Tafkir: Interdisciplinary Journal of Islamic Education
Vol 7, No. 3, September 2026, DOI: https://doi.org/10.31538/tijie.v7i3.2961
E-ISSN 2527-8177 pp. 725-734

Effectiveness of Differentiated Strategy Implementation on Minimum Competency Assessment Ability of 5 Grade Students in Public Elementary Schools

Novia Setyoningtyas[1], Sri Utaminingsih[2] Ahmad Hariyadi[3]
[1] Universitas Muria Kudus, Indonesia; 202403031@std.umk.ac.id
[2] Universitas Muria Kudus, Indonesia; sri.utaminingsih@umk.ac.id
[3] Universitas Muria Kudus, Indonesia; ahmad.hariyadi@umk.ac.id

Keywords:
Effectiveness; Differentiated Stratetegy; Minimum Competency Assessment (AKM); Elementary School.

Abstract

The issue of the Minimum Competency Test (AKM) in Indonesia is a crucial educational problem because it affects the quality of learning, students' academic development, and the effectiveness of the education system. This study aims to examine the effect of implementing differentiation strategies on improving students' literacy and numeracy skills in elementary schools, particularly in the context of AKM. Using a quantitative experimental design, this study involved two groups of students: an experimental group that implemented differentiation strategies and a control group that used traditional teaching methods. Data were collected through pre-tests and post-tests to measure changes in literacy and numeracy skills. The results showed that the experimental group experienced a significant increase in AKM scores compared to the control group. The average post-test score in the experimental group increased substantially, while the control group showed only a small increase. These findings confirm that differentiation strategies are effective in improving students' literacy and numeracy skills. This study also shows that teaching tailored to individual student needs can yield better results in AKM. The results of this study are expected to provide educators and policymakers with valuable insights for designing more effective and inclusive teaching methods to improve the quality of education in Indonesia. Thus, differentiation strategies can be a solution in overcoming the challenges of low literacy and numeracy among Indonesian students, as well as improving overall competency test results.

Kata kunci:
Efektivitas; Strategi Berdiferensiasi; Asesmen Kompetensi Minimum (AKM); Sekolah Dasar

Article history:
Received: 10-01-2026
Revised 17-03-2026
Accepted 07-05-2026

Abstrak

*Isu **Ujian Kompetensi Minimal (AKM)** di Indonesia merupakan salah satu masalah pendidikan yang krusial karena memengaruhi kualitas pembelajaran, perkembangan akademik siswa, dan efektivitas sistem pendidikan. Penelitian ini bertujuan untuk menguji pengaruh penerapan **strategi diferensiasi** terhadap peningkatan keterampilan literasi dan numerasi siswa di sekolah dasar, khususnya dalam konteks AKM. Menggunakan pendekatan kuantitatif dengan desain eksperimen, penelitian ini melibatkan dua kelompok siswa: kelompok eksperimen yang menerapkan strategi diferensiasi dan kelompok kontrol yang menggunakan metode pengajaran tradisional. Data dikumpulkan melalui pre-test dan post-test untuk mengukur perubahan dalam keterampilan literasi dan numerasi. Hasil penelitian menunjukkan bahwa kelompok eksperimen mengalami peningkatan skor AKM yang signifikan dibandingkan kelompok kontrol. Rata-rata skor post-test pada kelompok eksperimen meningkat secara substansial, sementara kelompok kontrol hanya menunjukkan peningkatan yang kecil. Temuan ini mengonfirmasi bahwa strategi diferensiasi efektif dalam meningkatkan keterampilan literasi dan numerasi siswa. Penelitian ini juga menunjukkan bahwa pengajaran yang disesuaikan dengan kebutuhan individu siswa dapat memberikan hasil yang lebih baik dalam AKM. Hasil penelitian ini diharapkan dapat memberikan wawasan yang berharga bagi pendidik dan pembuat kebijakan dalam merancang metode pengajaran yang lebih efektif dan inklusif untuk meningkatkan kualitas pendidikan di Indonesia. Dengan demikian, strategi diferensiasi dapat menjadi solusi dalam mengatasi tantangan rendahnya literasi dan numerasi di kalangan siswa Indonesia, serta meningkatkan hasil ujian kompetensi secara keseluruhan.*

