

The communication patterns of children with autism spectrum disorder (ASD): A discursive analysis



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Abstract This study investigates the communication patterns of children with autism spectrum disorder (ASD) using a discursive analysis approach to better understand their unique linguistic features and interactional strategies. ASD, a neurodevelopmental condition characterized by impairments in social communication and restricted or repetitive behaviors, often poses significant challenges for children in expressing their needs, emotions, and ideas. To explore these patterns, the research adopted a qualitative design involving participant observation, interviews with teachers and parents, and video recordings of naturalistic interactions. The participants were two children with ASD aged seven and eight years. Data were transcribed and analyzed thematically, with particular attention given to language use, turn-taking, conversational initiation, and context-dependent communication behaviors. The findings revealed that children with ASD exhibit distinctive communication styles marked by concrete thinking and the use of simple, direct sentences, often centered on specific objects or situations. Repetition and direct statements emerged as common strategies, reflecting both limitations in flexibility and creativity in language use. In addition to verbal expression, nonverbal communication such as gestures, facial expressions, and body language played a crucial role in supporting meaning and compensating for linguistic gaps. Importantly, the responses of interlocutors were shown to shape communicative success: positive feedback and encouragement from teachers, peers, and parents enhanced confidence, reduced anxiety, and created supportive environments that fostered social participation. These results underscore how contextual factors, including the classroom and play settings, provide opportunities for practicing social norms and developing pragmatic competence. This study contributes to a deeper understanding of both the communicative strengths and the challenges faced by children with ASD. The discursive perspective highlights hidden meanings and social intentions in their speech, demonstrating that communication, although sometimes unconventional, is deeply purposeful. The insights gained hold practical implications for the design of targeted interventions and inclusive pedagogical practices aimed at strengthening social communication skills and improving quality of life for children with ASD.

Keywords: communication, social interaction, teacher, peers, parents

1. Introduction

Autism is a developmental disorder that affects how a person interacts and communicates with others. The American Psychiatric Association (American Psychiatric Association, 2013) stated that social communication problems and repetitive and restricted behaviors are signs of autism. One of the main problems faced by autistic children is speech and communication. Some autistic children can speak well, but many have difficulty using language effectively in social settings (Tager-Flusberg et al., 2005).

Autism spectrum disorder (ASD) is a neurodevelopmental condition characterized by impairments in social communication and interaction, as well as restricted and repetitive behaviors (Maurya & Khan, 2022; Ranieri et al., 2023). These challenges often manifest in early childhood and can persist throughout a person's life, significantly affecting their ability to communicate and interact socially (Maurya & Khan, 2022; McAllister, 2017). Individuals with ASD indeed face significant challenges in social interaction and community participation, which can lead to isolation. These difficulties stem from core deficits in social understanding, interaction abilities, and social competence (Duncan & Klinger, 2010).

ASD is characterized by impairments in social behavior and difficulties in recognizing or understanding others' feelings, which can hinder typical social interactions (Fontes-Dutra et al., 2019). This social impairment extends to various aspects of life, including community participation. Compared with typically developing peers, children with ASD participate at lower rates in their communities (Devenish et al., 2020). Furthermore, the gap between the needs of individuals with ASD and the available social and healthcare services, especially after they transition to adulthood, continues to be a source of burden for families

(Correale et al., 2022). Although children with autism often have difficulty interacting verbally, these children have different ways of expressing their thoughts and feelings. In this context, pragmatic analysis is essential for understanding how children with autism use language in various social contexts.

Children with autism spectrum disorder (ASD) exhibit a wide range of communication abilities, from highly verbal to minimally verbal, making it challenging to design appropriate interventions (Trembath et al., 2019). This variability in language skills necessitates tailored approaches to assessment and intervention for each individual child with ASD.

For children who are minimally verbal, the social communication emotional regulation transactional support (SCERTS) model has shown promise in promoting language development and improving social skills (Fiaz & Rehman, 2020). Additionally, the use of Augmentative and Alternative Communication (AAC) in speech-language therapy has been found to be effective in enhancing communication skills for individuals with ASD, particularly those with limited verbal ability (Pereira et al., 2020; Sievers et al., 2018).

