

The Role of Cooperative Play in Enhancing Social Skills: A Study on Elementary School Students in Indonesia

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Abstract

The research aims to analyze the role of cooperative play intervention in enhancing elementary school students' social skills. It was conducted using a mixed method with an explanatory sequential design. The research participants comprised 24 students (12 in the experimental group and 12 in the control group) from one elementary school in Bandung-Indonesia. Both groups were given group-guidance services, but the experimental group received cooperative play and the control group received information services. The research instrument uses a rating scale of students' social skills, referring to the theory of Gresham & Elliot (1990), social skills observation, and social skills interviews. Data analysis uses Microsoft Excel and SPSS version 24 to calculate descriptive and inferential statistics. Qualitative methods (data reduction, data presentation, and conclusion) are also used in analyze the observations and interviews. The research results show that the social skills of students who received group-guidance interventions using cooperative play are more significant and optimal in enhancing social skills than those of students who only received informational services. The results from the Mann-Whitney test have a significance of 0.012. The experimental group experienced a medium increase, while the control group experienced a low increase. The cooperative play program in elementary school is important in enhancing social skills and even impacts students' overall social development.

Keywords: cooperative play, social skills, elementary school students

1. Introduction

Every child goes through a phase of development. Children will grow, learn, and mature physically, cognitively, socially, and emotionally. This development includes various changes that occur as the child progresses through various stages of development. One essential aspect of a child's development phase is encouraging social development. The social development period of elementary school-aged children is a time of significant transformation in children's understanding of friendship (Parker et al., 2006). Sullivan (1953) explains in detail that the development phase of school-aged children is divided into two periods: the age period of 6-9 years (grades 1-3) is characterized by an increased need for peer acceptance and the development of relationships with friends based on egalitarian exchange, and the age period of 9-12 years (grades 4-6), where children's needs shift from a more general need for group approval to a need for close and intimate bonds with same-sex friends. In the constructivist view, social development is part of the interpersonal relationship abilities of adults with children (vertical attachment) and children with other children (horizontal attachment). Vertical attachment, like the adult-child relationship, involves parenting and control, while the child's relationship with adults includes submission and requests for help. Horizontal attachment involves relationships in which a child engages with other children, characterized by mutual expectations and egalitarianism (Hartup, 1989).

Social skills play an important role in achieving children's social development. From various perspectives, social skills are an integral part of the structure of social competence (Warger & Rutherford, 1993; Johns et al., 2005), and

social competence has a significant impact on overall social development (Warnes et al., 2005). The relationship between social skills, social competence, and social development is illustrated in Figure 1.



Figure 1. The Relationship of Social Skills, Social Competence, and Social Development

Based on Figure 1, social skills are a crucial foundation that directly shapes social competence and accelerates a child's social development. A child's ability to build positive social relationships is a key instrument for achieving social competence, namely an individual's ability to adapt and effectively manage interpersonal relationships within their environment. The accumulation of these honed skills and competencies impacts a child's social development.

Social skills can be defined as socially acceptable learning behaviors that enable an individual to interact with others by producing positive behaviors and helping to avoid negative responses (Gresham & Elliott, 1990; Blundon & Schaefer, 2006). The positive behaviors referred to include joining groups, engaging in interactions, and communications that typically focus on relationships with peers and adults (Gresham, 1986; Gresham & Elliott, 2014). Social skills are adaptive behaviors that include initiating and maintaining social relationships, contributing to the development of positive peer relationships, considering the desires of others in social environments, and addressing problems that may arise (Gresham et al., 2002).

According to Bremer & Smith (2004), social skills are closely related to relational skills, academic skills, self-management skills, compliance skills, and assertion skills. In translation, it means that relational skills are used to interact with others, academic skills are used to learn and achieve a good cognitive level, self-management skills are used to manage and control oneself, and compliance skills are used to follow rules. Assertion skills are used to express opinions. According to Domitrovich et al. (2017), a child's ability to engage positively with others has been proven to be a key factor for positive adjustment in a broad sense over time. This means that to support a child's social development as a whole, social skills become the foundation for a child to engage in groups and interact. According to Carter et al. (2004), social skills are closely related to academic achievement, overall well-being, adaptation, sanity, and social success. Social skills allow an individual to express emotions and thoughts, both positive and negative, in social environments without losing social support, and these skills have an important impact on both the long-term social-emotional development as well as cognitive and academic skills of children (Özbeý & Köyceğiz, 2019).

In fact, children and adolescents have weak social skills, which will affect various aspects of life such as academics, social interactions, and overall well-being (Gresham, 2016). Low social skills can lead to immoral behavior (Firdaos, 2017). Children with low social skills are also more vulnerable to developing psychosocial problems, such as depression and loneliness (Segrin, 2019), especially when faced with stressful life events (Segrin & Flora, 2000). In a study by Matson (1989), about 10-15% of children during the school year will be ostracized by their peers. Furthermore, according to Hall et al. (1997), uncontrolled aggressive behavior by peers is the most disliked aspect by children in elementary school. Children who are victims of negative social behavior also tend to have poor social skills, such as low assertiveness (Fox & Boulton, 2006), which will impact their social ostracism (Asher et al., 1982). Based on the issue, a special intervention is needed that focuses on the development of children's social skills.

