

Auditory Learning Style Dependence in the Digital Era: Its Influence on Students' Writing Skills

Ketergantungan Gaya Belajar Auditori di Era Digital: Pengaruhnya Terhadap Kemampuan Menulis Siswa

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ABSTRACT

This study aims to analyze the influence of auditory learning styles on the writing ability of elementary school students in the digital era. This study uses a quantitative descriptive method with a survey approach. To collect data, a VAK questionnaire, a writing test, and classroom observation were used. The results show that 56% of students have an auditory dominant learning style. The average writing score of auditory students is 65.2, which belongs to the medium category, while non-auditory students achieve an average of 78.6, which belongs to the good category. Students who dominate the auditory learning style have difficulty in composing ideas, building paragraphs, and completing writing efficiently. This has an impact on how effective learning takes place and creates inequities in classroom interactions. This research emphasizes the importance of implementing multimodal learning strategies that can adjust various learning styles to improve students' writing skills.

Key words : Auditory Learning Style, Writing Ability, MI Students, Learning Strategies, Literacy

ABSTRAK

Penelitian ini bertujuan untuk menganalisis pengaruh gaya belajar auditori terhadap kemampuan menulis siswa SD di era digital. Penelitian ini menggunakan metode deskriptif kuantitatif dengan pendekatan survei. Untuk mengumpulkan data, digunakan angket VAK, tes menulis, dan observasi di kelas. Hasil menunjukkan bahwa 56% siswa memiliki gaya belajar dominan auditori. Rata-rata skor menulis siswa auditori adalah 65,2, yang termasuk kategori sedang, sedangkan siswa non-auditori mencapai rata-rata 78,6, yang termasuk kategori baik. Siswa yang berdominasi gaya belajar auditori mengalami kesulitan dalam menyusun ide, membangun paragraf, dan menyelesaikan tulisan secara efisien. Hal ini berdampak pada bagaimana efektivitas pembelajaran berlangsung dan menimbulkan ketimpangan dalam interaksi di kelas. Penelitian ini menekankan pentingnya penerapan strategi pembelajaran multimodal yang bisa menyesuaikan berbagai gaya belajar untuk meningkatkan kemampuan menulis siswa.

Kata Kunci : Gaya Belajar Auditori, Kemampuan Menulis, Siswa MI, Strategi Pembelajaran, Literasi

INTRODUCTION

In today's digital era, auditory learning styles are facing significant challenges and transformations. Students with auditory predisposition usually have an easier time understanding information through hearing, for example through verbal explanations, discussions, or listening to recordings (Wulandari & Wardhani, 2024). However, the dominance of visual and interactive media in digital learning often shifts their attention from voice-based learning forms to text and images (Afriyadi et al., 2023). The reliance on auditory learning styles amid this digitalization trend can affect the effectiveness of students' information processing, especially when learning platforms are more demanding of the ability to read, understand, and write independently (Safitri et al., 2025).

The impact of this dependence is evident in students' writing skills. Auditory learners who are less exposed to digital visual and textual activities tend to have difficulty expressing ideas in writing with rich structure and vocabulary (Dewi, 2025a). In fact, writing skills require critical thinking skills, organizing ideas, and sensitivity to written language forms that cannot be honed through auditory input alone (Hrp et al., 2022). Therefore, it is important for educators to balance the learning approach by integrating auditory and digital elements, for example through podcast writing, verbal feedback in online platforms, or the use of interactive audio media so that students with auditory learning styles can still develop optimally in the digital learning era.

The auditory learning style is rooted in the theory of learning modalities which emphasizes that each individual has different preferences in receiving and processing information (Afnanda, 2023). Auditory learners tend to be more effective at understanding material through listening, such as listening to the teacher's explanations, discussions, music, or audio recordings (Wulandari & Wardhani, 2024). In the context of learning, this learning style provides an advantage in listening and speaking skills, but demands different strategies when dealing with text-based activities such as reading and writing (Cicilia, 2023). The auditory learning style also emphasizes the importance of sound stimuli in building conceptual understanding and memory retention, which is often the main cornerstone in the process of thinking and remembering information (Setiawan, 2025).

