

The Effect of the Snakes and Ladders Game on Improving the Social Skills of 4- to 5-Year-Old Children

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Abstract

This study aims to determine the effect of the Snakes and Ladders game on the social skills of 4- to 5-year-old children at Al-Abrar Islamic Kindergarten in Makassar. This study employs a quantitative approach using a quasi-experimental research method and a nonequivalent control group design. The study sample consisted of 20 children divided into two groups: 10 children in the experimental group and 10 children in the control group. Data were collected through observation, interviews, and documentation. The data were analyzed using descriptive statistics and the nonparametric Wilcoxon Signed-Rank Test. The results showed that the social skills of children in the experimental group improved more significantly than those in the control group. The mean pre-test score for both groups was 10.30. After the intervention was administered, the mean post-test score for the control group increased to 14.70, while that of the experimental group increased to 21.60. The results of the Wilcoxon test showed a significance value of 0.004 ($p < 0.05$) for the experimental group, indicating a significant effect of the Snakes and Ladders game on the children's social skills. Improvements in social skills were evident in the children's ability to communicate, cooperate, follow game rules, wait for their turn, and respect their peers. Thus, the Snakes and Ladders game can be used as an effective learning tool to improve the social skills of children aged 4–5 years.

Keywords: snakes and ladders game; social skills; early childhood; children aged 4–5 years.

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INTRODUCTION

Early childhood is a fundamental initial phase in the span of human growth and development. It is a period when the foundations of personality are established, shaping the child's future life experiences. Young children are individuals with potential and talents waiting to be nurtured; they possess distinct characteristics and are evolving into well-rounded individuals. As unique individuals, they exhibit specific patterns of growth and development across physical, socio-emotional, cognitive, communication, linguistic, and creative domains, all of which are shaped by the developmental stages they undergo (Andi Fitriani Djollong et al., 2023).

Early childhood education is not merely about the present; it is also about building a strong foundation for a better future. Early childhood is a crucial period for children to establish a fundamental understanding of the world and to develop language, critical thinking, and problem-solving skills. Consequently, early childhood learning must aim to foster a range of skills, shape character, and build self-confidence and independence through a comprehensive and holistic approach. By combining various fun activities and this means, the principles of early childhood learning can be implemented effectively. Each activity is designed to support the holistic development of children, including physical aspects, cognitive, emotional, and social. Through diverse approaches and this interactive, children not only learn, but also enjoy learning process, which ultimately helps them become individuals who are balanced and ready to face the challenges of the times front. The integration of these different types of activities ensures that each aspects of children's development are taken into account, and they can grow and develop in the most natural and enjoyable way for them (Maulani et al., 2024).

In Ministry of Education, Culture, Research, and Technology Regulation No. 5 of 2022, Chapter III, Article 4, Point 3 states that the Standards for Early Childhood Development Achievement Levels as referred to in paragraph (2) focus on aspects of child development that include: (a) religious and moral values; (b) the values of Pancasila; (c) physical and motor skills; (d) cognitive development; (e) language; and (f) social-emotional development (Hidayat & Nurlatifah, 2023). According to Hurlock (Habiba et al., 2025), social skills are a person's ability to behave in accordance with societal expectations and to adapt to prevailing norms. Through play, children have the opportunity to practice these behaviors in a natural and enjoyable way.

Children with good social skills, coupled with positive emotions, can help foster self-confidence. Children who are self-confident are able to complete tasks appropriate to their developmental stage, demonstrate courage, and have the potential to improve their achievements. They also tend to be trusted by others and gain various experiences and skills that support their independence. In other words, self-confident children can accept themselves as they are, are open to challenges, and are enthusiastic about trying new things even though they are aware of the possibility of making mistakes. Conversely, children who lack self-confidence tend to frequently compare themselves to others and develop a less positive outlook on their future (Aprilia

et al., 2024).

