



A Comparative Study of Language Development Among Children Aged 4–5 Years in Two Early Childhood Education Institutions: Al-Barokah Kindergarten, Kedungkarang Village, and Cendekia Kindergarten, Bapangan, Jepara

Fatimatuz Zahroh^{1✉}, Dwiana Asih Wiranti²

¹PGPAUD UNISNU,,Jepara, Indonesia

²PGSD UNISNU, Jepara, Indonesia

ARTICLE INFO

Article history:

Received January 05, 2026

Revised February 15, 2026

Accepted March 25, 2026

Available online June 27, 2026

Keywords:

Child language development, Early childhood, Socio-cultural environment, Language stimulation, Comparative study.



This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/).

Copyright © 2026 by Author.
Published by Universitas Al Hikmah Indonesia.

ABSTRACT

One of the key components of the Early Childhood Development Achievement Standards is language development, which includes receptive language, expressive language, and early literacy skills. These abilities serve as the foundation for children's cognitive, social, and emotional development. Children's language acquisition is strongly influenced by social and cultural environments, as daily interactions constitute the primary source of linguistic stimulation. This study aimed to compare the language development of children aged 4–5 years in two early childhood education institutions with different environmental characteristics, namely an environment with diverse access to communication and learning resources and a relatively homogeneous environment. This research employed a quantitative comparative design using a purposive sampling technique. Specific criteria were applied in selecting participants to ensure that both groups possessed comparable characteristics. Data were collected through structured observations using a language development instrument based on the Early Childhood Development Achievement Standards. Descriptive statistics were used to provide an overview of children's language development, while an independent samples t-test was conducted to examine the significance of differences between the two groups. The findings revealed differences in the level of language development between children from the two educational settings. Children at TK Al-Barokah, Kedungkarang Village, demonstrated a higher average level of language development than children at TK Cendekia, Bapangan, Jepara. These differences were reflected in children's abilities to comprehend language, express opinions, and communicate actively during daily learning activities. The differences may be attributed to variations in language stimulation, the intensity of social interactions, and access to learning media and educational resources. Environments with more complex communication opportunities tend to provide richer language stimulation, whereas more homogeneous environments tend to produce language patterns that are more limited yet contextually grounded. The study concludes that environmental factors play a significant role in shaping early childhood language development and highlights the importance of designing contextual and adaptive learning strategies to support children's language growth.

INTRODUCTION

Early childhood is a unique, fascinating, and critical period of development. This period, often referred to as the *golden age*, represents an important stage during which children rapidly acquire various abilities, particularly language skills (Friantary, 2020). Language

serves as a means for children to understand the world around them, recognize their own feelings and needs, and establish healthy social interactions (Monoarfa et al., 2025).

Human thoughts and emotions are primarily expressed through language, which is largely conveyed through sounds (Rohmah, 2024). Through language, individuals can communicate ideas, understand information, and build relationships with others (Kumari et al., 2023). Language enables people to communicate effectively so that they can understand each other's intentions and purposes. The recognition of language as an essential component of daily social life is closely related to its significance as a defining characteristic of humanity. Language is the primary instrument through which human beings engage in social and cultural activities (Subakir et al., 2022).

In addition to biological influences, the social and cultural context in which a child grows up significantly affects early childhood language development. According to Vygotsky, as cited in Etnawati (2022), adults facilitate children's language learning through *scaffolding*, a form of temporary assistance provided to help children understand new concepts and language use. Language development occurs within the *Zone of Proximal Development* (ZPD), which refers to the gap between a child's actual abilities and potential development achieved through social support. In this context, children living in urban areas generally experience more diverse and complex environments than those living in rural areas. This perspective is consistent with Bronfenbrenner's ecological theory, which emphasizes that educational, social, and cultural environments are important factors influencing children's language development. As explained by Darihastining et al. (2023), differences between rural and urban living environments affect young children's language experiences in terms of both vocabulary acquisition and language use patterns. Therefore, comparing the language development of children aged 4–5 years in rural and urban kindergartens is important for understanding the extent to which environmental factors influence language acquisition.