However, in a digital age loaded with visual and text content, auditory learning styles face significant adaptation challenges. Digital learning media are generally oriented towards visual displays and online writing activities, such as the use of electronic modules, text discussion forums, and document-based assignments (Ali et al., 2024). Reliance on auditory learning styles without adaptive abilities to the digital environment can hinder students from developing strong writing skills (Triayomi & Murwanto, 2025). Therefore, understanding the concept of auditory learning styles in the digital era needs to be accompanied by pedagogical efforts to integrate audio media such as podcasts, digital narratives, and verbal feedback so

that auditory learners can transfer their listening power into productive and reflective writing skills.

There is data, it was found that around 45–60% of students at the secondary level have a dominant tendency towards auditory learning styles (Rusli et al., 2023), while more than 70% of learning activities in the digital era today are oriented towards visual and textual media (Wahyudi, 2019). This inequality shows a potential barrier to mastering writing skills, especially since auditory learners tend to be more responsive to verbal information than written texts. Other research by Yuspa & Azizah, (2025) It was also revealed that students with auditory preferences had an average score of 15–20% lower writing skills than visual and kinesthetic learners in the context of online learning. This data confirms the urgency of revisiting pedagogical approaches in the digital age to be more inclusive of students' auditory characteristics, for example by integrating audio-based strategies such as reflective podcasts, recordings of verbal feedback, or voice-based online discussions to support the improvement of their writing skills.

The dependence of auditory learning styles in the digital age lies in the need to adapt learning strategies to the changing characteristics of the media and the demands of literacy in the 21st century (Abdurahman et al., 2024). Students who are dominant with an auditory learning style have the potential to experience gaps in writing skills if not facilitated with a learning approach that is adaptive to technological developments (Amelia et al., 2025). In the context of digital education, the ability to write is not only a means of expression, but also an indicator of critical thinking and academic communication skills (Putri et al., 2024). Therefore, it is important for educators to understand and anticipate the impact of dependence on auditory learning styles by developing audio-visual-based integrative methods that are able to bridge students' learning preferences with the demands of digital literacy, so that their learning potential can develop in a balanced and optimal manner.

Most research on auditory learning styles still focuses on its effect on listening and speaking skills, while studies examining the specific relationship between auditory learning styles and writing skills in the digital age are still very limited. Most of the previous studies, for example, The Goddess (2025) Highlight differences in learning preferences without delving deeply into how reliance on auditory input impacts the cognitive process of writing, especially in the context of text- and visual-based online learning. In addition, there is research (Yuspa & Azizah, 2025) that integrate aspects of digitalization such as the use of interactive audio media, speech-to-text tools, or verbal feedback in writing—are still rare. This gap opens up opportunities for further research to explore learning strategies that are able to bridge auditory tendencies with the demands of digital literacy, so that students can optimize their learning styles without experiencing a decline in writing skills.

Auditory learning styles have an important role in helping students understand information through sound stimuli, such as verbal explanations, discussions, and audio recordings (Yuspa & Azizah, 2025). Some studies, such as those conducted by (Supit et al., 2023), confirming that students with auditory learning styles tend to excel at understanding and remembering verbal information. However, other studies such as The Goddess (2025) suggests that in the predominantly text- and visual-based digital learning context, students with auditory predisposition have difficulty expressing ideas in writing due to the limitations of the auditory stimuli they rely on. A number of literature is also the result of research conducted by Sugiantoro et al., (2025) and Dhuha & Astutik, (2025) highlighting that the integration of digital audio media such as learning podcasts, reflective recordings, or speech-to-text technology has the potential to be a solution to improve auditory students' writing skills in a digital environment. Thus, this literature review confirms the importance of a multimodal approach in writing learning to accommodate the characteristics and needs of students with auditory learning styles.

