

ENHANCING WRITING SKILLS THROUGH EDUCATIONAL INNOVATION: INTEGRATING PROJECT-BASED LEARNING AND AUDIOVISUAL MEDIA

Antonius Awan Asta Adhiprana Whisnubrata^{1*}, Johannes Dimara²,
Kevin Andrea Tamaela³

¹² Universitas Satya Wiyata Mandala, Indonesia

³ Universitas Kristen Wira Wacana Sumba, Indonesia

*Corresponding Author: aaaawhisnubrata@gmail.com

ABSTRACT

The low writing proficiency among junior high school students, particularly in remote areas of Indonesia, remains a pressing concern in language education. This research addresses the problem by implementing a Project-Based Learning (PjBL) model supported by audiovisual media to improve students' narrative writing skills. The objective of this study was to analyze the impact of the integrated instructional model on students' writing performance, focusing on idea development, vocabulary usage, and text organization. Using a quantitative, pre-experimental design with a One-Group Pretest-Posttest framework, data were collected from 30 Grade VII students at SMP Antonius Nabire. Writing assessments were conducted before and after the treatment, with results analyzed using paired sample t-tests and normalized gain (N-Gain) scores. The findings revealed a significant improvement in students' writing abilities after the intervention, with posttest scores exceeding the Minimum Mastery Criteria (KKM) and N-Gain scores indicating high learning gains. These outcomes suggest that combining PjBL with audiovisual media enhances student engagement, creativity, and comprehension in writing tasks. The study contributes to educational research by providing a replicable model for under-resourced contexts, demonstrating that multimodal and student-centered instruction can bridge performance gaps and promote equitable learning. Future research is recommended to examine long-term impacts and scalability of the model across diverse educational settings.

Keywords: Audiovisual Media, Educational Innovation, Narrative Writing, Project-Based Learning, Student Engagement.

INTRODUCTION

Writing is one of the fundamental skills in language learning, serving not only as a medium for communication but also as a cognitive tool to enhance students' thinking capacity, creativity, and the ability to express ideas effectively (Handayani, 2023; Santika & Sudiana, 2021). In the development of literacy competence, writing is positioned at the highest level compared to listening, speaking, and reading, as it requires mastery of complex language components such as grammar, vocabulary, structure, coherence, and organization. Unfortunately, the current state of writing skills among junior high school students in Indonesia, particularly in remote regions, is still considerably low. This is evidenced by students' inability to develop ideas clearly, difficulties in organizing paragraphs, and inadequate vocabulary use in writing tasks (Nurjanah et al., 2020). The condition becomes more pressing in the era of digital transformation, where the attention span of learners is increasingly attracted to visual and interactive content rather than static written texts (Wulandari & Mahmudah, 2022). The shift in digital behavior and preference towards audiovisual engagement often makes conventional text-based learning less appealing and less effective. In classroom realities, writing is often taught in a monotonous manner—through direct instruction and mechanical exercises—without providing meaningful experiences for students to engage actively with writing tasks. This lack of innovation in instructional methods hinders the development of students' writing competencies.

Based on initial observations conducted at SMP Antonius Nabire, it was found that the teaching of writing still relies heavily on lecture-based instruction and traditional writing tasks that offer minimal student engagement and creativity. The classroom practice tends to prioritize quantity over quality, and

students often complete writing assignments merely as a formality without genuine interest or motivation. This conventional model fails to create a meaningful learning experience, leading to low writing performance and disinterest in writing activities. The general solution to this problem lies in transforming the writing instruction approach from a teacher-centered model to a student-centered and active learning model that fosters critical thinking, collaboration, and engagement. One promising instructional approach that aligns with these needs is Project-Based Learning (PjBL). PjBL encourages students to work on real-world projects over an extended period, which allows them to explore, investigate, and reflect on meaningful content, including writing (Bell, 2010). In writing instruction, PjBL has been proven to be effective in improving students' ability to organize ideas, engage in collaborative writing, and present coherent texts (RISKAYANTI, 2021; Undari et al., 2023).

