



Analysis of Gross Motor Development of Children Aged 4-5 Years through the Implementation of the Smart Basket Game

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Abstract

To control body movements, the central nervous system, peripheral nerves, and large muscles are all involved in gross motor development in early childhood. The development of children's gross motor skills is greatly influenced by both genetic factors and environmental stimuli. This study, therefore, employed qualitative research methods to examine how the Smart Basket game affected the gross motor development of children between the ages of 4 and 5 at the Play Group of Jelita Krapyak. This game was designed for the introduction of numbers to sports. Documentation, interviews, and observation were some of the data collection methods used. The primary findings revealed that the Smart Basket game research successfully improved children's gross motor development. This suggests that children's gross motor development can benefit from an approach that combines physical activity with number recognition. Hence, it can be deduced that the implementation of this game holds promise for enhancing early childhood individuals' gross motor skills, social skills, and understanding of numerical concepts in early childhood. This game also has easy procedures for implementing and maintaining the properties. The significance of incorporating physical activity and the acquisition of numerical concepts within the context of early childhood education is the implication of this study.

Keywords:

Gross Motor Development, Smart Basket, Early Childhood Education

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Abstrak

Perkembangan motorik kasar pada anak usia dini melibatkan sistem saraf pusat, saraf tepi, dan otot-otot besar untuk mengendalikan gerakan tubuh. Faktor genetik dan rangsangan lingkungan berperan penting dalam perkembangan motorik kasar anak. Penelitian ini menggunakan penelitian kualitatif yang bertujuan untuk menganalisis perkembangan motorik kasar pada anak usia 4-5 tahun melalui penerapan permainan Smart Basket di KB Jelita Krapyak. Permainan ini dirancang untuk pengenalan angka dengan olahraga. Metode pengumpulan data meliputi observasi, wawancara, dan dokumentasi. Hasil utama penelitian permainan Smart Basket berhasil meningkatkan perkembangan motorik kasar anak-anak. Berarti pendekatan yang menggabungkan aktivitas fisik dengan pengenalan angka dapat memberikan dampak positif pada perkembangan motorik kasar anak-anak. Oleh karena itu, dapat disimpulkan bahwa penggunaan permainan ini memiliki potensi untuk meningkatkan keterampilan motorik kasar, keterampilan sosial, dan pemahaman konsep numerik pada anak usia dini. Permainan ini juga memiliki prosedur implementasi dan perawatan alat peraga yang mudah. Implikasi dari penelitian ini adalah pentingnya integrasi antara aktivitas fisik dengan pembelajaran konsep numerik dalam lingkungan pendidikan anak usia dini.

Kata Kunci:

Perkembangan Motorik Kasar, Smart Basket, Pendidikan Anak Usia Dini

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INTRODUCTION

A significant gap is observed between the ideal expectations for gross motor development in children aged 4-5 years and the actual conditions currently occurring. Despite strong efforts in understanding and developing gross motor skills in early childhood, there is still a lack of effective implementation of existing programs. The lack of a holistic and integrated approach and the lack of use of technology to support children's understanding and development of gross motor skills is one of the gaps that need to be addressed.

A series of developmental processes that regulate and control body movements involving several components, such as central nervous activity, peripheral nerves, and the use of large muscles needed to carry out movements (locomotion) and maintain posture (body position), is the definition of gross motor development. Paying attention to developments that are closely related to the children's ability to control large-scale body movements is essential. This developmental stage has a very crucial role, as it can influence children's abilities to learn and interact with the surrounding environment. In agreement with that, Abidanovanty et al. (2023) emphasized that the process of gross motor development in children begins at birth, where children begin with reflex movements, such as sucking and grasping. Following that, the children begin to lift their heads, roll over, and crawl.

Gross motor development in early childhood is influenced by genes and surrounding social factors. While gene factors provide the basis for this development, the social environment around children plays a vital role in shaping and influencing their gross motor skills. According to Hidayatulloh (2014), a supportive environment, such as a safe and spacious place to move, as well as toys that can motivate children, helps speed up the process of children's gross motor development. Apart from that, Istiqomah et al. (2020) revealed that children's interactions with adults and peers could help improve children's gross motor skills. As such, providing appropriate and continuous stimulation for early childhood can help improve gross motor skills and contribute to the children's optimal overall development in

various aspects of life, including learning and interacting with the surrounding environment. A supportive environment certainly provides a variety of game media. As Alfiani (2015) asserted, one of the important efforts in teaching and learning activities for preschool children is the presence of teachers who understand the individual character of students and care about the needs of their students, which is the main thing.