Early diagnosis and intervention are crucial for improving outcomes in children with ASD (Farooq et al., 2023; Warreyn et al., 2014). Various approaches have been developed to address the social-communicative deficits associated with ASD, including cognitive training programs (Maurya & Khan, 2022), physical activity and exercise interventions (Ranieri et al., 2023), and targeted interventions focused on imitation, joint attention, and play (Warreyn et al., 2014). Emerging technologies, such as virtual reality (Zhao et al., 2022) and mobile serious games (Jaramillo-Alcázar et al., 2022), have also shown promise in supporting the development of social and cognitive skills in children with ASD. These interventions aim to enhance children's ability to communicate socially and improve their overall quality of life. As a field of linguistics that studies the use of language in social contexts, pragmatics provides a useful framework for analyzing how children with autism use language in their social interactions. Pragmatic analysis includes such things as context, communicative intent, and the meaning contained in utterances (Levinson, 1983). Thus, pragmatic analysis can help reveal how children with autism speak, even though they may not always follow common communication standards (Hutchins, 1995). Pragmatics focuses on the use of language in social contexts, including how meaning is determined by the situation and interaction.

To develop effective interventions and support strategies, a multidisciplinary approach is crucial. The need for a collaborative, interdisciplinary approach to understanding and supporting pragmatic language development in autistic children. Studies have shown that autistic individuals often struggle with various aspects of pragmatic language, including nonliteral language comprehension, verbal reference, and social communication (Lampri et al., 2024; Malkin et al., 2018; Philofsky et al., 2007). These difficulties can manifest across different linguistic domains, including semantics, syntax, and morphology (Vogindroukas et al., 2022). However, the heterogeneity of communication challenges in autism spectrum disorder (ASD) necessitates a nuanced approach that considers individual differences and potential comorbidities (Vogindroukas et al., 2022). According to this relationship, knowledge from various fields must be integrated to support autistic children effectively by considering the pragmatic aspects of communication. By understanding this relationship, research and interventions can focus more on pragmatic aspects to improve the communication skills and social development of autistic children.

Pragmatic research, which focuses on the use of language in context, allows researchers to explore the meaning behind autistic children's speech. Previous research has shown that autistic children can use language in unconventional ways, often reflecting how they see the world, but research that specifically analyzes their speech from a pragmatic perspective is lacking. The pragmatic approach is used in this study to reveal the meaning of autistic children's speech. By observing their speech in various situations, we can gain a better understanding of how they interact with their social environment, as well as the difficulties they face in expressing their thoughts and feelings (Bishop, 2014). In addition, this study can help parents, educators, and professionals create better solutions to support the communication development of children with autism (Sánchez-Pérez et al., 2020).

Through pragmatic analysis, it is expected that certain patterns can be found in the speech of autistic children that can provide a clearer picture of how they communicate and interact. Thus, this study not only contributes to the academic understanding of the speech of autistic children but also has practical implications for improving their quality of life through more effective communication.

The purpose of this study is to explore and analyze the communication patterns of children with autism spectrum disorder (ASD) using a discursive approach. Specifically, the research aims to identify the linguistic characteristics, pragmatic strategies, and contextual factors that shape the interactions of children with ASD in educational and social settings. Through this analysis, the study seeks to provide deeper insights into their strengths and challenges in communication, as well as to propose implications for more effective educational and therapeutic interventions.

2. Materials and Methods

This study employed a qualitative design with a discursive analysis approach. A qualitative approach enables thorough examination of interaction types in behavior-based interventions (Sowden et al., 2011). The participants included children with autism spectrum disorder (ASD) aged 7-8 years, their teachers, and parents. The data collection methods included participant observation, interviews, and video recordings. Participant observation involved researchers following the daily activities of children with ASD, their teachers, and their parents. The interviews were conducted with teachers and parents to understand

the communication strategies employed. Video recordings captured the interactions among children with ASD, their teachers, and their parents.

The data analysis process employed discourse analysis, which involved several steps. First, the researchers transcribed the collected data. Next, they coded the data to identify communication patterns. Finally, they analyzed emerging themes and communication patterns, focusing on aspects such as language use, turn-taking, conversation initiation, and context-dependent communication behavior. This approach enables researchers to identify emerging communication patterns, focusing on crucial aspects such as language use, turn-taking, conversation initiation, and context-dependent communication behavior.

3. Results

This study reveals several important findings related to the speech of autistic children through discursive analysis methods. The following is a text of a conversation between an autistic child (AB) and a teacher (EN) regarding the context of an apology.

EN: *AB minta apa seharusnya?* [What should AB ask for?].

AB: *Ibu EN, maaf ya, aku ambil mainan.* [Mom EN, I'm sorry, I took the toy].

EN: *ia, kenapa, AB ambil mainannya?* [Yes, why did AB take the toy?].

AB: *Aku Suka.* [I like it].

EN: *Iya, sebaiknya minta izin. Tapi Ibu senang kamu suka.* [Yes, it is better to ask permission. However, I'm glad you like it].