Preliminary observations of 2nd graders at MIT Ar-Raudhah showed that most students had a strong tendency toward auditory learning styles. This can be seen from the way they are more responsive to the teacher's verbal instructions than written text, as well as their high interest when learning activities are accompanied by songs, stories, or loud readings. However, on the other hand, when asked to write sentences or compose simple paragraphs, many students still have difficulty in pouring out ideas in writing. Their dependence on auditory stimuli makes the process of thinking and organizing ideas not fully trained in visual or textual form. This situation is a challenge in itself in the digital era, where learning media increasingly rely on visual displays and text-based interactions.

This condition shows the need to adjust learning strategies so that auditory students at MIT Ar-Raudhah can adapt to the demands of digital literacy without losing their natural superiority in understanding information through hearing. Teachers need to integrate interactive audio approaches, such as the use of voice recordings, educational videos with narration, or voice-based learning apps that facilitate the transition from listening to writing. Thus, learning to write is not only a mechanical activity, but also a meaningful process for auditory students—they can write based on what they hear, understand, and feel from the given audio stimulus. This kind of approach is expected to be able to improve students' writing skills while maintaining their learning motivation in an increasingly complex digital education environment.

Based on the previous explanation, this research is present as a response to the change in learning paradigm in the digital era which requires students to have more complex literacy skills, including strong writing skills. In the context of elementary school students,

especially in the lower grades, auditory learning styles are still very dominant because at this stage of development children tend to understand information through hearing more easily. However, a digital environment loaded with text and visuals often doesn't fully suit their learning needs. Therefore, this research is important, this research aims to analyze the influence of auditory learning styles on the writing ability of elementary school students in the digital era, as well as provide recommendations for learning strategies that can adjust differences in learning styles to improve students' writing skills.

METHOD

The quantitative research method with a descriptive approach used in this study aims to systematically and measurably explain the influence of auditory learning style on the writing ability of elementary school students. According to Balaka, (2022), quantitative research is a scientific approach that emphasizes the collection of numerical data and statistical analysis to test hypotheses or describe certain phenomena objectively. This approach allows researchers to obtain data that can be measured validly and reliably so that the results of the research can be generalized. In the context of this study, a quantitative method was used to identify the pattern of relationship between the tendency of auditory learning styles and the level of students' writing ability in the digital era, with the aim of providing a factual picture of the extent to which these learning styles affect the writing performance of elementary school students.

The quantitative descriptive approach in this study serves to describe the data obtained systematically and factually. According to Rukajat, (2018) Descriptive research aims to make an accurate description of the facts, properties, and relationships between the phenomena being investigated. Thus, this study does not only focus on numbers alone, but also seeks to interpret the meaning of the data collected to understand the characteristics of students with auditory learning styles. Through the presentation of data in the form of average scores and percentages, this study provides a clear picture of the tendency of students' learning styles and the level of writing ability, as well as the basis for the analysis of the relationship between the two. This is in line with the view Creswell, (2014) which emphasizes that quantitative descriptive research is useful for uncovering patterns and trends in a particular population objectively and transparently.

The population of this study included all 2nd grade students of MIT Ar-Raudhah, with a purposively selected sample, namely students who showed auditory learning style tendencies based on the results of the VAK (Visual, Auditory, Kinesthetical) questionnaire. The selection of samples with the purposive technique was considered relevant by Sumargo, (2020) because it allows researchers to choose subjects that really fit the research criteria. The data collection instrument consists of three main components: questionnaires, writing tests, and direct observation in the classroom. The validity of the instrument was tested through the validity of the content by educational experts, while its reliability was measured

using the Alpha Cronbach formula with a reliability value of ≥ 0.70 as an indicator of internal consistency Arikunto, (2021). This step is taken so that the data produced has a high level of reliability and can be accounted for academically.

