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LANGUAGE COMPETENCE OF ASD'S CHILD 0-5 YEARS OLD: STUDY OF AUTISTIC CHILD LANGUAGE ACQUISITION

[KEMAMPUAN BAHASA ANAK DENGAN GANGGUAN SPEKTRUM AUTISME (GSA) USIA 0-5 TAHUN: STUDI TENTANG PERKEMBANGAN BAHASA PADA ANAK AUTIS]

Astria Prameswari

Universitas Brawijaya
astriaprameswari@gmail.com

Abstract

Autism Spectrum Disorder (ASD) is a neurological condition in the brain. One symptom easily observed is the presence of language disorders that cause language deficiency. This study aims to provide initial knowledge as a foundation for developing language learning for children with ASD. The study was longitudinal, involving 1 (one) child with ASD aged 5 years old in Indonesia (S), as the sample. Psycholinguistics was used as a fundamental theory to interpret language disorders in children with ASD. Our findings show that the language competence of the child with ASD (S) begins to experience deficiency when the child enters the age of 2 years. At the age of 4 years old, the language competence begins to emerge through nonverbal communication. Verbal competence appears at age 5, marked by pronouncing one vowel sound /a/ and /u/ to name objects. S's nonverbal

competence in this period also appears in communication responses to other people. Other language characteristics for S, such as echolalia also appear in his language profile.

Keywords: Autistics; Indonesia children; language competence; nonverbal language

Abstrak

Gangguan Spektrum Autisme (GSA) adalah suatu kondisi neurologis pada otak. Salah satu gejala yang mudah diamati adalah adanya gangguan bahasa yang menyebabkan keterbatasan bahasa. Penelitian ini bertujuan untuk memberikan pengetahuan awal sebagai landasan dalam mengembangkan pembelajaran bahasa bagi anak-anak dengan GSA. Penelitian ini bersifat longitudinal, dengan melibatkan 1 (satu) anak dengan GSA berusia 5 tahun di Indonesia (S) sebagai sampel. Psikolinguistik digunakan sebagai teori dasar untuk menafsirkan gangguan bahasa pada anak-anak dengan ASD. Temuan kami menunjukkan bahwa kompetensi bahasa anak dengan ASD (S) mulai mengalami kekurangan saat anak memasuki usia 2 tahun. Pada usia 4 tahun, kompetensi bahasa mulai muncul melalui komunikasi nonverbal. Kompetensi verbal muncul pada usia 5 tahun, yang ditandai dengan pengucapan satu bunyi vokal /a/ dan /u/ untuk menyebut nama benda. Kemampuan nonverbal S pada periode ini juga terlihat dalam respons komunikasinya terhadap orang lain. Karakteristik bahasa S lainnya, seperti *echolalia*, juga terlihat dalam profil bahasanya.

Kata Kunci: Penderita autisme; anak-anak Indonesia; kompetensi bahasa; bahasa nonverbal

Introduction

Chomsky (2006) mentions that language is a product of individual human thought. Language functions as a means of communication. Through communication, inter-speakers can establish social interaction. In the process of speaking and communicating, interference can occur. Through language, humans can communicate with other humans (Maha & Harahap, 2020). Language as a communication tool is a product of human cognitive work as a response to knowledge. Language can also be a verbal tool used for communication (Chaer, 2015) such as asking and answering questions (Akmajian et al., 2017), understanding reading information (Loughnan et al., 2023), and so on. Ellis (1994) adds that language is institutional and becomes a rule of social communication in a particular society.

Several fields of science examine disorders in language processes such as Psycholinguistics, Cognitive Linguistics, and Neurolinguistics. Psycholinguistics is a field of science that examines the process of acquiring language and events of language disorders in both adults and young children (Dardjowodjojo, 2018). It is a psycholinguist who mentions something. In psycholinguistics it is mentioned that language processing deals with phonological, semantic, and grammatical encoding (Chaer, 2015). Semantic and grammatical encoding takes place in the brain. The phonological encoding starts from the brain and then continues to the speech apparatus involving the nerves of the brain. Thus, it can be concluded that language is an activity of expressing thoughts and feelings orally or in writing. Neurolinguistic examines the performance of the brain in producing language, especially in disorders that occur in the brain nerves in the left hemisphere (Kemmerer, 2014). Apart from neurolinguistics, this study also pays attention to several findings of Cognitive Linguistics which assume that language is an instrument for organizing, processing, and conveying information. Thus, Cognitive Linguistics examines the formal structure of language as a reflection of the organization of concepts, categorization, principles, processing mechanisms, and the influence of experience and environment in creating language. In some of its studies, Cognitive Linguistics has similarities with Neurolinguistics which examines language disorders (Daulay et al., 2014).

