

## Implementation of Throw-and-Catch Ball Games to Improve Gross Motor Skills and Socio-Emotional Development of Children at TK ABA 30

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**Abstract:** This study aims to implement throw-and-catch ball games as an effort to improve the gross motor skills and socio-emotional development of children at TK ABA 30. The problem addressed is the low level of basic motor movement skills and children's social interaction during learning activities. The research method used was Classroom Action Research (CAR), conducted in two cycles consisting of planning, implementation, observation, and reflection. The research subjects were 20 children of Group B at TK ABA 30. Data were collected through observation and documentation, while data analysis was carried out using descriptive quantitative and qualitative techniques. The results of the study show that the implementation of throw-and-catch ball games significantly improved children's gross motor and socio-emotional skills in each cycle. Thus, the throw-and-catch ball game is proven to be an effective learning strategy to optimize early childhood development.

**Keywords:** Throw-And-Catch Ball Games; Gross Motor Skills; Socio-Emotional Development; Early Childhood; TK ABA 30

**Abstrak:** Penelitian ini bertujuan untuk mengimplementasikan permainan lempar tangkap bola sebagai upaya meningkatkan kemampuan motorik kasar dan sosial emosional anak di TK ABA 30. Permasalahan yang diangkat berfokus pada rendahnya keterampilan gerak dasar dan kemampuan interaksi sosial anak dalam kegiatan pembelajaran. Metode penelitian yang digunakan adalah Penelitian Tindakan Kelas (PTK) yang dilaksanakan dalam dua siklus, meliputi tahap perencanaan, pelaksanaan, observasi, dan refleksi. Subjek penelitian adalah anak kelompok B TK ABA 30 sebanyak 20 anak. Teknik pengumpulan data menggunakan observasi dan dokumentasi, sedangkan analisis data dilakukan secara deskriptif kuantitatif dan kualitatif. Hasil penelitian menunjukkan bahwa melalui penerapan permainan lempar tangkap bola terjadi peningkatan signifikan pada kemampuan motorik kasar dan sosial emosional anak di setiap siklus. Dengan demikian, permainan lempar tangkap bola terbukti efektif sebagai strategi

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pembelajaran untuk mengoptimalkan perkembangan anak usia dini.

**Kata Kunci:** Permainan Lempar Tangkap Bola; Motorik Kasar; Sosial Emosional; Anak Usia Dini; TK ABA 30

### A. Introduction

Early childhood education is a crucial foundation for shaping the holistic development of children, both physically and psychologically. During the golden age period, children experience rapid brain and body growth, making appropriate stimulation highly essential (Santrock, 2019).

One of the most important aspects of early childhood education is gross motor development, which involves the ability to use large muscles to coordinate body movements such as running, jumping, kicking, and throwing (Gallagher, 2020). These skills form the basis of physical activity needed to support children's learning at later stages.

In addition to gross motor skills, socio-emotional development plays an essential role in children's growth. Socio-emotional development includes the ability to interact, empathize, manage emotions, cooperate, and follow rules (Berk, 2018). Children with well-developed socio-emotional skills are better prepared to engage in learning and social environments.

Empirical observations show that many young children still experience barriers in both motor and socio-emotional development. Limited opportunities for active play often lead to weak fundamental movement skills and low self-confidence during social interactions (Fitriani, 2021).

To address this issue, teachers must provide learning activities that are meaningful, enjoyable, and developmentally appropriate. Play is an ideal medium for learning for young children because it integrates cognitive, physical, social, and emotional development simultaneously (Hurlock, 2020).

One relevant type of play that supports physical development is the throw-and-catch ball game. This activity involves complex body coordination through actions of throwing and catching, making it highly beneficial for the improvement of gross motor skills (Adams, 2019).

Furthermore, throw-and-catch ball games also provide children with social learning experiences. While playing in pairs or groups, children learn cooperation, turn-taking, rules, communication, and emotional regulation (Lynch & Warner, 2021), giving the activity double learning benefits.

The game is capable of creating a fun and motivating learning atmosphere that encourages children to engage actively. Active participation in playful learning strengthens learning outcomes and supports optimal child development (Suyadi, 2020).

In the context of early childhood institutions such as TK ABA 30, teachers must design creative and challenging learning experiences to ensure children stay motivated and avoid boredom. Physical play activities serve as an effective alternative to meet these needs.

Based on preliminary observation at TK ABA 30, several children showed underdeveloped gross motor skills, such as difficulty throwing or catching a ball accurately. In addition, some children demonstrated passive social interactions and lacked confidence when playing with peers.

These issues underline the need for a learning strategy capable of stimulating both motor and socio-emotional development simultaneously. Teachers require appropriate learning activities to nurture these developments through enjoyable and meaningful experiences.