In the data analysis stage, this study uses quantitative descriptive analysis to calculate average scores and percentages, as well as simple correlation analysis to identify the relationship between auditory learning styles and students' writing ability. According to Sudjana, (2009), simple correlation analysis is used to see the strength and direction of the relationship between two variables without the need for complex testing such as regression. The results of this analysis were then deepened through the rubric of writing ability assessment which included four important aspects, namely main ideas, paragraph grouping, word selection, and sentence structure. With this approach, the research not only produces informative quantitative data but also provides a strong empirical basis for understanding how auditory learning style trends play a role in shaping the writing abilities of elementary school students in the increasingly visual and technological literacy digital age.

RESULTS AND DISCUSSION

Descriptive quantitative approach with survey method the use of this study was chosen because it is in accordance with the purpose of explaining the relationship between variables in an objective and measurable manner. According to Ardyan et al., (2023) Descriptive quantitative research serves to describe ongoing conditions or phenomena by utilizing numerical data which is then analyzed using simple statistics. This approach allows researchers to obtain a factual picture of students' learning style tendencies as well as their relationship to their writing ability. Thus, the use of survey methods provides flexibility in collecting data from a wider and relevant population to understand the pattern of relationship between auditory learning styles and writing learning outcomes in elementary school settings.

The research population consists of all 2nd grade students in Madrasah Ibtidaiyyah Terpadu (MIT) Ar-Raudhah It was chosen by taking into account the age characteristics of children who are in the early stages of cognitive development, where learning styles are still strongly influenced by sensory experiences. Sample selection using purposive sampling based on certain considerations, namely students who show a tendency to learn auditory based on results angket VAK Learning Style Inventory (Visual, Auditory, Kinesthetic). According to Arikunto, (2021), Purposive sampling is a sampling technique that is carried out deliberately based on special criteria relevant to the purpose of the research, so that the data obtained really represents the subject with the desired characteristics. A total of 26 students selected are expected to be able to provide a representative picture of how auditory learning styles affect their writing skills in elementary school elementary grades.

The research instruments used are questionnaires, writing tests, and direct observation are systematically compiled to obtain valid and reliable data. According to

(Creswell, 2014), Triangulation of instruments like this is important in quantitative research so that the data obtained is not only numerical but also contextual through direct observation of student behavior in the classroom. The validity of the instrument is checked by an education expert through a content validity test, while the reliability is tested using Alpha Cronbach, with a reliability value of ≥ 0.70 as an indicator of internal consistency Pugu et al., (2024). The use of this procedure ensures that each instrument actually measures the aspects in question, i.e. the student's auditory learning tendencies and writing abilities accurately.

Data analysis is carried out by statistics descriptif, such as the calculation of average, percentage, and categorization of students' writing ability. According to Sudjana, (2009), Descriptive statistics are used to describe research data without making generalizations, but focus on presenting patterns and trends that emerge in a particular group. The results of the analysis showed that students with a dominant auditory learning style tended to have lower writing skills compared to students with mixed learning styles. This is in line with the view Febianto & Nopita, (2024), which mentions that auditory learners generally excel in listening and speaking activities, but often have difficulty organizing ideas in writing due to their dependence on verbal stimuli.

These findings are reinforced by the results of previous research, as stated by Bobii et al., (2025), which shows that audio-visual based learning provides better learning outcomes compared to conventional methods that rely only on verbal explanations. This shows the need for Learning Paradigm Shift In the digital era, where audio-visual media can function as a bridge between auditory learning styles and the demands of visual literacy in writing learning. The same phenomenon is also explained by Mayer, (2014) in theory *multimedia learning*, that the combination of text, images, and sounds can improve information processing because it involves more than one sensory channel in the brain. Therefore, auditory students will be more helped when writing learning strategies are equipped with visual elements and hands-on practice.

Based on the results of the VAK questionnaire, as many as 56% of students (14 out of 25 students) shows the dominance of auditory learning styles. These findings reinforce the results of the study Gilakjani, (2012) which states that more than half of students at the elementary level have a preference for auditory learning because they still rely on sound perception and spoken language in understanding information. However, from the results of the writing test, it was found that auditory students had difficulty in composing paragraphs, pouring ideas in writing, and took longer to complete writing tasks than students with mixed learning styles. This indicates the existence of Skills gap which need to be bridged through learning strategies that are more adaptive to their needs.