Language disorder in children is a production process disorder that occurs in children. This language disorder was observed to be caused by two reasons, namely due to medical factors and due to the social environment. The medical factor is more caused by abnormalities in the function of the brain and its speech organs. Social environmental factors can also cause language disorders (Roekhan, 2010). The disorder comes from a person's isolation from a normal social environment.

Language and communication are two things that are interrelated. In the communication process, the main goal to be achieved is the conveying of information from one speaker to another. Through communication, inter-speakers can establish social interaction. Language is the main tool in communication. With language, speakers can convey information orally or verbally, can hear information, can respond, and can express various feelings during the communication process. Language is used in the process of reading, writing, listening and speaking.

Based on the function of language as a communication tool above, cases of language disorders in children who are not normal will experience the opposite. Children who experience language disorders will certainly also experience the process of communicating with other people (Reinhartsen et al., 2021). Language disorders are caused by medical factors such as Autism Syndrome Disorder (ASD), dyslexia, and others. Language disorders are caused by environmental factors such as verbal autism and speech delay. All of the children with special needs above have different characteristics in their language competence.

One's children with ASD linguistic competence can be observed from three factors whose development progresses simultaneously from infancy to the final stage of language acquisition. The first is the grammatical or syntactical factor, which involves the ability to understand and apply sentence structure rules so that words can be organized into logical and acceptable sentences (Koizumi & Kojima, 2022). The second is the semantic factor or language meaning, focusing on understanding the definitions of words or phrases and how those meanings adapt according to context (Maksimović et al., 2023). The third is the phonological factor or language sounds (Reindal et al., 2023), which entails the capability to recognize, differentiate, and produce specific language sounds (phonemes), including proper intonation. These three dimensions complement one another, as phonology provides the raw

material of sound, syntax arranges them structurally, and semantics gives ultimate meaning to the communication.

There are six stages in the acquisition of children's language, namely the level of reading experienced by children at the age of 0-1 years, the holographic period at the age of 1-2 years, the period of uttering two words at the age of 2-2.6 years, the beginning of grammar 2 at the aged 3 years, the period approaching adult grammar at the age of 3-4 years, and the period of full proficiency at the age of 4-5 years (Hikmawati, 2014; Chaer, 2015). These stages can be passed by children with normal conditions or without indications of language disorders, both media disturbances and social environment disturbances.

Children with ASD experience language disorders related to the media. Neurological disorders of the brain especially in Broca and Wernicke areas (Sanjarovn, 2023) as a processor of language activities make children with ASD have various language barriers such as delays in the process of receiving information in their brains to barriers to expressing language through speech devices in their bodies (Drigas et al., 2021). Other biological devices that are hampered are brain nerves such as the ability of the hippocampal part of the brain to process language learning habits (Wright et al., 2013). This was further emphasized by Chaer (2015) who argued that in the human nervous system, the brain is the nerve center, controlling the mind, and the mechanism of the organs of the human body. The external cause in question is the influence of the language environment.

ASD or people often call it autism is a condition of neurological disorder that causes a unique spectrum in each ASD individual. Symptoms that often appear are communication disorders due to a lack of language competence (Valle et al., 2021). Jeklin (2016) stated that autism is diagnosed from a condition of inability to communicate and social interaction. Children with ASD have been the focus of attention for many parties recently. There have been different numbers of children with ASD in many parts of the world.

Wahyu et al.(2018) stated that 35 million children worldwide lived with ASD in 2011. Globally, the prevalence of ASD has shown a significant annual increase, as highlighted by the World Health Organization (WHO, 2023). Historically, the number of children with ASD was estimated at 1

in 5,000, which then surged to 1 in 500 children by the year 2000. In the United States, data from the Centers for Disease Control and Prevention (CDC) recorded an even higher ratio of 1:80 among 8-year-old children in 2008. This upward global trend continued, with projections reaching 1 in 300 children in 2010 and 1 in 250 children by 2015.

