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DEVELOPMENT OF A FOUNDATIONAL PLAY-BASED INTERVENTION MODEL THROUGH PARENT AND PAUD TEACHER COLLABORATION TO ENHANCE SOCIAL SKILLS IN AUTISTIC CHILDREN

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Abstract

Play is widely recognized as an effective method for enhancing social skills in autistic children. However, play involves developmental stages that necessitate alignment with the child's specific play abilities. Consequently, there is a need for a play-based intervention model that can be utilized by parents and early childhood education teachers to improve social skills in autistic children within Early Childhood Education (PAUD) settings. This study aimed to develop an effective play-based model for enhancing social skills in autistic children by maximizing the roles of both parents and teachers. This research employed a mixed-methods approach using an Exploratory Sequential Design. Research data were obtained from two playgroup (Kober) teachers, three mothers of autistic children attending these playgroups, and three autistic children who served as the primary intervention subjects. Data collection techniques included observation, interviews, and documentation. Qualitative data were analyzed through data reduction, data presentation, and conclusion drawing. Meanwhile, quantitative data were analyzed using the Single Subject Research (SSR) method, focusing on within-condition and between-condition analyses, as well as calculating the average skill improvement of the subjects. The research findings indicate that: (1) The social skills of autistic children were notably low, particularly in eye contact ability and imitation behavior, which are fundamental social skills for autistic children. (2) The play patterns implemented by teachers and parents thus far tended not to consider the child's developmental stage and play abilities. (3) The model's development was based on empirical studies (needs analysis) and a comprehensive literature review that informed the concept and implementation process of the foundational play-based intervention model for parent-teacher collaboration. (4) Based on the evaluation, the foundational play-based intervention model involving parent-teacher collaboration was found to be effective in enhancing the social skills of autistic children, specifically in their eye contact ability and imitation behavior.

Keywords: ***Autistic Children, Parent-Teacher Collaboration, Foundational Play Patterns.***

INTRODUCTION

The development of social skills in early childhood is very crucial considering that this is the phase where children begin to learn to interact with their social environment. Research shows that good social skills contribute to children's emotional and psychological well-being, which impacts their ability to form healthy social relationships in the future (Fatmawati et al., 2021; Rachman & Cahyani, 2019). These skills include the ability to socialize, communicate, and interact with friends and adults around them. It is important to identify social skills early to prevent negative behavior. Early Childhood Education Institutions play an important role in the development of children's social skills. A study shows that a supportive environment at home and at school is very important for their social development (Fatmawati et al., 2021). In the context of PAUD, the teaching strategies used by teachers also play a central role (Shalehah et al., 2023)

Furthermore, (Musyarofah, 2018) showed through her qualitative research that the development of social skills in kindergarten includes the ability to cooperate and socialize effectively. Teachers in early childhood education units are responsible for planning activities that stimulate children's social skills (Rohmawati, 2018). Thus, PAUD plays a role as an educational environment that supports and facilitates social experiences, which are very important in child development. Although early childhood education plays an important role in children's general social development, children with ASD face special challenges in this context. Children with autism spectrum disorder (ASD) face significant social development challenges, especially in the aspects of social interaction and

communication. ASD is a neurodevelopmental condition that affects the way individuals interact and communicate with their surroundings. One of the main characteristics of children with ASD is difficulty in establishing social interactions that are in accordance with prevailing social norms. The term "spectrum" reflects the wide variation in symptoms and their severity, which can affect individuals differently. Autism spectrum disorder (ASD) is a complex neurodevelopmental disorder, characterized by significant impairments in social interaction, communication, and restricted and repetitive behaviors (Diagnostic and Statistical Manual of Mental Disorders, 2013; Rylaarsdam & Guemez-Gamboa, 2019) Characteristic behaviors associated with ASD may include difficulties understanding social cues, nonverbal communication, and forming relationships. Individuals may show a strong preference for routine and may react significantly to changes in their environment (Bjorklund et al., 2016). Additionally, a significant proportion of individuals with ASD may exhibit comorbid conditions, which can complicate their clinical presentation and management. These comorbid conditions often include intellectual disability, anxiety, and other neurodevelopmental disorders such as epilepsy (Munch et al., 2020). The heterogeneity of these disorders is evident not only in behavioral symptoms but also in the potential presence of additional symptoms such as sensory sensitivities, which can lead to difficulties in daily functioning (Bjorklund et al., 2016).

Social skills in individuals with autism spectrum disorder (ASD) are an especially important area to consider, as there are significant challenges in social interaction and communication. ASD is a neurodevelopmental disorder characterized by difficulties in establishing adequate social relationships and communicating with others. These characteristics contribute to individuals with ASD's difficulty participating in social situations, which can lead to social isolation and loneliness (Spain & Blainey, 2015), (Olcay-Gul & Vuran, 2019). Furthermore, Spain and Blainey suggest that individuals with ASD often have difficulty understanding social norms and emotions, which impacts their ability to engage in effective social interactions (Spain & Blainey, 2015), (Selvaraj & Christopher, 2022). Another characteristic of impaired social skills in individuals with autism spectrum disorder is difficulty using and understanding nonverbal communication such as body language and facial expressions. Research by Alshalan et al. confirms that many individuals with ASD have difficulty recognizing the emotions of others, which is critical in the context of social interactions (Dantas & do Nascimento, 2022).

Play is a fundamental component of early childhood development, contributing significantly to social skills. For typical children, play activities such as sociodrama and role-play play an important role in teaching social norms, empathy, and emotional regulation, as they allow children to explore social situations and express their feelings in a controlled environment (Lily Sardiani Daulay & Khadijah, 2023). However, children with autism spectrum disorder (ASD) face unique challenges in play due to impairments in social interaction, communication, and the presence of repetitive behaviors (Kaeser et al., 2017; Papacek, 2015). These challenges often result in lower participation diversity and intensity in play activities compared to their typically developing peers (Huang et al., 2013). Despite these difficulties, play remains an important therapeutic tool for children with ASD, aiding in the development of social and linguistic skills (Erika Balog, 2024; Idil Secil & Deniz Ertan, 2022). Interventions such as peer-mediated play and play-based therapy have shown results in improving social skills, communication, and emotional expression in children with ASD. In addition, the cultural aspects of play and caregiver involvement can further enrich the play experience, providing stability and increasing the complexity of play activities (Bentenuto et al., 2022; Raluca Cristina Vărăşteanu et al., 2020).

