



A Case Study of Early Language Development of Children with Down Syndrome at TKLN SLB N Pembina Yogyakarta

Eni Rukminingdyah; Atien Nur Chamidah

Master Study Program in Special Education, Faculty of Education and Psychology, Yogyakarta State University,
Indonesia

<http://dx.doi.org/10.18415/ijmmu.v11i6.5879>

Abstract

One of the early abilities that children must have as capital to be able to interact and communicate is the ability to speak and language. This ability is very important to support children's growth and development in the future. The purpose of this study is to see the extent of language and speech development in children with Down syndrome at an early age in TKLB SLB N Pembina Yogyakarta students. The research method used is a case study with research subjects consisting of 5 children with Down syndrome aged 7-8 years. Data collection techniques are observations made to children and interviews with parents. The focus of this research is to know the conditions, characteristics, abilities, advantages and obstacles in the development of speech and language of children with Down syndrome. The results showed that the language development of students with Down syndrome was at the stage of being able to say one word, pulling hands or pointing to express their wishes, and had difficulty pronouncing vocabulary with correct articulation, sounding the last syllable only, sometimes even making unclear sounds without meaning that could not be understood.

Keywords: *Language Skills; Down Syndrome; Early Childhood*

Introduction

Language development in early childhood is a very important process and has a long-term impact on communication, cognitive and social skills. In this context, analyzing the language development of children with Down Syndrome becomes an inevitable aspect. Down Syndrome, which is caused by chromosomal abnormalities, can affect children's developmental processes including language skills (Lestari & Mariyati, 2016). In this article, researchers will explore the importance of analyzing language development in children with Down Syndrome, with a focus on the research location at TKLB SLB N Pembina Yogyakarta. Children with Down Syndrome tend to experience delays in language development. Nonetheless, each child with Down Syndrome has their own uniqueness in this process. Some children may need more time and support in understanding and using language, while others can show faster progress (Chamidah, 2017). Down Syndrome children aged 7-8 years old are able to reach the linguistic stage of 1-2 year old children, namely producing and understanding single words and simple instructions such as "clap your hands". The language development of children with Down Syndrome can be of key

importance in helping them interact with society and reach their full potential. Factors such as early intervention, a supportive environment, and family support play an important role in shaping the language skills of children with Down Syndrome (Septiantirini Pratiwi Nugraha et al., 2023).

The importance of analyzing the language development of children with Down Syndrome is due to several things, namely, (1) Development of appropriate learning programs: analysis of the language development of children with Down Syndrome in TKLB SLB N Pembina Yogyakarta allows the development of learning programs that suit the individual needs of children. A personalized approach that focuses on their uniqueness will help create a learning environment that supports optimal language development. (2) Integrating technology and innovative methods: analyzing language development also opens up opportunities to integrate technology and innovative methods in learning. The use of technology-based learning applications or tools can provide additional support that can be tailored to the needs of children with Down Syndrome. (3) Psychosocial and inclusive support: knowing the language development of a child with Down Syndrome helps in providing appropriate psychosocial support. This involves collaboration with parents, teachers and related experts to create an inclusive environment that promotes the development of language and social skills.

Analyzing language development in children with Down Syndrome not only supports the establishment of an effective learning program but also provides a basis for creating an inclusive environment at TKLB SLB N Pembina Yogyakarta. With a holistic and individualized needs-focused approach, we can ensure that every child with Down Syndrome has the necessary access and support to reach his or her full potential in language development and communication. Therefore, based on all the explanations above, a scientific study on the language development of children with Down Syndrome needs to be conducted.

In this scientific article, an in-depth case study will be conducted on a sample of 5 early-age Down Syndrome children at TKLB SLB N Pembina Yogyakarta. Data will be collected through observation and interviews with parents to develop a comprehensive picture of their language development. This in-depth understanding is expected to contribute positively to efforts to provide more effective support and interventions for children with Down Syndrome. Thus, this study is expected to provide new insights and reference materials for health professionals, educators, and parents in an effort to improve the quality of life of children with Down Syndrome through the development of their language skills.

Research Methods

This research uses a case study research design. The purpose of the research is to find out about the language development process of Down Syndrome children. Definition according to (Leedy, P. D., & Ormrod, 1980) in case studies individuals, programs or certain events are studied in depth for a certain period of time. According to Creswell (Cresswell et al., 2012) that in case study research researchers focus more on in-depth exploration of a limited case such as events, processes, or individuals based on extensive data collection. Cases can be single individuals, several individuals separately or in groups, programs, events or activities. Cases may represent some process consisting of a series of steps that form a sequence of activities. Based on the limitations on case studies above, it can be concluded that case study research is research conducted in depth with the aim of obtaining a detailed understanding of a case by looking at aspects without generalizing one case to another (Taqiyah & Mumpuniarti, 2022). In this study, researchers used a case study to gain an in-depth understanding of the language and speech development of early-age Down Syndrome children at SLB N Pembina Yogyakarta.