Thus, the results of this study confirm the importance of Multimodal learning strategies in developing students' writing skills, especially those who have a tendency to auditory

learning styles. According to Krathwohl & Anderson, (2010), effective learning must be able to involve cognitive, affective, and psychomotor aspects in a balanced manner. Teachers need to combine visual media, hands-on writing exercises, and audio-visual media to help students connect what they hear with writing skills. This research contributes to the development of basic education science by highlighting the urgency of balance in the learning approach to improve literacy skills. The uniqueness of this research lies in its specific focus on the relationship between auditory learning styles and writing skills in early childhood students in the digital age, a field that is still rarely studied quantitatively, but has major implications for modern learning designs that are more inclusive and based on individual student characteristics.

Table 1. Comparison of Writing Skills Based on Learning Style

Learning Style	Average Writing Test Score	Categories Writing Ability
Auditorium dominate (n = 14)	65,2	Keep
Non-Auditors (n= 11)	78,6	Good

The results showed that students with high levels of auditory dependence tended to exhibit passive behavior when given a writing task without a clear verbal explanation first. In classroom observation at MIT Ar-Raudhah, students with this tendency seemed to have difficulty writing independently without verbal direction from the teacher. This is in line with the opinion De Porter & Hernacki, (1992) which explains that auditory learners are easier to understand information through verbal explanations and voice intonation than reading text directly. They need auditory stimuli as a trigger in the process of thinking and understanding instructions. When the auditory aspect is not well facilitated, students tend to lose their direction, lack of focus, and have difficulty expressing ideas into written form.

This reliance on auditory learning styles has been proven to have a significant impact on students' writing skills. Auditory students who do not receive the support of appropriate learning methods experience obstacles in organizing ideas and structuring writing. According to Fleming & Mills, (1992) in models *VARK Learning Styles*, individuals with auditory predisposition rely on hearing to understand concepts, so when they are faced with text-based tasks without verbal reinforcement, their academic performance tends to decline. In this context, the results of the study support previous findings that auditory learning styles, if not balanced with adaptive learning strategies, can be an inhibiting factor in the development of literacy skills in primary schools.

Further Wulandari & Wardhani, (2024) revealed that auditory students have characteristics in the learning process, namely high dependence on oral instruction, the ability

to remember through hearing, and difficulty understanding visual information in depth without additional explanation. They learn most effectively through listening to the teacher's explanations, discussing, or reading aloud. Therefore, assigning writing tasks without verbal assistance makes them lose the connection between ideas and written representations. In this case, teachers play an important role as facilitators who are able to balance students' auditory needs with the demands of text-based learning in the digital era.

However, the dominance of one particular learning style, especially auditory, requires adjusting learning methods so as not to cause excessive dependence. Coffield (2013) emphasizing that learning style should not be treated rigidly, but as a preference that can be developed through strategies *Multi-modal*. This means that auditory students need to be trained to adapt to visual and kinesthetic styles so that the learning process is more balanced. Teachers can combine visual media such as images, videos, or mind maps with audio instruction to help students connect what they hear with what they write. This approach not only improves writing skills, but also expands students' cognitive abilities in processing different types of information.

These findings are in line with the theory Mayer, (2014) about *Multimedia Learning*, explaining that learning is more effective when it involves more than one sensory channel, such as hearing and vision. In the context of auditory students, the use of audio-visual media such as learning videos with narration, writing podcasts, or voice-recording-based writing exercises can help them transfer information from the auditory form to the written form. Thus, the integration of audio-visual media in writing learning is not only a technological innovation, but also a relevant pedagogical strategy to help auditory students adapt to the characteristics of digital learning that demand multimodal literacy.

