International Journal of Educational Research Excellence (IJEREC)
https://ejournal.ipinternasional.com/index.php/ijerec

Volume 06, Issue 01, January-June 2027
e-ISSN:2830-7933
DOI: 10.55299/ijerec.v6i1.2137

Correlation Between Students Self-Confidence Levels and Speaking Skills in Indonesian Language Group Discussions

Deny Hardiansyah Harahap[1*)], Sutikno[2)] , Rahmat Kartolo[3)]

[1, 2, 3)] Universitas Muslim Nusantara Al-Washliyah, Indonesia

Correspondence Authors: denyharahap12@guru.sd.belajar.id

Article history: received September 20, 2026; revised September 30, 2026; accepted Oktober 07, 2026

This article is licensed under a Creative Commons Attribution 4.0 International License

Abstract

This study aimed to test the significance and strength of the correlation between students' self-confidence levels (as the independent variable, X) and their speaking skills in the context of Indonesian language group discussions (as the dependent variable, Y). This study used a quantitative approach with a correlational method. The subjects were all sixth-grade students of SDN 02 Bilah Barat, Labuhanbatu Regency, in the 2025 2026 academic year, totaling 35 students (saturated sample). Data were collected through a closed-scale instrument (questionnaire) for the Self-Confidence variable and an oral performance test (observation during group discussions) for the Speaking Skills variable. The data analysis technique used was the Pearson Product Moment correlation test, preceded by a prerequisite test for normality and linearity of the data. Descriptively, the results show that the majority of students (51%) are in the High Self-Confidence level category, followed by Speaking Skills, which are also in the High category. The results of the hypothesis test indicate that there is a significant and strong positive correlation between Students' Self-Confidence Levels and Speaking Skills. The correlation coefficient (rxy) obtained is 0.768, indicating a strong relationship. Furthermore, the t-value of 6.892 far exceeds the t-table (2.03452), so the working hypothesis (Ha) is accepted. The coefficient of determination (R2) shows that the contribution of Self-Confidence to Speaking Skills reaches 59.0%, while the remainder (41.0%) is influenced by other factors outside the study. The results of this study confirm that affective factors, especially self-confidence, are important predictors of oral communication skills. The practical implication is that Indonesian language teachers are advised to prioritize learning strategies that explicitly aim to build students' emotional safety and confidence in speaking (e.g., through simulations, role-playing, or mini-debates) to maximize students' 59.0% oral potential.

Keywords: **self-confidence, speaking skills, group discussion, correlation**

I. INTRODUCTION

Language skills, particularly speaking competence, constitute fundamental components of communication and social interaction. Within educational contexts, speaking skills serve not only as information transmission tools but also as vehicles for developing critical thinking, argumentation abilities, and collaborative competencies. Among the four language pillars—listening, speaking, reading, and writing—speaking holds a central and dynamic position, bridging internal thoughts with the external world and enabling abstract ideas to be articulated into comprehensible words. In an era where collaboration and effective communication determine success in both academic and professional settings, mastery of speaking skills becomes imperative (Fauzi et al., 2025).

Elementary education, particularly at the sixth-grade level, represents a critical transitional phase in which students begin to develop complex critical thinking and argumentation abilities. At this stage, they are no longer merely taught to memorize but to analyze, conclude, and express perspectives. Group discussion emerges as one of the most effective pedagogical methods for facilitating this development. In Indonesian language group discussions, students are challenged to actively engage, share thoughts, listen to diverse perspectives, and construct coherent arguments. However, the success of this method cannot be guaranteed solely by student presence; active participation and meaningful contributions from each individual become crucial, and this is where obstacles frequently emerge (Ilham et al., 2025).

The primary obstacle is often psychological factors, particularly students' self-confidence levels. Self-confidence, defined by Ritu Arya (2025) as "strong belief in one's own ability to achieve goals and face challenges," plays a crucial role in determining how far a student dares to participate. Students with high self-confidence view discussions as a stage to demonstrate their abilities. They are unafraid to make mistakes, brave enough to ask questions, and capable of defending opinions with logical arguments. They tend to become group leaders, driving interaction and creating conducive environments for idea exchange (Ritu Arya & Ashish Verma, 2024).

