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Language Acquisition and Function of Preschool-Aged Inclusive Children in Mataram City

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Abstract
This study aims to describe language acquisition and language functions in preschool-aged inclusive children in Mataram City. The research was conducted at two schools, namely Kindy House (a private school) and SLB Negeri 1 Mataram (a public special school). The focus of the study is directed toward the stages of language acquisition and the language functions that emerge in children's interactions within the school environment. This study employs a descriptive qualitative approach, with data collected through observation, utterance recording, and interviews with teachers. The research subjects consist of preschool-aged inclusive children ranging from 3 to 6 years old, representing three main characteristics: children with Attention Deficit Hyperactivity Disorder (ADHD), Autism Spectrum Disorder (ASD), and Down Syndrome (DS). Data analysis was conducted by classifying children's language data based on stages of language acquisition and language functions according to Halliday's theory. The results indicate that language acquisition among inclusive children occurs at varying stages and does not always align with their chronological age. The dominant language functions observed include instrumental, regulatory, and interactional functions, while representational functions remain limited to some subjects. These findings suggest that mapping language acquisition and language functions can serve as an initial basis for identifying the linguistic profiles of preschool-aged inclusive children, particularly for preschool teachers and parents

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1. INTRODUCTION

Inclusive education provides equal opportunities for all children, including children, to receive educational services in regular schools. This principle aligns with Indonesian government policy that encourages the implementation of inclusive education in public schools through various regulations, such as the mandate of Law Number 20 of 2003 concerning the National Education System, which requires the provision of equal access to education for Children with Special Needs (ABK), and is reinforced by Regulation of the Minister of Education, Culture, Research, and Technology Number 48 of 2023 concerning Appropriate Accommodation. This regulation regulates funding, the provision of facilities and infrastructure, the presence of special assistant teachers (GPK), and the establishment of Disability Service Units (ULD). Schools are also required to conduct assessments, form inclusion teams, and create a conducive learning environment so that ABK can learn alongside other students through necessary learning adjustments. However, the implementation of inclusive education policies

depends not only on regulations and facilities, but also on the ability of schools, especially teachers, to recognize students' needs from an early age.

One important aspect of this effort is the ability of teachers and parents to detect inclusive children early through observation of their language development. Language is an early indicator that is easily observed in everyday interactions in preschool environments. Differences in the stages of language acquisition and function can be an early signal of special needs in children, especially those with developmental disorders such as ADHD, ASD, and Down *Syndrome* (Norbury et al., 2016; Carruthers et al., 2021). Therefore, understanding the characteristics of children's language development is important as a basis for early awareness and support, without being intended as a form of labeling or clinical diagnosis. Early language-based detection is expected to help teachers and parents take appropriate follow-up steps, including referrals to professionals according to the child's needs. At preschool age, language development plays a crucial role as a foundation for children's cognitive, social, and emotional development. However, children with special needs often show variations in language development that differ from typical children, both in terms of language acquisition and the functions used in everyday interactions. Several studies have shown that children with special developmental needs have very diverse language profiles that do not always align with their chronological age or nonverbal abilities (Norbury et al., 2016; Bishop et al., 2017).

Studies on early childhood language acquisition generally focus on typical children, while research specifically addressing the language acquisition and function of inclusive children, particularly at the preschool level, is still limited. Yet, understanding the characteristics of inclusive children's language acquisition is crucial for early detection and the design of appropriate interventions, and serves as a form of early awareness and care so that children receive support tailored to their needs (Bishop et al., 2017).

Based on a functional perspective, Halliday (1975) views language as a social tool that develops according to children's communication needs. This approach is relevant in inclusive child language studies, given that several studies show that children with ADHD tend to experience difficulties in the pragmatic and interactional functions of language (Carruthers et al., 2021; Oktavia & Agustina, 2021), children with ASD show limitations in representational functions and social communication (Kasari et al., 2013; Norbury et al., 2016), while children with *Down Syndrome*experience significant delays in expressive language, even though instrumental functions emerge relatively early (Abbeduto et al., 2007; Wright et al., 2013). Therefore, through this approach, language development is not only seen from linguistic structures, but also from the language functions used by children in real contexts. Therefore, this study aims to describe the language acquisition and functions of preschool-aged inclusive children in Mataram City as an effort to enrich the study of child linguistics and inclusive education.