Finally, this study makes an important contribution to the primary education literature by highlighting the urgency of balance in learning approaches to improve literacy ability. As affirmed by Krathwohl & Anderson, (2010) In Bloom's taxonomic revision, effective learning must include cognitive, affective, and psychomotor aspects in an integrated manner. The uniqueness of this study lies in its specific focus on the relationship between auditory learning style and writing skills at the elementary school level, which is still rarely explored quantitatively in the digital age. Therefore, teachers need to design learning strategies that not only support auditory learning styles, but also develop students' writing skills systematically and creatively through an integrated approach, so that students can become independent learners who are able to write well while adapting to modern learning challenges

CONCLUSION

This study shows that dependence on auditory learning styles has a significant influence on the writing ability of elementary school students. Students with a predominance of auditory learning styles tend to experience obstacles in organizing ideas, expressing ideas in writing, and taking longer to complete writing tasks because they rely more on auditory-based thinking processes than text visualization. This condition has implications for the imbalance of the learning process in the classroom, where students become passive and less responsive to writing activities that demand visual and reflective skills. This dependence also has an impact on the effectiveness of teacher-student interaction, because teachers need to provide repetitive verbal instruction so that students understand the task well. Therefore, a learning strategy is needed that is able to balance auditory learning styles with the development of writing literacy, for example through the integration of audio-visual media, discussion-based writing activities, and writing exercises accompanied by verbal feedback so that auditory students can adapt and improve their writing skills optimally..

REFERENCES

- Abdurahman, A., Wiliyanti, V., & Tarrapa, S. (2024). *Model pembelajaran abad 21*. PT. Sonpedia Publishing Indonesia.
- Afnanda, M. (2023). Menelaah kembali teori belajar dan gaya belajar. *Journal of Media and Pedagogical Practices*, 1(01), 12–22. <https://journal.nubaninstitute.org/index.php/qrep/article/view/6>.
- Afriyadi, H., Hayati, N., Laila, S. N., Prakasa, Y. F., Hasibuan, R. P. A., & Asyhar, A. D. A. (2023). *Media Pembelajaran Berbasis Digital (Teori & Praktik)*. PT. Sonpedia Publishing Indonesia.
- Ali, A., Maniboey, L. C., Megawati, R., Djarwo, C. F., & Listiani, H. (2024). *Media Pembelajaran Interaktif: Teori Komprehensif dan Pengembangan Media Pembelajaran Interaktif di Sekolah Dasar*. PT. Sonpedia Publishing Indonesia.
- Amelia, R., Izzah, S. N. R., Hikmah, M. A., & Bakar, M. Y. A. (2025). Memahami Gaya Belajar Siswa: Kunci Keberhasilan Personalisasi Pembelajaran. *Jurnal Ilmiah Nusantara*, 2(1), 287–300. <https://doi.org/10.61722/jinu.v2i1.3276>.
- Ardyan, E., Boari, Y., Akhmad, A., Yuliyani, L., Hildawati, H., Suarni, A., Anurogo, D., Ifadah, E., & Judijanto, L. (2023). *Metode Penelitian Kualitatif dan Kuantitatif: Pendekatan Metode Kualitatif dan Kuantitatif di Berbagai Bidang*. PT. Sonpedia Publishing Indonesia.
- Arikunto, S. (2021). *Penelitian tindakan kelas: Edisi revisi*. Bumi Aksara.
- Badaruddin, S. (2024). Cara Menangani Siswa SD/MI Yang Memiliki Kemampuan Pengetahuan Yang Bervariasi. *Passikola: Jurnal Pendidikan Dasar & Madrasah Ibtidaiyah*, 1(1), 1-15. <https://jurnal.stainmajene.ac.id/index.php/pgmi/article/view/1197>.