Many studies have revealed the urgency of play for the social skills of children with autism. Play is vital to human development, especially for children with autism spectrum disorders who often show delays in play behavior. Interventions are divided into functional and symbolic play, and it is emphasized that both play an important role in the development of social skills (Russell Lang et al., 2009). Children on the autism spectrum often engage in solitary play, which limits their social interactions. Functional and symbolic play are essential for developing these skills, as they encourage shared experiences and communication, which are part of social skills (Connie Kasari & Ya-Chih Chang, 2014). Many studies have highlighted that children with autism spectrum disorders show qualitative deficits in functional play, characterized by less diversity, elaboration, and integration compared to children in general. While functional play is essential for developing social skills. Thus, targeted interventions are needed to improve play skills, which are essential for social development and understanding shared meaning in interactions (Williams et al., 2001). The importance of play in improving social skills in children with ASD has been supported by many studies, so this needs serious attention. Therefore, interventions specifically designed to address these challenges are very important. A preliminary study conducted by researchers at the Nurul Jannah Playgroup (Kober) in 2022, obtained data that teachers do not understand the importance of playing for children with autism. The results of the interview showed that teachers rarely involve children with autism spectrum disorders in playing, the reason being that children with autism spectrum disorders have their own world, so they are left to play alone, without instructions. Children with

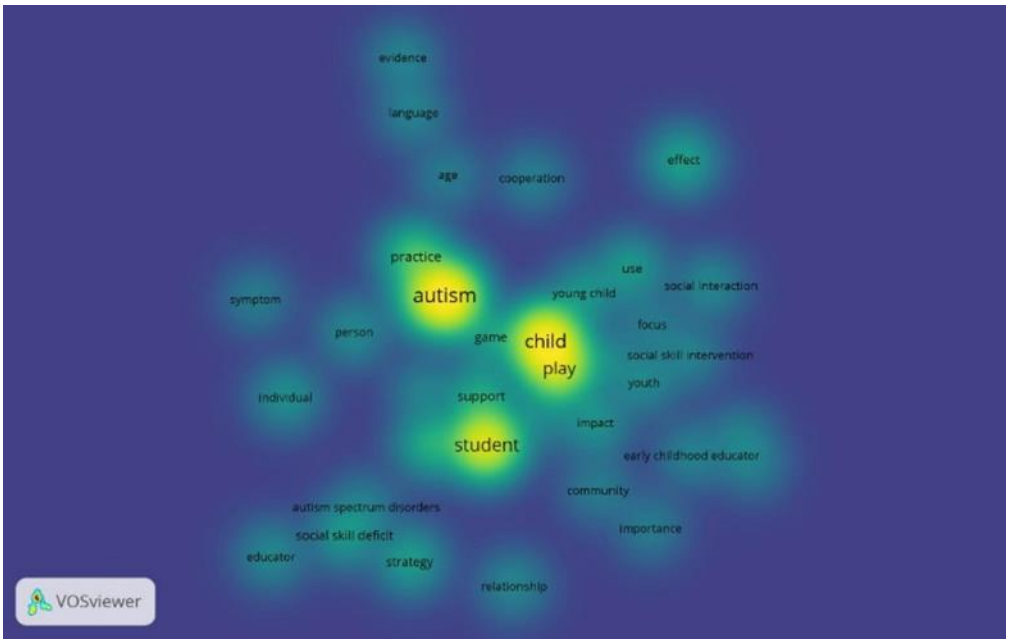
autism spectrum disorders are only supervised so that they do not have tantrums or do something dangerous. Observations made by researchers who visited during the learning process also showed that children with autism spectrum disorders tended to play in the corner of the room, some were accompanied by their parents. Children with autism spectrum disorders play games randomly, throwing toys several times, and also grabbing toys from their peers. The lack of understanding of teachers about the importance of play and the lack of appropriate interventions can hinder the social development of children with ASD in PAUD, which can ultimately have a negative impact on their ability to interact with peers and participate fully in the learning environment. Without appropriate intervention, children with autism spectrum disorders lose the opportunity to practice basic social skills through play (Rahmadianti, 2020). Another opinion that is in line, states that the lack of play activities can worsen the child's inability to participate in social activities (Pratiwi & Saloko, 2023).

Based on the initial assessment conducted by the researcher, there are children with autism spectrum disorders who have not been able to make eye contact when interacting, some have appeared but only for a few seconds and have not been able to maintain eye contact. Other behaviors that reflect social skill deficits are not being able to follow instructions. Furthermore, children with autism spectrum in Kober Nurul Jannah do not yet can join friends, as well as the ability to focus joint attention in activities with peers. Of course, this makes children with autism spectrum tend to have very minimal social interaction with their peers. Other data obtained in this preliminary study is a description of the parents of children with autism spectrum disorders regarding how to play at home. Based on interviews with these three parents, data was obtained that children are often left to play alone, if it is not dangerous, subject child N often plays with objects in the house by lining them up on the side, any toy without paying attention to its function. Subject child D is known to play more with gadgets, and it is known that subject child D often puts toys in his mouth. Likewise, subject child A who also plays is allowed if he does not have a tantrum.

Based on this phenomenon, it is assumed that children with autism spectrum disorders tend not to receive appropriate play intervention, so that this causes social skills to not develop. This can be seen from the teacher's confession that there has been no interaction with peers, that eye contact is still very difficult. In addition, teachers also admit that they have difficulty in reducing the emotions of children with autism spectrum disorders, for example when they want a toy that their friend is using, then aggressive behavior often occurs. This is in line with several research results, that this play deficit is related to impaired social skills and problem-solving abilities (Jaywant et al., 2024). Strengthened by further research, that lack of involvement in play activities can lead to a lack of interest in peers and social interactions, which further exacerbates social communication challenges (Kaeser et al., 2017).

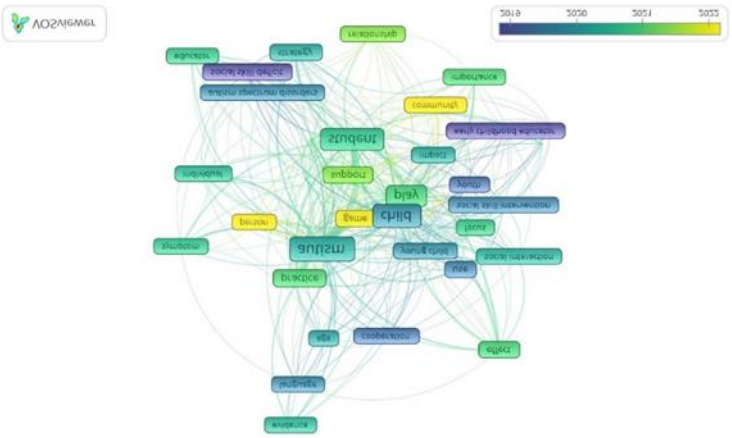
In recent decades, play-based interventions have become the basis for the development of intervention methods. Games that have also been studied are lego games, mazes, snakes and ladders, sports-based games, role-playing and stories which are also used as interventions for children with autism disorders (Boswell et al., 2023; Isnaini & Sulthoni, 2014; Pastari et al., 2024; Yovita & Tjakrawiralaksana, 2021). Based on these studies, the games used are not specifically functional or symbolic games. Meanwhile, functional, and symbolic games are very important for children with autism spectrum disorders because they foster social skills, communication, and problem-solving abilities. Functional games improve practical skills and adaptive responses, while symbolic games encourage imaginative play and social interaction. The results of the study showed that engaging in this type of play can significantly improve the ability of children on the autism spectrum to negotiate, share, and collaborate (Erika Balog, 2024). Based on this urgency, a model is needed that can improve social skills for children with autism spectrum disorders through functional and symbolic play.