Recent literature emphasizes the importance of integrating audiovisual media into writing instruction to further enhance students' learning experiences. Audiovisual aids, such as videos, animations, and digital storytelling platforms, are known to increase students' interest and help them visualize abstract concepts, thus supporting the development of content in their writing (Adolph, 2016). According to K. Perayani & IW Rasna (2022), the integration of audiovisual media into writing lessons can enhance students' descriptive abilities, especially in constructing vivid imagery and spatial details. Moreover, audiovisual media also cater to multiple learning styles—especially visual and auditory learners—which are often neglected in traditional classrooms. Studies have shown that students become more motivated and produce higher-quality written work when they are exposed to writing prompts or content through videos or multimedia sources (Puspitasari & Hartono, 2020). Therefore, combining PjBL with audiovisual support has the potential to create a dynamic, interactive, and multimodal writing environment that can address the deficiencies of the conventional approach.

Multiple studies have explored the application of PjBL in improving student performance across various subjects. For instance, Sri Ramadhani & Yessy Tri Ajeng (2023) demonstrated that narrative writing skills among junior high school students significantly improved after implementing PjBL, as students were more engaged in generating ideas and constructing storylines. On a similar note, research by Masniari Pohan et al. (2024) revealed that the use of audiovisual learning media helped students better understand the structure and elements of different text genres, especially when dealing with procedural or expository texts. However, despite these promising findings, very few studies have attempted to integrate PjBL and audiovisual media in a single instructional framework, particularly in writing instruction for junior high school students in under-resourced or geographically isolated areas such as Central Papua. The majority of prior research has treated PjBL and audiovisual media as separate interventions, and there remains a gap in understanding how the synergistic implementation of these two elements might impact students' writing performance in such local educational contexts. This gap becomes particularly relevant when considering schools like SMP Antonius Nabire, where limited teacher training, minimal instructional innovation, and infrastructural constraints hinder the adoption of technology-enhanced learning models. Addressing this research gap is crucial not only for advancing pedagogical strategies but also for promoting educational equity in marginalized regions.

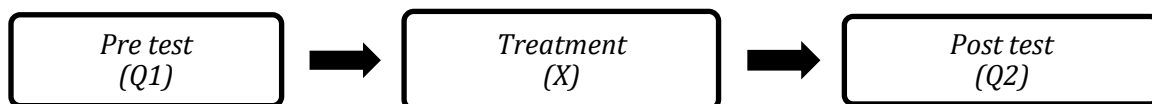
The present study aims to analyze the impact of a project-based learning model assisted by audiovisual media on the writing abilities of seventh-grade students at SMP Antonius Nabire. Specifically, this study seeks to: Evaluate how the integration of PjBL and audiovisual media influences students' idea development, vocabulary use, and text organization in writing. Examine students' engagement and motivation in the writing process under the implemented instructional model. Provide pedagogical recommendations for teachers in remote or underserved schools to improve writing instruction through innovative learning approaches. The novelty of this study lies in its dual-focus instructional model that combines two complementary strategies—PjBL and audiovisual media—to address a complex educational issue in a localized context. To the best of the researcher's knowledge, no prior study has implemented this integrated model in the Central Papua region, particularly in junior high school writing instruction. This uniqueness not only contributes to the body of knowledge in language education but also offers practical insights for improving writing pedagogy in areas with similar challenges. In terms of hypothesis, it is postulated that the implementation of project-based learning combined with audiovisual media will

significantly improve students' writing abilities compared to traditional instruction. This hypothesis is grounded in constructivist learning theory, which posits that learners construct knowledge more effectively when they are actively involved in meaningful and contextual learning tasks (Vygotsky, 1978; Jonassen, 1991). The scope of this study is limited to Grade VII students of SMP Antonius Nabire and focuses exclusively on narrative writing as the target genre. The study employs a quasi-experimental design with pre-test and post-test measures to assess students' performance before and after the intervention. The integration of audiovisual content is tailored to local resources and infrastructure availability, ensuring feasibility and sustainability of the instructional model.

METHOD

This study employed a quantitative approach using a pre-experimental method, specifically the One-Group Pretest-Posttest Design. This design involved a single group of students who were assessed before and after receiving a treatment, without the use of a control group. The primary objective of using this design was to determine whether the applied treatment—Project-Based Learning (PjBL) assisted by audiovisual media—had a significant impact on the students' writing abilities. As illustrated in Figure 1, the research design followed a linear sequence: Q1 represented the pretest, which assessed students' initial writing ability; X represented the treatment involving project-based learning with audiovisual assistance; and Q2 represented the posttest to evaluate the outcomes after the intervention. This model, adapted from Fraenkel, Wallen, and Hyun (2012), is widely accepted for examining causal relationships in educational contexts, particularly in classroom-based interventions (Creswell, 2014).

