

Outdoor-Based Snakes and Ladder Game: Stimulation of Hyperactive Children

*Wahyuni Ulpi¹, Hadi Pajarianto², A. Heri Riswanto³, Jacinto de Oliveira Junior⁴,
Muhammad Yusri Bachtiar⁵

^{1,2,3}Universitas Muhammadiyah Palopo, Jl. Jenderal Sudirman No.Km. 03, Palopo, South Sulawesi, Indonesia

⁴Instituto Superior Cristal, CHJG+X6Q, Díli, Timor-Leste

⁵Universitas Negeri Makassar, Jl. A. P. Pettarani, Makassar, South Sulawesi

*wahyuniulpi@umpalopo.ac.id

ABSTRACT: *This study explores the use of outdoor-based Snakes and Ladders as an alternative medium for stimulating and shaping the behavior of hyperactive children. Employing a qualitative descriptive approach, the research was conducted with the following subject criteria: 1) children enrolled at ABA II Quranic School Palopo; 2) aged 5–6 years; 3) residing with their parents; and 4) consistently exhibiting symptoms of hyperactivity. Supporting informants included classroom teachers and parents. Data collection techniques utilized source triangulation—comparing data from observations, interviews, and documentation—and member checking, wherein findings were confirmed with participants. The data analysis procedure involved four stages: data collection, data reduction, data display, and conclusion drawing and verification. The findings indicate that the outdoor-based Snakes and Ladders game is an effective behavioral stimulation tool for hyperactive children. The game offers opportunities for physical movement, incorporates structured rules, and fosters an enjoyable learning environment, thereby meeting the developmental needs of children with high activity levels and emerging self-regulation skills. Participation in the game facilitated the development of behavioral competencies, including turn-taking, rule compliance, and impulse control. Additionally, the game supported enhancing social skills such as cooperation, communication, and empathy. The outdoor setting further contributed to these outcomes by providing open space, fresh air, and a relaxed yet engaging atmosphere. The novelty of this research lies in its adaptation of a traditional game into a developmentally appropriate tool for physical and behavioral stimulation that is both flexible and easily implemented.*

Penelitian ini bertujuan untuk mengeksplorasi esensi dari permainan ular tangga berbasis outdoor sebagai media alternatif dalam menstimulasi dan membentuk perilaku anak hiperaktif. Penelitian ini diharapkan dapat memberikan kontribusi terhadap dunia pendidikan anak usia dini, khususnya

¹  orcid id: <http://orcid.org/0000-0002-6838-240X>

²  orcid id: <http://orcid.org/0000-0002-1089-8518>

³  orcid id: <http://orcid.org/0000-0003-4631-8658>

⁴  orcid id: <http://orcid.org/0009-0009-8597-2557>

⁵  orcid id: <http://orcid.org/0009-0006-0748-1654>

dalam penerapan metode pembelajaran yang kreatif dan menyenangkan untuk anak-anak dengan kebutuhan khusus. Penelitian ini menggunakan pendekatan kualitatif deskriptif dengan kriteria subjek penelitian: 1) anak yang bersekolah di ABA II Quranic School Palopo; 2) berusia 4-6 Tahun; 3) tinggal bersama orang tua; 4) Menunjukkan Gejala Hiperaktif Secara Konsisten, serta informan pendukung yaitu guru kelas dan orang tua. Data dikumpulkan melalui observasi, wawancara dan dokumentasi, untuk menjamin validitas data maka digunakan teknik triangulasi. Hasil Penelitian menunjukkan bahwa permainan ini memiliki nilai esensial sebagai media stimulasi bagi perilaku anak hiperaktif. Permainan ular tangga memberikan ruang gerak yang cukup, aturan yang jelas, serta suasana yang menyenangkan, sehingga sangat cocok untuk anak dengan kebutuhan gerak tinggi dan kontrol diri yang masih berkembang. Melalui aktivitas yang terstruktur dalam permainan, anak hiperaktif dapat belajar menunggu giliran, mematuhi aturan, serta mengontrol dorongan impulsif. Permainan ini juga membantu menstimulasi kemampuan sosial anak, seperti bekerja sama, berkomunikasi, dan menunjukkan empati terhadap teman. Lingkungan outdoor turut mendukung proses ini dengan memberikan keleluasaan ruang, udara segar, dan suasana belajar yang lebih santai namun tetap terarah. Kebaruan penelitian ini adalah permainan tradisional yang dimodifikasi, permainan yang disesuaikan dengan stimulasi perkembangan fisik, fleksibel dan mudah digunakan.