In addition to the role of teachers, the role of parents is no less important in stimulating the development of autistic students. As stated by Jitendra et.al in (Acar et al., 2017) that parents have an important role in the education of children with autism disorders. In line with the opinion above, The National Research Council in (Tonge et al., 2014) concluded that training for parents who have autistic children is a must, because parents are the central key to their child's development. Other studies also prove that parents who practice skills trained by therapists will make their child's development much faster. (Hilary Margret Gould, 2015). There have been many studies related to children with autism disorders. The results of the VOSviewer visualization analysis, from 500 journals display 37 items divided into 5 clusters with the depth of frequently discussed themes being autism, students, children, and play, which are visualized in the image below:



Picture 1.1. Density Visualization

Furthermore, the VOSviewer visualization analysis shows that from 500 journals, in 2019-2022 interesting issues were found in the discussion of children with autism spectrum disorders, but there are still gaps or emptiness in research related to early intervention. In addition, the author also saw that there is still limited research related to collaboration. The following is an image of the overlay visualization:



Gambar 1.2. Overlay Visualization

Looking at the visualization results of the VOSviewer analysis that has been done, early intervention related to social skills in children with autism spectrum disorders, as well as collaboration between parents and teachers are still limited research. So, filling the gap is the novelty offered in this study. This study aims to develop an innovative and practical play intervention model that can be used by teachers and parents collaboratively to improve the social skills of children with autism spectrum disorders in PAUD. This model is expected to provide clear and effective guidance for educators and parents in supporting the development of social skills of children with autism spectrum disorders, so that they can participate more actively and successfully in an inclusive environment.

LITERATURE REVIEW

Autism Spectrum Disorder.

Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder characterized by difficulties in social communication, interaction, and restricted and repetitive behaviour patterns. This definition is recognized globally and is based on the criteria contained in the Diagnostic and Statistical Manual of Mental Disorders (Diagnostic and Statistical Manual of Mental Disorders, 2013) (Lord et al., 2018). Various experts have put forward the definition of

ASD based on research conducted. Based on various studies, ASD generally includes aspects related to communication, social interaction, and unusual behaviour patterns. Hazlett et al. (2011) stated that in ASD there are changes in brain development associated with increased cortical size before the age of two years, indicating different neuronal development during the early phase. This study confirms that this disorder can be understood from a complex biological perspective.

Social Skills

Social skills are an important aspect of individual development that involves the ability to interact effectively and adapt in various social contexts. Various literatures show that social skills not only affect interpersonal relationships, but also have a significant impact on academic achievement and individual mental well-being (Maleki et al., 2019) (Ülvay & Özkul, 2018). The definition of social skills can be seen in the context of how individuals interact with others based on applicable social norms. According to Maleki et al. (Maleki et al., 2019) social skills are learned behaviours based on social rules that allow individuals to interact appropriately with others. Meanwhile, Polakoff highlights that social competence involves the ability to navigate interpersonal situations by using existing social information to determine the context and appropriate behavioural responses. These skills include cognitive, affective, and behavioural aspects needed to achieve social goals, such as relationship building and conflict resolution (Polakoff & Clark, 2017).

METHOD

According to Rahardjo quoted (Arifudin, 2025) that the research method is one way to obtain and seek tentative truth, not absolute truth. The result is scientific truth. Scientific truth is a truth that is open to being tested, criticized, and even revised. Therefore, there is no best method for seeking truth, but what exists is the right method for a particular purpose according to the existing phenomenon. Budiharto quoted (Kusmawan, 2025) that the selection of research methods must be adjusted to the research being conducted so that the results are optimal. This study discusses the development of an effective basic play pattern intervention model of parent-teacher collaboration that can improve the social skills of children with autism disorders at the PAUD level. Based on the type of data used to answer this research question, a combination research approach (Mix Method Research) is the most appropriate approach.

According to Creswell (Creswell, 2014), a combination approach is an approach that combines or connects quantitative and qualitative research approaches. The qualitative approach is used to obtain a picture of the objective condition of the social skills of children with autism spectrum, in terms of knowing the social skills abilities and obstacles experienced by children with autism disorders. then the play patterns applied by parents and teachers in improving social skills, and the development of a basic play pattern intervention model of parent and teacher collaboration in improving social skills. Furthermore, a quantitative approach was used to obtain an overview of the effectiveness of the Basic Play Pattern Intervention Model of Parent and Teacher Collaboration in improving the social skills of children with autism spectrum disorders, so a Single Subject Research (SSR) was conducted with an A-B-A design.

Research procedures are the steps taken by researchers to achieve research objectives. In this study, researchers used two stages. Creswell (Creswell, 2014) stated that this two-stage approach (qualitative research followed by quantitative research) makes this strategy easy to implement, describe, and report. In this study, a qualitative approach was used in the first stage, namely in the preliminary study and the second stage of the formulation of a basic play pattern model of parent-teacher collaboration in improving the skills of autistic children. In the first stage, namely the preliminary study, it aims to obtain data related to the objective conditions of the social skills of autistic children. the level of play of autistic children. Still in the first stage, another goal is to obtain data related to the objective conditions of play patterns that have been applied by parents at home, and the objective conditions of play patterns that have been applied at school for autistic children.