Conversely, lack of self-confidence can stifle a student's potential. A student may possess a brilliant understanding of the material, yet anxiety and fear of negative evaluation from peers or teachers lead them to remain silent. This

Volume 06, Issue 01, January-June 2027
e-ISSN:2830-7933
DOI: 10.55299/ijerec.v6i1.2137

passive behavior, often misinterpreted as a lack of understanding, represents a manifestation of the inability to overcome fear and doubt. Rather than benefiting from discussion, such students become trapped in a negative cycle: they do not speak due to low self-confidence, and their self-confidence never grows because they never practice speaking. This condition creates significant disparities in classrooms, where a few brave students dominate while the majority remain passive listeners. This aligns with Jarum s (2022) assertion that "self-confidence becomes one of the most significant psychological factors influencing the quality and quantity of student participation in learning activities requiring verbal interaction." (Jarum & Ayudiari, 2022)

This phenomenon is not unfamiliar in education. Previous research has demonstrated a close relationship between self-confidence and academic performance, including language skills. According to Azizah et al. (2025), "self-confidence influences learning motivation and students' ability to overcome obstacles in the learning process, including communication barriers." In other words, self-confidence is not merely a result of ability but also a prerequisite for its development. Lack of self-confidence becomes a wall preventing students from optimizing their potential, especially in activities demanding verbal self-expression (Azizah et al., 2025).

More specifically, this condition was observed at SDN 02 Bilah Barat, Labuhanbatu Regency. Preliminary observations revealed that the dynamics of Indonesian language group discussions in the sixth grade showed striking patterns. Several students consistently dominated discussions, mastered conversations and proactively asked and answered questions. Conversely, the majority of students tended to restrain themselves, unwilling to speak, or only provided one-word answers when directly asked by teachers or group members. This difference strongly suggests that students' participation and speaking skills are influenced not only by cognitive understanding of subject matter but also by non-cognitive factors, particularly self-confidence levels.

Research on this correlation is critically important and urgent. Without valid empirical data, teachers and schools cannot design appropriate interventions to address this issue. Teachers might continue to implement group discussion methods, but the results will remain suboptimal if the root problem—low self-confidence—remains unaddressed. This study therefore aims to systematically and rigorously examine whether a correlation exists between students' self-confidence levels and their speaking skills in group discussions. The results are expected to provide a comprehensive understanding of self-confidence's vital role in language skill development and ultimately establish scientific foundations for improving learning practices focused on character and life skills development alongside academic aspects. This will bring significant benefits not only for students but also for teachers, schools, and the broader educational community.

A. *Problem Identification*

Based on the background described, specific problems were identified. The primary visible issue is the low active participation of sixth-grade students at SDN 02 Bilah Barat in Indonesian language group discussions. This phenomenon not only affects classroom dynamics but also hinders the achievement of learning objectives. Students who should bravely express themselves and argue tend to restrain themselves, demonstrating passive behavior and avoiding eye contact. This creates a significant imbalance, where only a small portion of students maximally benefit from this learning method while others are left behind.

The second problem is the strong indication that hesitation and fear of expressing opinions in groups represent manifestations of low self-confidence. Students worry that their opinions will be judged wrong or underestimated by peers. Aprillia (2025) states that "anxiety and fear of public speaking often stems from fear of failure and negative evaluation, characteristic of individuals with low self-confidence." This fear creates a negative cycle: students do not dare speak due to low self-confidence, and their speaking skills remain undeveloped due to lack of practice (Nurul Aprilla et al., 2025).

Furthermore, despite strong indications of a causal relationship between self-confidence and speaking skills, there is no specific and valid empirical evidence confirming this hypothesis at SDN 02 Bilah Barat. This research gap prevents teachers and schools from designing appropriate targeted interventions. This study therefore serves as a focused correlational study to measure the strength and significance of the relationship between both variables, providing a clearer understanding and scientific foundations for improving Indonesian language learning quality, particularly in group discussion contexts (Bekkouche & Carliner, 2026).