Furthermore, the ability of teachers and parents to observe children's language development is a crucial aspect in the context of inclusive education. Language can be used as an early indicator to identify developmental differences in children (Misdayani & Hernawati, 2024). However, identification through language is not intended to label or judge a child as belonging to the inclusive category. Rather, this understanding serves as a basis for early awareness and care so that children receive appropriate support according to their needs.

The importance of early identification through language acquisition and function needs to be placed in a balanced way. Teachers and parents are expected to recognize signs of language development that require more attention, while recognizing that clinically determining a child's condition remains the responsibility of professionals, such as pediatricians, psychologists, or other related experts. Therefore, child language mapping is not intended as a personal diagnosis, but rather as an educational and preventative initial step in supporting preschool-age children's growth and development.

2. RESEARCH METHODS

This study used a qualitative approach. This approach was chosen because it allows researchers to understand children's language use in depth based on its meaning, process, and social context (Creswell, 2014). The research data consisted of children's utterances that reflect the stages of language acquisition and the function of language in everyday activities in the school environment.

The research data sources come from several inclusive children at Kindy House and SLB Negeri 1 Mataram, as well as supporting informants in the form of teachers who interact directly with the children. Data collection methods included direct observation of children's interactions during learning and play activities, as well as in-depth interviews with two teachers from different schools as a form of source triangulation. The interviews were conducted semi-structured and supplemented with recording and note-taking techniques to ensure data accuracy (Moleong, 2017; Sugiyono, 2019).

The collected data were analyzed through the stages of data reduction, data presentation, and concluding according to qualitative data analysis procedures (Miles, Huberman, & Saldaña, 2014). The collected data were then analyzed and classified based on the theory of language function from Halliday's (1975) perspective.

3. RESULTS AND DISCUSSION

This section will present the results of data analysis related to language acquisition and function in inclusive children based on Halliday and Crystal's theory. Halliday views language as a system of meaning that develops through social functions. In his paper, entitled *Learning How to Mean* Halliday emphasized that children learn language out of a need for meaning and interaction, not simply to master grammatical structures. Language acquisition is understood as a functional process that develops gradually as children's communicative needs increase.

Halliday proposed seven functions of children's language, namely: (1) instrumental function to fulfill needs, (2) regulatory function to regulate the behavior of others, (3) interactional function to establish social relationships, (4) personal function to express feelings and attitudes, (5) heuristic function to seek information, (6) imaginative function to play and fantasize, and (7) representational function to convey information or experiences. These seven functions emerge gradually and can overlap in children's language use. The following is an overview of the application of children's language based on this functional theory.

1. The application of instrumental language is applied as in the expression of words *"I want to ... "*
2. The application of regulatory language is applied as in the expression *"Give it to me ... "*
3. The application of personal language, as in expressions*" I like it ... "*
4. The application of interactional language such as the application of sentences *"Take me there..."*
5. The application of heuristic language, as in the application of expressions *"Why? How?"*
6. The application of imaginative language as expressed in sentences *"if I ..."*
7. The application of representational language is expressed in sentences, *"I want to say..."*

Meanwhile, to examine the stages of language acquisition in children, several experts, such as Crystal (1987) and Yule (2010), explain that language acquisition is structural and view children's language development as a gradual process that moves from phonological abilities to mastery of more complex linguistic structures. These stages are universal and experienced by most children, although there is variation in the speed and quality of development.

Children's language acquisition develops gradually, along with biological maturity and environmental stimulation. These stages generally begin in the preverbal stage and continue until the child is able to use language productively and communicatively.

At the age of 1–6 months, children are at the stage of *cooing*, namely the production of simple vowel sounds such as /a/ and /o/, often accompanied by certain intonations. At this stage, crying begins to develop into more varied sounds in response to interactions with the environment. Entering

the age of 6–9 months, children are in the stage of babbling, which is characterized by the repetition of syllables consisting of a combination of consonants and vowels, such as *ma-ma* or okay. This stage is also called the *babbling canonical*, which indicates the child's phonological readiness to produce language sounds.

At 10–12 months, children begin to produce syllable combinations with clearer sound variations. Although utterances like "mama" and "papa" are not yet fully referential, this stage demonstrates a child's increasing ability to imitate the sounds of language heard in their environment.