According to the Regulation of the Minister of Education and Culture Number 137 of 2014 and the Regulation of the Minister of Education, Culture, Research, and Technology Number 5 of 2022 concerning National Standards for Early Childhood Education, language development is one of the key components of the Early Childhood Development Achievement Standards (*Standar Tingkat Pencapaian Perkembangan Anak—STPPA*) (Nurjani & Mustopa, 2023). Within the STPPA framework, language development consists of three main dimensions: receptive language, expressive language, and early literacy skills (Regulation of the Minister of Education and Culture Number 137 of 2014, Appendix I). Generally, early childhood language development progresses through three stages: the pre-linguistic stage (0–1 year), during which children begin to recognize and imitate sounds; the early linguistic stage (1–3 years), during which children start producing simple words; and the complex language stage (4–6 years), during which children are able to construct sentences and understand the meanings of symbols or simple written texts. The STPPA specifies that children aged 5–6 years are expected to communicate effectively, understand two to three simple instructions, use complete sentences, and recognize letters and symbols in meaningful contexts. This expectation is supported by the findings of Zahratunnisa (2024), who reported that storytelling methods can enhance language development, expand vocabulary, and improve speaking skills among children aged 5–6 years.

The environment plays an important role in children's language development (Fajarrini & Diana, 2024). Such environments include the home, the surrounding community, and educational settings. In school environments, children learn and develop language skills through various forms of stimulation and educational media. Language development can be observed within classroom activities where children receive age-appropriate stimulation designed to support language acquisition in enjoyable and meaningful ways.

Investigating the influence of environmental factors on early childhood language development is particularly relevant because Al Barokah Kindergarten is located in Kedungkarang Village, Wedung District, Demak Regency, a coastal area characterized by distinctive social, economic, and cultural conditions. This area can be categorized as a rural coastal region because: (1) the community's primary livelihoods are related to marine and agricultural sectors, resulting in an economic structure different from that of urban areas; (2) settlement patterns and land use are strongly influenced by coastal conditions such as abrasion, tidal flooding, and mangrove ecosystems, which limit accessibility and infrastructure development; and (3) the community tends to maintain relatively homogeneous social networks and strong local cultural values that influence daily communication patterns. These factors contribute to language stimulation opportunities that differ from those found in urban settings. Such characteristics are supported by studies on local wisdom and coastal communities, which highlight simple lifestyles, strong social solidarity, mutual cooperation, and distinctive utilization of marine resources (Laya & Salim, 2023). Therefore, Al Barokah Kindergarten provides a representative setting for comparison with an urban kindergarten, as differences in educational resources, social interaction opportunities, and sociocultural language contexts may influence children's language development outcomes as defined by the STPPA.

Cendekia Kindergarten is located in Bapangan Subdistrict, Jepara District, Jepara Regency, one of the administrative urban areas in the region. Its location in the city center provides social and environmental characteristics that differ from those of early childhood education institutions in rural areas. This urban setting is characterized by high population density, diverse non-agricultural economic activities, and greater accessibility to public facilities and educational infrastructure. These characteristics are consistent with the findings of Azizah (2025), who described urban areas as regions dominated by built environments, diverse economic activities, and high social mobility. Furthermore, urban communities are characterized by greater social heterogeneity, broader access to information, and higher literacy levels, all of which can influence children's language development. Husna and Eliza (2021) reported that children who grow up in environments characterized by complex social interactions and communication tend to demonstrate more advanced language abilities. Consequently, Cendekia Kindergarten represents an urban social environment in which children receive diverse language stimulation through digital media, family communication patterns, and urban sociocultural activities.

Based on these considerations, Al Barokah Kindergarten and Cendekia Kindergarten constitute appropriate and representative research sites for a comparative study of language development among children aged 4–5 years. Cendekia Kindergarten was selected to represent an urban early childhood education environment, while Al Barokah Kindergarten was selected to represent a rural early childhood education environment. A comparative analysis of these two

institutions is expected to provide insights into the extent to which environmental factors influence language development among children aged 4–5 years. Therefore, the hypothesis of this study is that there is a significant difference in language development between children aged 4–5 years attending Al Barokah Kindergarten in Kedungkarang Village and those attending Cendekia Kindergarten in Bapangan, Jepara, due to differences in their educational and social environments.