B. *Research Questions*

Based on the background and problem identification, this study addresses the following research question: Is there a positive and significant correlation between students' self-confidence levels and speaking skills in Indonesian language group discussions among sixth-grade students at SDN 02 Bilah Barat, Labuhanbatu Regency, during the 2025-2026 academic year?

Volume 06, Issue 01, January-June 2027
e-ISSN:2830-7933
DOI: 10.55299/ijerec.v6i1.2137

C. *Research Objectives*
The primary objective of this study is to determine and analyze the positive and significant correlation between students' self-confidence levels and speaking skills in Indonesian language group discussions among sixth-grade students at SDN 02 Bilah Barat, Labuhanbatu Regency, during the 2025-2026 academic year.

D. *Significance of the Study*
This study contributes theoretically by enriching knowledge in educational psychology and applied linguistics. The findings regarding the relationship between self-confidence and speaking skills can serve as foundations for developing more holistic learning models that address cognitive, affective, and psychomotor aspects. Practically, this study benefits students by raising awareness of self-confidence as fundamental to effective communication, teachers by providing empirical data for designing innovative learning strategies, schools for program evaluation and curriculum development, and other researchers as a reference for similar studies with different populations or methods.

II. METHODS

A. *Research Design*
This study employed a quantitative correlational research design. According to Sugiyono (2019), associative research aims to determine the relationships between two or more variables. The quantitative approach, grounded in positivist philosophy, was used to examine predetermined populations and samples through random sampling techniques, standardized instruments, and statistical analysis to test established hypotheses. This design was specifically chosen to investigate the correlation between the independent variable (self-confidence, X) and the dependent variable (speaking skills in group discussions, Y) (Sugiyono., 2019).

Variables
This study involved two variables: an independent variable and a dependent variable. The independent variable (X) was students self-confidence level, defined operationally as the belief in one's ability to succeed in tasks and face challenges, measured through a validated questionnaire. The dependent variable (Y) was speaking skills in Indonesian language group discussions, defined as the ability to communicate ideas, thoughts, and feelings verbally effectively, clearly, and structured, measured through observation and performance assessment.
The research design schematically represents the relationship between self-confidence and speaking skills as X → Y, where X represents self-confidence level and Y represents speaking skills in Indonesian language group discussions.

Time and Location
This research was conducted during the 2025 - 2026 academic year at SDN 02 Bilah Barat, located at Aek Paing, Afdeling I Rantau Prapat, Bilah Barat Subdistrict, Labuhanbatu Regency, North Sumatra Province. The school holds accreditation B and operates a six-day school week with 888-watt electricity capacity. Physical assets include 4,489 square meters of land, 16 functioning classrooms, one library unit, and two student sanitation facilities. The school serves 376 students (189 male, 187 female) across 16 study groups.

Population and Sample
The population comprised all sixth-grade students at SDN 02 Bilah Barat, totaling 35 students. Due to the relatively small population size, saturated sampling was employed, where all population members served as research subjects. This total sampling or saturated sample technique ensures that the results reflect the actual conditions of the entire population.

Research Instruments
Data collection utilized two primary instruments developed through rigorous validation procedures.
Self-Confidence Questionnaire: A closed-questionnaire instrument was used to measure self-confidence. The scale was developed based on Lauster's (2012) five aspects: belief in abilities, optimism, objectivity, responsibility, and rational/realistic thinking. The questionnaire initially comprised 53 items (after content validity assessment and expert judgment), which were reduced to 34 valid items following empirical validation. Responses were measured using a 4-point Likert scale: strongly agree (4), agree (3), disagree (2), and strongly disagree (1), with reverse scoring for negative statements.
Speaking Skills Observation Sheet: This observation instrument measured students' speaking skills during group discussions. Based on Tarigan's (2008) theoretical framework, the observation rubric assessed seven aspects: fluency, articulation clarity, idea coherence, courage, language use, responding ability, and expression/attitude. Each aspect was scored on a 14 scale. The instrument initially contained 40 items, which were refined to 24 valid items through empirical testing.