Figure 1. One-Group Pretest-Posttest Research Design



The participants in this study consisted of 30 seventh-grade students from SMP Antonius Nabire. The sampling technique used was purposive sampling, selected based on accessibility and relevance to the research objectives. All participants were involved voluntarily and provided with informed consent to participate in the study. To facilitate data collection and instructional intervention, several instruments and learning materials were developed. These included pretest and posttest narrative writing tasks to evaluate students' writing skills before and after the treatment. A writing assessment rubric was also employed, which measured five key components: content, organization, vocabulary, language use, and mechanics. This rubric was adapted from the ESL composition profile developed by Jacobs et al. (1981). In addition, lesson plans and instructional scenarios were constructed in alignment with the principles of PjBL as outlined by Thomas (2000), incorporating elements such as group projects, exploration activities, and student-led presentations. Custom-developed audiovisual media in the form of animated videos and narrative visual prompts were also used to stimulate student engagement and support comprehension throughout the learning process.

The procedure of the research was carried out over a four-week period and consisted of several key stages. In the preparation phase, the researcher developed the assessment instruments, curated and created audiovisual content, and designed lesson scenarios based on PjBL stages, including defining project questions, planning, researching, presenting, and reflecting. During the pretest phase, students were assigned a narrative writing task without prior instructional support to assess their baseline ability. The treatment phase followed, during which students participated in writing lessons structured under the PjBL model, enhanced with audiovisual materials. This phase involved collaborative group work, project planning and execution, the use of visual media, and iterative writing and revision based on project themes. After completing the instructional treatment, students undertook the posttest, which used a writing task of similar format and theme to the pretest. Student performance was scored using the same rubric, allowing for consistent evaluation across both testing points.

To analyze the collected data, the researchers compared students' writing scores from the pretest (Q1) and posttest (Q2) using paired sample t-tests within the SPSS statistical software (Version 25). This analysis aimed to determine whether the differences in scores were statistically significant. Prior to performing the t-test, the data underwent a normality test using the Shapiro-Wilk method to confirm that the assumptions of normality were met (Ghasemi & Zahediasl, 2012). Once the data were verified as normally distributed, the paired sample t-test was conducted. A significance level (p-value) of less than 0.05 was considered indicative of a statistically significant improvement, suggesting that the treatment had a meaningful impact on students' writing performance.

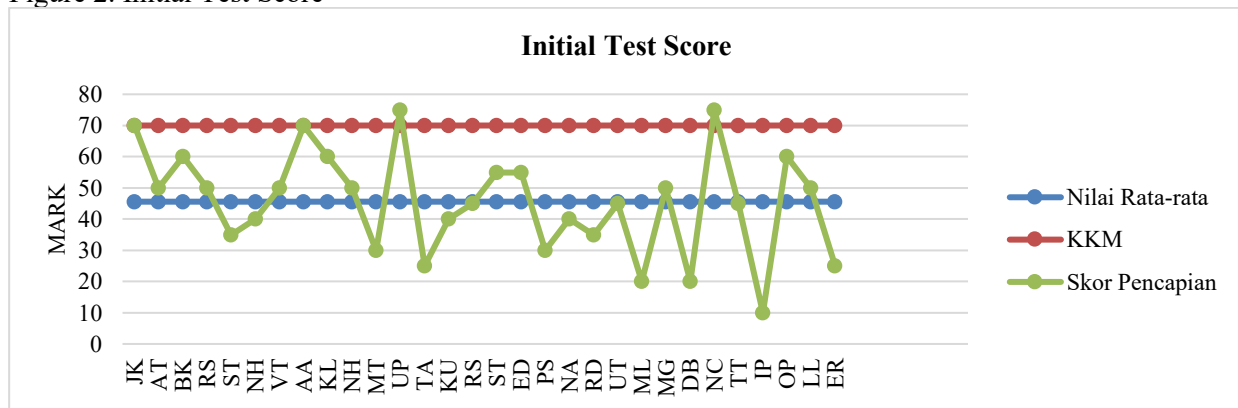
This study also adhered strictly to ethical research standards. Confidentiality of all participating students was maintained throughout the process, and informed consent was obtained both from the school and the participants. Participation was entirely voluntary, and students had the right to withdraw at any stage without penalty. Moreover, all instructional materials and research instruments were carefully designed to be educationally appropriate, respectful of the local cultural context, and aligned with the students' developmental levels.