A similar, significant increase in ASD cases has been observed in Indonesia (Kemenkes, 2010). In 2015, the WHO estimated that approximately 12,800 children—or 134,000 people overall—lived within the autism spectrum in the country. Furthermore, the Indonesian Central Bureau of Statistics (BPS) reported that 2.4 million people had ASD in 2016, out of a total population of 237.5 million with a 1.14% growth rate. Currently, the population of individuals with autism in Indonesia is estimated to increase by approximately 500 people annually.

Many studies on children's language acquisition have been carried out. However, studies on language acquisition of children with special needs, especially children with ASD, are still not widely carried out. on the other hand, the need for improvements to inclusive language learning is urgent. This study aims to provide initial knowledge about the language competence of ASD children from the age of 0 to 5 years. The results of this study can contribute initial knowledge to teachers, parents and language therapists so they can provide appropriate interventions for ASD children. This study observes the course of the development of language competence in Indonesia ASD children in their early stages. In this study, we get data from a sample of ASD children from infancy to the age of 5 years. During the toddler years, which is also known as the critical period in the learning process including language learning, ASD children are recorded on their language competence so that it becomes the basis for research on language competence in the following period.

The basis for this research is departing from several studies on the language of children with ASD. For example, research by Prasetyoningsih et al., (2020) which found about impaired illocutionary competence in ASD children. Prasetyoningsih (2020) also researched the language competence of ASD children as the basis for the treatment of literacy learning in schools. Furthermore, there is research on the development of syntax in autistic children by Tarigan (2019). Tarigan stated that ASD children have language competence whose syntactic structure is different from children without ASD. The sentence structure of ASD

children is often reversed and incomplete. Badari (2020) also researched the language development of ASD children in aspects of their receptive language. Another study is from Maha & Harahap (2020) which also examines language development disorders in ASD children and therapies that can be used. Miniscalco & Carlsson, (2022) also conducted a longitudinal study in Gothenburg on six children with ASD to determine their language competence (verbal and nonverbal competence).

While these previous studies provide valuable insights into specific linguistic components or direct therapeutic interventions, there remains a critical gap in establishing a comprehensive, baseline profile of the language abilities of children with ASD. Particularly in the Indonesian context, descriptive research that systematically maps out these holistic linguistic profiles is still significantly underrepresented. Many existing frameworks focus heavily on immediate behavioral interventions without first providing a detailed, systematic description of the children's actual language profiles as a prerequisite. This study addresses this gap by focusing strictly on describing and mapping the holistic language profiles of children with ASD. By capturing their specific strengths and deficits across linguistic domains, this descriptive research provides the essential empirical foundation and baseline data required to design more targeted, effective, and individualized language intervention strategies in the future.

Research Method

This study was longitudinal with qualitative approaches. This study seeks to solve problems based on data by presenting, analyzing, and interpreting data for 5 years.

Respondent

The subject in this study was 1 (one) child with ASD aged 5 years, coded as S. S is one of the ASD children in Indonesia from a doctor's family in East Java, Indonesia. S was diagnosed with autism since he was 3 years old. S was chosen as the observation sample because from the age of 0 to 5 years, S did not show any significant differences physically with other children of his age. S when he was 0-1.5 years old also showed normal language competence like a baby his age. However, at the age of 18 months, S language competence showed an oddity. The awkwardness of S's language competence became the basis for selecting the sample

because S is a mild level ASD child whose language characteristics tend not to be detected if no intensive observation is carried out. The subject of this study was the use of S language in everyday life from 0-year-old to preschool (5 years old). This research was conducted with a qualitative descriptive method because all the data were read, analyzed, grouped, and interpreted according to the results in the field. The qualitative descriptive is an assessment or research method using descriptions in words and not examining data in numbers. Qualitative descriptive research analyzes descriptions not in the form of numbers or coefficients about variable relationships (Arikunto, 1991).

Instruments

The interview guide was used as a reference for researchers to find out the history of health, language habits, communication behavior in the S family from the age of 0-5 years. Interview guidelines are also useful for digging deeper information on the results of observations. Recording devices are used to store all the information obtained during the research process. The recording devices used are smartphones and cameras. The second technique used in this study was note-taking. It was done by capturing data through the process of observing the data. The note-taking was done following the listening process or the data collected from written sources.