Games have been an integral element in human life since ancient times. Along with technological advances, game media has also experienced a significant transformation from time to time. According to Suminar (in Hayati & Putro, 2021), historically, game media started with toys made from natural materials, such as wood, cloth, and stone. Later, games developed into more complex forms, such as puzzles, board games, and dolls. In the 20th century, since technology became more advanced, gaming media began to develop towards digital platforms, such as smartphones, tablets, and social media.

Game media can be a learning tool that expands children's knowledge about the world around them and stimulates their creativity. Although gaming media has the potential to be an effective learning tool for children, too much exposure or uncontrolled use can have negative impacts. If not managed wisely, children can also become addicted to video games or gadgets that interfere with daily activities, including social interactions, adequate sleep, and involvement in physical activities. Managing time wisely can be done by making an agreement to set a time limit. Choosing age-appropriate games together and not containing inappropriate content, finding fun in non-digital activities, such as playing in the park, cycling, or even only talking to each other without a screen in the way, and learning to talk openly about experiences, support each other, and remind each other about the importance of maintaining a balance between gaming and living real life can also be done. In addition, spending too much time playing games can disrupt the balance between physical activities. Closely related to the use of game media, it is imperative to provide physical activity, such as playing outside or sports, which affects children's physical growth and motor skills and can have an

impact on overall health. Furthermore, it is important for parents who have children and care for children to monitor and regulate their children's use of game media. The goal is to ensure children have a healthy balance between active physical activity and good mental stimulation, which is significant for the development of children aged 4-5 years (Sisbintari & Setiawati 2021). The efficiency of using game media can be seen from how balanced children are in learning while playing.

A study by Susanto & Munfarokhah (2020) highlighted the importance of games in children's development, especially in increasing neuron connections in the brain, creativity, and understanding of the world around them. Differently, this current research focuses on aspects of gross motor development, which is an important part of children's physical abilities. Gross motor development involves large movements and body coordination, such as walking, jumping, crawling, and running. In other words, games have a significant role in facilitating gross motor development. Through play, children inherently participate in physical activity, thereby enhancing muscle strength, balance, and movement coordination.

This is confirmed by Bakri et al. (2021) that when children play, such as playing on the playground, sports games, chasing a ball, or playing games that involve active body movements, it can help them develop gross motor skills. Through these interactions with the physical environment, children learn to control their body movements, understand physical limits, and hone their gross motor skills, not only understanding rules but also learning how to interact with others and developing their social and emotional abilities. Overall, playing is not only an activity but also a good activity that provides benefits for all groups, from children to adults; while playing, individuals can develop skills, improve well-being, and improve overall quality of life.

Nevertheless, children's development in the current digital era faces unprecedented challenges. Dependence on gadgets, such as smartphones and tablets, has had a serious impact on children's gross motor development and social skills. According to Pebriana (2017), one of the main problems that arise is

a lack of physical activity. Excessive use of gadgets reduces the time that should be spent playing outdoors. This has an impact on the development of gross motor skills, such as body coordination and muscle strength. Apart from that, the health impacts are also a serious concern. Excessive screen exposure from gadgets can cause eye fatigue, lack of sleep, and other physical health problems. This condition is exacerbated by a lack of physical activity, which has a negative impact on children's physical health. Not only the physical aspect but dependence on gadgets also has an impact on children's mental health. This can increase anxiety levels, cause social isolation, and give rise to serious emotional problems. Lack of social interaction caused by excessive use of gadgets can also hinder the development of children's social skills. The skills to interact with other people and build healthy social relationships become hampered, which ultimately has a negative impact on the children's development.

To overcome this problem, concrete steps are required. Managing time for using gadgets, encouraging children to play actively outdoors, involving parents and educators in the learning process, and providing an understanding of the negative impacts of gadget dependence are crucial strategies. Through these steps, it is expected that reducing dependence on gadgets, increasing time spent on physical activity, and ultimately helping in improving children's gross motor development and social and emotional skills for a healthier and better-quality future can be carried out.