The research subjects amounted to 5 early age Down Syndrome children consisting of 4 girls and 1 boy (With Initials SYY, JAA, FA, MF, and AF). Assessments were carried out during the teaching and learning process in the classroom for eight meetings to ensure data consistency. The data collection

techniques were documentation, observation and interview. The documentation technique consisted of collecting data from daily records, assessment instrument checklist documents, and language and speech development achievements. Direct observation was used to record the entire implementation of the assessment of language and speech development. Interviews were conducted with parents to find out the child's daily language and speech development. As for the data validation stage, this research uses triangulation techniques, which by implication compares various data sources such as; scientific articles, documents, and observations to seek their reliability in discussing the same theme. The description of the triangulation technique can be seen from the picture on the next sheet:

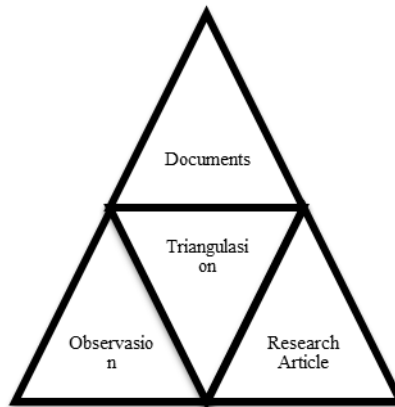


Figure 1. Triangulation Technique (Thurmond, 2001)

Discussion and Results

Child's Name Initials	Language development	
	Language Comprehension	Expressive Language
SY Y	<ul style="list-style-type: none"> • Can point out the body part in question. • Understands the theme of the story heard • Can identify different kinds of fruits, vegetables, animals, clothes • Understands simple commands such as sit, take off, put shoes on the table, pick up toys, and put on glasses 	<ul style="list-style-type: none"> • Can sing simple nursery rhymes dua mata saya, potong bebek angsa with unclear pronunciation. • Can answer questions with yes and no answers. • Like does S.. want to study? No What do you want? Play • Expresses wishes by saying one or two words "Mi" (want to eat noodles) "Puyang" (want to go home) Tida mau (don't want) • Can name classmates, teachers, family members.
JAA	<ul style="list-style-type: none"> • Understand simple commands from words that are often heard. Such as let's pray, let's go in, sit down, let's go home, let's tidy up, put away let's eat, let's drink, let's put up 	<ul style="list-style-type: none"> • Expresses wishes by pulling or pointing at the desired object • Saying some words such as daddy, no, okay

	<ul style="list-style-type: none"> • Laughs at people who invite communication 	<ul style="list-style-type: none"> • Moves limbs in response to the question does J want to eat? • Nodding • Crying to express discomfort
FA	<ul style="list-style-type: none"> • Can understand simple commands from words heard, such as commands let's eat, let's drink, let's sit, let's salim, don't run, and so on. 	<ul style="list-style-type: none"> • Can express the nicknames "apa" meaning father and "mek" meaning mother. • Can express the call "mba" with the meaning of grandmother / grandmother (in Javanese) and "bu uti" with the meaning of Mrs. Tuti (the name of the therapist at school) • Can express the expressive language of rejection by roaring when his toy is being taken away • Can use body language (pulling hands) when asking for something or attention
MF	<ul style="list-style-type: none"> • Can only glance at someone who is talking to her • His language responses only include small smiles and laughter, and only when he is playing with his friends. 	<ul style="list-style-type: none"> • Almost always silent and barely audible expressions of language
AF	<ul style="list-style-type: none"> • Not yet able to understand instruction language such as coloring prompts, and orders to enter the classroom. 	<ul style="list-style-type: none"> • Can say the word "um" which means drink, the word "aem" which means eat, and "eek" which means defecate. • Can sing nursery rhymes and Islamic songs (sholawatan) with less clear articulation

From the table above, it can be seen that the assessment of language development carried out on 5 children of TKLB SLN N Pembina Yogyakarta obtained quite diverse results. Some students can understand language quite well and correctly (SYY, JAA, FA), but some are still difficult to understand (MF and AF). For the language expression part, almost all five students can do it, with different language expressions depending on their respective abilities.

Discussion

Language Comprehension

SY: Demonstrated good abilities in understanding commands, recognizing objects, and understanding story themes. This is consistent with previous research highlighting that children with Down Syndrome can achieve good levels of language comprehension with the help of stimulation and early intervention (Asthiningsih & Muflihatin, 2018). From the assessment results, SY was also able to answer simple questions and mention the names of his family members with clear pronunciation. **JAA:** Demonstrated good language comprehension of simple commands and expressed wishes in a variety of ways. These results are in line with findings that children with Down Syndrome can develop effective communication skills through supportive methods (Abadi et al., 2022). In JAA's case, the lack of speech therapy support shows the importance of continuous access to therapy services.

FA: FA has the ability to understand simple commands and express wishes with various words and calls. FA's understanding of calls and expressions of refusal showed positive development in communicating her needs and desires. **MF and AF:** Variations in language comprehension were seen in MF who had limitations in responding, while AF was able to understand simple commands and express wishes by pulling or pointing. This underscores the need for an individualized and diverse approach in assisting children with Down Syndrome in developing language comprehension (Damayanti & Muyassaroh, 2022).