Keywords: *Snakes and Ladders Game, Outdoor Games, Hyperactive Behavior.*

Received: May 19, 2025; Revised: June 16, 2025; Accepted: July 10, 2025

I. INTRODUCTION

Early childhood development is a critical foundation for shaping future personality and behavior (Wiresti & Na'imah, 2020). Key aspects of child development include gross and fine motor skills, cognitive development, social-emotional development, language acquisition, and the development of moral and religious values. One of the significant challenges in this developmental stage is the emergence of hyperactive behavior, which is characterized by excessive physical activity, difficulty maintaining attention, and high levels of impulsivity (Islamiah et al., 2023). Children with hyperactive behavior often have difficulty adjusting to social and academic environments, impacting their learning process and social interactions. In educational environments, hyperactive children are usually seen as disruptive, challenging to manage, and unable to follow applicable rules (Sher, 2009). This often causes misunderstanding, because their behavior is not merely a form of naughtiness, but rather a symptom of a neurological condition that requires special treatment. The ignorance of parents and educators about the characteristics and treatment of hyperactive children often worsens the child's condition and increases the risk of psychosocial problems later in life (Anggraeni & Putro, 2021).

In school, hyperactive children tend to have difficulty following the learning process optimally (Abidin, 2023). They often experience obstacles in completing assignments, following teacher directions, and establishing social relationships with peers (Al Azis et al., 2022). This condition affects academic achievement and children's social and

emotional development. In addition, the lack of understanding of teachers and parents regarding the characteristics of hyperactive children often results in inappropriate handling strategies, which can worsen the child's condition. The behavioral condition of children who experience Attention Deficit Hyperactivity Disorder is not of their own volition, but is caused by an unconscious urge.

Jean Piaget's Child Development Theory Jean Piaget was a Swiss developmental psychologist famous for his theory on the stages of children's cognitive development (Whildan, 2021). According to Piaget, a child's intellectual development occurs through four main stages: 1) Sensorimotor stage (0–2 years). Children learn through movement and direct experience. There is no understanding of object permanence; 2) Preoperational Stage (2–7 years) Children begin to use symbols (e.g., words and pictures) to represent objects; 3) Concrete Operational Stage (7–11 years) Children begin to think logically about real objects and concrete situations. They begin to understand the concepts of conservation, classification, and reversibility. At this stage, educational games such as Snakes and Ladders are very suitable for practicing logic, sequence, and cooperation; 4) Formal Operational Stage (11 years and above): Children begin to be able to think abstractly and solve hypothetical problems. Hyperactive children usually experience attention disorders, impulsivity, and difficulty controlling movement. In the context of Piaget's theory, hyperactive children in the preoperational or concrete operational stage often have difficulty thinking systematically due to the inability to maintain attention for a long time. Games such as Snakes and Ladders, which contain rules, turns, and consequences (up/down), can help hyperactive children learn to control impulses, understand logical sequences, and practice social interactions in a fun way.

Skinner's Theory of Child Development, 1) Giving a pleasant stimulus after a specific behavior so that the behavior increases; 2) Negative Reinforcement: Removing an unpleasant stimulus to increase behavior; 3) Punishment: Giving an unpleasant stimulus or removing a pleasant stimulus to reduce unwanted behavior; 4) Shaping: Directing the child to achieve the desired behavior through gradual steps, by reinforcing each small progress (Bustamam, 2024). Hyperactive children tend to be impulsive, have difficulty sitting still, and lack focus. In the context of Skinner's theory, their behavior can be directed through a consistent reinforcement system. Games such as Snakes and Ladders can be a medium for positive behavioral training, such as waiting for turns, following rules, and completing tasks to the end, which can trigger children's behavioral responses. When children play according to the rules (e.g., waiting for their turn, not breaking the rules), positive reinforcement can be given as praise or small rewards. Games provide a clear and visual structure, crucial for hyperactive children to form behavioral regularities (Cheep-Aranai & Wasanasomsithi, 2016).

Lev Vygotsky, a Russian psychologist, is well known for his theory of child development, particularly his emphasis on the importance of play and social interaction as fundamental mechanisms for cognitive development (Insani, 2025). A critical aspect of his theory is the role of play as a primary means for children's mental and social development, **Key Concepts of Vygotsky's Play Theory**: 1) Zone of Proximal Development (ZPD) ZPD is the distance between what a child can do independently and what a child can do with help from adults or more capable peers; 2) Scaffolding temporary assistance provided by teachers, parents, or friend so that a child can perform tasks that they previously could not do alone. In play, scaffolding can take the form of guiding or directing the rules during play; 3) Play as a Simulation of Real Life: Vygotsky

posited that play is a vital mechanism through which children learn self-regulation, internalize social roles, and adhere to rules. This is particularly significant for hyperactive children, who frequently struggle with impulse control and effective social interaction.

The approach used to treat hyperactive children does not always have to be medical or therapeutic (Islamiah et al., 2023). Intervention through play activities, especially those that are educational and fun, is considered more effective in diverting children's energy in a positive direction (Apriliani et al., 2024). One potential medium in this case is traditional games such as Snakes and Ladders. Snakes and ladders games, if modified and done in an open space (outdoor), not only provide entertainment but can also be a medium for stimulating children's more focused behavior (Wardhani et al., 2021). Relation to Hyperactive Children: 1) Hyperactive children usually struggle to regulate attention, behavior, and emotions. 2) According to Vygotsky, Play is a natural place to learn to control oneself, cooperate, and gradually obey rules. In the context of the ZPD, games such as Snakes and Ladders provide cognitive and social challenges that are still within the child's reach, but still require support and guidance.