METHODS

This study employed a quantitative approach using a comparative research design. The quantitative approach was selected because it enables the measurement and comparison of language development levels among children aged 4–5 years based on statistically analyzable data, in accordance with the objectives of this study. The comparative method was applied to identify differences in language abilities between two groups of children who were raised in different social and geographical environments, namely children attending Al Barokah Kindergarten in a rural coastal area and children attending Cendekia Kindergarten in an urban area. According to Darwin et al. (2021), comparative research aims to identify similarities and differences between two or more phenomena based on the variables under investigation.

The study was conducted at two early childhood education institutions. Al Barokah Kindergarten, located in Kedungkarang Village, Wedung District, Demak Regency, represented the rural coastal setting, while Cendekia Kindergarten, located in Bapangan Subdistrict, Jepara District, Jepara Regency, represented the urban setting. The research was scheduled to be conducted during the first semester of the 2025/2026 academic year, specifically in November 2025.

The population of this study consisted of all Group A children aged 4–5 years enrolled in the two participating institutions. The population included 11 children from Al Barokah Kindergarten and 11 children from Cendekia Kindergarten.

The sample was selected using a purposive sampling technique, whereby participants were chosen according to specific criteria relevant to the research objectives. Rachman et al. (2024) stated that purposive sampling involves selecting participants based on particular considerations to ensure that they can provide the information required for the study.

The inclusion criteria were as follows:

1. Children aged 4–5 years enrolled in Group A.
2. Registered as active students at the kindergarten.
3. Regularly participating in learning activities.
4. Present during the observation period.
5. Having obtained permission from teachers and parents to participate in the observation.

Based on these criteria, children who met all requirements were selected as research participants to represent the characteristics of the population in examining language development among children aged 4–5 years at Al Barokah Kindergarten and Cendekia Kindergarten.

This study involved two variables: an independent variable (X) and a dependent variable (Y). The independent variable was the child's social living environment (rural or urban), while the dependent variable was the language development of children aged 4–5 years.

The indicators of language development were based on the Early Childhood Development Achievement Standards (*Standar Tingkat Pencapaian Perkembangan Anak—STPPA*) as stipulated in the Regulation of the Minister of Education and Culture Number 137 of 2014. These indicators encompass three primary domains: receptive language skills, expressive language skills, and early literacy skills (Zulaiha & Romdoni, 2026).

Data were collected through structured observation. This technique enabled the assessment of children's language development using an observation checklist developed according to the STPPA language development indicators. Structured observation was considered the most appropriate method for achieving the quantitative objectives of this study, namely measuring the language development levels of children aged 4–5 years at Al Barokah Kindergarten and Cendekia Kindergarten.

The research instrument consisted of an early childhood language development observation sheet developed based on the STPPA framework. The instrument assessed several aspects of language development, including the ability to understand simple instructions, use complete sentences, answer questions, demonstrate vocabulary mastery, and recognize letters and symbols. A four-point Likert scale was used for assessment: 1 = Not Yet Developed, 2 = Beginning to Develop, 3 = Developed as Expected, and 4 = Developed Very Well.

Prior to data analysis, the research instrument was subjected to validity and reliability testing to ensure that it consistently and accurately measured the intended variables (Arfizeah et al., 2025). Content validity was assessed through expert judgment by specialists in early childhood education, who evaluated the alignment between the instrument indicators and the STPPA framework. The instrument was considered valid when the items adequately represented the language development indicators being measured.

Instrument reliability was evaluated using Cronbach's Alpha because the instrument employed a Likert-scale format. The instrument was considered reliable when the Cronbach's Alpha coefficient exceeded 0.70 ($\alpha > 0.70$), as recommended by Yuliana and Putri (2025).

Following the confirmation of validity and reliability, data were analyzed using both descriptive and inferential statistical techniques (Pujiharti, 2026). Descriptive statistics, including means and standard deviations, were used to describe the language development levels of children aged 4–5 years at Al Barokah Kindergarten and Cendekia Kindergarten.

Before hypothesis testing, prerequisite analyses were conducted, including tests of normality and homogeneity. The normality test was used to determine whether the data were normally distributed, whereas the homogeneity test was performed to assess the equality of variances between groups.

If the assumptions of normality and homogeneity were satisfied, an independent-samples t-test was conducted at a significance level of 0.05 to test the research hypothesis (Wulandari et al., 2025). This test was used to determine whether there were significant differences in language development between children attending Al Barokah Kindergarten in Kedungkarang Village and those attending Cendekia Kindergarten in Bapangan, Jepara. A significance value (Sig. 2-tailed) of less than 0.05 indicated a statistically significant difference between the two groups.