The development of social skills in children can be done through various enjoyable activities such as outdoor learning activities (Salimi & Fauziah, 2023), structured play programs during school breaks (Loukatari et al., 2019), group learning (Rohmah et al., 2022; Lavasani et al., 2011; Ebrahim, 2010), group games (Zheng et al., 2021; Ajallooeian et al., 2015; Madrona et al., 2014), the development of educational games (Okada & Matsuda, 2019), project-based learning (Ruskandi et al., 2019), or even after-school programs that can collaborate between teachers and parents (Durlak et al., 2010).

The development of social skills includes the complex and subtle interactions between several elements, such as smiles, eye contact, imitation, attention and cooperation, language context, and the observer's own motor system (Soto-Icaza et al., 2015). According to Nash & Schaefer (2011), social skills are typically taught in group settings so that children can receive direct reinforcement for proper modeling. This means that group games conducted with cooperation (cooperative play) serve as a means for the proper development of social skills in children. The research focuses on group-guidance interventions using cooperative play techniques implemented with elementary school students. Many studies on play in developmental psychology are inspired by Vygotsky's theoretical writings (1978),

which state that play (role play and collaboration with peers and/or adults) is crucial for social development. In addition, it is also based on the research that play is part of children's work (Cohen, 2007). There is no psychological figure who opposes children's play activities; regardless of psychological orientation (Buler, Groos, Keira, Klapared, Koffka, Levin, Piaget, Rubinshtein, Stern, Thorndike, Vygotsky, and others), the play situation is a characteristic of children (El'Konin, 1966) that cannot be separated. Through play, children take on different roles and learn from peers in their social environment, leading to children becoming more competent and able to regulate their thoughts and behaviors (Soharbi, 2021).

Teachers must create a play environment that encourages various aspects of child development. According to Blanco et al. (2019), the play environment needs to be designed so that children can express their feelings and experiences. The use of play interventions is based on the understanding of child development regarding the importance of play activities in the child's life phase (Piaget, 1962). Furthermore, Freud (1928) and Klein (1932) have integrated toys and games into children's analytical work, based on their understanding of child development. Play and enjoyment are positive educational elements that make learning activities more meaningful (Juhász, 2021). Children experience joy in play, due to their physiological and natural tendency to try new things, explore, solve problems, and have fun (Burdette & Whitaker, 2005). Play can enhance appropriate behavior in the classroom (Jamshid et al., 2016). Playing activities allow children to explore and build individual identities, develop relational skills, and understand their world (O'Shea, 2004). According to Campbell (1993), children involved in play activities can develop their skills and knowledge, which then contribute to future school success. In various ways, the context of play is also used in elementary schools as part of responsive services to reduce maladaptive behaviors in areas such as social, emotional, behavioral, and learning (Baker & Gerler, 2004; Green & McCollum, 2004).

Guidance and counseling are crucial parts in promoting the developmental aspects of students. One way to encourage students' social development, including social skills, is by providing basic services in the form of group-guidance. According to Rita & Neviyarni (2021), group-guidance is a collaborative process aimed at providing support, guidance, and education to individuals within a group. The collaborative nature of group-guidance is characterized by the presence of discussion processes, interaction, and social dynamics that are important in the development of students' social skills. The use of cooperative play techniques in group-guidance settings directs the guidance service process to be structured and systematic in an effort to develop the social skills of elementary school students. According to Kelly (2017), teaching social skills in a structured and hierarchical manner can lead to successful interactions and can improve social skills in individual students in general.

Research on social skills in elementary schools has been widely conducted (Salimi et al., 2021; Evans & Bond, 2020; Anderson, 2018; Rashid, 2010), yet there are still few studies discussing social skills with guidance and counseling in elementary schools, including the use of cooperative play techniques in group-guidance settings. The limited research on social skills and guidance and counseling in elementary schools is also noted by Fauzi & Yustiana (2024) in their study reviewing the literature on group-guidance research and social skills in elementary schools, which indicates that research on group-guidance interventions for elementary students' social skills remains rare. Thus, there is a need for further research related to group-guidance interventions to develop social skills among elementary school students.

The research conducted differs from previous studies, as cooperative play techniques in group-guidance settings are still rarely used, including in elementary schools. The social skills instrument used refers to the aspects developed by Gresham & Elliot (1990), including cooperation, assertiveness, responsibility, empathy, and self-control. Specifically, the items were developed directly to adapt to the environmental conditions and age levels of elementary schools in Indonesia. The developed instrument was converted into a digital application format that is more practical and easier for students to access. The research aims to explore the role of cooperative play techniques in group-guidance settings to develop social skills among elementary school students.