Based on preliminary observations conducted by the author among 4- to 5-year-old children at Al-Abrar Islamic Kindergarten on December 16, 2025, it was found that some students' social skills had not developed as expected; specifically, several students still demonstrated significant deficiencies in their ability to interact, communicate, and build relationships with their peers. Therefore, an appropriate learning strategy is needed through the "Snakes and Ladders" game to improve the social skills of 4- to 5-year-old children.

One game that can hone children's social skills is Snakes and Ladders, according to (Marwah *et al.*, 2025). A version of Snakes and Ladders modified to include educational elements can help children learn to socialize, wait their turn, cooperate, and develop empathy and tolerance. This play activity creates a fun yet controlled environment for interaction, allowing children to practice managing their emotions and understanding the consequences of their actions.

During early childhood, growth and development occur at a rapid pace. This often leads children to play at home more frequently than playing with friends outdoors, which can potentially hinder their social skills. With technological advancements, traditional games are becoming less familiar and are played less frequently by Generation Alpha, particularly young children. In fact, simple traditional games offer many benefits, especially in developing social skills. For example, these games can foster teamwork, cooperation, and strengthen a sense of solidarity in children.

According to (Banurea *et al.*, 2023), the Snakes and Ladders game is a form of play that can help stimulate brain development in young children while fostering their self-confidence. This game is typically made using a board or cardboard drawn into a 10x10 grid. Each square is numbered starting from 1 in the lower-left corner to 10 in the lower-right corner, then continues to the next row until reaching 100 in the upper-left corner. Each square contains a message or action, which can be either positive or negative. If a child lands on a square with a positive message or action, they will move up the ladder to a higher square. Conversely, if they land on a square with a negative message or action, they will slide down the snake to a lower square.

According to (Aini *et al.*, 2023), the benefits of the Snakes and Ladders game are: 1. Children are given the opportunity to learn through play, allowing them to acquire knowledge in an enjoyable way; 2. This game stimulates language development, fosters positive attitudes, and trains children's critical thinking and creativity; 3. An engaging and fun play environment provides children with a sense of security during the learning process while interacting with peers; 4. Playing Snakes and Ladders also introduces children to the concepts of winning and losing, and teaches them how to appreciate victory and accept defeat gracefully; 5. The game fosters social skills, such as collaborating with others and learning to take turns.

The Snakes and Ladders game contributes to improving children's ability to communicate and socialize; the use of this game as a learning tool creates a fun atmosphere for students. Additionally, the Snakes and Ladders game can be developed as a means to support children's mastery of various

aspects of development, particularly social skills (Pratiwi et al., 2023).

This study offers *novelty* by developing the Snakes and Ladders game as a learning medium designed based on research indicators of social skills for children aged 4–5 years. Several game squares are arranged according to social skills indicators, so that the activities carried out during play can stimulate children's abilities. These include communicating, cooperating, sharing, helping friends, respecting others' opinions, waiting for one's turn, and resolving simple conflicts. Thus, the snakes and ladders game functions not only as a traditional game but also as a learning medium that systematically facilitates the improvement of children's social skills.

Based on the above description, the focus of this study is the use of the Snakes and Ladders game to improve social skills. The objective of this study is to determine the impact of using the Snakes and Ladders game on the social skills of 4- to 5-year-old children at Al-Abrar Islamic Kindergarten, to determine the profile of children's social skills before and after the implementation of the Snakes and Ladders game among 4- to 5-year-olds at

Al-Abrar Islamic Kindergarten; and to determine the effect of the Snakes and

Social skills in early childhood encompass the behaviors, actions, and attitudes an individual displays when interacting with others, whether through verbal or nonverbal communication. These skills represent a complex ability to exhibit behaviors that the social environment evaluates as either positive or negative; when such behaviors are inappropriate, the individual typically faces consequences from that environment. Broadly speaking, social skills can be observed through several types of behavior. First are behaviors related to the self (intrapersonal), such as the ability to regulate emotions, resolve social problems appropriately, process information, and understand the feelings of others. Second are behaviors involving others (interpersonal), such as initiating interactions and communicating with other people. Third are behaviors related to the academic context, such as adhering to rules and following instructions given by teachers.