At 13–15 months, children begin to enter the holophrastic stage, which involves using a single word to represent a more complex meaning. At this stage, children are able to pronounce several meaningful words, using them in context.

Furthermore, at 16–18 months, a child's vocabulary increases significantly, and pronunciation begins to be understandable to adults. Some children begin to demonstrate the ability to combine two words into simple utterances.

By around 2 years of age, children generally have mastered dozens of vocabulary words and can string two to three words together into simple sentences to express wants or needs. Between the ages of 3 and 6, children's language skills develop rapidly. Vocabulary increases quantitatively and qualitatively, sentence structures become more complex, and the use of grammatical elements begins to appear more systematic. At this stage, children can communicate effectively in a variety of early social and academic contexts.

Thus, in this study, structural language acquisition theory (Crystal and Yule) is used to describe the stages of children's language development, while Halliday's theory is used to analyze the language functions that emerge in children's speech. The combination of these two theories allows for a more comprehensive mapping of children's language development, both in terms of form and function.

3.1. Research result

The first finding in this study is the stages of language acquisition in children with ADHD, ASD, and DS at Kindy House and SLB Negeri 1 Mataram, based on observations combined with interviews with teachers. The second finding is an analysis of language forms based on their function. For clarity, the following tables and descriptions of these findings are presented.

Table 1. Stages of Language Acquisition in Inclusive Children

No	Language Acquisition Level	Main Characteristics of Language Behavior	ADHD	ASD	DS
1	**Pre-language (Babbling)**	Producing babbling/repetitive sounds without meaning to the words	—	—	✔
2	**One word (Holophrastic)**	One word represents one meaning/sentence	✔	✔	—
3	**Two words**	Combining two meaningful words	✔	—	—
4	**Simple sentences**	Produces 3–4 word sentences with basic structure	✔	—	—

5	**Initial complex sentence**	Using longer sentences/beginning of narrative	—	—	—
6	**Adult-like language**	Language is adapted to the context & purpose of communication	—	—	—

Based on Table 1 above, it can be concluded that the language development of children with ADHD, ASD, and Down Syndrome (DS) shows significant differences, despite similarities in some stages of language acquisition. Children with ADHD show relatively faster language development, reaching the one-word (holophrastic) and two-word stages earlier than children with ASD and DS. Children with ASD, although beginning to master one-word (holophrastic)**,** Children with DS often have difficulty progressing to the two-word or more complex sentence stage, indicating limitations in functional language use. Meanwhile, children with DS, despite delays in language acquisition, show significant progress in the pre-language stage and have not yet reached the next stage. Therefore, although there is variation in the stages of language acquisition within each group, it is important to provide interventions tailored to each child's specific needs based on the stage of language development they have reached.

Table 2. Language Functions in Inclusive Children

No	Language Functions	Language Acquisition Indicators	ADHD	ASD	DS
1	**Instrumental**	Children use language to ask for needs	✔	✔	✔
2	**Regulatory**	Children use language to control/direct others	✔	✔	—
3	**Interactional**	Children use language to establish social interactions	✔	✔	—
4	**Personal**	Children express feelings, attitudes, or desires	✔	✔	✔
5	**Heuristics**	Children ask or seek information through language	✔	—	—
6	**Imaginative**	Children use language in symbolic/imaginary play.	✔	—	—

7	**Representational**	Children convey information or tell experiences	—	—	—

Based on the table above, it can be concluded that children with ADHD, ASD, and Down *Syndrome* (DS) show variation in the ability to use language functions according to existing indicators. Children with ADHD show better abilities in all listed language functions, including instrumental**,** regulatory, interactional, personal**,** heuristics**,** imaginative, and representational. They can easily express needs, regulate the behavior of others, interact socially, express feelings, seek information, and engage in symbolic play.

Children with ASD tend to have difficulty with interactional functions, although they can use language for instrumental, regulatory, personal, and heuristic purposes. Representational and imaginative functions are more limited in them due to difficulties in two-way communication and in expressing experiences or playing symbolically. Meanwhile, children with ASD and Down *Syndrome* (DS) tend to focus more on meeting basic needs and managing others, but limitations in social interaction and sharing experiences present significant barriers. Thus, although these three groups of children demonstrate the ability to use language for specific purposes, each requires a different approach to supporting their language development.