The subjects of this research are parents and teachers who will then intervene with autistic children to improve social skills. The first subject is LK, the Principal and teacher at Kober Nurul Jannah, with a bachelor's degree in PAUD, and has been teaching for 10 years. The subject himself has handled DN and KK children for two years and handled NT children for one year. The second subject is teacher K, with a bachelor's degree in PAUD, has been teaching for seven years, and has handled DN, KK and NT children for one year. Next are the parents, totaling three people. The parents of child DN, the parents of child KK and the parents of child KK. The parents of child DN in this case are the mother who has a junior high school education, has a job as a self-employed person. The parents of child NT, in this case also the mother, who has a Bachelor of Economics education, previously worked as a private

bank employee, who then chose to resign when child NT was diagnosed with autism. The last parent is the parent of KK, who is also a mother, has a high school education, previously worked at a private company, and decided to resign after learning about the ASD diagnosis in KK. In addition to parents and teachers, the subjects of this study were children diagnosed with ASD who were the subjects of intervention, and their social skills will be seen. Child DN is 7 years old, female, diagnosed with ASD since the age of five. Child KK, seven years 5 months old, male, diagnosed with ASD at the age of five. Child NT is six years old, male, and diagnosed with ASD since the age of five. The location of this research was conducted at Nurul Jannah Playgroup, Jalan Leuwi Anyar Utara no 53 Situsaeur, Bojongloa Kidul District, Bandung City. Nurul Jannah Playgroup is one of the PAUD institutions that is a pilot Inclusive PAUD in the Bandung City Education Office. Currently, at Nurul Jannah Playgroup, there are four students with disabilities, three of whom are autistic children.

Of course, as an exemplary Inclusive PAUD, we are always open to innovation and need assistance to become better. Arikunto in (Lahiya, 2025) explains that research instruments are tools used by researchers to collect data so that their work is easier, and the results are better, in the sense that they are more accurate, complete, and systematic so that they are easier to process.In this study, the quantitative analysis technique used refers to the view (Sunanto et al., 2005). It is further explained that quantitative analysis is achieved through testing using the Single Subject Research (SSR) design with the A-B-A design. In the quantitative data analysis technique, percentages are used after all data, both from baseline-1 conditions, interventions, have been successfully collected. After all data has been collected, the data is then analyzed into an A-B-A design graph. This is done to determine how stable the development of the subject's abilities is. The stability of this development is measured using descriptive statistics that focus on improving the social skills of children with autism disorders.

RESULTS AND DISCUSSION

Social skills have many aspects, according to Charlop, et.al (2018), aspects of social skills that are often also targeted behavior in interventions include eye contact, imitation behavior, joint attention, social response, social initiation, and reciprocal communication skills. It is important for researchers to determine target behavior so that in formulating and implementing interventions it can be optimal. Based on field observations conducted by researchers, the three research subjects do not yet have developed social skills, this is indicated by data that the three are still very limited in making eye contact, the ability in imitation behavior is also still very limited, this can be seen in behavior that is not yet able to follow the rules, not yet able to imitate something that is exemplified, so that this has an impact on the ability to respond socially which is not yet apparent at all.

Imitation behavior in children with autism can significantly improve their social responsiveness to their environment, as evidenced by several studies. Research shows that when adults imitate the social behaviors of children with autism spectrum disorder (ASD), these children demonstrate increased social engagement, including more frequent social gaze, proximal social behavior, and play skills (Contaldo, 2016; Field, 2017). The “imitation” strategy has been shown to activate neural areas involved in social cognition, suggesting a neurological basis for these improvements (Contaldo, 2016). Furthermore, imitation interventions have been associated with improvements in joint attention and social-emotional functioning (Ingersoll, 2012). Longitudinal studies also highlight the role of maternal responsiveness in developing imitation skills, which are critical for social communication in children (Alak, 2024).

In line with the above opinion, Charlop (2018) stated that eye contact and imitation behavior are the basis for social skills. This means that eye contact and imitation behavior are the basis for developing higher aspects of social skills. Based on this, the implication is related to the target behavior of social skills in this study, namely eye contact and imitation behavior. Based on the results of the analysis of the assessment, the initial condition of the social skills of students with autism spectrum before the Basic Play Pattern Intervention Model was applied. Based on the results of a comprehensive initial assessment, it was identified that the research subjects, namely NT, KK, and DN, showed significant deficits in various aspects of core social skills, which are consistently reported as the main characteristics of individuals with autism spectrum disorder (ASD). Specifically, pre-intervention observations and assessments indicated that the eye contact ability of the three subjects was still very low or even minimal. NT, KK, and DN often avoided direct eye contact or only did so for a very short duration, even in directed social interaction situations. This condition is in line with the literature that underlines eye contact as a vital indicator in reciprocal social interactions (Jones et al., 2018; Selvaraj & Christopher, 2022) and is often a major challenge area for autistic individuals. In addition, imitation behavior is also still very limited in NT, KK, and DN. They show difficulty in imitating simple movements, facial expressions, or social behavior patterns observed from others. This limitation of imitation is crucial because imitation is an important foundation for social learning and the acquisition of new skills, including

play skills and interactions with peers (Bandura, 1976). The inability to imitate effectively hinders their process of learning social norms and appropriate responses in various situations. These findings confirm that learners with autism spectrum in this study face fundamental obstacles in basic social interactions, especially in establishing initial engagement through eye contact and adapting behavior through imitation. This objective condition underlines the urgency and relevance of developing and implementing an intervention model that focuses on improving these core deficits, as a first step in improving their social skills holistically. Prior to the implementation of the basic play pattern intervention model, the description of the treatment applied by parents and teachers to improve the social skills of autistic children showed several significant characteristics, which can be analyzed through the lens of Bronfenbrenner's (1979) Ecological Theory of Development and the principles of family-centered practice.

First, regarding the type of play patterns applied, the data shows that both parents and teachers are rarely actively involved in playing with children. Children tend to be left to play alone, or if there is interaction, teachers and parents only follow the child's wishes without providing directed stimulation. For example, in playing with toy cars, children are only allowed to flip the cars and play with the tires; in cooking games, girls only stack objects without a narrative flow; and so do Legos which are only stacked. In addition, the practice of letting children watch YouTube to "calm down" also often occurs. Unstructured play patterns and the lack of direct interventions in play, from the perspective of Bandura's Social Learning Theory (1977), limit children's opportunities to observe and imitate adaptive social behavior, because they are less exposed to consistent modeling from adults or peers.

Second, regarding the level of consistency, the findings show that there is no consistency at all in inviting or accompanying children to play with the aim of developing social skills. Both parents and teachers do not understand the urgency of consistency in intervention. This inconsistency reflects weaknesses in the mesosystem in Bronfenbrenner's (1979) framework, where interactions between the family and school microsystems are not well coordinated. As a result, the stimulation and reinforcement of social skills received by children are incomplete, hampering the process of skill acquisition and generalization.