2. Method

This research uses a pragmatic paradigm. The pragmatic paradigm is seen as a more practical and pluralistic approach that can explain participants' actual behavior, the beliefs underlying that behavior, and the consequences that may follow from different behaviors (Kivunja & Kuyini, 2017). Mixed methods are the methods used in the pragmatic paradigm, which is a combination of quantitative and qualitative approaches that have historically led to lengthy debates between those two important paradigms: positivist (quantitative) and constructivist/phenomenological (qualitative). Mixed methods can allow researchers to switch between qualitative and quantitative perspectives to represent the context and intricacies of practices better (Onwuegbuzie et al., 2011).

The research aims to explore the role of cooperative play techniques in group counseling settings to develop the social skills of elementary school students. The data sources used in this study are based on the theory of Elliot et al. (2001), which states that social skills can be measured using a social skills rating scale complemented by observations and interviews. Therefore, a mixed-methods approach is considered an appropriate approach to closely examine the effects of cooperative play techniques on the development of social skills in elementary school students. This study employs mixed methods with a sequential mixed-methods strategy, and its design is an explanatory sequential design. According to Creswell (2010), the explanatory sequential design is a mixed-methods research design in which data collection and analysis are initially conducted using quantitative methods, followed by qualitative methods. The primary data source in the explanatory sequential design is quantitative.

This research uses a mixed method with a quantitative approach that is quasi-experimental. The study was conducted to examine the impact of the cooperative play technique on the development of social skills in elementary school students. The quasi-experimental design used is the Non-Equivalent Control-Group Design. Two groups received the intervention, namely 1) the experimental group received group-guidance services using the cooperative play technique, and 2) the control group received group-guidance services using informational media. Both groups were given pre-tests and post-tests on the social skills instruments for elementary school students. The qualitative approach used is qualitative descriptive. The qualitative descriptive method is used to complement the quantitative data obtained through quasi-experiments. The data used in the qualitative descriptive method includes observation sheets of social skills and interview sheets related to the impact of the group-guidance intervention using cooperative play techniques on the experimental group.

The research participants are 5th-grade students at an elementary school in Bandung-Indonesia, totaling 24 students (12 in the experimental group and 12 in the control group). Participants were selected using a stratified random sampling technique. The sample was based on the achievement of social skills categories of elementary school students (good, fairly good, less good, and not good) obtained from a needs assessment conducted with all 5th-grade elementary school classes. Samples were taken to represent each achievement category to ensure they were representative of the research population.

The research instrument uses a rating scale as the main instrument to measure the aspects of social skills of elementary school students. The aspects of social skills refer to the theory of Gresham & Elliot (1990), which are cooperation, assertiveness, responsibility, empathy, and self-control. The total initial statement items consist of 78 statements with 39 favorable statements and 39 unfavorable statements. Before use, the rating scale instrument was first validated by experts, including practitioners. It was then tested on 500 students in grades 4, 5, and 6 with the following details.

Table 1. Respondents for Validity and Reliability Test of the Instrument

Class			Age (Years)					Gender	
4	5	6	9	10	11	12	13	M	F
122	232	146	15	167	198	113	7	255	245
	500				500			500	
24%	47%	29%	3%	33%	40%	23%	1%	51%	49%
	100%				100%			100%	

Based on Table 1, for the class category, the students who filled out the elementary school social skills instrument consisted of 24% students (N=122) from 4th grade, 47% students (N=232) from 5th grade, and 29% students (N=146) from 6th grade. For the age category, the students who filled out the elementary school social skills instrument consisted of 3% students (N=15) aged 9 years, 33% students (N=167) aged 10 years, 40% students (N=198) aged 11 years, 23% students (N=113) aged 12 years, and 1% students (N=7) aged 13 years. For the gender category, the students who filled out the elementary school social skills instrument consisted of 51% male students (N=255) and 49% female students (N=245).

Based on the results of the instrument trial, 77 statement items obtained a calculated *r* value (validity) greater than 0.088 (table *r*), which can be considered valid. In contrast, 1 statement item obtained a calculated *r* value (validity) less than 0.088 (table *r*), which can be considered invalid. Based on the reliability test, the Cronbach's Alpha score is 0.943, indicating that the reliability of the elementary school students' social skills instrument is in the very high range. Therefore, the elementary school students' social skills instrument can be trusted and relied upon for research

data collection. The valid and reliable instrument was then transformed into a digital instrument named SIKaSEP (<https://sikasep.school>) with the aim of making it easy and practical for students to access the instrument. The display is as follows.

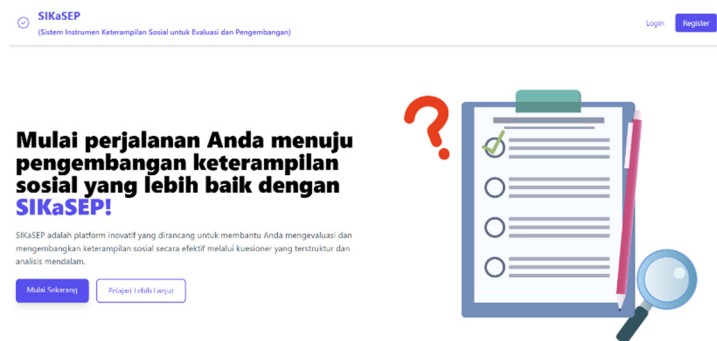


Figure 2. SIKaSEP Registration Menu Display

Observation instruments are also used to assess students' social skills that emerge during group-guidance interventions using cooperative play techniques. The observation sheets record various attitudes that appear, aligned with the indicators for each social skill aspect. The researcher collaborates with four teachers to act as observers. Thus, one teacher (observer) will observe three students. Observers are independent individuals who assess students' attitudes toward social skills.