Outdoor-based snakes and ladders games provide ample room for movement and involve more intense physical activity (Wathoni et al., 2024). In addition, this game can be designed with educational values and rules that train children to follow instructions, be patient, wait for their turn, and control their emotions. This is important in forming adaptive behavior in hyperactive children. Children do not feel burdened by enjoyable game packaging, but indirectly get positive behavioral stimulation.

The approach used to treat hyperactive children does not always have to be medical or therapeutic (Abidin, 2023). Intervention through play activities, especially those that are educational and fun, is considered more effective in diverting children's energy in a positive direction. One potential medium in this case is traditional games such as Snakes and Ladders. If modified and played in an open space (outdoor), the Snakes and Ladders game not only provides entertainment but can also be a medium for stimulating children's more focused behavior (Rohmah et al., 2023).

Outdoor snakes and ladders games provide ample space for movement and involve more intense physical activity. In addition, this game can be designed with educational values and rules that train children to follow instructions, be patient, wait for their turn, and control their emotions (Padila et al., 2022). This is important in forming adaptive behavior in hyperactive children. Children do not feel burdened by enjoyable game packaging, but indirectly get positive behavioral stimulation.

Based on this background, the present study aims to explore the significance of the outdoor Snakes and Ladders game as an alternative medium for stimulating and shaping the behavior of hyperactive children (Fitrizah et al., 2020). This research is expected to contribute to early childhood education, particularly in implementing creative and engaging learning methods for children with special needs. Learning through play, especially when integrated with game-based approaches, offers these children a fun and meaningful learning experience.

The Snakes and Ladders game can provide several forms of positive behavioral stimulation in hyperactive children: 1) Training Self-Control. The Snakes and Ladders game requires children to wait their turn, obey the rules, and accept the results of the steps taken. This process becomes concrete practice for children in controlling impulses, patience, and delaying gratification. 2) Increasing Focus and Attention. Children with

hyperactivity usually have difficulty maintaining focus on one activity. In the snakes and ladders game, children are required to pay attention to numbers, pawn positions, and turns to play, which can help strengthen their attention capacity; 3) Developing Social Skills, This game is played in groups, so it requires children to interact, work together, and obey social rules. Children are taught to accept victory and defeat in a sporting manner, which can form emotional regulation and cooperative attitudes; 4) Providing Positive Energy Channels, Play activities that involve motor movements such as throwing dice, moving pawns, or walking on a large board provide opportunities for hyperactive children to channel their energy in a directed and productive way; 5) Instilling an Understanding of Behavioral Consequences, The symbol of going up a ladder as a form of appreciation and going down a snake as a form of consequence can be used as a symbolic learning tool regarding the importance of behavior that is by the rules. Children learn that positive actions lead to pleasant outcomes, while negative actions have undesirable consequences; 6) Increase Self-Confidence and Emotional Regulation. Success in play can build children's self-confidence. In addition, enjoyable play experiences provide positive emotions that can reduce stress and frustration levels, which often occur in children with ADHD ability, play and prosocial behaviors allow children with ADHD to deploy, practice and learn key relationship skills such as turn-taking and negotiation, alongside behavioral and emotional regulation skills, thus protecting against externalizing problems (Toseeb et al., 2020). The findings suggest that the modified Snakes and Ladders game can be effectively utilized as an educational tool to address social development challenges in children, particularly by enhancing skills such as turn-taking, rule-following, cooperation, and empathy.

Based on the background, this study aims to explore the significance of the outdoor-based Snakes and Ladders game as an alternative medium for stimulating and shaping the behavior of hyperactive children. The research is expected to contribute to early childhood education, particularly in implementing creative and engaging learning methods for children with special needs. Developing interactive educational game tools, whether used with peers or parents, is crucial for enhancing children's understanding of personal safety skills and promoting overall social and behavioral development (Saleha et al., 2021). This study aims to explore the essence of outdoor-based Snakes and Ladders games as an alternative medium in stimulating and shaping the behavior of hyperactive children.

II. METHOD

Types and Approaches of Research use a qualitative descriptive approach that emphasizes natural conditions, where the researcher is a key instrument in obtaining information. This approach is used to gain a deep understanding of the use of snakes and ladders games as a stimulation medium for hyperactive children and its impact on children's behavior and focus. Research Subjects: This study was conducted on children diagnosed with hyperactivity in early childhood education. The location of the survey was ABA II Quranic School Palopo Kindergarten, with the subject criteria being 1) children who attend ABA II Quranic School Palopo; 2) aged 5-6 years; 3) living with parents; 4) Showing Symptoms of Hyperactivity Consistently. In addition, additional informants included accompanying teachers, therapists, and parents of children. Research Location was conducted at the ABA II Quranic School Palopo Kindergarten educational institution. Data collection used in this study were: 1) Participatory

Observation: Directly observing children while playing snakes and ladders to see responses, focus, and social behavior; 2) In-depth Interviews: Conducted with teachers and parents to explore experiences and perceptions of the effects of the snakes and ladders game; 3) Documentation: Collecting data through photos of activities, videos while playing, and records of children's development (Susanto & Jailani, 2023).