Volume 06, Issue 01, January-June 2027
e-ISSN:2830-7933
DOI: 10.55299/ijerec.v6i1.2137

Validity and Reliability
Both instruments underwent rigorous validity and reliability testing. For the self-confidence scale, validity testing used Pearson scorrelation (corrected item-total correlation). Items with r-calculated values below 0.3 were eliminated. The reliability test demonstrated strong internal consistency with Cronbach's alpha of 0.873 for the 34-item scale. Similarly, the speaking skills scale showed validity through item-total correlations, with the 24-item instrument achieving Cronbach's alpha of 0.873. These values indicate excellent reliability, well above the acceptable threshold of 0.70, confirming that the instruments consistently measure the intended constructs.

Data Collection Procedures
Data collection followed systematic procedures to ensure validity and reliability. First, the researcher obtained permission from the school administration. Second, self-confidence questionnaires were distributed to all 35 sixth-grade students during regular class hours, with researchers available to clarify instructions. Third, speaking skills observations were conducted during Indonesian language group discussion sessions over one week. Each student was observed by trained assessors using a standardized observation rubric, with inter-rater reliability established through prior training. Data collection was completed within the specified timeframe to ensure relevance to current learning conditions.

Data Analysis Techniques
Data analysis employed both descriptive and inferential statistics, following a systematic sequence:
Descriptive Analysis: Descriptive statistics, according to Sugiyono (2011), were used to describe the collected data without generalization. This included calculating frequencies, percentages, means, standard deviations, and categorizing data into high, medium, and low levels using interval formulas:

$$P = (\text{Highest Score} - \text{Lowest Score}) / \text{Number of Categories}$$

Prerequisite Testing: Before inferential analysis, assumption tests were conducted to ensure the appropriateness of parametric statistics.
Normality Test: The Kolmogorov-Smirnov test was used to examine whether the data followed a normal distribution. Criteria: if significance (Sig.) > 0.05, the data are considered normally distributed.
Linearity Test: The linearity test verified whether the relationships between variables were linear, a prerequisite for Pearson scorrelation. Criteria: Significance > 0.05 indicates linear relationships.
Hypothesis Testing: The Pearson Product Moment correlation coefficient was calculated using the formula:

$$rxy = [N\sum XY - (\sum X)(\sum Y)] / \sqrt{\{[N\sum X^2 - (\sum X)^2][N\sum Y^2 - (\sum Y)^2]\}}$$

Where rxy = correlation coefficient, X = self-confidence scores, Y = speaking skills scores, and N = number of respondents.
Significance testing employed the t-test formula:

$$t = [r\sqrt{(n-2)}] / \sqrt{(1-r^2)}$$

The null hypothesis (H_0) stated no significant correlation between self-confidence and speaking skills, while the alternative hypothesis (H_1) stated a significant correlation. H_0 is rejected if t_calculated > t_table at $\alpha = 0.05$ with df = n-2.
Coefficient of Determination: $R^2 = (rxy)^2 \times 100\%$ was calculated to determine the contribution percentage of self-confidence to speaking skills variance.

Ethical Considerations
This research adhered to ethical guidelines for educational research. Informed consent was obtained from the school principal and parents of participating students. Student participation was voluntary, with confidentiality and anonymity guaranteed. Data were used exclusively for research purposes, and participants were informed that they could withdraw at any time without consequences.

III. RESULTS AND DISCUSSION

A. *Descriptive Statistics*
Analysis of the self-confidence questionnaire data revealed the following descriptive statistics.

Volume 06, Issue 01, January-June 2027
e-ISSN:2830-7933
DOI: 10.55299/ijerec.v6i1.2137

Table 1. Distribution of Self-Confidence Levels

No	Category	Interval Score	Frequency (f)	Percentage (%)
1	Very High	107-115	8	23%
2	High	98-106	18	51%
3	Low	89-97	7	20%
4	Very Low	80-88	2	6%
	Total		35	100%

The data indicate that the majority of students (51%) possess high self-confidence, suggesting that most students demonstrate adequate belief in themselves for expressing opinions, participating in learning activities, and interacting in the school environment. However, nine students (26%) fall into the Very High and Low categories, while two students (6%) exhibit Very Low self-confidence, reflecting significant inter-individual variation.