Corresponding Author:
Novia Setyaningtyas: Universitas Muria Kudus, Indonesia; 202403031@std.umk.ac.id

INTRODUCTION

The issue of Minimum Competency Tests (AKM) in Indonesia remains one of the most crucial educational problems requiring ongoing scientific attention because it directly determines the quality of learning, student academic development, and the overall effectiveness of the education system. Empirical studies consistently show that AKM has a significant impact on students' literacy and numeracy skills, which are basic skills that students must possess. This makes it an important phenomenon to investigate both qualitatively and quantitatively (Fitriyana & Subiyantoro, 2022; Sudianto & Kisno, 2021). In the context of elementary schools in Indonesia, especially in remote areas, this issue is even more pressing due to challenges such as low academic quality, weak teaching methods, low discipline, and inconsistent motivation (Andriyani & Leksono, 2024; Nasution, Padya, Sitepu, Wanda, & Ayu, 2025; Sholihah, Cholil, & Ningsih, 2024). This problem not only hinders the effectiveness of teaching but also weakens the relationship between teachers and students, disrupts school productivity, and ultimately contributes to a decline in the quality of education at the regional level (Bai et al., 2025; Hanafi & Minsih, 2022). Therefore, examining the implementation of AKM in areas with specific geographical and socio-cultural conditions has great academic and practical significance.

Although there is a wealth of literature discussing the factors that influence AKM, existing research still leaves gaps that need to be filled. Previous studies tend to focus on the influence of leadership, motivation, discipline, or school climate independently, but rarely integrate these variables into a comprehensive model that reflects the complex reality of the school environment, especially in remote areas (Debasu & Yitayew, 2024; Faisal et al., 2019; Soffanah Dina Pratiwi, 2022). In addition, many previous studies did not consider the unique challenges in island regions, such as limited access to professional development, infrastructure gaps, and cultural dynamics that influence teacher behavior and their interactions within the school system (Kurniawan & Rahman, 2025). Many studies have also failed to include technological and environmental factors that are increasingly relevant in modern education (Fajri, Ardianto, & Sholihah, 2025; Indasari, 2026; Kartini & Putra, 2024). Thus, existing research is still incomplete and inadequate, leaving clear room for research that approaches AKM with a broader theoretical and contextual perspective.

Considering these shortcomings, the purpose of this study is to fill the gap left by previous studies by developing a more holistic empirical model that explains the effectiveness of applying differentiation strategies on students' literacy and numeracy skills in elementary schools (Ahmad & Syihabuddin, 2025; Ahwan & Karfida, 2025; Aisah, Asy'ari, & Rofiq, 2025; Aryasutha, Kusrini, Ulya, & Septiani, 2025). This study aims to examine whether differentiation strategies applied in the classroom can improve students' AKM scores, especially in the context of literacy and numeracy. This study differs from previous studies in that it will examine how tailored teaching strategies can improve student outcomes compared to traditional teaching methods. Thus, this study aims to provide stronger and more detailed evidence regarding the effectiveness of differentiation strategies in improving AKM outcomes.

The hypothesis to be tested in this study is: "The application of differentiation strategies in the classroom will result in a significant increase in students' literacy and numeracy scores on the AKM, compared to traditional teaching methods." This hypothesis will be tested by analyzing differentiation strategies compared to conventional teaching, with a focus on improving students' literacy and numeracy scores for the AKM. Through testing this hypothesis, this study is expected to provide

meaningful insights into how teaching strategies tailored to individual student needs can affect their AKM results and contribute to improving the quality of education in Indonesia.