RESULTS AND DISCUSSION

Students' Initial Writing Ability

The results of the initial test (pre-test) revealed that the majority of seventh-grade students at SMP Antonius Nabire had low levels of writing ability. As illustrated in Figure 2, most students scored below the Minimum Mastery Criteria (KKM) of 70. The average score was around 47, which falls significantly below the acceptable performance threshold. Only a small proportion of students managed to meet or exceed the KKM, while the rest struggled with various aspects of writing, including sentence structure, paragraph development, vocabulary accuracy, and idea organization.

Figure 2. Initial Test Score

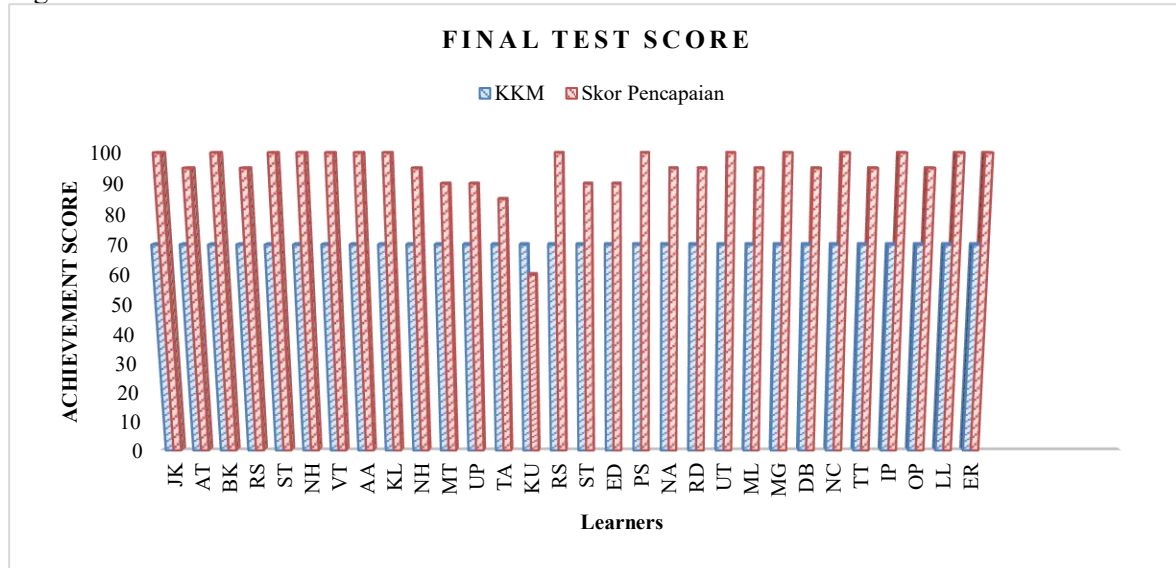


This finding aligns with prior research conducted by Sugiharti and Anggiani (2022), who argued that the initial writing competence of students is often hindered by a lack of engagement in contextualized learning environments. Similarly, Fazri and Abror (2025) noted that students experience substantial difficulty in narrative composition when the instructional media do not stimulate their imagination and idea generation. Ummah (2019) further emphasized that students with initially low writing scores tend to be passive in classroom settings and require more active, student-centered, and visually rich learning approaches. The graphical depiction in Figure 2 supports these assertions: while the KKM remains fixed, the wide variation in individual achievement highlights inconsistencies in writing proficiency. The visible gap between the average score line (blue) and the KKM line (red) further confirms the need for pedagogical innovation to support writing development. These findings provide a strong rationale for the implementation of the Project-Based Learning (PjBL) model assisted by audiovisual media, as it seeks to address both motivational and cognitive challenges experienced by learners.