Speaking Skills Variable (Y)

Descriptive analysis of speaking skills observation data revealed:

Table 2. Distribution of Speaking Skills Levels

No	Category	Interval Score	Frequency (f)	Percentage (%)
1	Very High	72-79	9	26%
2	High	64-71	18	51%
3	Low	56-63	6	17%
4	Very Low	48-55	2	6%
	Total		35	100%

The majority of students (51%) demonstrated high speaking skills, indicating the ability to express ideas clearly, speak confidently, and respond to others' opinions during group discussions. A minority exhibited low (17%) and very low (6%) speaking skills, suggesting varying mastery levels potentially influenced by self-confidence, public speaking experience, and supportive learning environments.

Prerequisite Testing

Normality Test

Normality testing using the Kolmogorov-Smirnov test at α = 0.05 yielded:

Table 3. Normality Test Results

Variable	Significance Value	Significance Level (α)	Decision
Self-Confidence (X)	0.107	0.05	Normal
Speaking Skills (Y)	0.086	0.05	Normal

Both variables showed significance values > 0.05, confirming normal distribution and fulfilling the requirements for Pearson sproduct moment correlation analysis.

Linearity Test

Volume 06, Issue 01, January-June 2027
e-ISSN:2830-7933
DOI: 10.55299/ijerec.v6i1.2137

Linearity testing using Test for Linearity at α = 0.05 revealed a significance value of 0.187 > 0.05, indicating that the relationship between self-confidence and speaking skills is linear. This confirms that the data meet linearity assumptions and can proceed to correlation analysis.

Hypothesis Testing
Correlation and Significance Test.

Table 4. Pearson Product Moment Correlation Results

Statistical Test	Value	Interpretation
Correlation Coefficient (rxy)	0.768	Strong Positive Relationship
Table r (rtabel, N=35, α=5%)	0.334	Comparison Value
Calculated t (tcount)	6.892	Significance Test
Table t (ttable, df=33, α=5%)	2.03452	Comparison Value

Strength of Relationship
The correlation coefficient rxy = 0.768 falls within the 0.600.799 range, indicating a strong positive relationship between the variables. The positive sign confirms a unidirectional relationship: higher self-confidence corresponds to higher speaking skills.

Significance Testing
The calculated r (0.768) significantly exceeds the table r (0.334), and the calculated t (6.892) far exceeds the table t (2.03452). Both comparisons confirm that H_0 is rejected and H_1 is accepted, indicatingg a strong, significant positive correlation between self-confidence and speaking skills among sixth-grade students at SDN 02 Bilah Barat.

Coefficient of Determination (R^2)

$$R^2 = (rxy)^2 \times 100\%$$
$$R^2 = (0.768)^2 \times 100\% = 0.5898 \times 100\% \approx 59.0\%$$

Self-confidence contributes 59.0% to the variation in speaking skills, while 41.0% is influenced by other factors not examined in this study, such as physical condition, family environment, speaking experience, and social support

B. *Discussion*
The analysis confirms a strong, significant relationship between self-confidence and speaking skills among sixth-grade students (r = 0.768, p < 0.01). This finding aligns with theoretical frameworks that establish self-confidence as a determinant of oral communication competence. Students with high self-confidence demonstrate greater willingness to express ideas, participate actively in discussions, and speak fluently and convincingly.
The 59.0% contribution of self-confidence to speaking skills underscores the critical role of affective factors in developing oral communication abilities. This is consistent with Aziz et al.s (2025) social cognitive theory, which posits that self-efficacy beliefs influence individuals' choices, effort, and persistence in challenging tasks. In educational contexts, self-confidence enables students to overcome speaking anxiety and approach verbal tasks with optimal performance (Azis et al., 2025)

Alignment of Descriptive and Inferential Findings
The descriptive data showing 51% of students in both high self-confidence and high speaking skills categories reinforces the correlational findings. Students categorized as high in both domains demonstrate key characteristics: courage to take risks, optimism, belief in abilities, emotional control during public speaking, and effective verbal expression. They actively engage in learning, express opinions confidently, and defend arguments calmly (Tajik, 2025).
Conversely, students in the low and very low categories (26% for self-confidence, 23% for speaking skills) displayed different patterns: passive behavior, hesitation during speaking, and preference for group participation over individual

Volume 06, Issue 01, January-June 2027
e-ISSN:2830-7933
DOI: 10.55299/ijerec.v6i1.2137

expression. The inability to manage anxiety prevented them from expressing ideas fluently. This pattern confirms that decreased self-confidence directly correlates with decreased speaking quality in terms of fluency, courage, and argumentation ability.