AB: *Terima kasih.* [Thank you].

AB: *Janji tidak.* [Promise not (meaning Ab promises not to take it again without permission)].

EN: *Baiklah, kita bisa main bersama-sama nanti.* [Okay, we can play together later].

For the communication patterns in this conversation, AB shows awareness of wrong actions and tries to correct the mistake by apologizing. This shows the development of AB's social and emotional abilities. Moreover, in terms of language use, ABs use sentences that are indeed unclear and indirect to convey an apology because the limitations of autistic children's language use are not similar to those of normal children; they need a fishing technique in communicating, and they often repeat the same words, but ABs' efforts and willingness to apologize for the use of phrases such as "sorry" and "promise" show an understanding of the importance of responsibility for action.

In the interaction with the interlocutor, Mrs. EN responded with a positive attitude and accepted AB's apology. This created a supportive atmosphere and reduced tension, which is important in social interactions, because a teacher should be able to be a good example.

In terms of social context, the apology occurred in a play context, where social interaction and the sharing of toys are common. This situation provided an opportunity for Ab to learn about social norms and the importance of good communication.

The above utterance also has a hidden meaning, such as Ab's apology not only admitting his mistake but also showing his desire to maintain a good relationship with Mrs. EN. This reflects AB's understanding of the value of politeness and collaboration. Furthermore, the speech employs a communication strategy wherein AB uses an admission of fault and a promise of future improvement as a means to enhance the relationship. This approach serves as a crucial step in building trust and strengthening social bonds.

In brief, this conversation shows how autistic children can learn and practice social skills through simple but meaningful interactions. This discursive analysis highlights the importance of support from peers, teachers, and parents in helping autistic children understand and apply social norms, and in building positive relationships.

The following is a text of a conversation between a teacher (M) and a student (AR) in the context of asking for help.

AR: *Pak M, tolong?* [Mr. M, please?].

M: *Apa, AR.* [What, AR].

Ar: *Buka makan.* [Open the food. (AR means asking Mr. M to open the food container while giving him the lunch box)].

M: *Sini Pak M buka, pelan-pelan ya.* [Here, Mr. M, open it, slowly].

AR: *Menganggukan kepalanya.* [Nodding his head].

M: *Jangan sampai tumpah ya makanannya.* [Do not spill the food].

The communication patterns in this conversation include an open communication pattern, mutual understanding and support between the teacher and the students. Students feel comfortable asking for help, and the teacher responds with a positive attitude. Moreover, in terms of language use, Ar uses simple and direct sentences to convey requests to help the teacher even though the language is unclear but has meaning. The teacher uses clear and easy-to-understand language, and provides educational explanations so that children understand and comprehend.

In the interaction with the interlocutor, the teacher shows concern as well as empathy and willingness to help, which creates a safe and supportive classroom atmosphere. A teacher's positive response encourages students to not hesitate to ask for help.

In terms of social context, the conversation takes place in a classroom setting, reflecting positive social norms in educational environments where a student is encouraged to actively seek assistance when facing challenges. This context promotes a supportive atmosphere that values open communication and collaborative learning.

The above utterance also has a hidden meaning; for example, the student's request for help not only reflects confusion in opening the lunch box, but also shows a desire to receive attention from a teacher. Moreover, the speech employs a communication strategy wherein the student used to ask for help as a strategy to obtain help, whereas the teacher used simple explanations and concrete examples to help the student open the lunch box.

In short, this conversation illustrates a positive interaction between the teacher and the student in the context of asking for help. This discursive analysis highlights the importance of open communication and support in the learning process, and how a supportive environment can increase students' confidence in asking questions and learning.

The following is a text of a conversation between an autistic student (AN) and a teacher (M) in the context of commands.

AN: *Mimi*. [Mimi, (holding a drink bottle)].

M: *AN mau Minum? Pakai apa?* [AN want to drink? With what?].

AN: *Sambil memegang botol*. [While holding the bottle].

M: *Mau pakai sedotan? Dimana sedotannya?* [Want to use a straw? Where is the straw?].

AN: *Mencari sedotan*. [Looking for a straw].

M: *Ambil di atas Meja*. [Take it on the table].

AN: *Ini*. [(Walks straight to obtain the straw) Here].

M: *Iya pintar pakailah sedotannya untuk minum ya, AN pintar*. [Yes, you are smart, use the straw to drink, AN is smart].

The communication pattern in this conversation demonstrates effective interaction, as student "AN" politely requests a straw from Mr. "M", who then directs "An" to retrieve the straw already available on the table. In terms of language use, AN uses unclear sentences. However, as a teacher, Mr. "M" is able to understand the intended meaning behind AN's language use. Although An's communication is simple, he is able to convey his thoughts effectively. This demonstrates An's concrete thinking and ability to focus on the immediate situation.