An additional concern pertains to the dearth of technological innovation, which can be defined as an educational environment devoid of novel and inventive concepts. Innovation and creativity are deficient in product development. Without technological innovation, teachers tend to rely on existing classic educational game tools. This can hinder teachers' ability to create new products or services. Nuraeni (2020) emphasized the potential for failure in the long term if schools cannot continue to develop through technological innovation. Curriculum superiority may put schools at risk of failing in the long term due to its innovative nature. For

that reason, in this case, the Smart Basket game is a suitable choice to meet these needs.

This activity of playing while exercising is the advantage of the Smart Basket game. Widowati et al. (2022) stated that this sports activity can help children's physical growth and social and psychological development. In addition, the Smart Basket game can help children build social skills, such as teamwork, communication, and self-confidence. Smart Basket games can also help children learn the concepts of counting and exercise. In a fun and supportive environment, Smart Basket games can be an effective means of introducing children to sports and increasing their interest in participating in other sporting activities.

Smart Basket is a sport that requires motor coordination, including the ability to control foot and hand movements well. Therefore, playing Smart Basket can have a positive impact on the motor development of young children. Sitepu's (2018) study has exhibited that playing basketball regularly can increase muscle strength and flexibility, train balance, strengthen control, and increase fast motor responses. Aside from that, playing Smart Basket can improve children's social skills, such as cooperation, leadership, and tolerance. Smart Basket is also a medium designed to make children's game systems more interesting so that they do not get bored easily in the learning process because, here, children do not only play but also learn to memorize numbers. Related to this, early childhood education often involves learning numbers as an important part of their development. Children are taught to recognize and master basic numbers, from 1 to 10, which are fundamental to mathematics.

Further, the Smart Basket game is one of the physical education learning innovations in terms of gross motor skills, which is adapted to the developmental characteristics of children who always want to move, find it difficult to stay still, have great curiosity, like experimenting, and the ability to test new things, together with the ability to express oneself creatively, have a strong imagination, and enjoy speaking. Smart Basket activities are the same as basket games in general, which involve throwing and entering the ball. In line with that, Reswari (2021) stated that through modifications to the basket game, children can

put the ball into the basket by jumping. This innovation is designed using newly available sound sensors, starting from the numbers 1-10. Through this activity, children can hone their ability to recognize numbers, order them, and understand the value of each number.

Moreover, learning numbers, especially for young children, is not only about memorizing the sequence of numbers but also building a basic understanding of mathematics, which they will develop in the future. Combining aspects of number learning with physical activity using advanced technology or media has not been widely explored in previous research. For that reason, this study examine how the Smart Basket game affected the gross motor development of children between the ages of 4 and 5. This game was designed for the introduction of numbers to sports.

METHODS

The method employed in this research was descriptive qualitative to describe the analysis of gross motor development of children aged 4-5 years through the implementation of the Smart Basket game at Play Group of Jelita Krpyak by collecting data presented in narrative form. A qualitative approach was chosen to explore the phenomena that existed in the research subject and focused on deeper discoveries from the experience of the object. The reason underlying the use of qualitative was to obtain findings focused on the discovery of phenomena that existed in the research subject. Data collection methods were carried out through in-depth interviews, observation, and documentation studies. Play Group of Jelita Krpyak is located at Ratu Kalinyamat Street, Krpyak Village, RT 03 RW 05, Tahunan District, Jepara Regency. The research subjects were children aged 4-5 years, with a total of 30 children from two classes combined, consisting of 10 boys and 20 girls. Also, the interview subjects in this research were the principal and teachers at the Play Group of Jelita Krpyak.

The research took place in November by conducting direct observations of children's gross motor development before and after being involved in the Smart Basket game. The observation results were strengthened by

interviews using unstructured interview techniques (in-depth interviewing) as support. This approach was selected because the researchers felt the need to explore unfamiliar areas. In this context, open questions were asked to guide the discussion toward more in-depth information about gross motor development in early childhood and the implementation of the Smart Basket game. Document study as additional data functioned to clarify and complement the main data. The document study was performed by researching documents related to the development of gross motor skills in early childhood and Smart Basket at the Play Group of Jelita Krapyak. For triangulation as a data collection technique combining various data collection techniques and existing data sources, the researchers integrated interview results with existing documents and looked for discrepancies between interview results and documents.

The data analysis technique carried out by the researchers used data collection steps by recording what had been conducted during the observation. Then, data reduction was performed to categorize the data according to its groups to make analysis easier. Also, the data presentation aimed to analyze the effectiveness of the Smart Basket game for gross motor development, and the conclusions made are expected to measure the effectiveness of the media in its use. The final stage was evaluating the use of Smart Basket media. The benefits that could be taken based on the research results were then used to formulate recommendations and guidelines for teachers, parents, and caregivers in maximizing children's gross motor development through Smart Basket games and managing gadget use. It is anticipated that the conclusions drawn can answer the questions raised from the start/answer the current problems.