The main instrument is the researcher himself, who is the key instrument, with the help of observation guidelines and interview guidelines that have been prepared based on the characteristics of hyperactive children and stimulation elements of the game. The instruments in this study are: 1) Interview guides containing a list of topics or questions to be discussed in qualitative interviews; 2) Observation Guidelines, which are used to record behavior seen in children; 3) documentation in the form of children's work and photos of activities (Syahrizal & Jailani, 2023). Validity of Data To ensure data validity, techniques are used, such as source triangulation (comparing the results of observations, interviews, and documentation) and member check (confirming findings with sources). Data Analysis Techniques: 1) Field Data Collection: The initial stage involves gathering data through direct observation, interviews, and documentation; 2) Data Reduction: This stage entails selecting, focusing, simplifying, and abstracting raw data to extract meaningful information; 3) Data Display: The reduced data is then organized and presented using matrices, tables, and thematic narratives to facilitate analysis; 4) Verification: At this stage, the data is interpreted, and preliminary conclusions are drawn. These conclusions are continuously refined and validated throughout the research process (Hendrayadi et al., 2023).

III. RESULT AND DISCUSSION

This study was conducted at TK ABA II Quranic School in Palopo City. This early childhood education institution implements an intervention program for children with special needs, particularly those exhibiting symptoms of hyperactivity. The study involved six children aged 5–6 years who had been identified as displaying hyperactive behavior. The intervention utilized a modified version of the traditional Snakes and Ladders game, adapted for outdoor use on a large 3x3 meter board. The game was designed to encourage active movement, with children performing physical tasks such as jumping into boxes and following specific instructions on the board, including: "stand on one leg," "jump three times," and "stay still for 10 seconds (Cahyanti et al., 2023). This activity was carried out for 3 weeks with a frequency of 3 times per week (Zahro et al., 2024).



Figure 1. Outdoor Snakes and Ladders game

The following research result describes the condition of 6 hyperactive children in the context of case studies or quantitative-descriptive, using Snakes and Ladders media as a stimulation medium, Table 1.

Table 1. Research results describing the condition of 6 hyperactive children

Child Code	Age	Gender	Diagnosis	Background
A1	5	Woman	Mild hyperactivity	Often interrupting when the teacher is talking, the child has difficulty remaining quiet when asked to be quiet so that in class the child does not understand what is being said by the teacher or friends.
A2	5	Man	Mild hyperactivity	Often having difficulty staying still in class, children fidget, shaking their legs or hands while sitting. The impact is that children miss out on learning and do not complete the tasks given.
A3	6	Man	Moderate hyperactivity	Often disturbs friends, is easily disappointed or angry when there is something he wants, which means the child does not have friends and only plays alone
A4	5	Woman	Mild hyperactivity	Talking a lot, having difficulty following the rules of the game, and often doing activities without thinking about the risks, the impact is that children are sometimes injured and do not want to learn.
A5	6	Man	Moderate hyperactivity	including focus and impulsiveness, often answering before the question is finished, impatient waiting for their turn in the game, the impact is that children find it difficult to socialize and play in groups
A6	5	Man	Mild hyperactivity	Constantly moving while sitting, always wanting to move, running, running without a clear goal, and the impact in class is that children find it difficult to control themselves and lack focus.

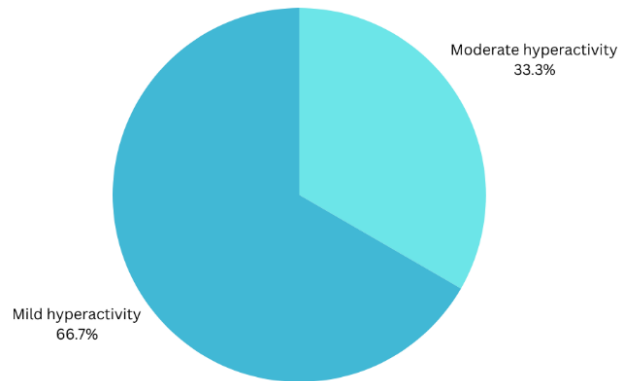


Figure 2. General findings of the Snakes and Ladders game intervention

Based on General findings before the snakes and ladders game intervention: 1) All children showed symptoms: difficulty focusing, impulsiveness, and excessive activity; 2) On average only able to maintain attention for 3–5 minutes on activities without interesting stimulation; 3) Several children (A3 & A6) often disturbed friends when observed. Impulsive behavior in hyperactive children is an action that is carried out suddenly, without careful consideration, and without thinking about the consequences of the action. This impulsivity appears as part of attention deficit hyperactivity disorder (ADHD), where children show difficulty in controlling impulses, delaying responses, and acting hastily (Latif et al., 2024).