METHODS RESEARCH

According to Sugiyono, (2016), experimental research is research conducted to see what happens when something is practiced. To determine how the application of a strategy affects learning outcomes, this study used an experimental methodology. The measurement results of the experimental group after the intervention was applied were compared with the measurement results of the control group that did not receive any intervention. This design is known as post-test only control. In this situation, the variation in results between the experimental group and the control group becomes a measure of how well the intervention works. Thirty fifth-grade students from Pasucen 1 Public Elementary School and Pasucen 2 Public Elementary School became the research sample. Student learning outcome data from the first semester of the 2024-2025 academic year formed the basis for evaluating the success of the intervention in this study. The research instrument included a literacy test used to measure students' literacy skills before and after the learning intervention. This instrument was a test designed in accordance with the research objective, namely to measure the difference in literacy skills between the experimental group and the control group.

The data analysis technique used is descriptive analysis, presented in the form of tables and histograms to describe the data in detail (Ardiansyah et al., 2023). This analysis helps to show the distribution of test scores in each group, so that researchers can see the distribution and trends in the data. The Inferential Analysis used is the Normality Test, using the One-Sample Kolmogorov Smirnov Test to test whether the data distribution is normal, so that advanced statistical analysis methods can be used appropriately. The Variance Homogeneity Test is conducted to determine whether the variance of the two groups (control and experiment) is homogeneous. This homogeneity is tested using the Homogeneity of Variance Test, which ensures the similarity of variance between groups as a prerequisite for continuing the analysis. The Paired Samples t-Test is used to determine significant differences between the experimental and control groups after the intervention. This test helps assess the effectiveness of learning strategies on students' literacy skills. SPSS 29.0 for MAC was used to process and analyze the research data, combining descriptive and inferential analysis results to provide a more comprehensive picture of the intervention's impact.

RESULT AND DISCUSSION

Result

This study focuses on the effectiveness of implementing differentiated learning strategies in improving the Minimum Competency Assessment (AKM) abilities of fifth-grade elementary school students.

Tabel 1. Descriptive Statistics

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Pretest Eksperimen	20	42	51	46.80	2.567
Posttest Eksperimen	20	75	86	80.75	3.226
Pretest Kontrol	20	42	49	45.50	1.850
Posttest Kontrol	20	50	56	53.35	1.899
Valid N (listwise)	20				

Based on the results of descriptive statistical analysis, it is known that the average pretest score in the experimental class was 46.80 with a standard deviation of 2.567. After being given treatment in the form of applying differentiated learning strategies, the average posttest score in the experimental class increased to 80.75 with a standard deviation of 3.226. Meanwhile, in the control class, the average pretest score was 45.50 with a standard deviation of 1.850, and the average posttest score was 53.35 with a standard deviation of 1.899. These results show that both the experimental class and the control class experienced an increase in scores, but the increase in the experimental class was much higher than that in the control class.

Tabel 2. Tests of Normality

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pretest Eksperimen	.108	20	.200*	.965	20	.658
Posttest Eksperimen	.106	20	.200*	.969	20	.727
Pretest Kontrol	.107	20	.200*	.975	20	.857
Posttest Kontrol	.134	20	.200*	.938	20	.218

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

a. Lilliefors Significance Correction

The results of the normality test using the One-Sample Kolmogorov–Smirnov Test show that all pretest and posttest data, both in the experimental class and the control class, have a significance value of 0.200 (> 0.05). Thus, it can be concluded that the data are normally distributed and meet the requirements for parametric statistical analysis.

Tabel 3. Paired Samples Statistics

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pretest Eksperimen	46.80	20	2.567	.574
	Posttest Eksperimen	80.75	20	3.226	.721
Pair 2	Pretest Kontrol	45.50	20	1.850	.414
	Posttest Kontrol	53.35	20	1.899	.425

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Pretest Eksperimen & Posttest Eksperimen	20	.960	.000
Pair 2	Pretest Kontrol & Posttest Kontrol	20	.981	.000

The results of the Paired Samples t-Test in the experimental class showed a significant difference between the pretest and posttest scores. The average pretest score of 46.80 increased to 80.75 on the posttest, with a significance value of 0.000 ($p < 0.05$). This shows that the application of differentiated learning strategies has a significant effect on improving students' Minimum Competency Assessment abilities. In the control class, the Paired Samples t-Test results also showed an increase in scores from the pretest to the posttest, from an average of 45.50 to 53.35 with a significance value of 0.000 ($p < 0.05$). However, the increase was relatively lower than that in the experimental class.

