross motor skills of children transitioning from PAUD to elementary school. Similarly, research by Siregar & Leistari (2022) concluded that the traditional engklek game can improve

children's gross motor skills through activities like jumping, walking, and maintaining body balance.

The success of this research is also supported by the choice of the Kemmis and McTaggart CAR model, which allows for continuous improvement through cycles of reflection and action. This model provides flexibility for researchers to adjust learning strategies based on children's responses and development. This is very important in the context of early childhood education, which requires an adaptive and child-centered approach.

This research also shows that the traditional engklek game is not only beneficial for gross motor development but also has a positive impact on children's social-emotional aspects. During the game, children learn to cooperate, wait their turn, respect friends, and follow game rules. This aligns with the opinion of Rahman & Ningsih (2022) which states that traditional games have benefits in developing various aspects of child growth and development, including gross motor and social skills.

The implication of this research is that the traditional engklek game can be used as an alternative and effective learning method for developing gross motor skills in young children. Teachers can integrate this game into the Daily Lesson Plan (RPPH) by linking it to the ongoing learning theme, making learning more contextual and meaningful. Furthermore, this game is easy to implement because it uses simple tools and materials available in the surrounding environment and does not require significant costs.

The limitation of this research is the relatively small number of subjects (10 children) and the limited research time (3 months), so the results may not be generalizable to a wider population. Future research is recommended to involve more subjects and a longer duration to test the consistency of the effectiveness of the engklek game in improving children's gross motor skills. Additionally, comparative research between various types of traditional games is also needed to determine which is most effective in developing specific motor aspects.

5. CONCLUSION AND SUGGESTIONS

Based on the results of the classroom action research conducted on 10 children in Group B of KB-TK Az Zaitun Bekasi, it can be concluded that the application of the traditional engklek game can improve the gross motor skills of children aged 5-6 years. The game activities were carried out gradually and repeatedly through various activities, such as jumping on one leg, maintaining body balance, throwing the *gaco* into the engklek boxes, and following game rules in sequence. Through these activities, children gained the opportunity to practice gross motor skills directly. The improvement in children's gross motor skills was evident from the increasing achievement percentage from the pre-cycle stage of 42.5%, to 68.75% in Cycle I, and reaching 80% in Cycle II, thus meeting the predetermined success indicators.

The increase from 42.5% in the pre-cycle to 68.75% in Cycle I and again to 80% in Cycle II shows that the consistent application of the traditional engklek game can improve the gross motor skills of young children. Through this game, children not only gain opportunities to move actively but

also develop balance, strength, agility, movement coordination, and self-confidence in performing physical activities. Thus, the traditional engklek game has proven effective as a fun learning medium and appropriate stimulation for the gross motor development of children aged 5-6 years.

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