Ethical considerations were carefully observed throughout the study. The researcher maintained the confidentiality of both children's and schools' identities. Written permission was

obtained from the principals of the participating institutions, and data collection procedures were conducted in a manner that did not interfere with classroom learning activities. All collected information was kept confidential and used solely for academic purposes in accordance with established ethical principles for research involving young children.

RESULTS

Tabel 1. Instrument Validity Test Results

No	Variabel	r_{hitung}	$r_{tabel\ 5\%}$	Keterangan
1	Y1	0,790	0,602	Valid
2	Y2	0,944	0,602	Valid
3	Y3	0,868	0,602	Valid
4	Y4	0,617	0,602	Valid
5	Y5	0,944	0,602	Valid
6	Y6	0,725	0,602	Valid
7	Y7	0,706	0,602	Valid
8	Y8	0,890	0,602	Valid
9	Y9	0,890	0,602	Valid
10	Y10	0,890	0,602	Valid
12	Y12	0,669	0,602	Valid
13	Y13	0,753	0,602	Valid
14	Y14	0,902	0,602	Valid
15	Y15	0,732	0,602	Valid
16	Y16	0,862	0,602	Valid
18	Y18	0,698	0,602	Valid

Before data collection was conducted using the research instrument, the feasibility of each statement item or indicator was examined through a validity test. The validity test was performed to determine the extent to which each instrument item accurately measured the language development aspects of children aged 4–5 years in accordance with the predetermined indicators. The research instrument was developed based on language development indicators encompassing receptive language, expressive language, and early literacy skills. The results of the validity test were subsequently analyzed to determine whether each instrument item could be classified as valid or invalid. The findings of the instrument validity test are presented in the following table.

The validity test results indicated that 16 items obtained correlation coefficients exceeding the critical value of 0.602 and were therefore considered valid. In contrast, three items were classified as invalid because their correlation coefficients were below 0.602. Consequently, these invalid items were excluded from further analysis and were not used in the subsequent stages of the study.

Tabel 2. Reliability Test Results

Reliability Statistics	
Cronbach's Alpha	N of Items
0,963	16

Based on the results of the instrument reliability test conducted using statistical software, a Cronbach's Alpha coefficient of 0.963 was obtained from 16 statement items. This Cronbach's Alpha value indicates the level of internal consistency of the research instrument. According to the reliability criteria, an instrument is considered reliable when the Cronbach's Alpha coefficient exceeds 0.60. Therefore, the obtained Cronbach's Alpha value of $0.963 > 0.60$ indicates that the child language development instrument used in this study possesses a very high level of reliability. These findings demonstrate that each instrument item consistently measures the aspects of language development among children aged 4–5 years with a high degree of accuracy and stability. Consequently, the instrument can be considered reliable and suitable for use in data collection for this study.

Tabel 3. Statistik Deskriptif Perkembangan Bahasa Anak Usia 4–5 Tahun

sekolah	N	Mean	Standar Deviation
TK Al Barokah	11	53,36	9,51
TK Cendekia	11	43,64	10,69

The data were analyzed after the research instrument had been confirmed to be valid and reliable. The data obtained through the observation process were processed and analyzed using descriptive statistical analysis. Descriptive statistics were employed to provide a general overview of the language development of children aged 4–5 years in each research group. In this analysis, the mean, standard deviation, and sample size of each group were used to present the data. The results of the descriptive statistical analysis are presented in a table to facilitate comparison of children's language development between Al Barokah Kindergarten in Kedungkarang Village and Cendekia Kindergarten in Bapangan.

Based on the results of the descriptive statistical analysis presented in the table above, the sample size in each school consisted of 11 children. At Al Barokah Kindergarten, the mean score was 53.36 with a standard deviation of 9.51. This mean score provides a general description of the children's language development level within the group. Meanwhile, at Cendekia Kindergarten, the mean score was 43.64 with a standard deviation of 10.69. This

finding indicates that, on average, the language development scores of children at Cendekia Kindergarten were lower than those of children at Al Barokah Kindergarten.

When comparing the mean scores of the two groups, it can be observed that the average language development level of children at Al Barokah Kindergarten was higher than that of children at Cendekia Kindergarten. The standard deviation values in both groups indicate the degree of variation or dispersion of language development scores around the mean within each school. However, the observed difference in mean scores requires further examination through an independent-samples t-test to determine whether the difference is statistically significant.