RESULTS AND DISCUSSION

Smart Basket Game Impact in Gross Motor Stimulation at Play Group Jelita Krapyak

Gross motor learning at Play Group of Jelita Krapyak has stimulated the gross motor skills of young children. Numerous methods have been widely implemented. The initial method comprised physical activities and

sports that required the execution of body movements, including running, jumping, squatting, and throwing. The second approach was to encourage children to participate in structured activities and athletics, including swimming. Other gross motor abilities, including muscle strength and balance, could be enhanced in children through participation in this sport. Nevertheless, swimming was only conducted once during the excursion class. Thirdly, when traditional educational games were played in the classroom, children rapidly grew bored to the point where the institution recommended that the school's motor games be updated.

Based on the results of an interview with the school principal, Ni'matul Hasanah, on November 10, 2023, Play Group of Jelita Krapyak focused on three methods commonly used to stimulate gross motor development in early childhood. The first was through games and physical activities involving body movements, such as running, jumping, squatting, and throwing. The second was through structured sports activities, including swimming, which can improve muscle strength, balance, and leg-swinging skills, even though swimming activities were done only once during an outing class. Third, even though playing classic educational games in the classroom is a fun activity during breaks, children felt bored, encouraging institutions to innovate gross motor games available at school.

Moreover, Play Group of Jelita Krapyak educators have been involved in indoor and outdoor learning and have been actively engaged in implementing innovations to facilitate the development of children's gross motor skills at Play Group of Jelita Krapyak. This innovation initiative resulted in the Smart Basket game, which is still in the early development stages but provides many benefits for children in their growth and development. Educators provided an understanding that children could use the Smart Basket game together to ensure that children feel happy, safe, peaceful, and satisfied when playing. In addition, educators consistently provided explanations or clarifications to students regarding a number of values considered good and bad.

Table 1. Interview Results at Play Group of Jelita

No	Questions	Answers
1.	What: What programs or activities does Play Group of Jelita Krapyak carry out to support the gross motor development of children aged 4-5 years?	At Play Group of Jelita Krapyak, we have programs such as outdoor games that involve running, jumping, and playing ball to improve children's gross motor skills.
2.	Who: Who is responsible for the development and implementation of programs that focus on gross motor development of children aged 4-5 years at Play Group of Jelita Krapyak?	Our experienced educators in early childhood education are responsible for the development and implementation of these programs and are directly involved in accompanying and supervising the activities of children at Play Group of Jelita Krapyak.
3.	Where: Where is the exact location where gross motor development programs are carried out in the Play Group of Jelita Krapyak environment?	These programs are usually conducted in playground areas, which have been specifically designed to train children's gross motor skills outside of the classroom.
4.	When: When is this program usually carried out at Play Group of Jelita Krapyak? Is there a set schedule, or are the activities flexible?	This program is usually carried out in the morning after the children arrive at Play Group of Jelita Krapyak. We have a set schedule, such as daily, monthly, quarterly, and annual programs, to ensure that every child gets the opportunity to participate.
5.	Why: Why does Play Group of Jelita Krapyak consider it important to have a gross motor development program specifically for	We believe that gross motor development at an early age is essential for building children's physical skills and health, which also has a positive impact on their cognitive and social abilities.

children aged 4-5 years?	
6.	How: How are parents involved in supporting children's gross motor development outside the Play Group of Jelita Krapyak environment?

We hold regular communication sessions with parents to provide an understanding of motor development activities that can be done at home to strengthen children's gross motor development. Apart from that, we provide cooperation in the form of assignments at home, equipped with books provided by the school, and later, parents will assess them according to the process carried out by the child.

Other things that Play Group of Jelita Krapyak educators did in implementing child growth were (1) implementing learning methods that involved the active participation of students, (2) creating a conducive learning environment, (3) providing warm-up before entering class, such as sports, and (4) paying attention to the uniqueness of each student in using learning methods. These were carried out by implementing a curriculum that entailed all nine aspects of human intelligence (Results of Interview with School Principal on November 10, 2023). Without exception, all Play Group of Jelita Krapyak educators should make themselves role models who are active, enthusiastic, and cheerful in front of their students. This is because children's expressions will not be channeled if the teacher does not provide examples. After all, children can see, hear, and feel what the students know (Results of Interview with the Principal on November 10, 2023).