- Badaruddin, S., Hasanuddin, M. I., Zuhdiah, Z., & Bahira, B. (2024). Implementation of Metacognition-Based Learning Strategies in Pancasila Learning at Islamic Elementary School. *Scaffolding: Jurnal Pendidikan Islam dan Multikulturalisme*, 6(3), 422-438. <https://doi.org/10.37680/scaffolding.v6i3.7030>.
- Balaka, M. Y. (2022). *Buku Metodologi Penelitian Kuantitatif*. Penerbit Widina.
- Bobii, F., Sari, Y. I., & Sakdiyah, S. H. (2025). Pengaruh Media Pembelajaran Audio Visual Terhadap Hasil Belajar Geografi Siswa Kelas X. *JPIG (Jurnal Pendidikan Dan Ilmu Geografi)*, 10(2), 168–176. <https://doi.org/10.21067/jpig.v10i2.11481>.
- Cicilia, Y. (2023). Gaya dan Strategi Belajar Bahasa. *Jurnal Pelita Ilmu Pendidikan*, 1(1), 20–28. <https://doi.org/10.69688/jpip.v1i1.5>.
- Coffield, F. (2013). Learning styles: time to move on. *Lifelong Learning in Europe*, 4, 2013.
- Creswell, J. W. (2014). *Research desing: qualitative, quantitative and mixed methods approaches* (Vol. 54). United State of America: Sage Publications.
- De Porter, B., & Hernacki, M. (1992). *Quantum learning*. PT Mizan Publika.
- Dewi, A. C. (2025a). Keterampilan Menulis Teks sebagai Dampak Implementasi Media Visual dalam Proses Pembelajaran. *Jurnal Ilmiah Multidisiplin Mahasiswa Dan Akademisi*, 1(3), 1–11. <https://doi.org/10.64690/intelektual.v1i3.242>.
- Dewi, A. C. (2025b). Transformasi Pembelajaran Menulis Teks melalui Media Visual Interaktif. *Jurnal Ilmiah Multidisiplin Mahasiswa Dan Akademisi*, 1(3), 99–111. <https://doi.org/10.64690/intelektual.v1i3.246>.
- Dhuha, M. C., & Astutik, A. P. (2025). Media pembelajaran digital yang aksesibel untuk Mahasiswa Berkebutuhan Khusus (MBK) menuju lingkungan pembelajaran inklusif. *LEARNING: Jurnal Inovasi Penelitian Pendidikan Dan Pembelajaran*, 5(1), 92–105. <https://doi.org/10.51878/learning.v5i1.4312>.
- Febianto, D., & Nopita, R. (2024). Model Kooperatif Leraning Tipe Auditory, Intellectually, Repetition Pada Keterampilan Berbicara. *Indonesian Journal of Innovation Multidisipliner Research*, 2(2), 109–401. <https://doi.org/10.69693/ijim.v2i2.176>.
- Fleming, N. D., & Mills, C. (1992). Not another inventory, rather a catalyst for reflection. *To Improve the Academy*, 11(1), 137–155. <https://doi.org/10.1002/j.2334-4822.1992.tb00213.x>.
- Gilakjani, A. P. (2012). Visual, auditory, kinaesthetic learning styles and their impacts on English language teaching. *Journal of Studies in Education*, 2(1), 104–113. <https://doi.org/10.5296/jse.v2i1.1007>.
- Hasanuddin, M. I., Zuhdiah, Z., Badaruddin, S., Setiawan, A., & Kalsum, U. (2024). Enhancing Students' Self-Regulated Learning through Differentiated Instruction Based on Prior Knowledge. *EDUKASIA Jurnal Pendidikan dan Pembelajaran*, 5(2), 179-188. <https://doi.org/10.62775/edukasia.v5i2.1371>