Table 2. Results of interviews with teachers and parents of hyperactive children

Child Code	Age	Teacher Interview Results	Parent Interview Results
A1	5	This child often interrupts when I am explaining. For example, he immediately raises his hand without waiting for me to finish explaining the material. There are times when he speaks directly in the middle of a conversation. When thinking about something, he seems to have difficulty restraining himself from speaking immediately. When the child is asked to sit quietly, he can only be calm for a while, then starts shaking his legs, tapping the table or standing up from his chair. Sometimes he even walks around the classroom for no apparent reason. If I reprimand him, he says he's bored or wants to do something else.	The teacher often calls me because my child likes to interrupt in class. Information from the teacher my child immediately speaks or asks questions without waiting for his turn. Sometimes it also distracts his friends. The teacher said he is very active and challenging to control during class hours. The behavior that appears at home is that the child has difficulty sitting still for only a few moments, then the child runs and climbs. I often do things with my child at home, such as playing with a ball or inviting the child to color.
A2	5	This child has a tough time staying still. Even when sitting, he can't be still. His hands often tap the table or play with writing instruments, his legs keep shaking, and sometimes he stands alone for no apparent reason. I've tried to ask him to be quiet, but it only lasts a short time. When asked to focus, the child shows signs of restlessness, as if he is uncomfortable sitting too long. The child can divert	Children show restless behavior at home; when watching TV, their hands are busy playing, and their legs are swaying. Sometimes they stand up and walk occasionally, even though they haven't finished watching. When eating, they like to stand up and sit down again. When asked to sit down, sometimes children get angry or pretend not to hear. However,

		attention to other things, such as looking out the window, playing with things on his desk, or suddenly talking to a friend next to him. He cannot focus for more than 10 minutes without distraction.	children are interested when invited to play with physical activity.
A3	6	The child often disturbs friends while studying. For example, he likes to take crayons or books from his friends without permission, pushes his friends while they are sitting, or talks to them while other friends are doing their assignments. He easily gets angry or frustrated when the child's wishes are not followed. If he doesn't get something he wants, such as a turn to play or the expected results, the child immediately gets angry, hits the table, or shouts at his friends. Sometimes he also cries or leaves the activity.	Children often have conflicts with their younger siblings. They like to fight over toys or disturb their younger siblings when calm. When playing, children also enjoy dominating and always want to win. Children's reactions when their wishes are not fulfilled are sometimes throwing things or screaming. What I do to calm them down is to invite them to play or tell stories.
A4	5	Children's behavior in the classroom shows that they talk a lot, even when asked to be quiet, and continue talking. When playing together in school, children are impatient, often cheat, or walk straight away without waiting for their turn. It is dangerous when children climb on the table and then jump.	Children are very active in talking, sometimes the topics discussed are unclear, and the child's attitude seems unwilling to follow the rules of play when playing with other children in the home environment. Dangerous things that children do are climbing and jumping from chairs or tables without thinking about the impact.
A5	6	In concentrating, the child is seen to lack focus by often looking outside, when the child is called the child ignores and is silent. When the teacher asks, the child answers quickly even though the teacher's question is not finished. When playing with friends, the child dominates the game.	When children study at home, they quickly get bored with the excuse of wanting to play. When playing, they always want to dominate and don't want to wait for their turn.
A6	5	Children's behavior when sitting in class for only a short time, then moving to swing their legs, swinging the table or turning their body so that the child cannot concentrate on studying.	The child's behavior at home does not want to be quiet, the child climbs onto the sofa, table, even the cupboard. The child always seems to have energy that needs to be released. When he is too active, sometimes I tell him to play in the yard so that the child can run around outside the house, because inside the house is too risky.

Snakes and Ladders Game Process

The Snakes and Ladders game is carried out in a structured session to help hyperactive children improve self-control, patience, and reduce impulsive behavior. This activity is carried out in groups and lasts 30 to 45 minutes per session. The activities carried out are: 1) Preparation, in the preparation stage, the teacher prepares the tools used to play,

namely a 3x3 M snakes and ladders board and 30 x 30 cm pawns that are easy for children to hold. Each child is given a colored flag as a sign. In the Snakes and Ladders arena, children follow instructions. After everyone is ready, the teacher explains to the children the game's rules: playing in turns, if another friend is playing, wait for their turn, if the pawn hits the ladder, go up, if the pawn hits the snake, go down. The teacher explains with direct examples; 2) the game begins by forming a small circle. Then, the children are asked to sit in order. One child per child rolls the dice, counts the number of steps to be taken, and then moves the pawn according to the number that appears.

The child goes up to a higher number if the pawn stops on the box with the ladder; on the contrary, if the pawn stops on a square with a snake, the child goes down to a lower number. The instruction card contains commands for several squares. When they stop on this square, children are asked to do light activities according to the card's contents. The goal is to add children's motor energy to the planned activities. For example, children are asked to "jump three times in place" or "name two colors". In addition to training children's motor coordination, this activity maintains their attention during the game. During this process, the teacher actively provides positive reinforcement, such as verbal praise, "Good, you can patiently wait your turn," or enthusiastic actions, such as clapping together. If the child shows instinctive behavior, such as interrupting turns or breaking the rules, the teacher gives gentle direction and continues to remind the child of the rules; 3) Closing, at the closing stage, the teacher reflects by asking questions to the child (Rahma et al., 2022).