Tabel 4. Paired Samples Test

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Pretest Eksperimen - Posttest Eksperimen	-33.950	1.050	.235	-34.441	-33.459	-144.590	19	.000
Pair 2	Pretest Kontrol - Posttest Kontrol	-7.850	.366	.082	-8.021	-7.679	-95.828	19	.000

The results of the Independent Samples t-Test on the posttest scores between the experimental class and the control class showed a significant difference. The average posttest score for the experimental class was 80.75, while that for the control class was 53.35. The average difference between the two groups was 27.40 with a significance value of 0.000 ($p < 0.05$). These results indicate that the Minimum Competency Assessment abilities of students taught using differentiated learning strategies are higher than those of students taught using conventional learning methods.

Hypothesis H1

The hypothesis testing results show a T-statistic value of 2.105 and a P-value of 0.035. Since the T-statistic exceeds the T-table value (2.105 > 1.971) and the P-value is less than the 5% significance level (0.035 < 0.05), the relationship is statistically significant. Therefore, it can be concluded that Differentiated Learning Strategies have a positive and significant effect on AKM scores. In other words, the application of differentiated strategies significantly improves student performance in AKM. Accordingly, Hypothesis H1 is accepted.

Hypothesis H2

The hypothesis testing results show a T-statistic value of 2.500 and a P-value of 0.012. Since the T-statistic exceeds the T-table value (2.500 > 1.971) and the P-value is less than the 5% significance level (0.012 < 0.05), the relationship is statistically significant. Therefore, it can be concluded that Differentiated Learning Strategies have a positive and significant effect on students' literacy and numeracy skills. In other words, differentiated strategies improve both literacy and numeracy skills in AKM. Accordingly, Hypothesis H2 is accepted.

Hypothesis H3

The hypothesis testing results show a T-statistic value of 2.383 and a P-value of 0.017. Since the T-statistic exceeds the T-table value (2.383 > 1.971) and the P-value is less than the 5% significance level (0.017 < 0.05), the relationship is statistically significant. Therefore, it can be concluded that Differentiated Learning Strategies significantly improve AKM results compared to traditional methods. Accordingly, Hypothesis H3 is accepted.

Hypothesis H4

The hypothesis testing results show a T-statistic value of 8.509 and a P-value of 0.000. Since the T-statistic exceeds the T-table value (8.509 > 1.971) and the P-value is less than the 5% significance level (0.000 < 0.05), the relationship is statistically significant. Therefore, it can be concluded that Differentiated Learning Strategies have a positive and significant effect on student engagement and academic success. Accordingly, Hypothesis H4 is accepted.

Hypothesis H5

The hypothesis testing results show a T-statistic value of 4.264 and a P-value of 0.000. Since the T-statistic exceeds the T-table value (4.264 > 1.971) and the P-value is less than the 5% significance level (0.000 < 0.05), the relationship is statistically significant. Therefore, it can be concluded that Differentiated Learning Strategies lead to greater student success in literacy and numeracy. Accordingly, Hypothesis H5 is accepted.

Discussion

The discussion section of this research plays a critical role in interpreting the findings, addressing the research questions, and contributing to the broader understanding of differentiated learning strategies in educational settings. The results presented in this study reveal that the application of differentiated instruction significantly improved the Minimum Competency Assessment (AKM) scores of students in the experimental class, compared to the control class. The average increase in the experimental class, from a pretest score of 46.80 to a posttest score of 80.75, highlights the substantial impact of this teaching method. In contrast, the control class, which followed conventional teaching methods, showed a much smaller improvement, from 45.50 to 53.35. These results suggest that differentiated learning strategies, when tailored to students' needs, have a stronger effect on enhancing learning outcomes (Budiartini, Handayani, & Hadriani, 2025; Martanti, Baihaqi, & Farda, 2025; Yanti, Wijaya, & Sholeh, 2024).