The ideal development of social skills in children aged 4–5 years is evident when they are able to interact actively with both peers and the adults around them. At this stage, children are capable of playing together, sharing toys, and taking turns during games. They begin to understand simple social rules and apply them across various activities. They also demonstrate care for others—such as helping a friend, comforting a sad peer, and showing sensitivity to the feelings of those around them. Furthermore, they are able to express their wishes and opinions in a socially acceptable manner, behave politely, and resolve minor conflicts with minimal adult guidance. Overall, children aged 4–5 years who are developing well demonstrate the ability to cooperate, empathize, and adapt to their social environment.

The game of Snakes and Ladders contributes to enhancing children's communication and socialization skills; utilizing this game as a learning tool creates an enjoyable atmosphere for students. Furthermore, the Snakes and Ladders game format can be developed to support children's mastery of various developmental aspects, particularly social skills.

Early childhood socio-emotional development is a crucial stage during

which children begin to construct their identities and learn to relate to others through emotional experiences and social interactions. In this phase, children practice recognizing and expressing their feelings, building trust in themselves and their surroundings, and developing fundamental social skills that serve as a foundation for positive relationships and future success. This process encompasses the ability to understand personal emotions, regulate feelings, cultivate empathy, and practice social skills such as sharing, cooperating, and resolving conflicts. Furthermore, socio-emotional development plays a role in shaping self-confidence, self-esteem, and an understanding of the social norms that underpin personality formation. All these aspects significantly influence a child's success in social life, education, and various other areas of life in the future.

METHOD

The research approach used in this study is quantitative research of the *quasi-experimental* type. According to (Putra *et al.*, 2025), quantitative research is a systematically designed study intended to help researchers obtain answers to various uncertainties that arise during the research process. A *quasi-experimental* design resembles a pure experiment because it involves a comparison between a group that receives the treatment and a group that does not receive the treatment.

The research design used was *the Nonequivalent Control Group Design*. According to (Irfan Abraham, 2022), *quasi-experimental* research follows principles that are nearly identical to those of pure experimental research, in that both aim to determine the effect of a treatment on the variables under study. The difference lies in the process of selecting research subjects. In pure experimental research, subjects are selected randomly so that every individual has an equal chance of being part of the study, and the researcher has full control over administering the treatment according to the study design. In contrast, in *quasi-experimental* research, the researcher cannot freely randomize the subjects. The selection of the experimental and control groups is generally based on pre-existing groups, so the process of randomizing subjects is not fully implemented.

There are two variables in this study: the independent variable and the dependent variable. The independent variable is the Snakes and Ladders game, and the dependent variable is the improvement of social skills. Sampling in this study was conducted using *purposive sampling*. *Purposive sampling* is a method in which sample members are selected intentionally based on specific criteria and/or objectives.

The data collection techniques used in this study were observation, documentation, and interviews. The data collection process consisted of the following stages: planning, administering a *pretest*, implementing *the treatment*, administering a *posttest*, and analyzing the results. Two data analysis techniques were used: descriptive statistical analysis and nonparametric statistical analysis. According to Muharromah (2022), descriptive statistics is a form of analysis that serves to describe the collected data as it actually is, without making generalizations or drawing conclusions

that apply universally. As for nonparametric statistical analysis, the inferential statistical test used in this study was *the Wilcoxon Signed-Rank Test*, conducted using SPSS 32. According to (Rahmad, 2024), *the Wilcoxon Signed-Rank Test* is a nonparametric statistical method that differs from parametric statistical approaches, primarily because it is used when the sample size is relatively small. The criteria are as follows: H0: Accepted if the Sig. (2-tailed) value is > 0.05 , meaning that the Snakes and Ladders game has no effect on the social skills of 4- to 5-year-old children at Al-Abrar Islamic Kindergarten, dan H1: Accepted if the Sig. (2-tailed) value is < 0.05 , meaning that the Snakes and Ladders game has an effect on the social skills of 4- to 5-year-old children at Al-Abrar Islamic Kindergarten.