Theoretical Implications

These findings support Fan s (2025) assertion that self-confidence represents belief in one's strengths enabling goal achievement, including communication goals. Students with high self-confidence demonstrate lower speaking anxiety, allowing them to focus on message content rather than fear of judgment. According to psycholinguistic theory, affective factors act as filters that determine how linguistic input is transformed into output. With adequate self-confidence, students can easily convert ideas into clear, logical spoken language(Fan, 2025).

The strong correlation (0.768) confirms that self-confidence is not merely a personality attribute but a skill developable through practice and speaking experience. This extends Zahra et al.s (2025) theory that speaking ability involves not only structural language mastery but also mental readiness and self-belief in communication. Confident students demonstrate superior ability to regulate speaking rhythm, adapt speech style to context, and influence audiences effectively (Zahra et al., 2025).

Practical Implications for Educators

The findings have direct implications for classroom practice. First, Indonesian language teachers should prioritize affective aspects alongside cognitive development. This involves creating psychologically safe environments where students feel valued and unafraid to make mistakes. Positive reinforcement through praise, public recognition of speaking courage, and constructive feedback helps nurture self-confidence (Andriani et al., 2025).

Second, communicative learning models such as group discussions, presentations, role-playing, and mini-debates serve dual purposes: developing speaking skills and building self-confidence. These student-centered approaches allow for authentic expression, argumentation, and active peer interaction. Indonesian language learning thus extends beyond technical language competency to develop social and emotional competencies central to the Pancasila Student Profile.

Third, teachers should implement strategies that foster courage and emotional safety. Methods such as role-playing, simulations, and collaborative presentations help students step outside their comfort zones in supportive environments. Regular practice reduces public speaking anxiety and fear of errors (Syerlyana et al., 2025).

Empirical Contributions

This study's findings align with Barus et al., (2025) research showing a correlation between self-confidence and speaking fluency (r = 0.673) among eighth-grade students. Similarly, Wahyuni (2014) found a significant negative correlation between self-confidence and public speaking anxiety (r = -0.559), confirming that higher self-confidence reduces speaking anxiety. The present study extends these findings to elementary school contexts, demonstrating the robustness of the relationship across educational levels (Barus, 2024).

Educational Policy Implications

The results support policies emphasizing soft skills development alongside academic achievement. Strengthening self-confidence and speaking skills represents a long-term investment in developing critical, communicative youth ready for active social and academic participation. Curriculum designers should integrate explicit self-confidence building activities into language learning frameworks.

Research Limitations

Several limitations warrant consideration. First, the study is correlational and focuses exclusively on one independent variable. The unexplained 41.0% variance suggests that other factors—physical condition, cognitive development, family background, and learning environment—influence speaking skills. Second, self-confidence data relied on self-report questionnaires, which may be subject to social desirability bias despite validation. Third, the study was limited to one school with 35 students, limiting generalizability to broader populations

IV. CONCLUSIONS

Based on the research findings, several significant conclusions can be drawn regarding the correlation between self-confidence and speaking skills in Indonesian language group discussions among sixth-grade students at SDN 02 Bilah Barat. First, descriptive analysis reveals that the majority of students (51%) possess high self-confidence levels, indicating that most students demonstrate positive belief in their communication abilities. This reflects mental and emotional readiness for interaction, particularly in learning contexts demanding public speaking courage. Second, speaking skills descriptive data show that 51% of students fall into the high category, demonstrating good abilities in fluency, language accuracy, articulation, and courage in responding to peers' arguments. This alignment between

Volume 06, Issue 01, January-June 2027
e-ISSN:2830-7933
DOI: 10.55299/ijerec.v6i1.2137

self-confidence and speaking skills suggests their interconnected development. Third, the Pearson Product Moment correlation analysis reveals a strong, positive, and significant relationship between self-confidence and speaking skills ($r = 0.768$, $p < 0.01$). This confirms that higher self-confidence corresponds to superior speaking abilities. The significance test with t_calculated (6.892) exceeding t_table (2.03452) confirms that the alternative hypothesis (H_1) is accepted and the null hypothesis (H_0) is rejected. Fourth, the coefficient of determination ($R^2 = 59.0\%$) demonstrates that self-confidence substantially contributes to speaking skills variation, with over half of speaking ability variance explained by self-confidence levels. The remaining 41.0% is influenced by other factors including family environment, physical condition, developmental factors, and learning experiences not examined in this study.