- Hrp, N. A., Masruro, Z., Saragih, S. Z., Hasibuan, R., Simamora, S. S., & Toni, T. (2022). *Buku Ajar Belajar dan Pembelajaran*.
- Krathwohl, D. R., & Anderson, L. W. (2010). Merlin C. Wittrock and the revision of Bloom's taxonomy. *Educational Psychologist*, 45(1), 64–65. [10.1080/00461520903433562](https://doi.org/10.1080/00461520903433562).
- Mayer, R. E. (2014). Incorporating motivation into multimedia learning. *Learning and Instruction*, 29, 171–173. [10.1016/j.learninstruc.2013.04.003](https://doi.org/10.1016/j.learninstruc.2013.04.003)
- Pugu, M. R., Riyanto, S., & Haryadi, R. N. (2024). *Metodologi Penelitian; Konsep, Strategi, dan Aplikasi*. PT. Sonpedia Publishing Indonesia.
- Putri, I. T. A., Agusdianita, N., & Desri, D. (2024). Literasi dalam meningkatkan kemampuan berpikir kritis peserta didik sekolah dasar era digital. *Social, Humanities, and Educational Studies (SHES): Conference Series*, 7(3). <https://doi.org/10.20961/shes.v7i3.92427>
- Rukajat, A. (2018). *Pendekatan penelitian kuantitatif: quantitative research approach*. Deepublish.
- Rusli, R., Suwatno, S., Rasto, R., & Muhammad, I. (2023). Identifikasi Gaya Belajar Siswa dan Dampaknya terhadap Hasil Belajar: Analisis pada Tingkat Pendidikan Menengah Atas. *EDUKASIA Jurnal Pendidikan Dan Pembelajaran*, 4(2), 859–870. <https://doi.org/10.62775/edukasia.v4i2.363>.
- Safitri, F., Ramlah, R., Sandy, W., & Siregar, A. C. (2025). *Literasi Digital dalam Dunia Pendidikan*. PT. Sonpedia Publishing Indonesia.
- Setiawan, A. (2025). *Belajar dan pembelajaran*. UMMPress.
- Sudjana Nana, D. (2009). Penilaian hasil proses belajar mengajar. *Bandung: Sinar Baru Algesindo Offset*.
- Sugiantoro, E., Rahmawati, A., Kuliana, I. I., Muti'ah, M., & Laksana, S. D. (2025). Pemanfaatan New Media dan Multimedia untuk Meningkatkan Kualitas Pembelajaran di Era Digital. *Jurnal koulutus*, 8(2), 199–210. <https://doi.org/10.51158/cyy7tf97>.
- Sumargo, B. (2020). *Teknik sampling*. Unj press.
- Supit, D., Melianti, M., Lasut, E. M. M., & Tumbel, N. J. (2023). Gaya belajar visual, auditori, kinestetik terhadap hasil belajar siswa. *Journal on Education*, 5(3), 6994–7003. <https://doi.org/10.31004/joe.v5i3.1487>.
- Triayomi, R., & Murwanto, P. (2025). Pemanfaatan Teknologi GenAI dalam Konteks Akademik: Studi Terhadap Gaya Belajar. *Titian Ilmu: Jurnal Ilmiah Multi Sciences*, 17(02), 85–94. <https://doi.org/10.30599/pijyzs48>
- Usri, U., Salam, A. M. I., Hasanuddin, M. I., & Badaruddin, S. (2025). Bridging Expectations and Outcomes: A Discrepancy Model Evaluation of Learning Effectiveness in an Islamic Higher Education Context. *AL-ISHLAH: Jurnal Pendidikan*, 17(2), 2058-2069. <https://doi.org/10.35445/alishlah.v17i2.7544>.
- Wahyudi, N. G. (2019). Desain Pesan Pembelajaran Dalam Meningkatkan Mutu

Pembelajaran Di Era Digital. *Evaluasi: Jurnal Manajemen Pendidikan Islam*, 561(3), S2–S3. [10.32478/evaluasi.v3i1.224](https://doi.org/10.32478/evaluasi.v3i1.224).

Wulandari, O. A., & Wardhani, I. S. (2024). Media dan Gaya Belajar Siswa: Strategi dalam Pembelajaran Efektif. *Jurnal Media Akademik (JMA)*, 2(11). <https://doi.org/10.62281/v2i11.1021>

Yuspa, E. D., & Azizah, A. (2025). Analisis Pemanfaatan Pembelajaran Project Based Learning Berbasis Teknologi Digital Terhadap Gaya Belajar Peserta Didik VIII-B SMP IT Al Fateeh Semarang. *Perspektif Pendidikan Dan Keguruan*, 16(1), 11–24. [https://doi.org/10.25299/perspektif.2025.vol16\(1\).21644](https://doi.org/10.25299/perspektif.2025.vol16(1).21644).