According to Ni'matul Hasanah (Results of Interview on November 10, 2023), in making lesson plans, every educator must also include values for child development with a positive impact. The positive impact is in the form of habit, either one that must be developed, cannot be achieved directly, or can only be achieved after several learning activities have taken place.

In assessing learning outcomes, all educators will and should measure students' abilities in all domains. With such an assessment, the true, complete figure of the student will be depicted. This means that in evaluating students' progress, the evaluation must cover various areas such as knowledge (cognitive), attitudes (affective), and behavior (psychomotor). A student who often pulls long strings, indirectly, is actually honing his gross motor skills. Also, it is considered that his balance ability is strong, and he can focus on getting what he wants.

Additionally, an educator must be able to introduce special games designed for gross motor development. Next, students are included in a structured movement program specifically designed by educational institutions, which can help develop gross motor skills with games and exercises. Students need to receive appropriate assistance and guidance from educators to participate in gross motor activities. Apart from that, providing challenges according to development level, fun activities, consistency, and regular practice also need to be considered to see progress in children's gross motor development.

In this study, an increase in the process of gross motor development was seen when children were active and enthusiastic about playing Smart Basket. This activity is a solution so that the motor development of young children can develop optimally with the learning media chosen in this research. Media selection can help create a pleasant learning atmosphere in the classroom, stimulate body balance when playing, develop motor skills in accordance with achievement standards, stimulate students to actively move, train students' movement and thinking skills, and strengthen students' bodies.

Media findings in accordance with child growth achievement standards align with the Regulation of the Minister of Education and Culture concerning Early Childhood Education Standards, Article 4, which aims to guarantee the quality of early childhood education to provide a basis for giving educational stimulants in assisting physical and spiritual growth and development according to the level of achievement of children's development, optimizing children's

development in a holistic and integrative manner, and preparing for the formation of children's attitudes, knowledge, and skills. Early Childhood Education Standards, as intended in section (1), must be evaluated and refined in a planned, directed, and sustainable manner in accordance with the demands of local, national, and global changes. Also, in Minister of Education and Culture Regulation 10, section 1, gross motor skills include coordinated, flexible, balanced, agile body movement skills, including locomotor and non-locomotor abilities, and compliance with applicable rules.

Table 2. Observation Results at Play Group of Jelita

No	Scope of development	The level of development achievement	Observation results
1.	Physical-Motor Gross Motoric	Running while carrying something light (ball)	Children can run around the classroom while carrying a basketball.
2.		Go up and down stairs or higher places with alternating legs	Children can go up and down stairs with a total of 25 steps.
3.		Climb on a fairly wide board.	Children can walk balanced on a board that is 15 cm wide.
4.		Jump down from a height of approximately 20 cm (below the child's knee height)	Children can jump down from a height of 18 cm and remain balanced or not fall.
5.		Imitating simple gymnastic movements, such as imitating a tree or a rabbit jumping	Children can imitate gymnastic movements as for approximately ten minutes with various variations of movements.
6.		Stand on one leg	Children can stand on one leg for five seconds.

Observations were made at Play Group of Jelita when holding outdoor learning accompanied by educators. The table above presents a series of physical abilities showing good coordination, balance, and motor strength in children. This ability suggests a good level of fitness and coordination in daily activities and certain sports. Such ability can be considered a sign of positive motor development in children. By maintaining such abilities, children can further build their motor skills and gain confidence in carrying out daily activities.

Smart Basket media findings based on field observations were through various product choices that are right for now. Smart Basket is a media that combines learning with interactive, active physical activity. This can facilitate and improve children's gross motor skills. The researchers' considerations for choosing Smart Basket media were the durable construction quality using 110 cm long wooden boards and interactive features due to its sensor system, which is very fun when children play together. Ease of use is like a child being able to reach a basketball hoop. Apart from that, security is, of course, an important consideration because the sensor is behind the board and wears a protector. The development of children's creativity is greatly honed by picking up the ball, bouncing it down, and throwing and putting it into the ring.