Procedures

Our study used a listening and note-taking technique. The listening technique means collecting data by listening and observing the language competence of the sample. Data collection is done by listening to S language competence since he was 3 years old. Observation of S's language competence in the previous 2 years was carried out by interviewing and observing various records belonging to the S family. That was done by observing personal family documents in the form of photos and recordings. It was also done by listening to the results of interviews and narrations told by the family members and the therapist. We also observed S's daily behavior in communicating. Data collection was carried out once a month to the S family. For a month, the S family was given notes on all S language behavior at home and at school. Data collection was carried out from 2018 to 2023.

Data Analysis

The written data were then classified based on the need for further detailed analysis. The data that were categorized and recorded into the language competence table which includes phonological competence, morphological competence, syntax, and pragmatic competence. Furthermore, all data were observed and interpreted by researchers to obtain conclusions about the movement of language competence every year. After that, the results of the processed data analysis were triangulated with experts such as language acquisition experts to find out any differences in the language competency results of ASD children and children without ASD. Data triangulation was also carried out by confirming the findings with a literature review of ASD children's language.

Findings and Discussion

The results and discussion of S's language competence will be divided into 5 sub-sections according to the development of S's age. However, the outset explains the language symptoms of children with ASD in a separate sub-section.

a. Language Symptoms of Children with ASD

A child with ASD has a deficiency in social communication and language competence (De Giacomo et al., 2016; Miniscalco & Carlsson, 2022). Language disorders are caused by developmental disorders in the brain nerves (Broca and Wernick) that produce articulation into sound (Maha & Harahap, 2020). The disorders ultimately lead to language deficiency, characterized by the lack of vocabulary acquired and difficulty interacting with the social environment using language. The social environment of S is the family environment, school environment, and peer environment. As a result of this deficiency, children with ASD find it difficult to receive and respond to various information, making them often appear and seem to live in their own world. Language and speech disorders are one of the causes of developmental disorders in the brain's nerves that produce articulation into sound.

The second language symptom after the vocabulary deficiency is the deficiency in using nonverbal language. According to Soeriawinata (2020), children with ASD have a deficiency in the use of nonverbal language. Examples of this nonverbal communication are eye contact when communicating, facial expressions, and using body language or

gestures as an expressive reaction to others (Prasetyoningsih, 2016). Children with ASD also find it hard to respond to language, asking them to make commands and pay attention to the other person's statements.

Children with ASD level 1 will start showing a language deficiency at 18 months of age—their language competence may disappear. The gap in language competence between neurotypical children and those with ASD can be seen when they are 2 years old. Children with ASD struggle to say 1-2 words, while neurotypical children are able to say 2 words or more to others. ASD children has different language competence with neurotypical children. Children's speech develops—from babbling, to speaking one word at a time, and then to combining words into longer utterances with more grammatical elements conveying a plethora of meanings (Naigles, 2021).

Language competence will increase with the development of age. Children with ASD have different speeds in language learning. Some children experience delays in social skills but are fast in learning language through therapy. There are also children with ASD who still have language deficiency despite therapy and other assistance.

b. Language Competence of Children with ASD Aged 0-1 Year

S was diagnosed with mild ASD or Level 1 ASD. From birth until one year, S showed no physical and behavioral differences from an average child of the same age. Chaer (2015) mentions that newborns can respond to the voices and sounds they hear. The first voice a newborn hears is the mother's voice and family members' voices. S showed the same responses as neurotypical developing children, which was evident from the first week, when the infant could respond directly to the voices of the mother and other family members. Neurotypical children communicated by imitating other people's gestures and movements, such as opening the mouth and moving the tongue. S showed simple gestures, including moving body parts such as hands and fingers, when seeing the mother. When approaching the age of one month, S began to imitate the mother's voice by making short sounds.

At two months, S communicated with eye movements and started to show responses to people present around. He also communicated with smiles and started to look at people in the face and eyes. He would look at people who looked at him. Chaer called this kind of smile a social smile.

A social smile is a smile in response to other people; it can also be a social reaction due to stimulation from the people around. This social reaction means that children with ASD are also part of social beings who need to interact with other beings (Soeriawinata, 2020).

At three months, he showed the same responses as other normal babies. S's social smiling behavior became more pronounced and responsive to social interactions. He started to imitate sounds and voices around. His mouth started to imitate the mother's mouth while speaking. He started to produce a cooing sound as a form of communication.