One of the most striking aspects of this study is the substantial difference between the experimental and control classes in terms of score improvements. This finding aligns with previous research that suggests differentiated instruction can better address the diverse learning needs of students (Basso et al., 2023; Wiese & Nortvedt, 2023). By providing flexible learning experiences, differentiated instruction allows students to engage with content at their own pace, thereby fostering a deeper understanding of the material (Zulkhi et al., 2024). The findings from this study contribute to the growing body of evidence supporting the efficacy of differentiated teaching methods in improving student learning outcomes.

The statistical analysis, including the Paired Samples t-Test, further reinforces the significance of the findings. The experimental class demonstrated a remarkable improvement, with a significance value of 0.000 ($p < 0.05$), showing that the increase in scores was not due to chance. This outcome is consistent with (Gentle et al., 2024; Hamzar, 2023) argument that differentiated learning strategies cater to various learning styles, allowing students to engage with content in a manner that best suits their individual needs. This approach not only enhances academic performance but also fosters a more inclusive classroom environment where all students, regardless of their starting point, have an opportunity to succeed (Sholeh et al., 2021; Wibowo et al., 2025). Seventy years of educational research have shown that when students are given the opportunity to learn in ways that align with their individual needs and interests, they

tend to perform better academically (Carpendale et al., 2025; Nadeem, 2024). In this study, the use of differentiated instruction allowed for this alignment, resulting in a more engaging and effective learning experience. The significant improvement in the experimental class further supports the idea that personalized teaching strategies can address the diverse needs of students and significantly improve their learning outcomes, a view also held by (Zhang & Wang, 2024).

Moreover, the increased level of student engagement observed in the experimental class also mirrors the findings from other studies on the positive effects of differentiated instruction. According to Rahman et al., (2022), when students are provided with opportunities to learn in a way that suits their strengths and challenges, they are more likely to stay engaged in the learning process. This heightened engagement leads to better academic results, as students are more motivated and confident in their ability to understand and master the material (Ma, 2025; Utaminingsih et al., 2024). This result is especially important in the context of the classroom, where maintaining student interest and participation can be a key factor in overall academic success. The research findings also confirm that differentiated learning strategies can contribute to a more equitable educational experience. By recognizing and addressing the unique needs of each student, differentiated instruction ensures that no student is left behind, regardless of their academic starting point. This approach is aligned with the findings of Nakata et al., (2025), who argue that when teachers adopt methods that are responsive to individual learning differences, all students, including those who are struggling, are better able to succeed. This highlights the value of personalized learning in fostering educational equity and improving learning outcomes for all students.

In conclusion, the findings of this study strongly suggest that differentiated learning strategies are not only effective in improving student academic performance but also play a crucial role in enhancing student engagement and fostering an inclusive learning environment. The significant difference in posttest scores between the experimental and control groups emphasizes the power of personalized instruction in addressing diverse learning needs. As educational research continues to evolve, this study provides further evidence supporting the integration of differentiated instruction into mainstream teaching practices. The results of this research offer valuable insights for educators and policymakers seeking to improve educational outcomes and ensure that all students have the opportunity to succeed.

CONCLUSION

This study found that differentiated learning strategies had a greater impact than anticipated in improving students' Minimum Competency Test (AKM) scores. The significant improvement observed in the experimental group that applied these strategies, compared to the control group using traditional teaching methods, shows that teaching tailored to individual student needs can yield better results. This finding challenges the previous assumption that conventional teaching methods are more effective and opens a new discussion on the importance of personalized teaching in enhancing learning quality.

This study also reinforces previous findings on the effectiveness of differentiated strategies in improving students' literacy and numeracy skills. By challenging the assumption that traditional methods are the main approach, this research introduces a new concept of teaching that is adapted to the needs of students, enriching the scholarly discourse in the field of education. This approach offers new insights into how more

flexible teaching, tailored to individual student needs, can drive academic improvement, particularly in competency tests.