In the interaction with the interlocutor, the teacher "M" responds with empathy and understanding, which helps create a safe atmosphere for AN to express his feelings. Mr. M's positive response encouraged an to feel valued and heard and helped in communicating.

The classroom setting provides a crucial social context for the ordering process, emphasizing the importance of good behavior and mutual respect. This environment offers AN, a student with autism, an opportunity to develop responsibility in meeting his own needs. Owing to the mental limitations associated with autism, children such as AN often face significant challenges in social interactions and may require assistance from others to fulfill even basic needs. This situation underscores the importance of structured learning environments in helping autistic children develop essential life skills and social awareness.

This is an important step in building trust and strengthening social bonds with teachers. The utterance not only demonstrates awareness but also reveals a desire to fulfill personal needs, employing a unique communication strategy where the AN uses his own code. This approach allows the teacher to understand and engage with the autistic child effectively, sometimes requiring repetition to ensure comprehension. Such interactions play crucial roles in building trust and strengthening social bonds between ANs and their teachers.

In summary, this conversation illustrates a positive interaction between an autistic student and a teacher in the context of giving orders. This discursive analysis highlights the importance of open communication and support in the learning process, as well as how a supportive environment can help autistic students learn about social norms and responsibility.

The following is a text of a conversation between an autistic child (AB) and a teacher (EN) in the context of the desire to eat.

AB: *Bu, lapar*. [Ma'am, hungry (while holding his stomach)].

EN: *Oh, AB. Apa AB ingin makan sesuatu?* [Oh, AB. Does AB want to eat something?].

AB: *Makan*. [Eat (while pointing to the snacks in his bag)].

EN: *Snack apa yang AB bawa*. [What snacks did ABs bring].

AB: *Menunjuk roti dan minuman yang di bawa*. [Pointing to the bread and drinks he brought].

EN: *Baik, ayo kita makan snak AB (sambil membuka snak yang ingin di makan)*. [Okay, let us eat snacks AB (while opening the snacks he wanted to eat)].

AB: *Terima kasih, Bu!* [Thank you, Ma'am! (While smiling)].

EN: *Sama-sama, AB*. [You're welcome, AB].

The communication pattern in this conversation is simple and direct. The autistic child (AB) clearly conveys his basic needs (hunger), and the teacher (EN) responds with support. Furthermore, AB employs concise and lucid sentences to express his desires, reflecting a concrete thought process focused on immediate needs.

In the interaction with the interlocutor, EN shows a positive and responsive attitude toward AB's needs. By offering to help get food and open it, it creates a supportive atmosphere for Ab to express his desires.

This conversation takes place in a school context, where children often experience hunger after studying. This situation provides an opportunity for ABs to learn about effectively communicating needs in a social environment.

The hidden meaning of ABs' desire to eat extends beyond mere physical sustenance, encompassing a deeper longing for social engagement. By expressing a wish to eat, AB demonstrates an inclination to participate in communal activities, such as shared meals, which serve as a conduit for social interaction. This behavior suggests AB's underlying desire to forge a stronger connection and engage in meaningful social exchanges with the teacher.

The speech employs a communication strategy in which AB uses direct statements about hunger as a means to request assistance, prompting EN to respond with supportive options that ultimately help AB feel more comfortable expressing his needs.

In summary, this conversation exemplifies a positive interaction between an autistic child and a teacher in the context of expressing hunger, highlighting the importance of open communication and support in the learning process. This discursive analysis demonstrates how a supportive environment can empower autistic children to better articulate their needs and desires, fostering their communication skills and overall development.

4. Discussion

This study reveals several important findings related to the speech of autistic children through discursive analysis methods. The following is a text of a conversation between an autistic child (AB) and a teacher (EN) regarding the context of

The findings from this investigation offer significant insights into the communication patterns and strategies employed by children with autism spectrum disorder (ASD), with discursive analysis elucidating several key aspects of their speech and interaction, including unique communication patterns characterized by repetitive phrases or sentences that reflect their thought organization and self-expression, albeit sometimes challenging for others to comprehend. This repetitive behavior is not limited to speech but extends to other aspects of their lives, including interests and activities (Castillo et al., 2019; Evers et al., 2018). While these findings provide valuable insights, it is important to consider that communication patterns in children with ASD can vary widely and may not always conform to these generalizations.