Third, in terms of social skills focus, parents generally lack understanding of the importance of various aspects of social skills. Their focus tends to be on speaking or communication skills, although they are aware of the difficulties faced by their children in this aspect. Frequent tantrum behavior is also a major concern for them. Although parents are aware of the lack of eye contact in their children, they tend to consider it as a "typical" autism, indicating a lack of understanding of the urgency of imitation behavior as an important prerequisite for social learning. The practices carried out by parents are also limited to verbal interactions without clear targets in play, and although they often talk, they admit to having difficulty in establishing meaningful communication. This shows that existing interventions do not touch the broad spectrum of social skills needed, and do not utilize the potential of play as an effective learning medium (Uren & Stagnitti, 2009).

Fourth, regarding the involvement and collaboration between teachers and parents, teachers reported that there was involvement and collaboration, but it was less structured. Parents do play a role as companions for their children at school, and teachers involve them in the preparation of Individual Learning Implementation Plans (IIP). However, teachers doubted whether the IIP was implemented at home. The results of interviews with parents confirmed that their involvement was more in school events, but not in interventions that were fully understood and implemented consistently. This condition indicates that the implementation of family-centered practices (Dunst & Sherwindt, 2016) has not been optimal, where parents have not been fully empowered as active partners in the intervention process outside the school environment.

Finally, from the aspect of parents' and teachers' perceptions, especially in the cognitive component, it was identified that they did not yet understand the urgency of playing as an important means for developing social skills. This lack of cognitive understanding directly affects their cognitive aspect (intention/action), so that they do not implement ideal play patterns for stimulating social skills. This perception becomes a significant obstacle because it shapes their parenting behavior and strategies, which in turn affects child development. Overall, the pre-intervention parent and teacher treatment profiles suggest significant gaps in understanding, strategies, and consistency, which collectively contribute to deficits in autistic children's social skills. This underscores the urgent need for a structured, collaborative intervention model that is based on the use of basic play patterns as a more effective approach. The development of the Basic Play Pattern Intervention Model of Teacher and Parent Collaboration in Improving Social Skills in this study was carried out through a series of systematic stages that began with an in-depth needs analysis. This analysis, which is reflected in the objective conditions of the social skills of autistic children and the description of previous treatment by parents and teachers, is an essential basis for designing relevant and targeted interventions.

The next stage is an extensive literature study, which becomes the theoretical foundation of this model. The development of this model specifically integrates four grand theories as its philosophical and practical foundation:

1. Jean Piaget's Constructivist Approach (Play Theory): Piaget's theory plays a crucial role and is the main novelty in the development of this model. The intervention model is designed to be adjusted to the child's level of play development, both at the functional and symbolic levels. This approach ensures that the intervention is adjusted to the child's cognitive abilities, so that learning through play can occur optimally and meaningfully. This adjustment of the play level allows social skills stimulation to be given gradually and in accordance with the autistic child's proximal development zone (Piaget, 1951).
2. Behaviorist Approach of Albert Bandura's Social Learning Theory: This theory has major implications in the process of implementing the intervention model. Principles such as prompting, reinforcement, repetition, and imitation are systematically integrated. Furthermore, the findings of Bandura's Social Learning Theory which state that imitation teaching will be more effective if carried out by the child's authority figure are a strong basis for why this intervention model explicitly involves the active role of parents and teachers as the main implementers. Their role as consistent social behavior models is the key to the success of the child's imitation process (Bandura, 1976).
3. Urie Bronfenbrenner's Ecological Theory of Development: This theory provides a solid framework for understanding and optimizing collaboration between the various systems of a child's environment. Bronfenbrenner's mesosystem concept is the primary foundation for the design of parent-teacher collaboration in this intervention model. This ecological approach ensures that interventions do not occur in one setting alone, but are integrated consistently across home and school, creating a supportive learning ecosystem (Hayes et al., 2023).
4. Malcolm Knowles' Andragogy Theory: The implications of this adult learning theory are very relevant in the implementation of training for parents and teachers. The principles of andragogy are applied to ensure that training materials are delivered in a participatory manner, relevant to their experiences, and oriented towards problem solving. This aims to increase their understanding and motivation in implementing the intervention model (Knowles et al., 2005).

The theoretical implications based on this literature review are then comprehensively stated in each component and stage of the formulated intervention model. After an in-depth literature review stage, the initial draft of the basic play pattern intervention model was submitted to expert judgment for validation. This validation process is essential to ensure the feasibility and accuracy of the model from an expert perspective. After receiving constructive input and feedback, the researcher revised the model until it reached a validated form. The next stage is training for parents and teachers. In this training session, researchers not only provide an understanding of the model procedure, but also include psychoeducation to shape parents' perceptions regarding the importance of playing and social skills to be more comprehensive. This is an important step to align their understanding and motivation.

Next, a simulation or trial of the intervention implementation was conducted to identify potential practical obstacles and obtain an initial picture of effectiveness. After the trial, a Focus Group Discussion (FGD) was conducted with parents and teachers. This FGD aimed to collect direct feedback from implementers in the field, which then became the basis for final refinement of the intervention model. After a series of revisions based on input from expert judgment, training, and FGD, this model was declared ready to be implemented in research. There was an increase in social skills of children with autism spectrum disorders. After the implementation of the intervention model, the basic play pattern of parent and teacher collaboration on eye contact skills, imitation behavior, in the subjects of NT, KK, and DN. This increase was verified through a social skills measurement tool that had been verified through content validation by experts (expert judgment) in this case two academics and one practitioner.

This study used a single subject research design to evaluate the intervention individually. In the A-B-A design, internal validity is highly dependent on the stability of baseline data, changes in trends (data direction), changes in levels, and consistency of change during and after the intervention. Visual analysis is the primary method for assessing effectiveness, focusing on data stability, direction of change (trend), and retention of results after the intervention is stopped (Zhan & Ottenbacher, 2001). Analysis based on the theory of Zhan & Ottenbacher (2001) shows that: 1) Subject KK showed the strongest and most stable response to the intervention, 2) DN subjects experienced significant improvement, but still need to improve stability, and 3) NT subjects showed limited intervention impact and tended not to persist, thus requiring further intervention or strategy revision.

In the context of an A-B-A design, these data demonstrate that the intervention had an individual impact, and visual analysis combined with single-subject experimental design principles provides meaningful insights into the behavioral changes that occurred. Based on the data produced, there was an increase in the social skills of DN

children in the aspect of eye contact, where previously the child was only able to make eye contact only when instructed with prompting, after intervention, DN children became able to make eye contact when their names were called, even without instructions also made eye contact while playing. However, the child was not yet able to maintain eye contact while playing. In the imitation aspect, DN children also showed improvement. Previously only able to follow a few instructions, after the intervention, DN children were able to follow commands in playing, follow playing movements, and imitate speech. However, they were not yet able to when asked to call the name of a friend or teacher. The skills of KK children were seen to have increased significantly and remained relatively stable at baseline 2 (A2). In terms of eye contact, KK children were initially only able to make eye contact if instructed with prompting. After the intervention, KK children were able to make eye contact when called, were able to make eye contact while playing, but were not yet stable when maintaining eye contact during play interactions.