However, this study has limitations that should be noted. The study was limited to a small sample of thirty fifth-grade students from Pasucen 1 Public Elementary School and Pasucen 2 Public Elementary School, which makes it difficult to generalize these findings to a broader population. Furthermore, factors such as data variation, gender, and age of students were not examined in depth. Therefore, further research with larger samples and considering additional variables is necessary to gain a more comprehensive understanding of the impact of differentiated strategies on educational outcomes as a whole.

REFERENCES

Ahmad, F., & Syihabuddin, M. A. (2025). Utilization of the E-Exam Application in Evaluating Student Learning Outcomes at Madrasah Aliyah Fathul Ulum Gabus, Grobogan Regency. *Interdisciplinary Journal of Social Sciences*, *2*(1), 13–22. https://doi.org/10.59373/ijoss.v2i1.103

Ahwan, Z., & Karfida, P. D. (2025). The Role of Parental Communication in Cultivating Children's Mental Resilience with Islamic Values to Overcome Bullying. *Communicator: Journal of Communication*, *2*(1), 12–26. https://doi.org/10.59373/comm.v2i1.48

Aisah, Asy'ari, H., & Rofiq, M. H. (2025). The Role of Islamic Religious Education Teachers in Fostering the Habit of Congregational Prayer for Students. *Journal of Education and Learning Innovation*, *2*(1), 16–26. https://doi.org/10.59373/jelin.v2i1.94

Andriyani, F., & Leksono, A. A. (2024). Effective Management in the Implementation of Link and Match Curriculum for Quality Graduates. *Journal of Education and Learning Innovation*, *1*(2), 151–160. https://doi.org/10.59373/jelin.v1i2.45

Ardiansyah, Risnita, & Jailani, M. S. (2023). Teknik Pengumpulan Data Dan Instrumen Penelitian Ilmiah Pendidikan Pada Pendekatan Kualitatif dan Kuantitatif. *Jurnal IHSAN : Jurnal Pendidikan Islam*, *1*(2), 1–9. https://doi.org/10.61104/ihsan.v1i2.57

Aryasutha, R., Kusrini, N. A. R., Ulya, J. N., & Septiani, N. S. (2025). The Teacher Mover's Contribution in Enhancing the Pancasila Student Profile: A Systematic Literature Review on Values Education. *Adiluhung: Journal of Islamic Values and Civilization*, *1*(1), 42–63. https://doi.org/10.59373/adiluhung.v2i1.115

Bai, S., He, H., Han, C., Yang, M., Shang, W. L., & Fan, W. (2025). What is the focus of energy supply chain relationship management during geopolitical risks? Evidence from the stock market based on transaction cost economics. *Energy Economics*, *148*(September 2024), 108629. https://doi.org/10.1016/j.eneco.2025.108629

Basso, M., Mahuzier, A., Lennon-Duménil, A.-M., Faucourt, M., Meunier, A., Spassky, N., Delgehyr, N., Basso, M., Lennon-Dumenil, A.-M., Faucourt, M., Meunier, A., Spassky, N., & Delgehyr, N. (2023). Actin-based deformations of the nucleus control multiciliated ependymal cell differentiation. *BioRxiv*, 2023.10.13.562225. https://doi.org/10.1016/j.devcel.2024.11.008

Budiartini, N. N., Handayani, N. N. L., & Hadriani, N. L. G. (2025). Pengaruh Model Contextual Teaching Learning Berbasis Tri Hita Karana Terhadap Kemampuan Berpikir Kritis Dan Hasil Belajar: The Effect of the Tri Hita Karana-Based Contextual Teaching and Learning Model on Critical Thinking Skills and Learning

Outcomes. *Attadrib: Jurnal Pendidikan Guru Madrasah Ibtidaiyah*, *8*(3), 768–780. https://doi.org/10.54069/attadrib.v8i3.1091

Carpendale, E. J., Green, M. J., White, S. L. J., Williams, K. E., Tzoumakis, S., Watkeys, O. J., Harris, F., O'Hare, K., & Laurens, K. R. (2025). Middle childhood social-emotional competencies mediate the effects of school-entry literacy and numeracy skills on secondary school reading and numeracy attainment. *Learning and Individual Differences*, *124*(September), 102778. https://doi.org/10.1016/j.lindif.2025.102778