AI Usage Statement

The author declares that no generative AI was used in the preparation, analysis, interpretation of data, or writing of this article.

Author Contribution Statement

For research articles with several authors, a short paragraph specifying their individual contributions must be provided. The following statements should be used “Conceptualization, D.H.H. and S.; methodology, D.H.H.; software, D.H.H.; validation, D.H.H., S. and R.K.; formal analysis, D.H.H.; investigation, D.H.H.; resources, D.H.H.; data curation, D.H.H.; writing—original draft preparation, D.H.H.; writing—review and editing, D.H.H.; visualization, D.H.H.; supervision, D.H.H.; project administration, D.H.H.; funding acquisition, S. All authors have read and agreed to the published version of the manuscript.” Authorship must be limited to those who have contributed substantially to the work reported

Funding Statement

"No external funding was received for this study."

Ethical Compliance

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and the 1964 Declaration of Helsinki and its later amendments or comparable ethical standards.

Data Access Statement

A Data Access Statement is a section in a scientific publication or research report that explains how the data used or generated in the study can be accessed by readers or other researchers. This statement aims to promote transparency, support research reproducibility, and comply with open access policies, where applicable.
Common Elements in a Data Access Statement:

1. Data Location: Specifies where the data are stored, such as in online repositories (e.g., Zenodo, Dryad, or institutional repositories).
2. Access Instructions: Provides information on how to access the data, such as direct links, DOI (Digital Object Identifier), or contact details.
3. Data Availability: Indicates whether the data are publicly accessible, available upon request, or restricted due to ethical, legal, or privacy considerations.
4. Data Licensing: If the data are open, specify the applicable license (e.g., Creative Commons).

Examples of Data Access Statements:

1. Open Data:
   - "The data supporting this study are openly available in Zenodo at [DOI:10.xxxx/zenodo.xxxx]."
2. Restricted Data:
   - "The data supporting the findings of this study are available upon request from the corresponding author. Due to privacy concerns, the data are not publicly available."
3. No Data Available:
   - "No datasets were generated or analyzed during the current study."
4. Conditional Access:
   - "The data supporting this study are available under restricted access and can be obtained upon reasonable request to the corresponding author and with the permission of the ethics committee."

Purpose of a Data Access Statement:

- Reproducibility: Enables other researchers to replicate or verify the findings.
- Collaboration: Encourages further collaboration by sharing data.
- Compliance: Adheres to the policies of funding agencies or journals that require open access to data.

Volume 06, Issue 01, January-June 2027
e-ISSN:2830-7933
DOI: 10.55299/ijerec.v6i1.2137

Conflict of Interest Declaration

The authors declare that they have no affiliations with or involvement in any organization or entity with any financial interest in the subject matter or materials discussed in this manuscript.

ACKNOWLEDGEMENTS

The author thanks all people in most cases, sponsors and support ers for their acknowledgments.

REFERENCES

[1] Andriani, A., Nuraini, C., Rosmala, D., Sulastri, F., Silvani, D., Belkis, S. A., Maulina, R., & Sarah, S. (2025). Literacy Innovation in the Digital Era: Developing Teacher and Student Capabilities in Facing Technological Challenges. *DIKDIMAS : Jurnal Pengabdian Kepada Masyarakat*, *4*(2), 105–114. https://doi.org/10.58723/dikdimas.v4i2.330

[2] Azis, A., Qodir, A., Mazrur, & Saihu, M. (2025). Integrating Inclusive Learning Theories and Islamic Values in Islamic Religious Education for Students with Special Needs. *Al-Mudarris (Jurnal Ilmiah Pendidikan Islam)*, *8*(2), 409–418. https://doi.org/10.23971/mdr.v8i2.10203