At six months, S started to get excited when people around S joked. His language competence was indicated by sounds like babbling bilaterally. In the following months, S responded to other people's language through peek-a-boo. The response was laughing, seeing the people interacting with S on eyes, and understanding the shift pattern in communication. S understood when its S's turn to respond to other people's communications. S's understanding of the communication pattern was observed, and the sample is presented in Table 1.

Table 1. Conversations between S and Dad when Playing Cilukba

Number	Person	Dialog/Responses
1	*Ayah (Dad)*	*Halo,* S!
2	*S*	(looked at Dad)
3	*Ayah*	*Ci luk ba…* (covered his face with hands)
4	S	(surprised and laughed)
5	*Ayah*	(hid under S's stroller) *Ci luk ba…*
6	S	(looked at Dad and laughed)

Table 2 shows S's language competence to babble bilaterally appeared when S was invited to communicate by the mother is presented below.

Table 2. Conversations when Mom Teaching a Song

Number	Person	Dialogue/Responses
1	*Ibu* (Mom)	*S, anak pinter*! (S, good boy!)
2	S	(laughed happily while moving both legs and laying on the stomach)
3	*Ibu*	*S!* (sang a song to S)
4	S	bbbaba bbaa bbbaba mmam mamm
5	*Ibu*	*S, anak hebat!* (S, great boy!)
6	S	Mmmm…ma..mm..ma

Based on Table 2, around 0 to 1 year old, babies should be able to imitate the movements and sounds of those around them. S did not have the competence to do so. He only showed a response by smiling, laughing, and responding. His imitation skills, such as nodding, clapping and shaking the head began to show deficiency by the age of 1 year old. He just said bbba, mmmam, mmm.

c. Language Competence of Children with ASD Aged 1-2 Years

At 15 to 18 months old, S showed stimming (doing the same repetitive actions or movements), including clapping hands, running in the same direction, smiling and laughing by himself while playing alone. The family members noticed through their observations that these repetitive actions or movements were not a form of response to communication. On the contrary, S did not show any response when people tried to communicate with S. He would run and show other responses.

When people tried to communicate with S, he started to show no nonverbal responses, such as having eye contact with people communicating with S, as shown in the Table 3.

Table 3. Conversations when S Asked a Glass of Milk

Number	Person	Dialogue/Responses
1	*Ibu* (Mom)	*S, mau susu?*
2	S	(run)
3	*Ibu*	(approached S and stopped S, then looked S in the eye so it would be easier for S to notice Mom's voice) *S, mau susu ya?*
4	*Ibu*	(clapped hands repetitively while laughing)
5	*Ibu*	(took a glass of milk and put it in front of S)
6	S	(run again) (When S felt exhausted after running, S was thirsty. S approached Mom, and S cried. Mom understood that S wanted that glass of milk.)

Table 3 confirmed that S was not able to respond to the mother. S has difficulty understanding the meaning of mother's speech. The disturbance leads to a pragmatic disturbance (Xiong et al., 2022). The verbal communication S must have at S's age is saying a one-syllable word such as mik (asking for a drink), mam (asking for food), ma (addressing the mother), and pa (addressing the father). However, S was not capable of doing so. Thus, the verbal language competence of S has not reached the level of saying a one-syllable word. S showed no signs of nonverbal communication, such as nodding when agreeing and shaking his head when disagreeing, in Table 3. There was no interactive communication between S and the mother. He responded to the mother offering milk not by nodding or shaking his head but by running, clapping his hands, and laughing repetitively. This behavior is often known as flapping (Prescott & Ellis Weismer, 2022).

When S was almost 24 months or 2 years old, he started to produce some sounds as if he would start talking. However, S only made meaningless sounds. The mother and other family members did not understand S's sounds. The mother started to learn the meaning of S's

nonverbal communication when he was 24 months, as shown in the Table 4.

Table 4. Conversations when S Asked Something

Number	Person	Dialogue/Responses
1	S	(suddenly cried)
2	*Ibu*	*Mau apa, S?*
3	S	(still cried)
4	*Ibu*	(offered drink, snacks, and toys)
5	S	(cried frustratedly)
6	*Ibu*	(picked up S, tried to calm S while kept looking for the reason why S cried)
7	S	(moaning repetitively, making meaningless voices)
8	*Ibu*	(took S outside)
9	S	(started to cry less, still moaned, yet the intention was lower)

Table 4 shows that the form of S's verbal communication with the mother when asking for something was moaning. He felt bored inside and asked the mother to take him outside. At first, the mother did not understand why S cried. By chance, the mother took S outside. The mother said she did not understand what S wanted with the crying. However, the mother made all efforts to reduce S's frustration. Fortunately, the way the mother took S outside by chance was the answer to his cries and moans. In sum, when S was 24 months old, he communicated with other people through moaning, yet the people around he could not understand what he wanted to convey with the moans.