The interview instrument is also used to analyse various aspects of social skills (cooperation, assertiveness, responsibility, empathy, and self-control) as perceived by students after receiving cooperative play techniques in a group-guidance setting. The interview instrument consists of 14 main questions that address the indicators for each social skills aspect. The interview instrument will strengthen the process of drawing comprehensive conclusions.

The rating-scale instrument for social skills, observation of social skills, and interviews serve as measurement tools to collect data on the intervention of cooperative play techniques in a group-guidance setting to develop the social skills of elementary school students.



Figure 3. Instrument for Measuring Elementary School Students' Social Skills

The instrument used in this study is adequate for data collection and provides a basis for accurate and comprehensive conclusions.

Table 2. Interpretation of Scores for the Achievement Criteria of Social Skills Aspect

Criteria	Average	Percentage
Good	$3.25 < \bar{x} \leq 4.00$	$81.25\% < \% \leq 100.00\%$
Fairly Good	$2.50 < \bar{x} \leq 3.25$	$62.50\% < \% \leq 81.25\%$
Less Good	$1.75 < \bar{x} \leq 2.50$	$43.75\% < \% \leq 62.50\%$
Not Good	$1.00 < \bar{x} \leq 1.75$	$25.00\% < \% \leq 43.75\%$

Quantitative research data analysis is conducted to test the proposed hypothesis by comparing the average improvement in students' social skills between the experimental and control groups. Previously, the researchers also

examined the development of social skills (both before and after interventions), which was assessed using percentages for each social skills aspect. The criteria for achieving social skills are explained in Table 2.

To address the research hypothesis, which posits the significant impact of the cooperative play technique on the development of social skills among elementary school students, the comparison of N-Gain average scores between the experimental and control groups is examined. The test for the difference in means uses a nonparametric test (Mann-Whitney U test). Decision making for the test of difference in average scores is as follows:

H_0 : Sig. Score > 0.05 (α)

H_1 : Sig. Score < 0.05 (α)

The observation instrument is analysed based on a checklist and findings that arise during the intervention activities. The findings are documented in descriptive form and then interpreted in detail. In addition, the interviews are analysed using qualitative methods and conducted through coding, with stages including data reduction, data presentation, and conclusion drawing (Miles & Huberman, 1992).

The research was conducted in accordance with research ethics and has been convincingly reviewed and approved for implementation by the Ethics Commission (experts) of Universitas Pendidikan Indonesia, with letter number 4/UN40.K/PT.01.01/2025. All participants also have agreed to participate in the research process, with direct parental approval and informed consent.

3. Results

The results of the needs assessment conducted on 24 students, 12 in the experimental group and 12 in the control group, indicate the need for intervention aimed at developing the social skills of elementary school students. Group-guidance using cooperative play techniques is considered an appropriate method because play is an integral part of children's characteristics and development, including those of elementary school students.

The group-guidance service using cooperative play techniques aims to provide effective support to students by optimizing their social development and enhancing their social skills. The intervention consists of five sessions focused on social skills: cooperation, assertiveness, responsibility, empathy, and self-control. The cooperative play technique is implemented through group-guidance across the following stages: initial, transition, working, and termination.

3.1 Social Skills Rating Scale Results

The social skills profile of elementary school students before and after the cooperative play technique intervention is presented in the descriptive statistics below.

Table 3. Descriptive Statistics of Pretest and Posttest Results in the Experimental and Control Groups

Statistic	Pretest		Posttest	
	Experiment	Control	Experiment	Control
Mean	3.04	3.04	3.53	3.31
Std. Deviation	0.29	0.23	0.19	0.25

Based on Table 3, the average pretest score of students' social skills in the experimental group is 3.04 or 75.95% (Fairly Good). In the control group, it is 3.04 or 75.94% (Fairly Good), meaning that students in both groups have similar characteristics, which is the ability to interact well. However, they still sometimes need support and further guidance. The average posttest score of students' social skills in the experimental group is 3.53 or 88.24% (good), which means that after receiving group-guidance intervention using cooperative play techniques, students are now able to interact socially, build positive relationships with others, and adapt well in various social environments. The average posttest score of students' social skills in the control group is 3.31 or 82.75% (good), this means that students are already able to interact socially, build positive relationships with others, and adapt well to various social environments.

Table 3 indicates an increase in both the experimental and control groups. Table 4 details how this increase was achieved.