Expressive Language

SY: Despite a lack of clear pronunciation, SY demonstrated the ability to sing nursery rhymes, answer questions with yes or no, and name family members. SY's ability to imitate songs and name his body members provides further insight into his expressive language skills. **JAA:** JAA's ability to express wishes in various ways, such as nodding and laughing, reflects diversity in language expression. The lack of speech therapy support emphasizes the importance of this service to support the expressive language development of children with Down Syndrome (Sahari Marshella Ayu, 2023).

FA: FA also showed developing expressive abilities, although more often engaged in activities that interested her. The observation that FA was engrossed in organizing learning equipment could be the basis for designing more effective communication strategies. **MF and AF:** MF was almost always silent with barely audible language expressions, while AF had expressive abilities although articulation was less clear. This reflects the great diversity in the expressive language abilities of children with Down Syndrome, which may require different approach strategies for each individual (Kamil et al., 2023).

Conclusion and Suggestions

From the results of this study it can be concluded that the similarity between these children is their ability to respond to simple commands and express desires by pulling or pointing. This suggests that visual communication methods or physical gestures can be an effective strategy in supporting children with Down Syndrome to communicate. Understanding and support from the surrounding environment, both at home and at school, plays an important role in these children's language development. A consistent and coordinated approach between school and family can be an important asset for optimal language development.

In addition, it can also be concluded that the language development of Down Syndrome children is limited, vocabulary is small, expressing desires by pointing and being able to use one word that is often only heard the last syllable. Down syndrome children still need continued intervention that is continuous between school and home. Interventions can be done in various ways such as often inviting children to communicate, trying to always discuss what children want, asking children to imitate speech, inviting singing, listening to songs and doing speech therapy if possible.

References

- Abadi, S., Sulandjari, K., Nasution, N. S., Keguruan, F., Universitas, P., & Karawang, S. (2022). Pembelajaran Dan Penilaian Secara Efektif Pada Siswa Down Syndrome Di Kelas Inklusi. *SWARNA: Jurnal Pengabdian Kepada Masyarakat*, 1(11), 3123–3132.
- Asthiningsih, N. W. W., & Muflihatin, S. K. (2018). Deteksi Dini Perkembangan Balita Dengan Metode Ddst Ii Di Posyandu Wilayah Kerja Puskesmas Juanda Samarinda. *Jurnal Endurance*, 3(2), 367. <https://doi.org/10.22216/jen.v3i2.3149>.
- Chamidah, A. nur. (2017). Intervensi dini gangguan perkembangan komunikasi pada anak down syndrome. *Dinamika Pendidikan*, 22(1), 27–37.
- Cresswell, K. M., Worth, A., & Sheikh, A. (2012). Comparative case study investigating sociotechnical processes of change in the context of a national electronic health record implementation. *Health Informatics Journal*, 18(4), 251–270. <https://doi.org/10.1177/1460458212445399>.
- Damayanti, M., & Muyassaroh, M. (2022). Kurang Pendengaran Pada Anak Sindrom Down. *Medica Hospitalia : Journal of Clinical Medicine*, 9(2), 236–241. <https://doi.org/10.36408/mhjcm.v9i2.780>
- Kamil, N., Fitri, Z. Z., Nasution, H., & Putro, K. Z. (2023). Memahami Anak Berkebutuhan Khusus: Down Syndrome. *Murhum : Jurnal Pendidikan Anak Usia Dini*, 4(2), 190–198. <https://doi.org/10.37985/murhum.v4i2.179>.
- Leedy, P. D., & Ormrod, J. E. (1980). *Practical research*. Macmillan.
- Lestari, F. A., & Mariyati, L. I. (2016). Resiliensi Ibu Yang Memiliki Anak Down Syndrome Di Sidoarjo. *Psikologia : Jurnal Psikologi*, 3(1), 141. <https://doi.org/10.21070/psikologia.v3i1.118>.
- Sahari Marshella Ayu, E. N. S. (2023). Efektifitas Terapi Wicara Dalam Mengatasi Speech Delay Anak Down Syndrome Di Lp-Abk Little Star Gresik. *Jurnal Pengabdian Kepada Masyarakat Nusantara (JPkMN)*, 4(1), 119–125.
- Septiantirini Pratiwi Nugraha, Kurniati Zainuddin, & Muhammad Nur Hidayat Nurdin. (2023). Gambaran Harapan Pada Ibu Yang Memiliki Anak Down Syndrome. *PESHUM: Jurnal Pendidikan, Sosial Dan Humaniora*, 2(6), 1038–1049. <https://doi.org/10.56799/peshum.v2i6.2378>.
- Taqiyah, D. B., & Mumpuniarti, M. (2022). Intervensi Dini Bahasa dan Bicara Anak Speech Delay. *Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini*, 6(5), 3992–4002. <https://doi.org/10.31004/obsesi.v6i5.2494>.
- Thurmond, V. A. (2001). The point of triangulation. *Journal of Nursing Scholarship*, 33(3), 253–258. <https://doi.org/10.1111/j.1547-5069.2001.00253.x>.

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).