When S was 24 months old, he showed little attention to other people. When people talked, S started to pay attention with very low intensity. S also responded by laughing when he saw something funny. However, S showed no vocabulary competence; his communication forms were only laughing, crying, and moaning. This is in line with findings which state that one of the characteristics of children with ASD is a deficit in social interaction (De Giacomo et al., 2016; Beam, 2022; Prescott & Ellis Weismer, 2022).

d. Language Competence of Children with ASD Aged 2-3 Years

When S was 2 years old, his language competence appeared and disappeared. When S was 1-2 years old, his verbal communication was cries and moans; when S was 2.5 years old, he showed only minimal progress. Thus, S's parents started looking for help from experts. The parents started helping S as suggested by the doctor. Initial assessment showed that he had verbal autism. Verbal autism is the inability to speak caused by habits and environmental factors. When S was 24-30 months, he was invited to communicate interactively. His parents actively talked to him directly. S was kept away from televisions and cell phones—the two devices have been commonly used to play children's shows on social media, such as YouTube.

Still, S could not respond to other people's conversations and did not produce any vocabulary. It was only once he said the word "Abi", which means Dad, as he was previously taught this word. When S was 2.5 years old, his mother taught him to call the family members. The mother repeatedly taught S to say the word "Abi" to call his father. The mother chose the word "Abi" (means father in Arabic) than "Ayah" (means father in Indonesian) because the word "Abi" was easier to say. In their daily life, the family members call the father Ayah, but the word Ayah was considered too complicated for S to say. After hearing the word Abi twice, his responses were only stimming; he seemed to not care about the word the mother taught to imitate.

His mother considered the lesson she taught him to say Abi was unsuccessful because he imitated nothing. The last syllable of Bi that neurotypical children effortlessly produce could not be imitated by S. Several days later, however, S said Abi three times while stimming. While S was running on the same route repetitively, he clapped the hands and said the word Abi three times fluently and clearly. What happened to S supports the opinion that children with ASD can hear and save the memory of words other people say, yet these children cannot respond. The data showed that children with ASD can remember and imitate words deliberately taught to them. These words are easier to understand and imitate than words that the children hear continuously but are not taught intensively and deliberately.

At more than 30 months old, S showed a setback in language competence. After S succeeded in saying Abi, he returned to the world of silence. S did not speak at all, although he was taught to say words. S was silent and responded to no one; it happened until he reached 3 years old. His responses and attention (focus) to other people also decreased, and he seemed to live alone in a world he built, a world nobody could enter.

e. Language Competence of Children with ASD Aged 3-4 Years

S showed no progress in language competence at 3 years old. He still could not respond to people and could not perform two-way communication. The verbal autism diagnosis and the doctor's advice did not feel quite right for his case. His parents looked for a follow-up diagnosis from other doctors, such as neurologists and autism experts. As the examination results of S's natural communication tools, such as the tongue, mouth, and ears, did not show any abnormalities, S got another diagnosis of ASD. The language symptoms S showed are vital signs for ASD symptoms.

Based on the results of the ASD diagnosis, S received a different treatment and started doing therapy at a child developmental school. He was helped to develop a habit of communicating with fellow autistic friends, teachers, and special nurses at the school. Since examination results showed that his speech organs were normal, he was not given speech therapy by the autism doctor.

S's fine and gross social and motor competence gradually showed progress, but not with language competence. He still could not produce a single word. At the age of 4 years, he began to show nonverbal communication competence, such as better attention to people talking and eye contact. S began to show an interest in communicating by often paying attention to others when talking. After showing attention, he also showed a response several times by smiling and touching the other person with whom he was communicating.

When S was about to reach 4 years, when he wanted something, he could not show that intention to other people. S still cried and was aggressive in telling people what he wanted. S was not able to reach verbal language production. His nonverbal communication was shown through crying and holding the people with whom he tried to communicate to make them understand what he wanted. S had trouble

expressing specific intentions, so he used nonverbal language more often. Larasari et al. (2021) state that children with autism have impaired ability to use expressive language or speak. One of the language learning methods that the S family is starting to recognize is Applied Behaviour Analysis (ABA). ABA is behavior and language therapy for special needs children like ASD (Eckes et al., 2023; Kania & Damri, 2019; Hienemen, 2022).