Table 4. Achievement of Improvement (N-Gain) in Students' Social Skills

Group	Social Skills Aspect					N-Gain
	Cooperation	Assertiveness	Responsibility	Empathy	Self-control	
Experiment	0.55	0.59	0.46	0.61	0.34	0.50
	Medium	Medium	Medium	Medium	Medium	Medium
Control	0.30	0.25	0.26	0.22	0.08	0.25
	Low	Low	Low	Low	Low	Low

Based on Table 4, the N-Gain score for the experimental group is 0.50 (medium) and for the control group is 0.25 (low), meaning there is an increase in students' social skills scores in the experimental group (group-guidance using cooperative play techniques) and in the control group (group-guidance using information service media).

The N-Gain scores for the experimental and control groups serve as the basis for conducting hypothesis testing in the research. To determine whether there is a difference in students' social skills N-Gain scores between the experimental and control groups, a Mann-Whitney test should be conducted with a significance level of $\alpha=0.05$ (confidence level). The results are shown in Table 5.

Table 5. Results of the Mann-Whitney U Test on N-Gain of Students' Social Skills in the Experimental and Control Groups

	Score
Mann-Whitney U	28.500
Wilcoxon W	106.500
Z	-2.512
Asymp. Sig. (2-tailed)	.012
Exact Sig. [2*(1-tailed Sig.)]	.010 ^b

Based on Table 5, the significance result is $0.012 < 0.05$ (α), indicating that H_0 is rejected and H_1 is accepted. The conclusion is that the group-guidance program using cooperative play techniques has a significant influence on the development of social skills in 5th-grade elementary school students. Thus, it can be said that the experimental group had a greater score improvement (N-Gain) than the control group, which impacted the development of the students' social skills. The difference in N-Gain scores between the experimental and control groups is due to differences in achievement across social skills. Hence, it is necessary to examine in depth the differences in N-Gain scores within each social skills aspect. The results of the average-difference test for each aspect are presented in Table 6.

Table 6. Test of Average Difference in N-Gain Scores for Each Aspect of Social Skills

Mann-Whitney U-Test				
Cooperation	Assertiveness	Responsibility	Empathy	Self-control
0.028	0.022	0.049	0.272	0.032
H ₁ Accepted	H ₁ Accepted	H ₁ Accepted	H ₁ Rejected	H ₁ Accepted

Based on Table 6, the experimental group showed significant improvement in cooperation, assertiveness, responsibility, and self-control compared to the control group. Therefore, cooperative play techniques are recommended for developing cooperation, assertiveness, responsibility, and self-control in elementary school students. Meanwhile, empathy in both the experimental and control groups also improved, but neither group showed a significant difference. Therefore, both interventions (group-guidance using cooperative play techniques and group-guidance using information media) can be recommended to develop empathy in elementary school students.

3.2 Social Skills Observation Results

The observation of social skills aims to identify and understand various aspects of students' interactions and behaviors in social contexts. It is conducted when students receive group-guidance interventions using cooperative play techniques. The cooperative play intervention is carried out over five sessions, focusing on specific social skills.



Figure 4. One of the Activities in Cooperative Play

In session one, on cooperation aspects, students showed several attitudes, namely 1) actively participating and adhering to group rules while playing. However, some students tend to be passive during discussions. Some attitudes displayed by students include giving opinions during the discussion, following the rules of the game, and actively engaging in the game, 2) trusting friends in the group, indicated by sharing tasks during the discussion process, allowing friends to play first, and trusting friends during discussions and while playing, 3) helping each other, demonstrated by working together and assisting one another in solving problems, including helping when a friend encounters difficulties, and 4) good communication with friends, evidenced by the emergence of communication during the discussion process and in gameplay.

In session 2 of the assertive aspects, all students have displayed the attitude of expressing opinions or needs directly, honestly, and accurately. Some students are still not active in expressing their opinions, but they are trying to show it to their friends directly. The students' attitude is reflected in their direct expression of opinions during the discussion process (developing strategies) and during play. Additionally, while playing, students can demonstrate the attitude of politely and respectfully expressing disagreement or rejection.

In session 3 of responsibility aspects, students have shown several attitudes: 1) initiative in completing tasks demonstrated by the attitude of doing assignments after receiving instructions, discussing independently to solve the given problems, and implementing strategies that have been formulated in the games; 2) completing tasks on time, indicated by a high level of commitment both in the discussion process, formulating strategies and during gameplay; and 3) checking the completeness and neatness of assignments, demonstrated by careful discussion and formulating problem-solving strategies and checking problem-solving strategies during play.

In the empathy aspect session 4, students have begun to show several attitudes: 1) the ability to respond to friends according to their character or traits, demonstrated by actively listening to friends who are speaking, accepting decisions made in the group, responding to friends with good behavior and language, and giving positive responses to friends whether when expressing opinions or asking questions, and 2) caring for friends, shown by helping each other complete assigned tasks, strategizing for games, positioning game tools to assist friends, giving advice when other friends have difficulties during the game, and comforting friends who are experiencing difficulties or sadness when they fail to play.