Throw-and-catch ball games are considered effective because they can be adapted progressively based on children's abilities, beginning with individual activities and moving to group-based play (Bright & Futrell, 2018). Learning through direct experience (learning by doing) allows children to learn naturally through physical activity.

Previous studies have demonstrated that physical games such as throwing and catching can significantly improve gross motor development and facilitate social relationships among children (Rachmawati & Kurniawan, 2022). However, differences in institutional characteristics indicate that contextual research is still needed at TK ABA 30.

The implementation of throw-and-catch ball games is expected to create inclusive and active learning, allowing every child to participate and grow. Physically active children generally show better learning readiness and more stable emotional regulation (Pica, 2019).

Based on this background, this study was conducted to examine the implementation of throw-and-catch ball games in improving children's gross motor skills and socio-emotional development at TK ABA 30. The findings are expected to contribute to early childhood teaching practices and enrich academic literature on play-based learning.

## **B. Research Methodology**

This study employed a classroom action research (CAR) design to improve children's gross motor and socio-emotional development through the implementation of throw-and-catch ball games. Classroom action research was chosen because it enables teachers and researchers to collaboratively diagnose learning problems and apply specific actions to improve learning outcomes in an authentic classroom setting (Kemmis & McTaggart, 2014). The CAR model was conducted in a cyclical process consisting of planning, action, observation, and reflection.

The research was conducted at TK ABA 30 during the second semester of the 2024/2025 academic year. The participants consisted of 15 children in group B, aged 5–6 years. The participants were selected using a purposive sampling technique because they were the group in which initial observations indicated delays in gross motor and socio-emotional development. Early childhood participants are appropriate for interventions using active play because physical and social play stimulates intensive neurological and emotional growth during this period (Santrock, 2019).

Data on children's gross motor and socio-emotional development were collected using observation sheets and field notes. Observation was considered the most relevant instrument since it provides naturalistic information about children's behavior and skill development in real-time learning activities (Berk, 2018). The observation sheets consisted of indicators related to accuracy of throwing, coordination when catching,

body balance, interaction with peers, emotional expression management, and willingness to cooperate in groups.

The intervention was implemented in six learning meetings, with each meeting involving structured throw-and-catch ball play. The activities were designed progressively—from individual throwing practice, paired games, small-group activities, to competitive team play—to accommodate children's developmental stages and abilities (Bright & Futrell, 2018). Each session lasted 40–50 minutes under the guidance of the classroom teacher and researcher. Positive reinforcement and modeling techniques were incorporated to support children's active participation and motivation.

Data analysis was conducted using descriptive quantitative and qualitative approaches. Quantitative data were analyzed by calculating the percentage of indicator achievement in each cycle to determine developmental improvement. Meanwhile, qualitative data from field notes and observations were analyzed using data reduction, data display, and conclusion drawing techniques (Miles, Huberman, & Saldaña, 2014). The combination of quantitative and qualitative techniques allowed for a comprehensive understanding of the developmental changes that occurred during the intervention period.

To ensure the validity of the findings, triangulation of methods and sources was applied. Method triangulation was carried out by comparing observation sheet scores with field note reflections, while source triangulation involved comparing data between researchers and the classroom teacher. Triangulation in early childhood classroom research is essential to ensure accuracy and avoid subjective bias in interpreting children's developmental progress (Creswell & Poth, 2018). Ethical considerations were also addressed by obtaining parental consent and ensuring the comfort and safety of all participants throughout the research process.

### **C. Results and Discussion**

The results of the study showed a progressive increase in children's gross motor skills after the implementation of throw-and-catch ball activities across two cycles. During the initial observation, many children demonstrated difficulties in throwing with

proper direction and catching the ball with adequate hand-eye coordination. These findings align with the idea that early childhood motor skills often require structured stimulation to develop optimally (Gallagher, 2020).

In Cycle I, children began practicing individual and paired throwing activities. Although some improvement was observed, several children still struggled with balance and proper stance while catching the ball. This condition suggests that children require sufficient repetition to establish neuromuscular control and spatial awareness (Adams, 2019). The teacher's demonstration and verbal cues helped build foundational techniques during this cycle.

At the end of Cycle I, 60% of the children reached the expected motor development indicators. Although progress was positive, the level of achievement had not yet met the target of 85%. Therefore, additional modification was implemented in Cycle II by increasing the frequency of group activities and adding larger soft balls to facilitate catching success. Simple adaptation of materials is known to increase engagement and success in motor-based learning (Pica, 2019).

The results of Cycle II showed significant improvement. Children demonstrated better accuracy when throwing the ball toward a partner, greater strength in throwing, and higher consistency in catching with both hands. As a result, 90% of children achieved the expected gross motor performance level by the end of Cycle II. This supports the view that repeated, playful motor practice positively influences physical development in early childhood (Bright & Futrell, 2018).