Table 5 shows S's language competence at the age of 4, when S wanted to take off the diaper and pee in the bathroom.

Table 5. Conversations when S Asked to Took off the Diaper

Number	Person	Dialog/Responses
1	S	(cried)
2	*Ayah* (Dad)	:*Kenapa?*
3	S	(still crying and starting to moan)
4	*Ayah*	*Mau apa?*
5	S	(held Dad's hand and looked at him)
6	*Ayah*	*Mau apa?*
7	S	(touched the diaper while still crying) (S stopped crying when Dad took him to the bathroom and took off the diaper)

Table 5 shows that his language competence was nonverbal when he was about to reach 4 years. S showed nonverbal communication in the form of eye contact, touching the person talking to S, and showing a more apparent intention to others. Gestures as nonverbal communication are also believed by Valle et al. (2021) to be a communication tool to help break language barriers not experienced by children with good verbal skills. Thus, verbal language competence did not appear at the age of 4 years.

f. Language Competence of Children with ASD Aged 4-5 Years

Young children (aged 4–5 years) have language competence characteristics: first, they face more challenges in perceiving front placement (labial) stop consonants in a quiet environment than older children or adults (Aalto et al., 2022). Second, the evidence on the level at which speech sound production and auditory recognition impact each other is not clear (Hearnshaw et al., 2019). Third, A good performance in auditory recognition does not necessarily lead to good production of a sound but may increase the likelihood of learning the pronunciation of the sound (Rvachew & Brosseau-Lapré, 2018). S's language competence at 4-5 years old was not much different from when S was 3-4 years old. He still used nonverbal communication. S still communicated with cries, moans, and aggressiveness. However, S started to show some progress, especially in verbal language competence. Tables 6 and 7 showed the progress when the mother taught some words.

Table 6. **Conversations when S Asked a Cake and Drink**

Number	Person	Dialog/Responses
1	*Ibu* (Mom)	*Kue* (showed a cake that would be given to S)
2	S	(looked at Mom in the eye)
3	*Ibu*	*Mau ini? Ini ku…e…*
4	S	(silent and looked at Mom)
5	*Ibu*	(took a small slice of the cake and fed it to S)
6	S	(smiled)
7	*Ibu*	*Enak? Ini ku..e… Apa? Ku…e…*
8	S	(kept eating the cake)
9	*Ibu*	(took another small slice of the cake and gave it to S)
10	S	(ate the cake)
11	*Ibu*	*Ku…e…*
12	S	(looked at Mom again and then looked at the cake)
13	*Ibu*	*Ku…e…* (Mom showed her lip movement, so the pronunciation was clearer)
14	S	(looked at Mom's lips)

15	*Ibu*	*Ku…e…*
16	S	(S's lips started to move and formed a shape to say a vocal /u/) *Uuuu….*
17	*Ibu*	*Ya, betul, ku…e…*

Table 6 indicates that S began to have verbal language competence. The vowel /u/ in that table is S's effort to produce language to imitate the word kue (cake) taught by the mother. The mother repeatedly said the word kue for S to imitate. After a few times, S understood that the word kue had something to do with the object was eating. S tried to label the thing he ate with the word he heard repeatedly from the mother. The use of language that is repeated is in line with findings by Gernsbacher et al. (2016) and Miniscalco & Carlsson (2022), which state that one of the language features of children with ASD is echolalia, or repetition of words or other forms of language when communicating, as shown by S.

After S understood the connection between the thing he ate with the word kue, he started to say kue. His competence was not perfect in saying kue. After looking at the mother's lips several times, he started to move the lips as the mother did; he imitated the mother. S repetitively imitated the word kue by saying the /u/ vowel. His competence was in line with the opinion by Isna (2019) that language development in early childhood happens through the association and interaction of children with their peers or adults. The first sound S produced was not the consonant /k/ as the first letter of kue. Consonant sounds are indeed more difficult for S to pronounce than the vowel sound of /u/. Thus, the first sound S pronounced was /u/ repeatedly.