3.2. Discussion

There are differences in language acquisition and language function in inclusive children at preschool age with developmental disorders such as attention deficit hyperactivity disorder (ADHD), *autism spectrum disorder* (ASD), and Down *Syndrome* (DS) with children in general. Based on findings obtained from observations and interviews with teachers at Kindy House and SLB Negeri 1 Mataram, the following will be discussed further.

3.2.1 Language Acquisition with Inclusive Children

Language acquisition in children with DS, ADHD, and ASD in both schools shows that their stages of language acquisition vary and do not always align with their chronological age. For example, children with ADHD tend to have relatively normal language skills when accompanied by a high IQ and poor language skills when accompanied by a low IQ. Children with these characteristics still face challenges in emotional regulation and self-control related to language use in social contexts. Consequently, children with ADHD often have difficulty interacting effectively in conversation, which impacts their interactional language function.

Language acquisition in inclusive children with ADHD, ASD, and DS shows significant differences in the stages and development of their language skills. While there are similarities in some basic stages of language acquisition, each group of children requires an educational approach that is highly tailored to their specific needs and circumstances. This is important because in the context of inclusive education, the primary goal is to provide support that enables each child, regardless of ability differences, to develop according to their maximum potential. Therefore, a thorough understanding of the language development of children with ADHD, ASD, and DS is crucial for educators and parents so they can provide appropriate interventions at each stage.

Based on available data, children with ADHD tend to show faster language development compared to children with ASD or DS. Children with ADHD may reach the one-word (holophrastic) and two-word stages earlier. This suggests they can develop functional language at a faster rate, both to meet their basic needs (instrumental function) and to regulate the behavior of others (regulative function). Carruthers et al. (2021) also noted that children

with ADHD are better able to engage in two-way communication, allowing them to interact more fluently in social interactions. They also have a relatively good ability to express their feelings (personal function) and ask questions to seek information (heuristic function). In other words, children with ADHD have great potential to master language in a variety of contexts, although they may face challenges in impulse regulation and attention, which impacts their ability to maintain longer and more complex social interactions.

In contrast, children with autism spectrum disorder (ASD) show slower patterns of language development, particularly in pragmatics and communication. Social. Kasari et al. (2013) explain that children with ASD often have difficulty interacting effectively in two-way conversations, which hinders the development of their language functions in interactional and representational terms. Although they can use language to meet their immediate needs (instrumental function) and regulate others (regulative function), children with ASD tend to have difficulty expressing their feelings in a structured way (personal function) or in imagining and playing symbolically (imaginative function). Children with ASD are more often focused on routines and repetitive habits, which limits their ability to develop more complex and flexible language skills, such as sharing experiences or participating in conversations involving symbolic expression. Therefore, children with ASD require more intensive support in developing language skills that focus on social interaction and the use of language in broader social contexts.

In children with Down Syndrome (DS), although they often experience delays in language acquisition, they usually show progress in instrumental and regulative functions, although they are slower in achieving single words (holophrastic) or are still in the pre-language stage with speech forms of *bubbling* compared to children with ADHD and ASD. Abbeduto et al. (2007) noted that children with DS generally can use language to meet their basic needs or direct others in simple and direct ways, although they have difficulty interacting socially. Interactional language functions in children with DS are often limited, and they require more support to engage in two-way conversations or to express their feelings in more structured and socially appropriate ways. Children with DS also experience difficulties in representational functions, which include the ability to convey experiences or relate information in a structured manner. They focus more on communication related to their immediate needs, but to develop their ability to share experiences or imagine in symbolic conversation, they require more intensive support.

Limitations in symbolic language and imagination in children with DS are also evident in their limitations in imaginative functioning. Although they may engage in simple symbolic play, their ability to think abstractly and participate in more complex play tends to be limited. Children with DS are often focused on repeating familiar activities and developing practical skills related to everyday needs. Therefore, it is important to provide children with DS with an approach that emphasizes language development relevant to their functional needs and the enhancement of their social skills.

3.2.2 Language Functions with Inclusive Children

Language function is an important aspect of children's language development, as it refers to how children use language for various social purposes. According to Halliday (1975), language function develops in response to children's social needs to interact with the world around them. In children with ADHD, ASD, and Down Syndrome (DS), their language function tends to vary depending on their individual developmental conditions. Based on existing data, differences can be seen in how children with these conditions use language for various purposes, such as meeting basic needs, regulating the behavior of others, interacting socially, and expressing their feelings.