Table 3. Description after using the Snakes and Ladders game as a stimulus

Child Code	Change of Focus	Impulsive Behavior	Social Interaction	Special Notes
A1	Increase	Decrease	Cooperative	Enjoyed the game, and it looked happy while playing
A2	Stable	Decrease	Cooperative	Laughs often and seems to enjoy the game
A3	Increase	Stable	Cooperative	Need additional direction
A4	Stable	Stable	Cooperative	Positive response to rewards
A5	Significant Increase	Decrease	Cooperative	Start to be able to wait your turn and follow the rules of the game
A6	Increase	Decrease	Cooperative	Likes to lead friends while playing

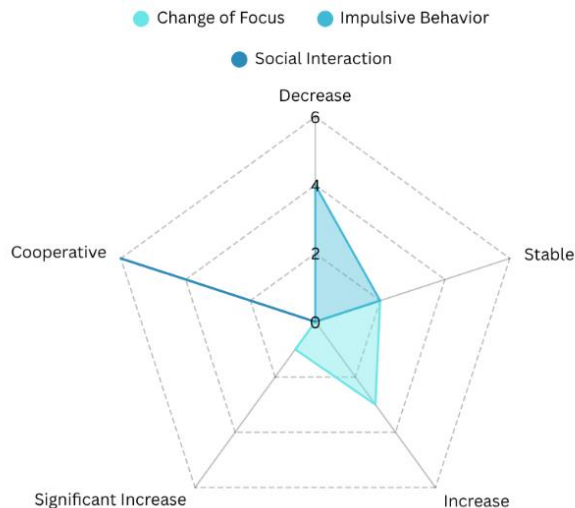


Figure 3. *Child development diagram*

Based on Piaget's theory, children learn to think concretely using play media, including the Snakes and Ladders game. After several sessions of the Snakes and Ladders game, there were significant changes in the behavior of hyperactive children. This game teaches children to wait for their turn, obey the rules, and control their impulses to move undirected. Gradually, children showed an increased ability to follow the teacher's instructions and interact with peers more positively. During the game, children who had previously often interrupted or were impatient began to be able to restrain themselves and wait for their turn (Zulfa et al., 2025). This improvement was also seen when children could sit longer than usual, although still interspersed with small movements such as shaking their legs. However, the frequency of undirected movements decreased as children's involvement in games with clear structures and rules increased. In addition, the Snakes and Ladders game encouraged children to think and make simple decisions, such as counting steps or understanding the consequences of going up and down stairs. This helped improve children's concentration and focus for a limited duration.

Teachers also reported that children appeared more cooperative after the game session and were able to demonstrate more controlled behavior during classroom activities. From the parents' perspective, they stated that their children appeared calmer after participating in the game (Alfath et al., 2025). Several children desired to repeat the game at home, as a form of interest and positive emotional involvement. This indicates that the Snakes and Ladders game provides motoric stimulation and impacts the formation of more adaptive behavior. Educational game Snakes and Ladders influences the social development of preschool-aged children (Sulistyowati et al., 2020). There is a difference in the social development score before and after the given educational game, Snakes and Ladders. Education can be implemented in kindergarten by empowering and including all existing elements inside and outside the school (Lestari et al., 2020).

Outdoor Snakes and Ladders Game to Stimulate Hyperactive Children

Outdoor-based snakes and ladders game is one of the practical simulative approaches in helping hyperactive children manage their behavior, especially in terms of self-control, focus, and social interaction. This activity is a means of playing and a fun and directed learning medium, especially in early childhood education environments such as ABA II Quranic School Kindergarten in Palopo City. Snakes and Ladders games played

outdoors allow hyperactive children to move freely in a more open environment. Hyperactive children who tend to be active, restless, and have difficulty staying still are greatly helped by ample space to move. Their energy can be channeled positively through physical activities integrated into the game, such as jumping, walking according to the number of dice, or following instructions on the game box.

From the results of observations and interviews, this game can reduce children's impulsive behavior, such as interrupting turns, being impatient, and often moving aimlessly. The Snakes and Ladders game requires children to wait for their turn, count steps correctly, and follow the rules consistently. This provides real practice to improve self-regulation skills, which children with hyperactive behavior need. In addition, this game stimulates children's social and emotional aspects. In a group game atmosphere, children learn to interact, take turns, work together, and accept the game's results with sportsmanship. Children become more open to communicating with peers and teachers, and learn to manage emotions when winning or losing in the game.

Regarding cognitive development, the Snakes and Ladders game helps children practice concentration, recognize numbers, and develop cause-and-effect thinking skills (for example: "if you catch a snake, you have to get down"). This fosters children's awareness of the consequences of their actions, which is essential in forming more adaptive behavior. Overall, the essence of the outdoor Snakes and Ladders game lies in combining physical, cognitive, and social-emotional stimulation in one fun and interactive activity. In the context of hyperactive children, this game is a channel for channeling energy and an inclusive and supportive educational strategy for their special needs (Puspitosari et al., 2024).