In session 5 of self-control aspects, students have shown several attitudes: 1) expressing emotions appropriately, demonstrated by their enthusiasm when asked to share opinions and ideas, being enthusiastic and responding well when friends tell stories, feeling happy when playing or during ice breaking activities, feeling sad and frustrated when failing to play, and showing happiness and enthusiasm when winning in games; 2) completing tasks without complaining, indicated by a spirited attitude in completing assigned tasks, working hard and sincerely on assignments, carefully and meticulously devising problem-solving strategies, and continuing to try even after failing several times in games, and 3) be grateful for all the events that happen, which is shown by the attitude of enjoying the activities carried out both in discussions and games, continuing to play when problems or obstacles arise, showing positive statements and expressions when winning in games, shown by a sense of happiness, remaining calm and accepting the outcome when losing, and providing support and motivation when friends experience failure.

3.3 Social Skills Interview Results

Interviews are data used to reveal students' social skills after receiving cooperative play techniques. Two students showed improvement in the high and medium categories. Interview analysis was conducted using a coding process,

with the following stages: data reduction, data presentation, and conclusion. The conclusion of the interview results with students is explained and illustrated in the concept map in Figure 5.

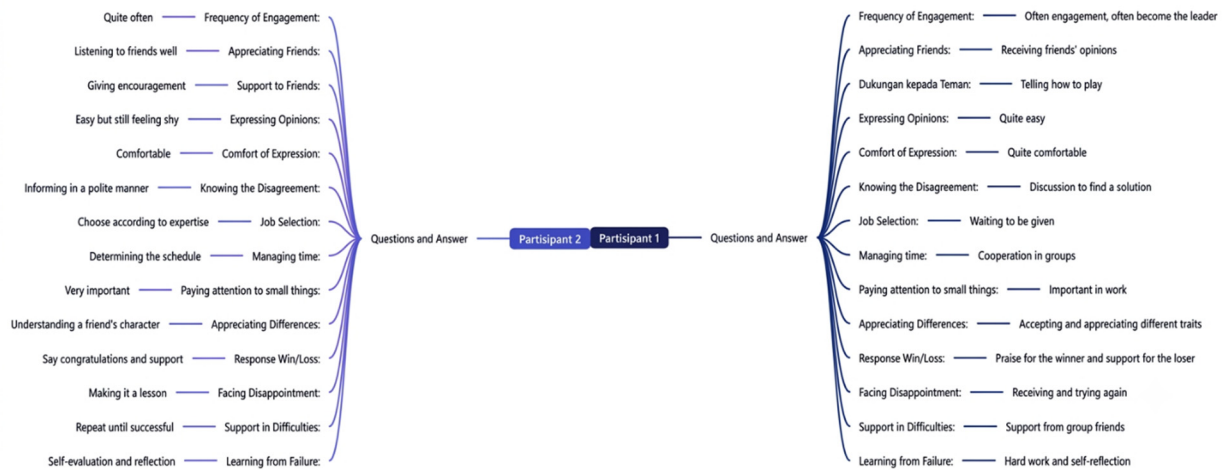


Figure 5. Results of the Social Skills Interview

In terms of cooperation, students feel that the games played during the five sessions make it easier for them to engage actively in problem-solving and game activities. When trusting friends, students do so by accepting them and involving them in group discussions to solve problems and in game activities. Students will also listen attentively to their peers' opinions and ideas. When a friend is having difficulty, students will provide support and assistance, including encouragement and explanations. Students believe that the game requires them to communicate with each other, and they also realize that communication is easy to achieve. However, some students sometimes feel shy about expressing themselves.

In the assertive aspect, students find it easy and comfortable to express their opinions directly. Students also realize that during discussions, group dynamics often lead to differing opinions and disagreements. They handle this by politely presenting their opinions or alternative solutions and requesting a discussion so that appropriate and effective methods and strategies can be identified.

In terms of responsibility, some students tend to wait for assigned tasks, as they feel uncomfortable taking part first. However, some students believe that choosing work based on their skills will make the tasks easier to complete and yield better results. Students also manage their time by creating a schedule before other activities take place. They collaborate well to ensure that their task completion does not exceed the set time. Students also recognize that small details in a game need to be considered, as they contribute to the game's progress. They realize that taking small details into account will improve game performance and minimize the risk of failure.

In the context of empathy, students realize that everyone has different traits and characteristics, so they need to understand and respond accordingly. Students are also aware of the feelings that arise when a friend wins or loses in a game, they consider that when a friend wins, they will congratulate and praise them, and when a friend loses, they will provide support and motivation so that they do not give up easily. When a friend is experiencing difficulties, students will always help them find a way out.

In the aspect of self-control, students realize that when playing a game, they can either win or lose. Students are aware that losing will make them feel sad and disappointed, while winning will make them feel happy. When they lose, students believe they must accept it, learn from it, and never give up. What drives students to keep trying in games despite failures is the support from group members and their togetherness, as well as their own perseverance and hard work. Students also understand that, in games, failures sometimes occur; they must accept them (with gratitude) and learn from them by trying harder, conducting evaluations and reflections on what they have done, so that this becomes an improvement for the future.