Instructions for Using Smart Basket Media

The Game guide is as follows:

1. Create a sequence of players.



Figure 1. The child is ready to play

2. Pray before starting to play.



Figure 2. The child reads Bismillah

3. The teacher acts as a referee, judge, and assistant.
4. The teacher throws the ball to the child.



Figure 3. The teacher throws the ball to the children

5. The child who gets the ball then bounces the ball onto the floor.



Figure 4. The child bounces the ball

6. After bouncing on the floor, the ball is then thrown into the basketball ring.



Figure 6. The child puts the ball into the basketball ring

7. Scoring form.

When a child catches the ball, he gets a score of 1. If he throws it but does not reach the ring, he gets a score of 2. If the child throws the ball and it reaches the ring, he gets a score of 3. If he throws the ball and goes into the ring and can imitate the language that sounds in the ring, the child gets a score of 4. On the other hand, if he does something bad, such as bumping a friend while playing, the score is reduced by 1.

Smart Basket Maintenance Procedures

Taking care of a basketball is not that complicated. Care is required in carrying out the maintenance process. Here are some tips that can be applied:

1. Be Careful When Cleaning

When the ball is dirty, clean it using water. The goal is to prevent dirt or water from entering the pores of the ball. If you want to wash the ball, it is recommended to hose it down. Soaking the ball is not recommended as it can affect the quality of the ball. After washing, make sure the ball is dried immediately. Do not leave the ball wet for too long.

2. Moisture Maintenance

It is recommended to store the ball hanging rather than placing it on the floor. Fluctuating changes in floor temperature can have an impact on ball pressure. This can reduce the quality of the ball.

3. Overcoming Leaks

If there is a leak in the ball, repairing it using a patching method could be a solution. However, it should be noted that a repaired ball will not have the same quality as a new one. This method is recommended for personal use only and not for official matches.

As with the instructions for media use and media maintenance above, Aris & Mu'arifuddin (2020), in their research described an analysis focusing on the needs that must be met in designing a basketball curriculum specifically for children. They highlighted the process of evaluating and identifying specific needs that must be taken into account in creating a basketball curriculum that is appropriate to children's developmental stage and needs, such as basic basketball skills that need to be taught to children, effective teaching methods, tailored learning approaches with age, psychological and physical factors in curriculum development, as well as evaluation of existing curricula to determine necessary improvements.

Discussion

This research suggests that basketball games have a significant role in improving various aspects of children's development, such as their cognitive, gross motor, and social-emotional abilities. This finding is

reinforced by a number of previous studies, which consistently confirm this. One of them is a study conducted by Reswari (2021), which stated that modifications to basketball games can make a major contribution to significantly improving children's gross motor skills. In this context, the modified game has proven to be more effective in improving children's abilities in terms of catching the ball, throwing it accurately, dribbling with good control, and putting the ball into the basketball hoop. The modified basketball game also brings real benefits in developing various motor skills in children. Improving these skills not only focuses on physical aspects but also has a positive impact on children's social abilities, such as teamwork, communication, and developing strategies when playing (Krisdiyanto in Asri, 2018).

Apart from that, previous research has also revealed that playing basketball can be an effective means of strengthening children's cognitive aspects. As asserted by Zahro (in Diana et al. 2021), participation in this game can stimulate tactical thinking, quick decision-making, and increased focus and concentration when playing. Therefore, parents/educators need to pay attention to providing fun and beneficial learning experiences for children. According to research conducted by Fardiah et al. (2020), it is known that learning activities directed at early childhood have a very significant role in developing cognitive skills. Maintaining consistency in the learning approach is the main point in the teaching and learning process. This indicates the need for close integration between various learning methods, allowing children to explore knowledge from various points of view. When teaching is carried out in an integrated manner, children have a greater opportunity to develop their motor structures better (Tsalisah et al., 2019).

Through a directed and integrated approach, early childhood learning is aimed at becoming a solid foundation for building children's motoric growth. Elfiadi (2016) revealed that the motor approach brings long-term benefits in developing various important skills, such as collaboration, adaptability, and the ability to solve playing tactics. Aside from the significant motor development aspect, the Smart Basket game also makes a significant

contribution. This is supported by the analysis performed by Asmuddin et al. (2022). In their analysis, it was concluded that gross motor development in early childhood can provide several essential benefits as follows:

1. Supporting children's physical growth by helping them develop the body strength needed for various daily physical activities
2. Improving children's body balance, which is a crucial aspect of their physical development
3. Training children's flexibility, speed, and dexterity, helping them move more agile and efficient
4. Training eye, hand, and foot coordination, which is essential for the development of integrated and well-coordinated motor skills
5. Helping develop the ability to jump on one leg, which is an essential aspect of motor skills to develop at an early age