In the aspect of imitation behavior, KK children also experienced an increase. KK children who were initially only able to follow the rules of the game, experienced an increase in ability, namely being able to follow the instructed movements, as well as imitating speech, and imitating being able to call friends or teachers even though several promptings. Based on the visual data produced, NT children did not appear to experience any improvement in the aspect of eye contact, NT children were only able to make eye contact when there were instructions both in the baseline phase (A1), intervention and after intervention or in the baseline phase 2 (A2). However, NT children experienced an increase in the aspect of imitation behavior, initially NT children were only able to follow game instructions, there was an increase during the intervention, KK children were able to follow movements in playing, able to follow speech. However, there was a decrease again in the baseline phase 2 (A2), the behavior that could not be maintained was the ability to imitate speech, also imitate calling the name of a friend or teacher.

In general, this effectiveness can be explained through several factors. Basic play patterns that are structured and adjusted to the child's developmental level (Piagetian approach) have been proven to be an effective medium for learning social skills. In the context of play, autistic children feel more comfortable and motivated, so they are more open to interacting and adopting new behaviors. An environment designed according to their play interests facilitates opportunities for consistent modeling and positive reinforcement, in line with the principles of Bandura's Social Learning Theory (1977). When teachers and parents, as relevant authority figures, actively and consistently model social behavior and provide prompting and reinforcement, children have a better chance of internalizing these skills. In addition, the strong collaborative aspect between teachers and parents is a key pillar of the model's success. Integration of interventions across the two important microsystems of school and home as emphasized by Bronfenbrenner's Ecological Theory of Development (1979), ensures consistency of stimulation and support. When the same strategies are applied across environments, there is greater generalization of skills, reinforcing learning and minimizing inconsistencies that can hinder progress. Training and psychoeducation provided to parents and teachers (based on Malcolm Knowles' Andragogy Theory) also play a crucial role in aligning perceptions and increasing their capacity as effective intervention agents.

In addition, there are specific and detailed findings related to improving social skills through basic play pattern intervention models of teacher and parent collaboration. When viewed based on the graph, eye contact abilities tend to be lower when compared to imitation behavior abilities. There is an analysis based on a neurological view, about the eye contact abilities of autistic children revealing significant challenges compared to their imitation skills, mainly due to different underlying neural mechanisms. Research shows that individuals with autism spectrum disorder (ASD) often show reduced eye contact, which is associated with hypoactivity in the right dorsal-parietal area during social interactions, indicating impaired neural processing of gaze cues (Hirsch et al., 2022). This impairment may stem from difficulties in visual perspective taking and understanding the mental states of others, which are critical for effective social communication (Yu et al., 2011). In contrast, while imitation abilities are also affected, they can be slightly improved through targeted interventions, especially when gestures are meaningful, indicating a more flexible neural response in this domain (Latrèche et al., 2024). The complexity of these abilities highlights the need for tailored therapeutic approaches that address the specific neural deficits associated with eye contact and social engagement in children with ASD (Tanabe et al., 2012).

In contrast, imitation skills may be more easily improved. Children with ASD can often imitate behaviors without having to deal with the same anxiety or stress of making eye contact. The imitation process may be triggered in a context that is less emotionally uncomfortable, so children are more likely to participate in imitation tasks than practicing eye contact (Senju et al., 2008). Imitation does not always require the same social precision as making eye contact; therefore, children may find imitation easier to master (Sigman & Ungerer, 1984). This explanation answers what happened in this study. Especially if we look at the data on NT children, where the ability to make eye contact stagnated from before, during and after the intervention. Based on the presentation, the findings that occurred, this

basic play pattern intervention model of teacher and parent collaboration has proven effective because it is able to provide a consistent, structured, and developmentally relevant learning environment, supported by the active and coordinated participation of important figures in the lives of autistic children. These findings confirm the significant contribution of the model to efforts to improve the social skills of autistic children and support the importance of a comprehensive approach that involves the child's entire social ecosystem.

CONCLUSION

This study successfully developed a structured Basic Play Pattern Intervention Model of Teacher-Parent Collaboration that is based on a strong theoretical foundation. This model was developed through needs analysis, extensive literature study that integrates Piaget's Constructivism Theory (especially the adjustment of functional and symbolic play levels as novelty), Bandura's Social Learning Theory (for the principles of prompting, reinforcement, and imitation by authority figures), Bronfenbrenner's Ecological Theory of Development (for the basis of teacher-parent collaboration), and Malcolm Knowles' Andragogy Theory (for adult training). The development process involved expert validation, training, psychoeducation to form comprehensive perceptions, simulations, and refinements through Focus Group Discussions (FGD), ensuring a valid and applicable model. The collaborative parent-teacher-empowering basic play intervention model can be adapted and integrated into existing social skills intervention curricula, providing a more comprehensive, play-based, and collaborative approach.

REFERENCES

Acar, C., Tekin-Iftar, E., & Yikmis, A. (2017). Effects of mother-delivered social stories and video modeling in teaching social skills to children with autism spectrum disorders. … Journal of Special Education, Query date: 2024-01-27 10:10:16. https://doi.org/10.1177/0022466916649164

Alak, G. (2024). Relationship between imitation skills and maternal responsiveness for children with autism spectrum disorder: A longitudinal study. International Journal of Developmental Disabilities. https://doi.org/10.1080/20473869.2024.2355384

Arifudin, O. (2025). Application Of Steam Learning Methods To Increase Student Creativity And Innovation. International Journal of Teaching and Learning (INJOTEL), 3(1), 97–108.

Bandura, A. (1976). Social Learning Theory (1st ed.). Prentice-Hall.

Bentenuto, A., Perzolli, S., de Falco, S., & Venuti, P. (2022). Play in Children With Autism Spectrum Disorder (pp. 240–267). https://doi.org/10.4018/978-1-6684-5068-0.ch013

Bjorklund, G., Saad, K., Chirumbolo, S., Kern, J. K., Geier, D. A., Geier, M. R., & Urbina, M. A. (2016). Immune dysfunction and neuroinflammation in autism spectrum disorder. Acta Neurobiologiae Experimentalis, 76(4), 257–268. https://doi.org/10.21307/ane-2017-025

Boswell, J., Carotti-Snigg, C., Root, W. B., & Billington, E. J. (2023). Using Computer Applications in Teaching Play Skills to Children With Autism Spectrum Disorder. International Journal on Social and Education Sciences, 5(1), 1–18. https://doi.org/10.46328/ijonses.414

Bronfenbrenner, U. (1979). The Ecology of Human Development. HARVARD UNIVERSITY PRESS.