4. Discussion

The discussion section elaborates in detail on the research results, namely the impact of cooperative play techniques on the development of social skills among elementary school students and the relationship between social skills and students' academic achievement.

4.1 The Impact of Cooperative Play Technique Intervention on the Development of Social Skills in Elementary School Students

The results of the needs assessment serve as the basis for interventions to develop the social skills of elementary school students. According to Smolkowski et al. (2022), social skills programs ideally should be able to identify and address both skill acquisition deficits (skills that have not been mastered) and performance deficits (skills that have been mastered but are not displayed). Social skills interventions integrated into group activities are considered effective for developing social skills. The underlying factor is that the group environment provides students with opportunities to practice, observe, and receive feedback on their social behaviors. Group-based social skills interventions create a structured environment for positive interactions, fostering friendship formation and skill practice (Mahaffey & Sandberg, 1992). Group activities can provide emotional support for children facing personal challenges by offering opportunities for catharsis and peer support (Effron, 1980). According to Stephen et al. (2010), group settings provide an ideal environment for students to develop, especially in social skills and adaptation. Social skills interventions should be combined with elements of happiness training, as this is effective. The happiness referred to is that which occurs when children engage in play activities (Blaney, 1981).

The integration of play activities with group-guidance services can positively impact students' overall development. Integrating play with group-guidance services creates a supportive environment for learning, growth, and overcoming challenges in a fun and interactive way. According to Tahmores (2011), play is a significant factor closely related to children's mental development and influences the development of their strengths and talents. For children, the essence of play is to explore the world around them, and, in their minds, every experience, even throwing objects, is valuable. In various types of play, children show their imagination and find opportunities to express their feelings, and in all cases related to creativity and experience, it contains joy. Cheerful, active, and engaging play significantly reduces children's stress. Playing can enhance enjoyable interactions that impact broader social competencies (Godin et al., 2019). Additionally, it helps children develop mobility, self-confidence, and coping mechanisms (Hynes-Dusel, 2002). Play can stimulate problem-solving skills, creativity, imagination, and concentration, while also promoting social interaction and healthy relationships among children (da Silva et al., 2024).

In social development theory, play can provide children with opportunities to practice social roles and learn about social rules (Bodrova & Leong, 2015). Children learn from experiences that are close to their lives rather than from experiences that are less contextually relevant (Pretti-Frontzack & Bricker, 2004). The context of play can connect a child's inner thoughts to their social environment, and the results show that children can control their external objects (Jarareh et al., 2016). Play provides contextual learning opportunities to acquire, maintain, and generalize other skills, such as experiences, thoughts, feelings, and aspirations that may threaten them (Wethinton et al., 2008). According to Lesniak (2003), play activities aim to recognize children's desires, needs, and feelings.

Based on the results of the study, students who received group-guidance using cooperative play techniques (experimental group) were more effective in developing social skills compared to those who received group-guidance services using information media (control group). The reason cooperative play techniques affect the development of social skills is that the play context is an inseparable part of child development, especially during elementary school. Playing cooperatively allows children to engage with peers and try various social behaviors (Zsolnai & Kasik, 2014), which also affects children's overall social competence. Cooperative play stimulates cooperative behavior (Mender et al., 1982), teaching children various skills needed when interacting with others (Penela et al., 2015). According to Hill & Reed (1990), the cooperative in question refers to activities where an individual's efforts are highly dependent on others to achieve a common goal. More specifically, Parten (1932) explains that the cooperative play technique allows children to play in organized groups and achieve specific goals. Activities in cooperative play involve various aspects such as division of labor, role and status differentiation, teamwork, and leadership (Rubin et al., 1983). This behavior enables students to actively engage and interact with their peers.

Another finding is that aspects of cooperation, assertiveness, responsibility, and self-control are more effectively provided through play interventions than through group-guidance services using informational media alone. However, in the aspect of empathy, the results of the average difference test indicate that there is no significant

difference between the experimental and control groups. This means that both methods (group-guidance using cooperative play techniques and group-guidance using informational media services) can be used to develop students' empathy. Several studies have shown that play can be an effective tool for developing empathy in elementary school students. According to Jerrett et al. (2020), play can evoke a range of emotional responses in players, from compassion to affection, which can be mapped onto the 'empathy spectrum' concerning students' empathetic behavior. Mandelli et al. (2022) research results show that games can encourage empathetic behavior in students. Group-guidance interventions also support the development of empathy. According to Novitasari et al. (2022), group-guidance has a significant influence on students' empathetic behavior.

4.2 The Relationship between Social Skills and Students' Academic Achievement

Social skills affect a child's social development (engaging in social interactions, building positive relationships, and adapting) and impact a child's cognitive development (academic achievement). In a study, social skills play a role in children's cognitive and social development, including in the way they deal with contextual problems (Neyra et al., 2018). According to Coskun & Samanci (2012), social skills have a significant impact on children's cognitive development. According to Dogan & Kaya-Tosun (2020), child development is a unified whole. Positive changes in one trait can improve other traits. Students with poor social skills are generally reported to have poor academic achievement. Students with strong social skills in the classroom tend to excel academically.