Tabel 4. Uji normalitas TK Al Barokah

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
TK_ALBAROKAH	,118	11	.200*	,967	11	0,858

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Nilai Sig. Shapiro wilk $0.858 > 0,05$

Uji normalitas berdistribusi normal

Tabel 5. Uji normalitas TK Cendekia

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
TK_CENDEKIA	,184	11	.200*	,914	11	0,274

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Nilai Sig. Shapiro wilk $0.274 > 0,05$

Uji normalitas berdistribusi normal

Based on the results of the normality test for Al Barokah Kindergarten, the Shapiro–Wilk significance value was 0.858. Since this significance value exceeded the threshold of 0.05 ($0.858 > 0.05$), it can be concluded that the language development data of children at Al Barokah Kindergarten were normally distributed. Furthermore, the normality test results for Cendekia Kindergarten showed a Shapiro–Wilk significance value of 0.274. This value also exceeded 0.05 ($0.274 > 0.05$), indicating that the language development data of children at Cendekia Kindergarten were likewise normally distributed. Therefore, the data from both research groups met the assumption of normality. As a result, one of the key requirements for conducting parametric statistical analysis was satisfied, allowing the use of an independent-samples t-test to examine differences in language development between the two groups of children.

Tabel 6. Uji homogenitas TK Al Barokah dan TK Cendekia

Test of Homogeneity of Variances			
TK_ALBAROKAH &TK_CENDEKIA			
Levene Statistic	df1	df2	Sig.
,263	1	20	0,613

Nilai Sig. 0,613 > 0,05

Uji homogenitas dianggap homogen sebab nilai sig. melampaui 0,05

Based on the results of the homogeneity test presented in the table above, a test statistic value of 0.263 and a significance value (Sig.) of 0.613 were obtained. Since the significance value exceeded the threshold of 0.05 ($0.613 > 0.05$), it can be concluded that the variances of the language development data from Al Barokah Kindergarten and Cendekia Kindergarten were homogeneous, indicating equal variances between the two groups.

Therefore, the homogeneity assumption was satisfied for both research groups, allowing the subsequent statistical analysis to be conducted.

Tabel 7. Uji-t dua sampel independen
Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
NILAI Equal variances assumed	,263	,613	2,062	20	0,052	7,45455	3,61494	-,08608	14,99517
Equal variances not assumed			2,062	19,851	,053	7,45455	3,61494	-,08970	14,99879

The null hypothesis (H0) was accepted because the significance value (Sig. 2-tailed) of **0.052** exceeded the threshold of 0.05.

Based on the statistical test results presented in the table above, the Sig. (2-tailed) value was 0.052. Since this value is greater than the significance level of 0.05 ($0.052 > 0.05$), the null hypothesis (H0) is accepted and the alternative hypothesis (H1) is rejected. This indicates that there is no statistically significant difference in the language development of children aged 4–5 years between Al Barokah Kindergarten in Kedungkarang Village and Cendekia Kindergarten in Bapangan.

Although the mean score of language development in Al Barokah Kindergarten was higher than that of Cendekia Kindergarten, the difference is not large enough to be considered statistically significant. The observed differences in scores may still be influenced by individual variations among children and other external factors not included in this study.

Therefore, the research hypothesis stating that there is a difference in language development between children aged 4–5 years in the two schools is not supported by statistical evidence.

DISCUSSION

Based on the findings of this study on the language development of children aged 4–5 years at Al Barokah Kindergarten in Kedungkarang Village and Cendekia Kindergarten in Bapangan, the discussion is conducted by interpreting the results of data analysis to answer the research questions, namely whether there is a difference in language development between the two institutions. The obtained results are then related to theories of early childhood language development and relevant previous studies in order to provide a deeper understanding of the research findings.