IV. CONCLUSION

Based on the results of research conducted on six children aged 5-6 years with a tendency towards hyperactive behavior, the following conclusions were obtained: 1) Outdoor-based snakes and ladders games are effective as a medium for stimulating the behavior of hyperactive children. This activity provides ample physical space for movement, boosts attention, and helps children practice self-control; 2) Most subjects showed improvement in several aspects of behavior, namely: (a) Ability to focus during activities,; (b) Impulse control such as waiting your turn and not cutting in line; (c) Compliance with simple instructions; (d) More positive social interactions with peers; 3) Fun and structured play activities able to create learning conditions that do not burden hyperactive children, so that they can more easily accept directions and train their emotional regulation skills. However, each child's response is different, the hampered development is cognitive development, social emotional development, and fine motor physical abilities. Some children show slower development and require additional approaches and more time to adjust to the game's rules. The modified Indonesian version of the Snakes and Ladders game is one of the board games used in activity therapy that can be used for cognitive therapy.

V. REFERENCES

- [1] Abidin, M. (2023). Analysis of Hyperactive Child Behavior and Handling Efforts in Education. *Al-Iltizam: Jurnal Pendidikan Agama Islam*, 8(1), 25–46. <https://doi.org/10.33477/alt.v8i1.4489>
- [2] Al Azis, A. N. ... Anwar, S. (2022). Perkembangan Bahasa Anak Hiperaktif. *Jurnal Multidisipliner Bharasa*, 1(2), 114–122. <https://doi.org/10.56691/jurnalmultidisiplinerbharasa.v1i2.247>
- [3] Alfath, E. A. ... Chusniyah, T. (2025). Meta-Analysis Study : Effectiveness of Play Therapy to Reduce Children ' s Aggressiveness. *Personifikasi Jurnal Ilmu Psikologi*, 16(1), 155–169. <https://doi.org/10.21107/personifikasi.v16i1.27518>
- [4] Anggraeni, D., & Putro, K. Z. (2021). Strategi Penanganan Hambatan Perilaku Dan Emosi Pada Anak Hiperaktif dan Tunalaras. (*JAPRA*) *Jurnal Pendidikan Raudhatul Athfal*, 4(2). <https://doi.org/10.15575/japra.v4i2.13024>
- [5] Apriliani, F. ... Dedah, A. (2024). Peran Guru dalam Penanganan Anak Hiperaktif di TK Kenanga Parigi. *Edu Happiness: Jurnal Ilmiah Perkembangan Anak Usia Dini*, 3(1), 48–56. <https://doi.org/10.62515/eduhappiness.v3i1.314>
- [6] Bustamam, M. (2024). Tinjauan Metode Skinner Dalam Pembentukan Perilaku Anak Usia Dini di TK Raudhatul Ula Aceh Timur. *Jurnal Seumubeuet : Jurnal Pendidikan Islam*, 3(1), 11–20. <https://journal.ymal.or.id/index.php/yayasanmadinahjsmbt/article/view/606>
- [7] Cahyanti, S. ... Budi Utomo, H. (2023). Pengembangan Permainan Ular Tangga Raksasa untuk Menstimulasi Perkembangan Kognitif Anak Usia Dini. *Jurnal Pelita Paud*, 7(2), 322–330. <https://doi.org/10.33222/pelitapaud.v7i2.2878>
- [8] Cheep-Aranai, R., & Wasanasomsithi, P. (2016). Children's Voices and Positive Affective Outcomes Regarding Play-Based Language Learning. *Chula Digital Collections*, 52. <https://doi.org/10.58837/chula.pasaa.52.1.6>
- [9] Fitrizah, M. K. ... Barat, J. (2020). The effect of snakes and ladders game to improve knowledge and attitudes of elementary school students to stop open defecation in bandung city. *The Indonesian Journal Of Public Health*, 15(2), 173–180.
- [10] Hendrayadi ... Sepriyanti, N. (2023). Mixed methode research. *Jurnal Review Pendidikan Dan Pengajaran (JRPP)*, 6(4), 2402–2410. <https://journal.universitaspahlawan.ac.id/index.php/jrpp/article/view/21905/15436>
- [11] Insani, H. N. (2025). Strategi Efektif untuk Meningkatkan Keterampilan Berbahasa pada Anak Usia Dini Pemalu Melalui Pendekatan Teori Zona Perkembangan Proksimal (ZPD) Vygotsky. *Jurnal Pendidikan Anak Usia Dini*, 2(2), 1–14. <https://doi.org/10.47134/paud.v2i2.1272>
- [12] Islamiah, R. ... Wulandari, H. (2023). Peran Guru Dalam Menangani Anak