Social skills are an important part of interacting with others. According to Suswandari et al. (2020), social skills are the socialisation process among students, affecting their communication and student behaviour towards others. This means that social skills involve various attitudes that facilitate students' socialisation with others. Social skills can improve quality of life by fostering powerful, close relationships, which lead to better psychological and physical health and ultimately help children better adjust at school and within their peer groups (Sharma et al., 2016).

Games allow students to interact socially with their friends, and this impacts their social skills. The game encourages students to actively engage in groups. According to Crown et al. (2008), games create a student-centered environment that connects with students' interests and values. The impact is that it leads to higher levels of student engagement and academic success. In fact, a study shows that students who use game interventions are more actively engaged than those who engage in traditional learning (Poondej & Lerdpornkulrat, 2016). Games provide excitement and create a dynamic, interactive environment that allows students to actively engage in the game, including collaborating to solve problems.

The research shows that students who receive cooperative play techniques improve their social skills. This is undoubtedly very beneficial for students' academic development in school. Good social skills will help students initiate positive interactions with peers, which can help them learn to behave positively through peer modeling and receive support and acceptance from their friends (Ladd & Burgess, 2001). Ultimately, positive social interactions will impact students' academic achievement in school (Crews et al., 2007) and can also create a supportive school environment for both students and teachers (Elliot et al., 2001). In a study, a significant positive correlation was found between social skills and students' academic achievement (Frogner et al., 2021; Gustavsen, 2017; Miles & Stipek, 2006). According to Malecki & Elliott (1999), good social skills can be a supporting factor in children achieving academic success. This is because social skills include communication, empathy, problem-solving, and interpersonal abilities, all of which play a crucial role in students' academic success (Haneef, 2024; Devi & Chahar, 2015). According to Brigman (2007), social skills encompass interpersonal skills, social problem-solving, listening, and teamwork skills.

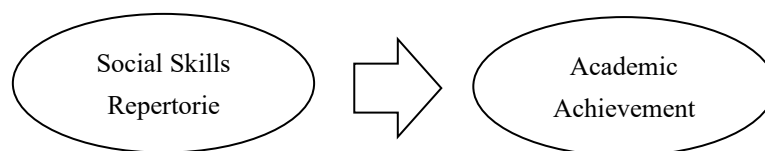


Figure 6. The Relationship between Social Skills and Academic Achievement

(Feitosa et al., 2012)

In Bandura's social cognitive theory (social learning), students' academic achievement results from continuous reciprocal interactions among behavior (e.g., social skills), external environments, and other cognitive and internal events that can influence perception and action (Bandura, 1978). As many as 75% of students who experience learning difficulties also show difficulties in social skills (Steedly et al., 2008). Silveira-Zaldivara et al. (2021) state

that poor social skills can negatively impact academic achievement, interpersonal relationships, and mental health. This means that interventions to develop social skills will also affect students' academic achievement.

5. Implications, Limitations, and Suggestions

The research emphasizes the importance of integrating play into the guidance and counseling process and into the learning process as an inseparable part of child development, thereby comprehensively impacting children's social skills. This study recommends the integration of cooperative play techniques that include aspects of social skills (cooperation, assertiveness, responsibility, empathy, and self-control) into the school curriculum and guidance and counseling programs in elementary schools.

This research has several limitations, such as 1) the sample size being relatively small, 2) the moderator and mediator factors that could develop social skills not being explored in detail, 3) the intervention used being limited to only 5 times corresponding to aspects of social skills, and 4) too many statement items to measure students' social skills, which can excessively burden students and potentially compromise data quality. Based on these limitations, future research needs to consider several things, including 1) research to examine the long-term effects, 2) conducting comparative studies to see differences in social skills from various school contexts and adequate samples, 3) the need to identify moderator and mediator factors that may influence the impact of cooperative play on social skills, and 4) the need to simplify the items of social skills instruments for elementary school students.

6. Conclusion

The research results indicate that social skills in the experimental and control groups are categorized as fairly good, with students able to interact well but sometimes still needing further support and guidance. After receiving interventions, both the experimental and control groups showed improvement. Both groups are now categorized as good, based on the criteria that students can interact socially, build positive relationships with others, and adapt well to various social environments. In terms of improvement, the experimental group increased by 0.50 (medium), while the control group increased by 0.25 (low). Based on the Mann-Whitney test results, the significance level is 0.012. This means that the experimental group receiving group-guidance interventions using the cooperative play technique is better than the control group that received group-guidance interventions using informational media. Group-guidance utilizing play activities can be recommended for aspects of cooperation, assertiveness, responsibility, and self-control. In the context of empathy, group-guidance can be delivered through both play activities and informational media.

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Authors contributions

Yusi Riksa Yustiana and Irfan Fauzi were responsible for preparing the research plan, conducting the research, and drafting the manuscript, while Syamsu Yusuf and Jiraporn Chano were responsible for the study design and revisions. All authors played key roles in completing this manuscript and have read and approved the final version.

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