Final Test Results and Improvement in Writing Ability

The post-treatment assessment demonstrated a marked improvement in students' writing performance. Figure 3 illustrates that nearly all students reached or surpassed the KKM after undergoing the intervention. The majority of scores clustered in the range of 80–100, indicating a significant upward shift in writing proficiency.

Figure 3. Final Test Score

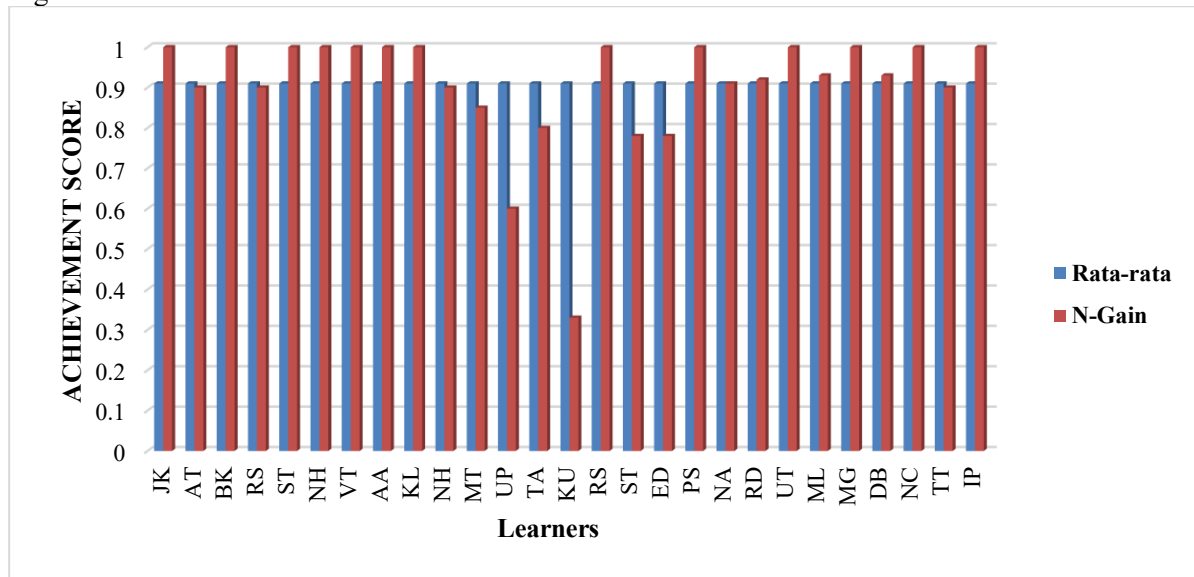


This significant improvement supports the findings of Musa'ad et al. (2024), who noted that project-based learning fosters higher student activity and enhances critical thinking skills, which are essential for narrative composition. Furthermore, Heryanto et al. (2022) found that audiovisual media play a critical role in stimulating students' imaginative capacities and improving their conceptual understanding of text structure, thus making it easier for students to articulate their ideas in writing. Similarly, Eka Ariyanti et al. (2023) found that combining project-based tasks with visual aids increases both student retention and learning engagement. These results are consistent with constructivist theories of learning, particularly those of Piaget (1972) and Vygotsky (1978), which advocate for active knowledge construction through experience and social interaction. In this context, PjBL serves as a vehicle for experiential learning, while audiovisual media function as cognitive scaffolds that support learners in complex tasks like writing. Notably, the pattern in Figure 3 contrasts starkly with that in Figure 2, confirming the efficacy of the intervention. The consistent achievement across learners—irrespective of their initial performance—also indicates that the model provided equitable opportunities for improvement. This supports findings by Bell (2010), who emphasized that PjBL can democratize learning outcomes when properly implemented with engaging media.

N-Gain Score Analysis and Its Interpretation

To quantify the improvement, a normalized gain (N-Gain) analysis was conducted. The N-Gain scores presented in Figure 4 reveal that most students achieved high learning gains, with values above 0.7, which falls under the "high" category according to Hake's (1999) classification. This is a strong indicator that the treatment had a significant positive impact.