This is also corroborated by Aguss (2021), who states that the Smart Basket game is not only a means of supporting cognitive development but also an effective tool in developing children's gross motor skills at an early age. Through the various activities in this game, children can gain multiple benefits that contribute to their holistic growth, both physically and mentally. According to Nurmalitasari (2015), social-emotional development in children is now increasingly considered a crucial point in their development process. This happens because the early stages of a child's development are greatly influenced by the surrounding environment, so children's social-emotional development is a crucial aspect of their learning and growth process. In the context of a game like Smart Basket, the relationship between social-emotional development and this activity can be explained as follows:

1. Social interaction: The Smart Basket game allows children to interact and work together in teams. They learn to communicate, cooperate, and build healthy social relationships with their peers while playing.
2. Emotional skills: While participating in these games, children learn to control their emotions, such as excitement when scoring points or patience when waiting for their

turn. They also learn how to deal with disappointment if they fail to act in the game.

3. **Self-development:** In Smart Basket, children are given the opportunity to develop themselves. They learn about their abilities, build self-confidence, and feel a sense of accomplishment when they successfully act, such as putting a ball into a ring.
4. **Social skills:** This game introduces children to the rules and norms of a game. They learn the importance of respecting turns, working together as a team, and accepting wins and losses with sportsmanship.

For this reason, the family environment needs to create a safe and supportive atmosphere for children's development (Fatimah & Diana, 2022). Through an environment that provides a sense of security, it will be easier for children to explore the world around them and develop new understanding and skills needed in their learning and growth process. Therefore, paying attention to children's emotional and social needs in the family environment is crucial to ensure that children have a solid foundation in their learning and development process.

In this context, research conducted by Putri et al. (2019) revealed the development of learning media using animated videos, which can facilitate the learning process. They have implemented animated video-based learning media for basketball subjects at the junior high school (SMP) level, and the results have proven to be effective. The response from students to the learning media developed also received a very good assessment. These findings indicate that the use of animated videos as a learning medium has had a positive impact on the teaching and learning process, especially in the context of basketball learning in junior high schools. The proven effectiveness of this learning media is also reflected in the very positive response from students towards the use of this media in supporting their understanding of this subject. In line with learning, Liat (2013) stated that his research aimed to create a handbook. The design of this handbook on basketball for children aims to provide an introduction to

children to the meaning and history of basketball and techniques for playing basketball. With this book, it is hoped that it can become an interesting information medium for children so that it can introduce and inspire them about the sport of basketball and can provide knowledge and techniques in the game of basketball (Sofia & Anggraini, 2018).

Knowledge also requires continuous practice, which is supported by research conducted by Putro et al. (2019). In this research, they proposed a system that uses the Simple Multi-Attribute Rating Technique (SMART) method. This system was designed to record participants' training results over a fairly large number of training periods. The level of accuracy of the results from this system was measured by comparing the results with the recommendations given by the trainer. In conclusion, the more one practices, the more he/she will be able to master the game. In addition, this research highlights the importance of consistency and intensity of practice in improving understanding and skills in a particular game or skill. By using the SMART system, which can record and evaluate practice results in detail, this research revealed that the principle of practicing more often would have a positive impact on the level of mastery and proficiency in the game being studied.

In another view, according to Sitepu (2018), his study aims to gain an understanding of the benefits of playing basketball for young children. The results of this research demonstrated that children's participation in basketball activities provides benefits in increasing dexterity, strengthening children's physique, optimizing growth, training concentration, and teaching the socialization process. This research highlights the various benefits that young children gain through their involvement in basketball games. The research results revealed that basketball activities can be an effective means of helping young children develop their physical and social skills.

CONCLUSION

The research results unveiled that gross motor development has increased after implementing the Smart Basket game, making

children more agile in various movements, such as jumping, running with the ball, bouncing the ball, and putting the ball into the ring. It also provides benefits in children's learning about numbers while engaging in physical activity to maintain balance. In addition, technological innovation in learning requires continuous development to ensure relevance with current developments. In this context, the Smart Basket game stands out as a solution that not only involves learning numbers but also holistically improves social-emotional interaction and cognitive and motor skills in early childhood. Therefore, the researchers expect that teachers can maximize the Smart Basket game consistently.

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