[3] Azizah, R., Wijayanto, A., & Laila, M. (2025). Can AI-Generated Feedback Overshadow Teachers' Existence? *Dinasti International Journal of Education Management And Social Science*, *6*(5), 3505–3521. https://doi.org/10.38035/dijemss.v6i5.4503

[4] Barus, E. W. (2024). Analysis of Writing Practice Frequency and Prose Writing Ability at Vocational High School. *Scaffolding: Jurnal Pendidikan Islam Dan Multikulturalisme*, *6*(2), 203–2013. https://doi.org/10.37680/scaffolding.v6i2.5855

[5] Bekkouche, N., & Carliner, S. (2026). The Academic Preparation of Transnational Students: An Analysis of Curriculum and Teaching Methods from Four International Systems. *New Horizons in Adult Education and Human Resource Development*, *38*(1), 8–21. https://doi.org/10.1177/19394225251365338

[6] Fan, K. (2025). Enhancing Cognitive Reading Strategy Use for L2 Learners with Lower Working Memory through AI-Based Scaffolding. *Journal of English Language Teaching and Applied Linguistics*, *7*(3), 143–151. https://doi.org/10.32996/jeltal.2025.7.3.14

[7] Fauzi, A., Jannah, N. U. J., & Fikri, S. (2025). Digital Comics: Media Analysis in Maharah Qiro'ah Learning. *Journal of Literacy Education*, *1*(3), 107–117. https://doi.org/10.64780/jole.v1i3.75

[8] Ilham, Kustin, S., Sadikin, I. S., Ariyani, E., & Edi. (2025). Indonesian Undergraduate Perception on Cased-Based Learning with Blended Learning in EFL Paragraph Writing Skill. *Forum for Linguistic Studies*, *7*(10). https://doi.org/10.30564/fls.v7i10.10296

[9] Jarum, J., & Ayudiari, D. (2022). EFL learners' Procrastination in Completing Academic Writing Tasks: The Factors and Its Possible Effects. *IDEAS: Journal on English Language Teaching and Learning, Linguistics and Literature*, *10*(2), 1408–1425. https://doi.org/10.24256/ideas.v10i2.3158

[10] Nurul Aprilla, Tasya Nadira, & Aqila Az Zahra. (2025). The essence Phonology in Linguistic Studies. *Fonologi: Jurnal Ilmuan Bahasa Dan Sastra Inggris*, *3*(1), 134–141. https://doi.org/10.61132/fonologi.v3i1.1418

[11] Ritu Arya, & Ashish Verma. (2024). Role of Artificial Intelligence in Education. *International Journal of Advanced Research in Science, Communication and Technology*, 589–594. https://doi.org/10.48175/IJARSCT-19461

[12] Sugiyono. (2019). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D. Bandung Alfabeta*.

[13] Syerlyana, A., Islami, R. M., Yanti, F. R., Kusmana, S., & Rahayu, I. (2025). Application of Multisensory Strategies in Differentiated Classroom Learning to Overcome Reading Delay in Elementary School Students. *JTP - Jurnal Teknologi Pendidikan*, *27*(2), 487–499. https://doi.org/10.21009/jtp.v27i2.57001

[14] Tajik, A. (2025). *Beyond Voice Recognition: Integrating Alexa's Emotional Intelligence and ChatGPT's Language Processing for EFL Learners' Development and Anxiety Reduction - A Comparative Analysis*. https://doi.org/10.21203/rs.3.rs-5989702/v1

[15] Zahra, N. A., Hardiyanto, A., Rembulan, P. M., Namora, C. R., & Rasusoh, A. (2025). ANALYSIS OF LEARNING DIFFICULTIES IN READING COMPREHENSION WITH NEUROLINGUISTIC APPROACH FOR STUDENTS WITH LEARNING DIFFICULTIES IN ELEMENTARY SCHOOL ANUBANWANGMAI SCHOOL THAILAND. *PIONIR: JURNAL PENDIDIKAN*, *14*(2), 305–317. https://doi.org/10.22373/dnk33535