S emitted a vowel /a/ to indicate the intention of asking for water or air in Indonesian. S meant to say the word air, and only one sound came out, namely /a/. Based on the similarity of the two tables above, it can be concluded that S first demonstrated verbal competence at the age of 5 years. The second conclusion is that the first sound S produced was a vowel, not a consonant. The third conclusion was that S managed to communicate verbally by producing only one sound at 4-5 years old. S's responses to other people's words also appeared in this period. S showed

understanding towards other people's words. Table 7 shows that S understands and responds positively to the mother's words.

Table 7. Conversations when S Goes to School

Number	Person	Dialogue/Responses
1	*Ibu*	*Mau ke mana?*
2	S	(answered with a murmur)
3	*Ibu*	*Lagi gembira ya?*
4	S	(smiled and murmured)
5	*Ibu*	*Kok senyum?*
6	S	(murmured repeatedly and clapped hands)
7	*Ibu*	*S mau sekolah ya?*
8	S	(silent and held the school bag)
9	*Ibu*	*Belum waktunya masuk.*
10	S	(kept murmuring while still holding the school bag)
11	*Ibu*	*Kalau mau masuk kelas, salim dulu* (gave her hand to be kissed)
12	S	(took the mother's hand and hand-kissed it) (smiling and gave some appreciations)
13	*Ibu*	*Mau ke mana?*
14	S	(answered with a murmur)

Table 7 shows that S responded to the mother's question using a nonverbal response. The first dialogue "S, kenapa senyum?" (S, why are you smiling?). He answered with a nonverbal response, a smile. When the mother asked, "Apakah kamu gembira?" (Are you happy?) S kept answering with a smile and murmur. He also showed nonverbal responses when the mother asked, "Mau sekolah?" (Are you going to school?). He responded with a murmur while holding the school bag. He murmured to answer the mother's question, but he did not yet have the competence to respond expressively.

When the mother asked S to do hand-kissing before entering the classroom, S responded not in verbal form. The mother communicated with S through nonverbal and verbal forms. The mother said *salim* (hand-kissing) while sticking out her right hand. S could respond to the mother's gesture by hand-kissing as commanded. Thus, S could respond to other people's communication well when he was about to reach 5 years old. According to Febriantini et al. (2021), the use of nonverbal language can interfere with the process of understanding communication compared to the use of verbal language, which is easier to understand directly.

At school, S showed a little verbal response, mirroring the behaviour observed at home. The infant primarily relied on nonverbal responses, such as smiling and murmuring, and had not yet displayed more advanced language competence in either environment. This pattern contradicts the findings of Aalto et al. (2022), who state that babble noise is familiar to pre-school-aged children from daycare centers and playgrounds.

Conclusion

The data for this longitudinal study of one child with ASD Level 1 were previously defined in the literature as individuals who can speak in full sentences but struggle with the reciprocal flow of conversation. The primary data for this study were gathered from observations of the development of the child's language competence for approximately 5 years period. These observational data served as the foundational source for interpretation and were concluded as a sample of the language competence of children with ASD from infancy to preschool age (0-5 years old).

Children with ASD Level 1 aged 0-5 experience different language development from neurotypical children. The language competence of the research subject was initially normal at the age of 0-1 year, yet the subject showed a deficiency when reaching 2 years old. Language impairments resulting in communication barriers began to appear at the age of 18-24 months. At 2-3 years old, S appeared to say one word, but the competence suddenly disappeared. At the age of 3-4 years, S's language competence began to progress with some nonverbal communication forms, such as establishing eye contact and initiating

physical contact, such as holding others or guiding the mother. Verbal communication had not appeared in this age range.

When S reached 4-5 years of age, he showed better verbal and nonverbal language competence. S learned to associate the received stimuli with the words pronounced by others. After that, S began to be able to label the name of the object, and S imitated the word repeatedly. The initial speech sounds produced by S were vowels /a/ and /u/, which are easier for children to articulate than consonants. The development of S's language competence progressed from year to year. S is a child with ASD Level 1 or mild category.

In the next level, in school age, ASD children can improve their language competence because specifically, grammatical abilities (syntax and morphosyntax) are largely, if not entirely, unimpaired in school-age children and adults with higher-functioning ASD1. Researchers in language and ASD are suggested to study this topic continuously to advance learning for children with ASD. We suggest that this study be continued to analyze the language competence of children with ASD in the following age period or above 5 years old until elementary school age.

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