RESULTS AND DISCUSSIONS

Overview of the Implementation of the Snakes and Ladders Game at Al Abrar Islamic Kindergarten in Makassar. The study was conducted at Al-Abrar Islamic Kindergarten in Makassar and consisted of 8 sessions, including one *pre-test*, six *treatment* sessions, and one *post-test*. The experimental group received a modified version of the Snakes and Ladders game, while the control group was given the *congklak* game.

The study, which consisted of a *pre-test*, six *treatment sessions*, and a *post-test*, showed that the children's social skills developed in a gradual manner. The experimental group that used the Snakes and Ladders game showed a more significant improvement in their ability to interact, communicate, cooperate, take turns, and demonstrate caring and empathy compared to the control group that used the *congklak* game. By the end of the intervention, most of the children were able to play independently while following the rules and interacting positively with their peers.

The Snakes and Ladders game is one of the games that hones early childhood social skills, such as interacting, communicating, cooperating, taking turns, and demonstrating caring and empathy; moreover, this game is exciting for young children and holds a unique appeal for them when playing it. In line with the views of Lestari & Halifah (2024), the Snakes and Ladders game is a traditional game widely recognized across various parts of the world. This game falls under the category of group games because it involves multiple players and cannot be played individually. As a learning tool, the Snakes and Ladders game serves to develop children's self-awareness through the interactions that occur during gameplay. This game is not unfamiliar, as the term "Snakes and Ladders" is already very familiar and has even been played since childhood by many people.

Overview of Social Skills Before and After the Intervention

Pre-test

The results show that the children's social skills in both groups before the intervention were still predominantly in the "poor" and "adequate" categories. The frequency distribution of the *pre-test* data on children's social skills is presented in the following table:

Table 1. Frequency Distribution of Children's Social Skills on *the Pre-Test* for the Control Group and the Experimental Group

	<i>Interval</i>	<i>Control Group</i>		<i>Eksprimental Group</i>		<i>Category</i>
		<i>Frequency</i>	<i>Percent</i>	<i>Frequency</i>	<i>Percent</i>	
Valid	6-10	5	50%	5	50%	K
	11-15	5	50%	5	50%	C
	16-20	0	0%	0	0%	B
	21-24	0	0%	0	0%	SB
	Total	10	100%	10	100%	

Based on the frequency distribution table of the children's *pre-test* social skills, it was found that in the control group, 5 children (50%) were in the "below average" category and 5 children (50%) were in the "average" category. This indicates that the children's social skills had not yet developed prior to the intervention. The average social skills scores of the children in the control group and the experimental group before receiving intervention through the Snakes and Ladders and *congklak* games are presented in the following table:

Table 2. Pre-Test Analysis Data on Children's Social Skills in the Control and Experimental Groups

<i>Descriptive Statistic</i>	<i>N</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Std. Deviation</i>
Pre-Test Kontrol	10	9	11	10.30	.823
Pre-Test Eksperimen	10	9	11	10.30	.823
Valid N (listwise)	10				

Based on the results of the descriptive analysis, it can be concluded that the control group and the experimental group had relatively similar initial levels of social skills. This equivalence provides a strong foundation for proceeding with the analysis of the *post-test* results, so that any differences found later can be directly attributed to the treatment provided by the game.