In addition to verbal communication, these children rely heavily on body language and facial expressions to convey meaning, often expressing their emotions and needs more effectively through nonverbal cues. These nonverbal communication methods serve as crucial bridges for children with limited verbal ability, allowing them to interact and connect with others in meaningful ways. For example, one study revealed that nonverbal communication skills play a salient role in the adaptive social relationships of children with ASD, even more so than do cognitive representation skills and verbal communication (Yavuz et al., 2019). The observed reliance on gestures, postures, and facial expressions highlights the importance of developing a comprehensive understanding of these alternative communication strategies. Educators and caregivers can leverage this knowledge to create more inclusive and supportive environments that encourage and validate diverse forms of expression. Caregivers' use of gestures, facial expressions, and eye gaze helps organize conversations and control interactions (Bobkina et al., 2023).

Compared with novel or stressful situations, social contexts, particularly home and school environments, significantly impact the communication patterns of autistic children, with familiar and comfortable settings promoting greater openness and expressiveness. O'Keeffe and McNally stated that, in educational settings, play-based interventions have shown promise in supporting social communication skills for children with ASD (O'Keeffe & McNally, 2023). Autistic children also often employ specific communication strategies, such as repetition or the use of metaphors, to express their ideas and feelings. It demonstrates creativity in language use despite the communication challenges they face. In addition, responses from adults or peers strongly affect the success of communication. Positive verbal and nonverbal support can increase the confidence of autistic children in communicating. The timing of language onset appears to be associated with patterns of visual attention to social stimuli. Children with ASD and late language onset demonstrate significantly less attention to salient social stimuli than do those with normal language onset and typically developing children (Stagg et al., 2014). These findings suggest a potential link between early social attention and language development in individuals with ASD.

These findings have significant implications for educational and therapeutic approaches. By providing a deeper understanding of autistic children's communication patterns, this research can inform the development of more effective and tailored strategies for educators and therapists working with this population. The limitations of this investigation include several factors, including a small sample size with only two participants and potential researcher bias, as interpretations in discursive analysis can be influenced by researchers' preconceptions or theoretical orientations.

5. Conclusions

This study provides valuable insights into the communication patterns of autistic children through discursive analysis. Research has revealed that autistic children exhibit unique communication styles, including repetitive language use and reliance on nonverbal cues. Social context significantly influences their communication ability, with familiar environments fostering more open expression. The study also highlights the creative communication strategies employed by these children,

such as metaphors and repetition, to convey their thoughts and emotions. Importantly, the research underscores the crucial role of interlocutors in facilitating successful communication with autistic children. Positive support from adults and peers can significantly enhance their confidence in their expression. The analysis also reveals hidden depths in autistic children's speech, which are often linked to emotional experiences or specific situations, emphasizing the need for contextual understanding. These findings have significant implications for educational and therapeutic approaches. By providing a deeper understanding of autistic children's communication patterns, this research can inform the development of more effective and tailored strategies for educators and therapists working with this population. Future research on the communication patterns of children with autism spectrum disorder (ASD) through discursive analysis could explore longitudinal studies that investigate how communication patterns evolve over time as children with ASD develop and receive interventions. Additionally, future research could examine differences in communication patterns among children with ASD from diverse cultural backgrounds.

Acknowledgment

I would like to express my deepest gratitude to Universitas Negeri Surabaya for providing the opportunity and facilities throughout the course of this research. I am also sincerely grateful to Prof. Kisyani, my academic advisor, for her patient guidance, valuable direction, and scientific support during the preparation of this journal. My heartfelt thanks also go to Dr. Mintowati for her invaluable guidance, motivation, and knowledge shared during the research process. In addition, I would like to extend my appreciation to all the educators at Rumah Autis Depok for offering practical experiences and insights that significantly contributed to the smooth completion of this study.

Ethical considerations

This study involved human subjects, including children with autism spectrum disorder (ASD), their parents, and teachers. All research procedures strictly followed international and institutional ethical guidelines for studies involving human participants. Prior to data collection, approval was obtained from the Ethics Committee of Surabaya State University (Approval Number: B/69085/UN38.2/PP.11.01/2024). Informed consent was obtained in writing from all participants' legal guardians (parents) as well as from teachers who were interviewed and observed. Participants were fully informed about the objectives of the study, the voluntary nature of their participation, and their right to withdraw at any time without consequences. Confidentiality and anonymity of all participants were ensured throughout the research process, and no identifiable personal data were disclosed in the publication. The authors confirm that this research respected the dignity, rights, and welfare of all human participants.

Conflict of Interest

The authors declare no conflicts of interest.

Funding

This research did not receive any financial support. All expenses related to the study were personally funded by the author from their own resources.

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