Along with motor development, socio-emotional skills also improved over the course of the intervention. At the beginning of the study, many children displayed limited social interaction, hesitation to engage in group play, and occasional frustration when mistakes occurred. Such behaviors are typical when children experience low emotional regulation and limited cooperative play practice (Berk, 2018).

During Cycle I, group activities encouraged children to communicate with peers, take turns, and follow simple rules. Although conflicts occasionally occurred, the teacher's reinforcement strategies—such as praise and encouragement—helped build

children's self-confidence. Research suggests that positive reinforcement strengthens effort-based motivation and peer bonding in learning environments (Santrock, 2019).

By Cycle II, the atmosphere of group collaboration became more evident. Children were more willing to wait for their turn, celebrate friends' successes, and express emotions more constructively. The activity of playing in teams supported shared responsibility, which fosters empathy and social awareness (Lynch & Warner, 2021). Children's emotional expressions became more stable, and fewer incidents of refusal or withdrawal occurred.

The improvement in socio-emotional skills was closely tied to the nature of physical play. Since children were physically and emotionally engaged, the learning process naturally facilitated peer interaction. This is consistent with the view that physical play functions as a dual pathway for motor and social development (Hurlock, 2020). Hence, the throw-and-catch ball game contributed holistically to development.

Another significant finding was an increase in learning motivation. In the early observation stage, some children appeared reluctant to participate in structured physical activities. However, the fun competitive elements in Cycle II—such as counting successful catches—boosted children's enthusiasm. Motivation plays a key role in sustaining long-term developmental progress (Suyadi, 2020).

Teacher involvement was a critical factor in supporting children's engagement. When teachers modeled enthusiasm, demonstrated proper techniques, and encouraged teamwork, children responded with greater confidence and enjoyment. The role of the teacher as a facilitator strongly influences learning behavior in early childhood settings (Creswell & Poth, 2018).

From a pedagogical perspective, the results indicate that the throw-and-catch ball game is not only a physical activity but also a learning strategy. The structured play environment created meaningful learning experiences that integrated social values, rule-following, and persistence. This supports play-based instructional approaches that view learning as an active and interactive process (Bright & Futrell, 2018).

Comparison between Cycle I and Cycle II further demonstrated that improvement occurred because activities were progressively adapted to the needs and abilities of the

children. This resonates with developmentally appropriate practice principles, which stress that learning should be tailored to children's individual growth levels (NAEYC, 2021). The adaptation of ball size, team formation, and difficulty level played a pivotal role.

Overall, the findings highlight that physical play can serve as an effective pedagogical tool for childhood development. Children learn not only through instruction but through doing—actively moving, interacting, and solving problems. Learning through movement increases retention, confidence, and interpersonal bonding (Pica, 2019).

Thus, the study confirms that the implementation of throw-and-catch ball games significantly improves both gross motor skills and socio-emotional development. The method is efficient, enjoyable, and applicable in various early childhood learning contexts. It also provides insights for educators to incorporate more structured physical play in daily classroom activities.

In conclusion, the throw-and-catch ball game has the potential to become a core activity in early childhood education, particularly in developing movement skills and social-emotional maturity. The children at TK ABA 30 responded positively to this instructional approach, supporting its practicality and effectiveness as a long-term classroom strategy.

#### **D. Conclusion**

The implementation of the throw-and-catch ball game at TK ABA 30 has proven to be an effective learning strategy to improve children's gross motor abilities. Through structured and engaging physical activities, children demonstrated significant progress in balance, coordination, and control over body movement. This finding reinforces the principle that physical play is an essential component of early childhood development and should be incorporated into daily learning experiences. The active participation of children throughout the intervention also indicates that learning through play promotes motivation and enjoyment in movement-based activities.

In addition to physical development, the intervention contributed meaningfully to the enhancement of children's social-emotional skills. The game fostered cooperation, self-confidence, responsibility, and emotional regulation as children learned to wait their turn, follow rules, work as a team, and respond appropriately to success or mistakes. Positive peer interactions increased significantly, showing that collaborative play builds a supportive and communicative learning environment. The findings affirm that play-based learning is not only enjoyable for children but also supports their ability to socialize and manage emotions effectively.

Based on the study results, throw-and-catch ball games can be recommended as a practical and efficient method for early childhood educators in supporting holistic child development. Teachers are encouraged to apply various game modifications to sustain children's interest and address individual developmental levels. Future learning activities involving motor play should continue to integrate social-emotional goals to produce balanced developmental outcomes. Schools and teachers are advised to develop structured play programs as part of the curriculum to ensure that physical and emotional development are nurtured optimally from early childhood.

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