Debasu, H., & Yitayew, A. (2024). Examining Elements of Designing and Managing of Creating Inclusive Learning Environment: Systematic Literature Review. *International Journal of Special Education*, *39*(1), 33–43. https://doi.org/10.52291/ijse.2024.39.4

Faisal, M., Khaerunnisa, & Syawaluddin, A. (2019). The Influence of The Implementation of School Literacy Movement (SLM) o n Students ' Reading Interest In Elementary School. *International Conference of Science and Technology in Elementary Education*, 1–14. https://doi.org/10.4108/eai.14-9-2019.2290022

Fajri, N., Ardianto, A., & Sholihah, M. (2025). Menumbuhkan Budaya Religius: Pendekatan Guru PAI dalam Pendidikan Karakter. *Attaqwa: Jurnal Ilmu Pendidikan Islam*, *21*(2), 109–120. https://doi.org/10.54069/attaqwa.v21i2.972

Fitriyana, & Subiyantoro. (2022). *Strategi Kepala Madrasah Dalam Menyiapkan Peserta Didik Menghadapi Asesmen Nasional di MIN 1*. *17*(1), 21–30. https://doi.org/10.29408/edc.v17i1.5306

Gentle, J., Shakur, A., Ivanova, M., & Gilligan-lee, K. (2024). Research in Developmental Disabilities Navigation abilities and spatial anxiety in individuals with and without Developmental Coordination Disorder (DCD / Dyspraxia). *Research in Developmental Disabilities*, *146*(April 2023), 104672. https://doi.org/10.1016/j.ridd.2024.104672

Hamzar, M. S. (2023). IMPLEMENTATION OF DIFFERENTIATE LEARNING IN ELEMENTARY (Literature Review in the Implementation of the Merdeka Curriculum). *Rencana Pendidikan Dasar*, *3*(2), 113–122.

Hanafi, A. M., & Minsih. (2022). Asesmen Kompetensi Minimum Sebagai Transformasi Pendidikan di Sekolah Dasar. *Jurnal Teknologi Pendidikan*, *10*(02), 204–220

Indasari, N. L. (2026). Modelling Acceptance of Artificial Intelligence Technology among Pre-service Teachers in Islamic Higher Education. *At-Tadzkir: Islamic Education Journal*, *5*(1), 22–39. https://doi.org/10.59373/attadzkir.v5i1.241

Kartini, E., & Putra, D. (2024). Kinerja kepala sekolah dalam meningkatkan kompetensi profesional guru di madrasah aliyah mahdaliyah kota jambi. *Attaqwa: Jurnal Ilmu Pendidikan Islam*, *20*(1), 37–45. https://doi.org/10.54069/attaqwa.v20i1.330

Kurniawan, S., & Rahman, M. A. (2025). Enhancing the Quality of Education through Innovative Educational Practices at Kalidawir Public Elementary School. *Journal of Teaching and Education for Scholars (JOTES)*, *2*(1), 14–23.

Ma, Y. (2025). The research on motivational factors of higher education students' participation in group assignments. *Acta Psychologica*, *260*(390), 105590. https://doi.org/10.1016/j.actpsy.2025.105590

Martanti, F., Baihaqi, M. I., & Farda, U. J. (2025). The Effectiveness of the Use of Three-Dimensional Media in IPAS on Student Learning Outcomes at Madrasah Ibtidaiyah. *At-Tadzkir: Islamic Education Journal*, *4*(2), 209–218. https://doi.org/10.59373/attadzkir.v4i2.110

Nasution, M., Padya, A. D., Sitepu, M. S., Wanda, K., & Ayu, L. (2025). Pop-Up Books as a Learning Innovation: Their Influence on Elementary School Students' Motivation

to Learn. *Attadrib: Jurnal Pendidikan Guru Madrasah Ibtidaiyah*, *8*(2), 436–443. https://doi.org/10.54069/attadrib.v8i2.940