- Hiperaktif. *Indonesian Journal of Early Childhood: Jurnal Dunia Anak Usia Dini*, 5(1), 36–41. <https://doi.org/10.35473/ijec.v5i1.2051>
- [13] Latif, M. A. ... Febriayanti, H. (2024). Modifikasi Perilaku Anak Usia Dini: Problematika Anak ADHD. *Jcr*, 1(2), 83–93. <https://doi.org/10.21107/njcr.v1i2.61>
- [14] Lestari, M. ... Hidayat, A. (2020). Evolving Inclusive Practices Playgroup and Kindergarten in. *International Journal of Innovation, Creativity and Change*, 1, 547–559. https://www.ijicc.net/images/vol_13/Iss_2/SC58_Lestari_2020_E_R.pdf
- [15] Padila, P. ... Oktaviyani, Y. (2022). Bermain Edukatif Ular Tangga Mampu Mengatasi Kecemasan pada Anak Hospitalisasi. *Jurnal Kesmas Asclepius*, 4(1), 1–7. <https://doi.org/10.31539/jka.v4i1.3748>
- [16] Puspitosari, A. ... Puput, G. (2024). Impact of Interventions with Modified Snake Ladder Games on Cognitive Abilities and Reducing Cognitive Decline in Aging. *Jurnal Keterampilan Fisik*, 9(2), 101–109. <https://doi.org/10.37341/jkf.v9i2.455>
- [17] Rahma, A. ... Ekok, A. S. (2022). Pengembangan Media Ular Tangga pada Pembelajaran Tematik Kelas IV SD Negeri Sungai Jauh. *LJSE Linggau Journal Science Education*, 2(2), 1–14. <https://doi.org/10.55526/ljese.v2i2.269>
- [18] Rohmah, A. A. ... Suhardi, A. (2023). The Use of Snakes and Ladder Media in Developing Students' Cognitive Development. *Edutec : Journal of Education And Technology*, 6(3), 958–966. <https://doi.org/10.29062/edu.v6i3.576>
- [19] Saleha, N. ... Yustisia, N. (2021). Comparison Of Ladder Snake And Busy Book Andara On Knowledge Of Personal Safety Skills Against Child Sexual Abuse Among Preschool Children : A Quasi Experimental Study. *The Malaysian Journal of Nursing (MJN)*, 12(April), 96–103. <https://doi.org/10.31674/mjn.2021.v12i04.013>
- [20] Sher. (2009). *Early Intervention Games: Fun, Joyful Ways to Develop Social and Motor*. Jossey-Bass.
- [21] Sulistyowati, A. D. ... Rahayu, R. F. (2020). Educational Game Snakes and Ladders Toward Children Social Development Pre-School Aged in Kindergarten. *1st Borobudur International Symposium on Humanities, Economics and Social Sciences (BIS-HESS 2019)*, 436, 602–606. <https://doi.org/10.2991/assehr.k.200529.126>
- [22] Susanto, D., & Jailani, M. S. (2023). Teknik Pemeriksaan Keabsahan Data Dalam Penelitian Ilmiah. *Qosim: Jurnal Pendidikan, Sosial & Humaniora*, 1(1), 53–61. <https://doi.org/10.61104/jq.v1i1.60>
- [23] Syahrizal, H., & Jailani, M. S. (2023). Jenis-Jenis Penelitian Dalam Penelitian Kuantitatif dan Kualitatif. *Jurnal Qosim Jurnal Pendidikan Sosial & Humaniora*, 1(1), 13–23. <https://doi.org/10.61104/jq.v1i1.49>
- [24] Toseeb, U. ... Conti-ramsdens, G. (2020). Play and prosociality are associated with

- fewer externalizing problems in children with developmental language disorder : The role of early language and communication environment. *International Journal of Language & Communicate Disorders*, 583–602. <https://doi.org/10.1111/1460-6984.12541>
- [25] Wardhani, N. W. ... Winda, N. L. (2021). The Effectiveness of Snakes and Ladders Game for the Social-Emotional Development of Children in the Pandemic Time Covid 19. *Proceedings of the 6th International Conference on Education & Social Sciences (ICESS 2021)*, 578(Icess), 232–236. <https://doi.org/10.2991/assehr.k.210918.043>
- [26] Wathoni, H. ... Rosliana, R. (2024). Efforts to improve initial numeracy skills through the use of snakes and ladders game media in early childhood. *Jurnal Scientia*, 13(1), 285–297. <https://doi.org/10.58471/scientia.v13i01.2201>
- [27] Whildan, L. (2021). Analisis Teori Perkembangan Kognisi Manusia Menurut Jean Piaget. *Permata: Jurnal Pendidikan Agama Islam*, 2(1), 11. <https://doi.org/10.47453/permata.v2i1.245>
- [28] Wiresti, R. D., & Na'imah, N. (2020). Aspek Perkembangan Anak : Urgensitas Ditinjau dalam Paradigma Psikologi Perkembangan Anak. *Aulad: Journal on Early Childhood*, 3(1), 36–44. <https://doi.org/10.31004/aulad.v3i1.53>
- [29] Zahro, N. D. A. ... Desandyansyah, S. K. N. (2024). Permainan ular tangga gizi seimbang sebagai media edukasi anak prasekolah di Kecamatan Suruh Kabupaten Trenggalek. *Promotif: Jurnal Pengabdian Kepada Masyarakat*, 4(1), 44–55. <https://doi.org/10.17977/um075v4i12024p44-55>
- [30] Zulfa, A. ... Harris, T. (2025). Developing an Innovative Board Game Using a Cooperative Learning Approach to Foster Interest in Learning Arabic. *Alibbaa': Jurnal Pendidikan Bahasa Arab*, 6(1). <https://doi.org/10.19105/ajpba.v6i1.17834>