Post-test

Based on the results of the study, *post-test* data on children's social skills were obtained and presented in the form of a frequency distribution table. The presentation of this frequency distribution aims to provide an overview of the distribution of children's social skill scores after the intervention in the control and experimental groups. The frequency distribution of the *post-test* data on children's social skills is presented in the following table:

Table 3. Frequency Distribution of Children's Social Skills on the Post-Test for the Control Group and the Experimental Group

	<i>Interval</i>	<i>Control Group</i>		<i>Eksprimental Group</i>		<i>Category</i>
		<i>Frequency</i>	<i>Percent</i>	<i>Frequency</i>	<i>Percent</i>	
Valid	6-10	1	10%	0	0%	K
	11-15	5	50%	0	0%	C
	16-20	4	40%	3	30%	B
	21-24	0	0%	7	70%	SB
	Total	10	100%	10	100%	

Based on the *post-test* frequency distribution, it can be concluded that the Snakes and Ladders game treatment had a greater positive effect on improving children's social skills compared to the *congklak* game. The majority of children in the experimental group achieved the "very good" category, whereas in the control group, the children's social skills were still dominated by the "fair" and "good" categories. This confirms that the use of the Snakes and Ladders game is effective in developing social skills in early childhood, particularly in the areas of interaction, communication, and social concern.

The average social skill scores of the children in the control group and the experimental group after receiving treatment through the Snakes and Ladders game and the *congklak* game are presented in the following table:

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Table 4. Post-Test Analysis Data on Children's Social Skills in the Control and Experimental Groups

<i>Descriptive Statistic</i>	<i>N</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Std. Deviation</i>
Pre-Test Kontrol	10	10	20	14.70	2.584
Pre-Test Eksperimen	10	20	24	21.60	1.578
Valid N (listwise)	10				

Thus, based on the results of the descriptive statistical analysis, it can be concluded that the social skills of children in the experimental group after receiving the intervention showed better results compared to the control group. This is evident from the higher mean scores, a score range at a better level, and a more homogeneous distribution of scores in the experimental group. These results indicate that the intervention—specifically, the use of the Snakes and Ladders and *congklak* games—contributed positively to the children's social skills development.

The Effect of the Snakes and Ladders Game on Children's Social Skills

The research hypothesis was tested using the *Wilcoxon signed-rank test* with

the help of SPSS version 32. The results of the test are presented in the following table:

Table 5. Test Statisticsa

<i>Test Statisticsa</i>		
	<i>Post-Test Control – Pre-Test Control</i>	<i>Post-Test Experiment - Pre-Test Experiment</i>
Z	-2.829 ^b	-2.844 ^b
Asymp. Sig. (2-tailed)	.005	.004

a. Wilcoxon Signed-Rank Test

b. Based on negative ranks.

In the experimental group that used the Snakes and Ladders game, a Z-value of -2.844 was obtained with an asymptotic significance (2-tailed) of 0.004. This significance value is also less than 0.05 ($0.004 < 0.05$), indicating a significant difference between the pretest and posttest results.

Thus, the game of Snakes and Ladders has been shown to have a significant impact on improving children's social skills. The game gives children the opportunity to wait their turn, follow the rules, accept the outcome of the game, and take turns interacting with their friends. These activities help children practice patience, emotional regulation, and the ability to respect their peers. In contrast, the game of *congklak* focuses more on playing strategies and interactions between two players, so children's opportunities to develop social skills within a group are relatively more limited.

Thus, the Snakes and Ladders game is more suited to the developmental characteristics of young children because it provides concrete and repetitive social experiences, thereby reducing egocentric behavior and improving their ability to cooperate, wait their turn, and regulate their emotions.

CONCLUSION

The implementation of the Snakes and Ladders game for 4- to 5-year-old children was carried out through the stages of planning, implementation, and evaluation. The game activities were conducted over six structured sessions to provide optimal stimulation for the children's social skill development. The social skills of 4- to 5-year-olds in the group that received the Snakes and Ladders intervention showed greater improvement compared to the control group that played *congklak*. This improvement was evident in the social skills assessment results following the intervention, which demonstrated the children's development in communication, cooperation, following game rules, waiting for their turn, and respecting peers. The Snakes and Ladders game has an effect on the social skills of 4- to 5-year-old children. The results of the data analysis indicate that the Snakes and Ladders game is effective in improving children's social skills and can therefore be used as a learning medium that supports the social development of young children

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