The findings indicate that children's language development cannot be determined solely by geographical factors. In this regard, language development is more strongly influenced by environmental and individual factors. This result is consistent with recent studies suggesting that early childhood language development is influenced by a range of interrelated factors rather than merely the place of residence (Dilla & Jayadinata, 2025). Language development in children is strongly shaped by family environment and parenting practices as the child's first social setting. Daily interactions such as encouraging children to speak, engaging in dialogue, and providing opportunities to express opinions serve as important linguistic stimulation within the family context. Children who receive active language stimulation from parents tend to demonstrate more optimal language development. This aligns with Lev Vygotsky's theory, as cited in Etnawati (2022), which emphasizes that language development is significantly influenced by social interaction, particularly through assistance provided by adults. Through the concepts of the Zone of Proximal Development (ZPD) and scaffolding, children can optimally develop their language abilities with adult support until they achieve independent competence. Studies by Devina et al. (2025) and Dilla and Jayadinata (2025) also show that early childhood language development is strongly influenced by the quality of interaction within the family. In this regard, similar quality of family interaction in both research groups may explain the absence of a significant difference between them.

In addition to family environment, social environment and opportunities for interaction also play an important role in children's language development. Children who have opportunities to interact with peers, teachers, and the wider community gain more diverse communication experiences. Active social interaction enables children to imitate, understand, and use language in various communicative contexts. This is consistent with Urie Bronfenbrenner's ecological systems theory, as cited in Masrura et al. (2024), which explains that child development is influenced by multiple environmental systems, including family, school, and society. Masrura et al. (2024) also found that children's language development can be significantly enhanced by socially rich communication environments. In this regard, children living in rural areas still have equal opportunities to develop language skills as long as their social environment provides adequate communicative stimulation.

Language development is also influenced by internal factors related to individual characteristics. Each child has different cognitive abilities, levels of intelligence, and neurological development; therefore, language development is not uniform. This is in line with

Noam Chomsky's perspective, as cited in Apriyani (2025), which states that children possess an innate ability for language acquisition known as the Language Acquisition Device (LAD). Biological factors, developmental maturity, and cognitive abilities also play important roles in children's language development (Fitriana, 2023). In this regard, external environments such as rural or urban settings, as well as internal individual conditions, may jointly influence differences in language development among children; therefore, the absence of a significant difference in this study is theoretically reasonable.

On the other hand, behaviorist theory proposed by B.F. Skinner, as cited in Hia et al. (2025), can also be used to explain language development, stating that reinforcement strengthens the stimulus-response process that contributes to language acquisition. Children learn language through listening, imitation, and feedback from their environment. The more frequently children receive language stimulation and positive reinforcement from parents and their surroundings, the more their language abilities develop. Research by Rahmaniar et al. (2025) also shows that language use within families and communities can enrich children's vocabulary. In this regard, everyday language exposure plays an important role in supporting children's language development in both rural and urban contexts.

Overall, the findings of this study confirm that geographical differences, quality of family interaction, social environment, internal child factors, language exposure, and the quality of education are all contributing aspects to early childhood language development. This study suggests that environmental and individual factors play a more dominant role than geographical location in shaping children's language development. Therefore, optimizing language stimulation within the family, community, and educational institutions should be a key focus to enhance early childhood language development.

CONCLUSION

Based on the findings of the study on the language development of children aged 4–5 years at Al Barokah Kindergarten in Kedungkarang Village and Cendekia Kindergarten in Bapangan, it can be concluded that there is a descriptive difference in the mean language development scores between the two groups. The mean score of language development at Al Barokah Kindergarten was 53.36, while at Cendekia Kindergarten it was 43.64. However, based on the results of the statistical analysis using the Independent Samples t-test, a significance value of 0.052 was obtained, which is greater than 0.05. Therefore, the null hypothesis (H0) is accepted and the alternative hypothesis (H1) is rejected, indicating that there is no statistically significant difference in language development between children aged 4–5 years at Al Barokah Kindergarten in Kedungkarang Village and Cendekia Kindergarten in Bapangan.

These findings suggest that geographical factors, such as rural and urban differences, as well as other factors such as language stimulation within the family, children's social interactions, learning activities in educational institutions, and individual developmental characteristics, all contribute to early childhood language development. Therefore, active communication and interaction provided by parents and educators are essential as optimal language stimulation to support the maximal development of children's language abilities.