Charlop, M., Lang, R., & Rispoli, M. (2018). Play and social skills for children with autism spectrum disorder. Springer. https://doi.org/10.1007/978-3-319-72500-0

Connie Kasari & Ya-Chih Chang. (2014). Play Development in Children With Autism Spectrum Disorders: Skills, Object Play, and Interventions. https://doi.org/10.1002/9781118911389.HAUTC11

Contaldo, A. (2016). The Social Effect of “Being Imitated” in Children with Autism Spectrum Disorder. Frontiers in Psychology, 7, 726–726. https://doi.org/10.3389/FPSYG.2016.00726

Creswell, J. W. (2014). Research design: Qualitative, quantitative, and mixed methods approaches (4th ed). SAGE Publications.

Dantas, A. C., & do Nascimento, M. Z. (2022). Recognition of Emotions for People with Autism: An Approach to Improve Skills. International Journal of Computer Games Technology, 2022(1), 6738068. https://doi.org/10.1155/2022/6738068

Diagnostic and statistical manual of mental disorders: DSM-5TM, 5th ed (pp. xliv, 947). (2013). American

Psychiatric Publishing, Inc. https://doi.org/10.1176/appi.books.9780890425596
Erika Balog. (2024). Playing therapy for children with disorders from the autistic spectrum. Norma, 29(1), 25–40. https://doi.org/10.5937/norma29-51573
Fatmawati, A., Pudyaningtyas, A. R., & Zuhro, N. S. (2021). Hubungan Pola Asuh Orang Tua Demokratis Dengan Keterampilan Sosial Anak Usia 5-6 Tahun. Kumara Cendekia, 9(4), 218. https://doi.org/10.20961/kc.v9i4.54791
Hayes, N., O'Toole, L., & Halpenny, A. M. (2023). INTRODUCING BRONFENBRENNER A Guide for Practitioners and Students in Early Years Education.
Hilary Margret Gould. (2015). Teaching to play or playing to teach: An examination of play targets and generalization in two interventions for children with autism.
Hirsch, J., Zhang, X., Noah, J. A., Dravida, S., Adam J. Naples, Julie M. Wolf, & James C. McPartland. (2022). Neural correlates of eye contact and social function in autism spectrum disorder. PLOS ONE, 17(11), e0265798–e0265798. https://doi.org/10.1371/journal.pone.0265798
Huang, A., Jia, M., & Wheeler, J. (2013). Children with autism in the People's Republic of China: Diagnosis, legal issues, and educational services. … of Autism and Developmental Disorders, Query date: 2023-06-16 09:52:45. https://doi.org/10.1007/s10803-012-1722-6
Idil Secil & Deniz Ertan. (2022). The effect of play on social and linguistic skills of children with autism spectrum disorder. Open Schools Journal for Open Science, 5(4). https://doi.org/10.12681/osj.28389
Ingersoll, B. (2012). Brief Report: Effect of a focused imitation intervention on social functioning in children with autism. Journal of Autism and Developmental Disorders, 42(8), 1768–1773. https://doi.org/10.1007/S10803-011-1423-6
Isnaini, W., & Sulthoni, S. (2014). PENGARUH PERMAINAN ULAR TANGGA TERHADAP PENINGKATAN KEMAMPUAN BAHASA EKSPRESIF ANAK AUTIS. Jurnal ORTOPEDAGOGIA, 1(3), Article 3. https://doi.org/10.17977/um031v1i32014p231-237
Jaywant, S. S., Ganesh, T., & Samir, H. (2024). Play skills and developmental trajectory in preschool children with mild to moderate autism spectrum disorders. Indian Journal of Applied Research. https://doi.org/10.36106/ijar/0903667
Kaeser, S. R.-, Thommen, E., Baggioni, L., & Stankovic, M. (2017). 10 Play in Children with Autism Spectrum and Other Neurodevelopmental Disorders. Degruyter.Com. https://doi.org/10.1515/9783110522143-012
Knowles, M. S., Holton III, E. F., & Swanson, R. A. (2005). The Definitive Classic in Adult Education and Human Resource Development. Elsevier.
Kusmawan, A. (2025). The Relationship Between Teacher Involvement in Curriculum Development and Student Learning Outcomes. International Journal of Educatio Elementaria and Psychologia, 2(1), 1–12.
Lahiya, A. (2025). Education Administration Reform: A Case Study On The Implementation Of The Merdeka Curriculum. INJOSEDU: International Journal of Social and Education, 2(2), 29–37.
Latrèche, K., Kojovic, N., Pittet, I., & Natraj, S. (2024). Gesture Imitation Performance and Visual Exploration in Young Children with Autism Spectrum Disorder. Journal of Autism and Developmental Disorders. https://doi.org/10.1007/s10803-024-06595-w
Lily Sardiani Daulay & Khadijah. (2023). Hakikat bermain sosio drama dalam mengembangkan aspek perkembangan sosial anak usia dini. Incrementapedia : Jurnal Pendidikan Anak Usia Dini, 5(2), 8–12. https://doi.org/10.36456/incrementapedia.vol5.no2.a8250
Maleki, M., Mardani, A., Chehrzad, M. M., Dianatinasab, M., & Vaismoradi, M. (2019). Social Skills in Children at Home and in Preschool. Behavioral Sciences, 9(7), 74. https://doi.org/10.3390/bs9070074
Munch, T. N., Hedley, P., Hagen, C. M., Bækvad-Hansen, M., Bybjerg-Grauholm, J., Grove, J., Nordentoft, M., Børglum, A. D., Mortensen, P. B., Werge, T. M., Melbye, M., Hougaard, D. M., & Christiansen, M. (2020). Co-occurring Hydrocephalus and Polygenic Risk in Autism Spectrum Disorder: A Danish Population-based Cohort Study. https://doi.org/10.21203/rs.3.rs-41560/v1
Musyarofah, M. (2018). Pengembangan Aspek Sosial Anak Usia Dini Di Taman Kanak-Kanak Aba Iv Mangli Jember Tahun 2016. Inject (Interdisciplinary Journal of Communication), 2(1), 99. https://doi.org/10.18326/inject.v2i1.99-122
Olcay-Gul, S., & Vuran, S. (2019). Effectiveness of teaching social skills to individuals with autism spectrum disorders using cool versus not cool. Education and Training in Autism and Developmental …, Query date: 2023-06-16 09:52:45. https://www.jstor.org/stable/26663972
Papacek, A. M. (2015). The Role of Peer Guided Play for Children with Autism Spectrum Disorder. Journal of the