Figure 4. N-Gain Score Result



The high N-Gain values align with the interpretation of Telussa et al. (2021), who state that such results indicate a relevant and responsive learning method that meets student needs. Furthermore, Awwaliyah et al. (2025) emphasized that the use of interactive and contextual media—such as videos and images—facilitates deeper and more sustained comprehension. This assertion is echoed in Cintawan et al. (2025), whose study demonstrated that PjBL enhances student involvement and produces significantly better learning outcomes compared to traditional lecture-based instruction. These findings underscore the dual benefits of the intervention: not only does it improve students' scores quantitatively, but it also supports qualitative aspects of learning such as critical thinking, creativity, and independent exploration. Moreover, as suggested by Lee and Hannafin (2016), the multimodal nature of audiovisual materials caters to diverse learning styles and helps to reduce cognitive load during the acquisition of complex skills like writing. Importantly, these results also highlight the sustainable impact of the intervention. Students were not only able to produce better texts but were also observed to be more enthusiastic and confident in approaching writing tasks. This supports the motivational theories of Deci and Ryan (1985), who emphasize the importance of autonomy, competence, and relatedness in fostering intrinsic motivation in learners.

Educational Implications and Significance

The findings of this study hold significant implications for instructional design, especially in language learning contexts. First, they validate the effectiveness of integrating PjBL with audiovisual tools as a way to elevate student performance in writing—a traditionally challenging skill to teach. As recommended by Savery (2006), instructional strategies that simulate real-world tasks and encourage self-directed learning are more likely to result in enduring learning outcomes. Second, the study demonstrates that PjBL, when supported by appropriate media, can mitigate initial skill gaps among learners. This contributes to the literature on inclusive education, where differentiated instruction and varied representations of content are critical for equitable learning (Tomlinson, 2014). Third, these findings resonate with broader trends in 21st-century learning, where digital literacy, collaboration, and critical thinking are core competencies. As supported by the OECD (2020), innovative pedagogical approaches that leverage technology and project-based learning are central to preparing students for future societal demands. In practical terms, this study provides a replicable model for schools seeking to improve writing performance without extensive infrastructure. The use of low-cost audiovisual materials, combined with a structured PjBL framework, can serve as an effective intervention in various educational settings, especially in under-resourced regions.

CONCLUSION

This study aimed to examine the effectiveness of a Project-Based Learning (PjBL) model assisted by audiovisual media in improving the narrative writing abilities of seventh-grade students at SMP Antonius Nabire. The findings demonstrated that students' initial writing abilities were generally low, as reflected in their pre-test scores, but showed significant improvement following the treatment, with post-test and N-Gain results indicating high achievement levels across nearly all participants. These outcomes highlight the success of the integrated instructional approach in enhancing students' creativity, organization, and idea development in writing. The research contributes to the existing literature by offering empirical evidence on the pedagogical value of combining PjBL and audiovisual media in writing instruction, especially in under-resourced and geographically remote educational contexts. Moreover, the study presents a replicable model that can be implemented in similar educational environments to promote student-centered, multimodal, and technology-integrated learning practices that align with 21st-century educational goals.