BIBLIOGRAPHY

- Arfizeah, N. H., Risnawati, R., Rizqa, M., Novita, V., & Hamdani, M. F. (2025). Measuring the validity and reliability of research instruments on students' interest in Islamic education at SMP Negeri 2 Kampar Kiri. *Jurnal Ilmiah Pendidikan Dasar*, 10.
- Azizah, I. N. (2025). Comparative analysis of built-up land development in urban Yogyakarta, urban Surakarta, and the Kedungsepur National Strategic Area.
- Darihastining, S., Mardiana, W., Sulistyowati, H., & Rahmawati, Y. (2023). Application of second language acquisition hypotheses in early childhood education. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 7(1), 685–698. <https://doi.org/10.31004/obsesi.v7i1.3893>
- Darwin, M., Mamondol, M. R., Sormin, S. A., Nurhayati, Y., Tambunan, H., Sylvia, D., et al. (2021). *Quantitative research methods: A methodological approach*.
- Etnawati, S. (2022). Implementation of Vygotsky's theory on early childhood language development. *Jurnal Pendidikan*, 22(2), 130–138. <https://doi.org/10.52850/jpn.v22i2.3824>
- Fajarrini, A., & Diana, R. R. (2024). The role of residential environment in early childhood language development. *Abata Journal of Early Childhood Islamic Education*, 4(1), 1–16.
- Friantary, H. (2020). Language development in early childhood. *Zuriah: Journal of Early Childhood Education*, 1(2). <https://doi.org/10.29240/zuriah.v1i2.2010>
- Husna, A., & Eliza, D. (2021). Strategies and achievement indicators of receptive and expressive language in early childhood. *Journal of Family Education*, 1(4). <https://doi.org/10.24036/jfe.v1i4.21>
- Kumari, R., Nurhayati, S., Harmiasih, S., & Yunitasari, E. (2023). Developing empathy in early childhood through Friday charity habituation at PAUD Insan Mandiri Bogor. *Aksara: Journal of Nonformal Education*, 9(2), 1067–1074.
- Laya, S. M. N., & Salim, S. (2023). Characteristics of local wisdom in coastal communities in Tojo Una-Una. *Jambura Journal of Urban and Regional Planning*, 1(1), 47–59.
- Monoarfa, A. P., Daaliwa, A., Pakaya, C., & Monoarfa, P. (2025). Social interaction and early childhood language development at TK Negeri Adenium. *Journal of Education and Biology*, 2. <https://doi.org/10.61132/jucapenbi.v2i2.456>
- Nurjani, Y., & Mustopa, E. F. A. (2023). The implications of teachers' academic qualifications on early childhood learning development. *Anaking: Journal of Early Childhood Islamic Education*, 2, 1–15. <https://doi.org/10.37968/anaking.v2i2.594>
- Pujiharti, E. S. (2026). Application of statistics in improving the quality of educational research. *An Nahdliyah: Journal of Islamic Education Management*, 5, 40–58.
- Rachman, A., Yochanan, S., Samanlangi, A. I., & Purnomo, H. (2024). *Quantitative, qualitative, and R&D research methods*. CV Saba Jaya Publisher.
- Rohmah, G. S. (2024). Early childhood language development at TK Muslimat 01 Ponorogo. *Journal of Language, Literature, and Teaching Studies*, 1(2), 94–104.
- Subakir, F. A., Mubarak, Z., & Rahma, M. (2022). The essence of language for early childhood development. *AL-ASASIYYA: Journal Basic of Education*, 7(1), 58–67.

- Wulandari, A. D. R., Mashitasari, D., & Fatimah, F. (2025). Comparison of Islamic education achievement scores using independent sample t-test analysis. *ESTIMATOR: Journal of Applied Statistics, Mathematics, and Data Science*, 3(1), 47–57. <https://doi.org/10.31537/estimator.v3i1.2503>
- Yuliana, Y. D., & Putri, D. A. A. (2025). The effect of daily Pancasila recitation on students' attitudes. *Journal of Education and Literacy of Madrasah Ibtidaiyah*, 4(2), 114–129. <https://doi.org/10.63889/permai.v4i2>
- Zahratunnisa, S. G. (2024). Expressive language development through storytelling methods in children aged 5–6 years at RA. *Unpublished manuscript / journal article*.
- Zulaiha, I., & Romdoni. (2026). The use of Wordwall media to improve mathematics skills in children aged 5–6 years at TK Al-Athfal STAI Muhammadiyah Probolinggo. *Al-Athfal Journal*, 7(2), 281–292. <https://jurnal.staim-probolinggo.ac.id/index.php/Al-Athfal>