American Academy of Special Education Professionals, Query date: 2025-05-16 15:32:59. https://www.semanticscholar.org/paper/17a9701884a71a3c3ccd469109c100dc39697589

Pastari, M., Meilina, M., Martini, S., Endriyani, S., & Sumastri, H. (2024). The Impact of Modifying Lema (Lego and Maze) Game on Stimming Behaviors in Children with Autism Spectrum Disorder (ASD). Indonesian Journal of Global Health Research, 6(S5), Article S5. https://doi.org/10.37287/ijghr.v6iS5.4898

Polakoff, B., & Clark, E. (2017). Social Competence. 1–2. https://doi.org/10.1007/978-3-319-56782-2_1493-2

Pratiwi, L. A., & Saloko, E. (2023). Pengaruh Permainan Ular Tangga terhadap Peningkatan Social Skills dan Playfulness Anak Autisme Spectrum Disorders di Sekolah Al – Firdaus Surakarta. Jurnal Terapi Wicara Dan Bahasa, 1(2). https://doi.org/10.59686/jtwb.v1i2.45

Rahmadianti, N. (2020). Pemahaman Orang Tua Mengenai Urgensi Bermain Dalam Meningkatkan Perkembangan Sosial Anak Usia Dini. Early Childhood : Jurnal Pendidikan, 4(1). https://doi.org/10.35568/earlychildhood.v4i1.717

Rachman, S., & Cahyani, I. (2019). Perkembangan Keterampilan Sosial Anak Usia Dini. (Japra) Jurnal Pendidikan Raudhatul Athfal (Japra), 2(1), 52–65. https://doi.org/10.15575/japra.v2i1.5312

Raluca Cristina Vărăşteanu, Cercetare în Sănătate Mintală, I. „Alessandrescu-R., Bucureşti, Cezarina Daniela Stănescu Boţan, Raluca Dafina Ionuţiu, Andrei Kozma, Centrul de Sănătate Mintală, I. „Alessandrescu-R., Bucureşti, Academia de Ştiinţe Medicale din România, & Academia Oamenilor de Ştiinţă din România. (2020). Cultural aspects of play. Implications for the psychological evaluation and therapy of children diagnosed with autism spectrum disorder. 15(4), 425–429. https://doi.org/10.37897/RJMP.2020.4.11

Russell Lang, Mark F. O'Reilly, Mandy Rispoli, Karrie A. Shogren, Wendy Machalicek, Jeff Sigafoos, & April Regester. (2009). Review of Interventions to Increase Functional and Symbolic Play in Children with Autism. Education and Training in Developmental Disabilities, 44(4), 481–492.

Rylaarsdam, L., & Guemez-Gamboa, A. (2019). Genetic Causes and Modifiers of Autism Spectrum Disorder. Frontiers in Cellular Neuroscience, 13, 385. https://doi.org/10.3389/fncel.2019.00385

Rohmawati, A. (2018). Children's Social Skills Stimulation Viewed From Early Childhood Education Unit in Indonesia. International Journal of Educational Research Review, 3(3), 69–73. https://doi.org/10.24331/ijere.443852

Selvaraj, A., & Christopher, S. (2022). Parental Perspectives of Social Interaction in Children with Autism. International Journal of Health Sciences, I, 3945–3954. https://doi.org/10.53730/ijhs.v6nS1.5692

Senju, A., & Johnson, M. H. (2009). Atypical eye contact in autism: Models, mechanisms and development. Neuroscience & Biobehavioral Reviews, 33(8), 1204–1214. https://doi.org/10.1016/j.neubiorev.2009.06.001

Shalehah, N., Suminar, T., & Diana, D. (2023). Strategi Guru Dalam Meningkatkan Keterampilan Sosial Anak Autistic Spectrum Disorder (ASD). Jurnal Obsesi Jurnal Pendidikan Anak Usia Dini, 7(5), 5757–5766. https://doi.org/10.31004/obsesi.v7i5.5287

Sigman, M., & Ungerer, J. A. (1984). Cognitive and language skills in autistic, mentally retarded, and normal children. Developmental Psychology, 20(2). https://doi.org/10.1037/0012-1649.20.2.293

Spain, D., & Blainey, S. (2015). Group social skills interventions for adults with high-functioning autism spectrum disorders: A systematic review. Autism, Query date: 2024-01-27 10:10:16. https://doi.org/10.1177/1362361315587659

Sunanto, J., Takeuchi, K., & Nakata, H. (2005). Pengantar Penelitian Dengan Subyek Tunggal. CRICED University of Tsukuba.

Tanabe, H. C., Kosaka, H., Saito, D. N., Koike, T., Hayashi, M. J., Izuma, K., Komeda, H., Ishitobi, M., Omori, M., Munesue, T., Okazawa, H., Wada, Y., & Sadato, N. (2012). Hard to "tune in": Neural mechanisms of live face-to-face interaction with high-functioning autistic spectrum disorder. Frontiers in Human Neuroscience, 6. https://doi.org/10.3389/fnhum.2012.00268

Tonge, B., Brereton, A., Kiomall, M., Mackinnon, A., & ... (2014). A randomised group comparison-controlled trial of "preschoolers with autism": A parent education and skills training intervention for young children with autistic …. …, Query date: 2024-01-27 10:10:16. https://doi.org/10.1177/1362361312458186

Ülvay, G. F., & Özkul, A. E. (2018). Social-Emotional Learning Competencies Scale of Secondary School Students. Eurasia Journal of Mathematics Science and Technology Education, 14(4). https://doi.org/10.29333/ejmste/82938

Williams, E., Reddy, V., & Costall, A. (2001). Taking a closer look at functional play in children with autism. Journal of Autism and Developmental Disorders, 31(1), 67–77. https://doi.org/10.1023/A:1005665714197

Yovita, M., & Tjakrawiralaksana, M. A. (2021). Penerapan Intervensi Social Story Dan Roleplay Untuk

Meningkatkan Kompetensi Sosial Pada Remaja Dengan Autism Sepctrum Disorder. Jurnal Psikologi Insight, 5(1), 1–18. https://doi.org/10.17509/insight.v5i1.34221

Yu, Y., Su, Y., & Ch, R. (2011). The Relationship Between Visual Perspective Taking and Imitation Impairments in Children with Autism. In M.-R. Mohammadi (Ed.), A Comprehensive Book on Autism Spectrum Disorders. InTech. https://doi.org/10.5772/19717

Zhan, S., & Ottenbacher, K. J. (2001). Single subject research designs for disability research. Disability and Rehabilitation, 23(1), 1–8. https://doi.org/10.1080/09638280150211202