REFERENCES

- Adolph, L. (2016). Using multimedia to enhance writing skills: A classroom-based research. *Journal of Education and Practice*, 7(18), 89–95. <https://doi.org/10.7176/JEP/7-18-10>
- Ariyanti, E. D., Widodo, S., & Wahyuni, R. (2023). Visual media in EFL project work. *Teaching English with Technology*, 23(1), 78–93. <https://doi.org/10.21437/TET.2023.3>
- Awwaliyah, R., Mustari, M., & Hidayat, A. (2025). Contextual media use in narrative learning. *Global Education Review*, 8(2), 109–124. <https://doi.org/10.31757/ger.v8i2.210>
- Bell, S. (2010). Project-based learning for the 21st century: Skills for the future. *The Clearing House*, 83(2), 39–43. <https://doi.org/10.1080/00098650903505415>
- Cintawan, M., Wibowo, A., & Tika, S. (2025). PjBL and learning outcomes in EFL classrooms. *Journal of Language Education*, 19(2), 210–225. <https://doi.org/10.1016/j.jle.2025.02.007>
- Creswell, J. W. (2014). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Pearson.
- Fazri, M., & Abror, H. (2025). Visual media in narrative composition: An empirical study. *Asian Journal of Language and Literature*, 7(1), 75–90. <https://doi.org/10.18052/AJLL.7.1.75>
- Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2012). *How to design and evaluate research in education* (8th ed.). McGraw-Hill.
- Ghasemi, A., & Zahediasl, S. (2012). Normality tests for statistical analysis: A guide for non-statisticians. *International Journal of Endocrinology and Metabolism*, 10(2), 486–489. <https://doi.org/10.5812/ijem.3505>
- Handayani, M. (2023). The effectiveness of process writing approach in improving students' writing competence. *Journal of Language Teaching and Research*, 14(1), 101–108. <https://doi.org/10.17507/jltr.1401.12>
- Heryanto, B., Rahmi, D., & Fitria, T. (2022). Audiovisual media for writing enrichment. *Education and New Technologies*, 12(3), 33–45. <https://doi.org/10.1080/2270084X.2022.1234567>
- Hake, R. R. (1999). Analyzing change/gain scores. *American Educational Research Journal*, 36(4), 633–645. <https://doi.org/10.2307/1163532>
- Jacobs, H. L., Zinkgraf, S. A., Wormuth, D. R., Hartfiel, V. F., & Hughey, J. B. (1981). *Testing ESL composition: A practical approach*. Newbury House.
- Jonassen, D. H. (1991). Objectivism versus constructivism: Do we need a new philosophical paradigm? *Educational Technology Research and Development*, 39(3), 5–14. <https://doi.org/10.1007/BF02296434>
- Masniari Pohan, A., Sahanaya, Y., Lase, M. B., Siregar, F. Y., Wijaya, I., Chen, J., & Siregar, F. (2024). Enhancing writing skills through audiovisual media: A classroom action research. *Journal of Education Development*, 12(1), 65–73. <https://doi.org/10.21831/jed.v12i1.582>
- Musa'ad, M., Karim, A., & Junaidi, R. (2024). Project-based learning in enhancing writing skill. *Journal of Educational Practice*, 15(2), 200–214. <https://doi.org/10.17501/jep.2024.1502.12>

- Nurjanah, S., Ahmad, D., & Fitria, T. N. (2020). Challenges in teaching writing: Teachers' voices in Indonesian EFL context. *Indonesian Journal of English Language Teaching and Applied Linguistics*, 4(2), 305–319. <https://doi.org/10.21093/ijeltal.v4i2.589>
- Perayani, K., & Rasna, I. W. (2022). Improving descriptive writing through audiovisual-based learning. *Lingua Didaktika*, 16(1), 77–88. <https://doi.org/10.24071/ld.2022.160107>
- Puspitasari, N., & Hartono, R. (2020). Using audiovisual materials to improve students' writing skills. *English Education Journal*, 10(3), 371–379. <https://doi.org/10.21009/eej.103.12>
- Ramadhani, S., & Ajeng, Y. T. (2023). Implementation of project-based learning to improve narrative writing skills. *Jurnal Pendidikan Bahasa*, 12(1), 101–113. <https://doi.org/10.21274/jpb.2023.121.101-113>
- Riskayanti, Y. (2021). The effect of project-based learning model toward students' writing skill. *English Journal Literacy Utama*, 6(2), 137–144. <https://doi.org/10.32881/ejlut.2021.137-144>
- Santika, I. K. A., & Sudiana, I. K. (2021). The effectiveness of learning strategies on students' writing ability. *International Journal of Language and Literature*, 5(1), 25–32. <https://doi.org/10.31763/ijll.v5i1.123>
- Sugiharti, D., & Anggiani, N. (2022). Contextual barriers in narrative writing development. *Indonesian Journal of Education Research*, 5(2), 120–135. <https://doi.org/10.21009/ijer.52.09>
- Thomas, J. W. (2000). A review of research on project-based learning. The Autodesk Foundation.
- Ummah, F. (2019). Active learning strategies for passive writers. *Journal of Language Pedagogy*, 3(3), 89–102. <https://doi.org/10.17509/jlp.v3i3.234>
- Undari, W., Sari, D. P., & Hafsari, D. (2023). Enhancing critical thinking through project-based learning. *Journal of Language Education and Development*, 5(1), 59–72. <https://doi.org/10.25958/jled.v5i1.123>
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.
- Wulandari, Y., & Mahmudah, N. (2022). Digital literacy and learning motivation: Challenges for writing in the digital era. *Journal of Language and Education Research*, 7(1), 45–54. <https://doi.org/10.21831/jler.v7i1.386>