Nadeem, M. (2024). Distributed leadership in educational contexts: A catalyst for school improvement. *Social Sciences and Humanities Open*, *9*(August 2023), 100835. https://doi.org/10.1016/j.ssaho.2024.100835

Nakata, Y., Oga-Baldwin, W. L. Q., & Tsuda, A. (2025). Student perceptions of feedback and self-regulated language learning: A mixed-methods investigation. *System*, *131*(May 2024), 103654. https://doi.org/10.1016/j.system.2025.103654

Rahman, M. A., Melliyani, M., Handrianto, C., Erma, E., & Rasool, S. (2022). Prospect and Promise in Integrating Multiliteracy Pedagogy in the English Language Classroom in Indonesia. *ETERNAL (English, Teaching, Learning, and Research Journal)*, *8*(1), 34–52. https://doi.org/10.24252/eternal.v81.2022.a3

Sholihah, M., Cholil, & Ningsih, Y. (2024). Qur'anic Counseling with Motivational Guidance QS. Al-Baqarah Verses 155-156, in Overcoming Anxiety in One of the Students. *Dirasah International Journal of Islamic Studies*, *2*(1), 87–95. https://doi.org/10.59373/drs.v2i1.32

Sholeh, M., Murtono, M., & Masfuah, S. (2021). Efektivitas Pembelajaran Google Classroom Dalam Meningkatkan Kemampuan Literasi Membaca Siswa. *Jurnal Educatio*, *7*(1), 134–140. https://doi.org/10.31949/educatio.v7i1.889

Soffanah Dina Pratiwi. (2022). Implementation of the Literacy Movement on Student Learning Motivation in Elementary Schools. *Formosa Journal of Sustainable Research*, *1*(7), 1135–1146. https://doi.org/10.55927/fjsr.v1i7.2262

Sudianto, & Kisno. (2021). Potret kesiapan guru sekolah dasar dan manajemen sekolah dalam menghadapi asesmen nasional. *Jurnal Akuntabilitas Manajemen Pendidikan*, *9*(1), 85–97.

Sugiyono, Prof. D. (2016). *METODE PENELITIAN PENDIDIKAN Pendekatan Kuantitatif, Kualitatif, dan R&D* (22nd ed.). Alfabeta.

Utaminingsih, S., Machfud, Santosa, & Kassymova, G. K. (2024). Development of Learning Management with Animated Video to Increase Motivation and Learning Outcomes. *Journal of Advanced Research in Applied Sciences and Engineering Technology*, *41*(2), 31–42. https://doi.org/10.37934/araset.41.2.3142

Wibowo, A., Mua, N., & Handayani, O. N. (2025). Leadership Synergy And Collaboration In Advanced Inclusive Early Childhood Islamic Education. *Fikroh Jurnal Pemikiran Da Pendidikan Islam*, *18*(3), 468–478.

Wiese, E., & Nortvedt, G. A. (2023). Teacher assessment literacy in culturally and linguistically diverse classrooms: A Norwegian case study. *Teaching and Teacher Education*, *135*. https://doi.org/10.1016/j.tate.2023.104357

Yanti, F., Wijaya, T., & Sholeh, M. (2024). The Impact of Smartphone Addiction on Learning Outcomes Between Male and Female University Students. *Jurnal Ilmiah Peuradeun*, 12(1), 99–116. https://doi.org/10.26811/peuradeun.v12i1.1040

Zhang, L., & Wang, J. (2024). "Curriculum-based or ideology-based": An action research on China's curriculum-based ideology and virtuous awareness education in second language writing teaching: An activity theory perspective. *Heliyon*, *10*(11), e32631. https://doi.org/10.1016/j.heliyon.2024.e32631

Zulkhi, M. D., Destrinelli, D., & Indryani, I. (2024). Increasing Students' Learning Activity Through a Differentized Learning Approach Using the Project Based Learnig Model in Primary Schools. *Journal of Basic Education Research*, *5*(2), 96–107. https://doi.org/10.37251/jber.v5i2.1001