Children with ADHD demonstrate relatively better language skills for various social functions (Oktavia & Agustina, 2021). Based on existing data, children with ADHD can easily use language for instrumental (meeting needs), regulatory (managing others), interactional (social interaction), personal (expressing feelings), heuristic (seeking information), imaginative (symbolic play), and representational (conveying information or experiences). These functions emerge more quickly in children with ADHD compared to children with ASD or DS, as they can adapt to various social communication contexts.

According to Carruthers et al. (2021), children with ADHD have a better ability to engage in two-way communication, allowing them to interact more easily in social contexts. They also demonstrate the ability to verbally express their feelings (personal function) and participate in conversations involving information seeking or asking questions (heuristic function). These abilities indicate that although children with ADHD often struggle to regulate their attention and impulses, they still possess excellent language skills in a variety of functional and social contexts.

Children with ASD exhibit greater difficulty using language for social purposes, particularly in interactional and representational functions. Kasari et al. (2013) noted that children with ASD often struggle to interact effectively in two-way conversations, which hinders the development of their language functions in social contexts. Although they can use language to meet their basic needs (instrumental function) and regulate others (regulative function), they are often unable to participate in conversations that involve exchanging information or sharing experiences.

Personal functioning, which relates to the expression of feelings and attitudes, is also often impaired in children with ASD, as they are more likely to have difficulty reading emotional cues and expressing their feelings in ways appropriate to the social context. Imaginative functioning, which involves the use of language in symbolic play or fantasy, is also limited in children with ASD, as they are more focused on routines and repetitive behaviors. This suggests that although children with ASD can use language for basic needs, they still struggle to use language flexibly and creatively in social interactions (Carruthers et al., 2021). Pembayun (2025) suggests that children with ASD require interventions that focus more on developing social communication skills and language functions, involving two-way conversation, structured expression of feelings, and the development of more flexible and creative speaking skills.

In children with Down Syndrome (DS), although they experience delays in mastering expressive language, they can use language to meet their basic needs (instrumental function) and regulate others (regulative function). Abbeduto et al. (2007) showed that children with DS often achieve instrumental function more quickly, because they tend to be more focused on expressing their basic needs, such as asking for food or attention. However, they tend to be more limited in using language for interactional (social interaction), representational (conveying experiences or information), and imaginative (symbolic play).

Children with DS experience difficulties in interactional functioning, as they have greater difficulty engaging in two-way conversations involving the exchange of ideas or information. They also face challenges in expressing their feelings in a structured manner (personal function) or participating in symbolic play (imaginative function). However, children with DS still demonstrate the ability to use language for simple, functional purposes, which are essential for meeting their daily needs. Therefore, children with DS require greater support in developing more complex social and language skills. Yule (2010) explains that children with DS require support in using language to express their feelings and experiences (personal function) and in imagining (imaginative function).

4. CONCLUSION

Language acquisition in inclusive children with ADHD, ASD, and *Down Syndrome* (DS) showed significant differences, both in terms of speed and complexity. Based on observations at two schools, namely Kindy House and SLB 1 Mataram, children with ADHD at Kindy House showed faster language development and better language skills compared to children at SLB 1 Mataram. At Kindy House, the interventions implemented focused more on managing attention and impulsivity, which allowed children with ADHD to more easily engage in two-way communication (interactional function) and express their feelings (personal function). Children with DS were also very expressive, even though their language skills were still at the pre-language stage. In contrast, at SLB Negeri 1 Mataram, despite the interventions implemented, the lack of more structured support and more consistent behavior management made children with ADHD face greater difficulties in social interaction and regulating their behavior, which hampered their language development.

Meanwhile, children with ASD and DS exhibit greater challenges in their language development. At SLB Negeri 1 Mataram, children with ASD experience difficulties in interacting effectively in two-way conversations, which limits their language functions, particularly in interactional and representational areas. Children with DS, despite showing slower language development, experience more difficulties in expressing feelings and participating in more complex social conversations. This observation underscores the importance of an inclusive, developmentally appropriate approach to children's language development, where structured interventions and consistent support play a crucial role in their successful language development, as seen in children with ADHD at Kindy House.

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