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# The Influence of Teachers' Pedagogical Competence on Education Quality: A Quantitative Study in Public Elementary Schools Gunem District Rembang Regency

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**A B S T R A C T**

Education quality in elementary schools is strongly influenced by the professional competence of teachers, particularly their pedagogical abilities. In Gunem District, Rembang Regency, disparities in education quality remain evident, with many schools still falling short of the expected standards. This study aims to examine the influence of teachers' pedagogical competence on education quality in public elementary schools. Employing a quantitative explanatory design, data were collected through a proportional random sample of 106 teachers from a total population of 144. The main research instrument was a Likert-scale questionnaire, whose validity and reliability were confirmed through Pearson correlation and Cronbach's Alpha tests. Data analysis was performed using simple linear regression with SPSS 25. The results indicate a positive and significant effect of teachers' pedagogical competence on education quality, with a correlation coefficient of 0.630 and an $R^2$ value of 0.397. These findings highlight the importance of continuous professional development programs to strengthen teachers' pedagogical competence as a key strategy for improving education quality in elementary schools.

## 1. Introduction

Education is a fundamental necessity in human life, serving to prepare human resources for nation-building and national development. Education not only enlightens the nation but also shapes individuals to become devout, well-rounded, and competitive. According to Burga (2019), education is an effort to assist students in developing both internally and externally toward a more advanced human civilization. Kurniati and Divan (2020) add that daily activities, such as instilling politeness and discipline in children, are genuine forms of character education.

The national education goal, as stated in Law No. 20 of 2003, is to develop capabilities and shape the character and civilization of a dignified nation. This objective underscores that education is a central pillar of national development and a key instrument for strengthening national identity (Efendi et al., 2022). However, various evaluations indicate that the quality of education in Indonesia particularly at the elementary level continues to face significant challenges. Triatna (2016) notes that low educational quality can be observed across input, process, and output dimensions. One major contributing factor is the underdeveloped pedagogical competence of teachers, which directly affects both the learning process and its outcomes (Ratnawati et al., 2024; Riyadi et al., 2024; Hidayat et al., 2024).

Similar conditions are found in Gunem District, Rembang Regency, which consists of 20 elementary schools with diverse geographic characteristics, contributing to disparities in educational quality. According to the 2024 Education Report Card, in the literacy skills dimension, no school achieved an "excellent" rating; 10 schools (50%) were rated "good," and 10 schools (50%) were rated "fair." In numeracy skills, there were likewise no "excellent" ratings; 9 schools (45%) achieved a "good" rating, while 11 schools (55%) were rated "fair." In the learning quality dimension, no school was rated "excellent," 8 schools (40%) were rated "good," 10 schools (50%) "fair," and 2 schools (10%) "poor." Meanwhile, in classroom management, none achieved "excellent," 9 schools (45%) were rated "good," 10 schools (50%) "fair," and 1 school (5%) "poor." Overall, the average indicates that only 45% of schools fall into the "good" category, while the rest remain in the "fair" and "poor" categories far below the minimum quality target of 75% (Rembang District Education Report, 2024)

A preliminary survey on teachers' pedagogical competence also yielded unsatisfactory results. In terms of understanding and applying educational theory, the average teacher score was only 67.5%. The ability to design learning programs scored 66.5%, while the ability to use varied teaching methods and media stood at 65.8%. The lowest score was in organizing and conducting learning, at 60.3%, followed by the ability to conduct learning evaluations at 61.5%. Overall, the average score for teachers' pedagogical competence was only 64.3%, which is far below the expected minimum of 75% (Gunem District Education Coordination Office, 2024).

Observations and interviews with local school supervisors further confirmed that many teachers continue to rely heavily on lecture-based instruction, use limited variations of instructional media, and face difficulties in implementing active learning approaches. In fact, Ryan and Deci (2020) argue that effective learning requires active and creative student engagement, which in turn demands strong pedagogical competence from teachers.

Previous studies have demonstrated that teachers' pedagogical competence significantly affects education quality (Darling-Hammond, 2020; Shulman, 2021; Vîşcu et al., 2023). However, empirical research focusing specifically on the relationship between teachers' pedagogical competence and education quality in peripheral areas such as Gunem District remains scarce. Educational characteristics

in such areas differ substantially from those in urban settings, particularly in terms of organizational culture, infrastructure, and human resources (Molebila, 2024; Wijanarko, 2024). Therefore, this study seeks to address conceptual, contextual, and practical gaps by employing a quantitative correlational approach to examine the influence of teachers' pedagogical competence on the quality of education in public elementary schools in Gunem District, Rembang Regency.

### *Education Quality*

Education quality is a central concept in the management of quality education. Tamam (2023) defines education quality as the alignment between educational processes and the needs of learners and society. Quality encompasses input, process, and output aspects, all of which must be in harmony with stakeholder expectations. According to Siswopranoto (2022), education quality reflects the standard of educational services determined by the effectiveness of components such as the quality of educators and education personnel, facilities and infrastructure, learning interactions, and student achievement outcomes.

Sumiati and Ahmad (2021) expand this definition by emphasizing that quality is not limited to outcomes, but also includes how the educational process is implemented consistently and systematically. This includes curriculum design, student development, and institutional management. Anwar (2020) highlights the importance of a continuously implemented quality assurance system within every educational institution. Furthermore, Setiabudi, Iskandar, and Pahrudin (2024) state that education quality should be planned through curriculum design that aligns with student and labor market needs, and should be developed through innovative, collaborative, and evaluation-based educational services.

Several factors influence education quality, including teacher quality (Darling-Hammond, 2021), adaptive and contextual curricula (Fullan, 2020), adequate educational facilities and infrastructure (UNESCO, 2022), and visionary school leadership (Leithwood et al., 2020). Epstein (2020) stresses the importance of family and community involvement in supporting student learning motivation, while Ryan and Deci (2020) highlight the role of intrinsic student motivation. Other influencing aspects include educational technology (Salmon, 2022), educational policies (OECD, 2021), safe and inclusive learning environments (WHO-UNICEF, 2022), and ongoing professional development for teachers (Guskey, 2020). All of these factors must be managed in an integrated manner to significantly improve the quality of education.

### *Teachers' Pedagogical Competence*

Pedagogical competence is a core component of teacher professionalism. According to the Regulation of the Director General of GTK No. 2626/B/HK.04.01/2023, pedagogical competence refers to a teacher's ability to design, implement, and evaluate learning in accordance with students' characteristics. Hidayat, Mutaqin, and Hermawati (2024) state that this competence

is essential for supporting learning quality and can be strengthened through the use of information technology.

Sari (2018) notes that pedagogical competence is closely related to a teacher's ability to manage classrooms effectively and joyfully. Mulyasa (2015) asserts that it encompasses understanding learners, designing learning strategies, implementing active instruction, and developing student potential. Vîşcu et al. (2023) argue that pedagogical competence involves knowing how to teach effectively, tailored to the learner's needs and instructional context. Ika Sari Wantika (2024) also stresses the importance of teacher creativity and innovation in designing learning that is independent, participatory, and adaptive.

Teachers' pedagogical competence has a direct impact on the quality of education. Darling-Hammond (2020) explains that teachers who understand their students' needs and adjust their teaching strategies accordingly will achieve better learning outcomes. Shulman (2021), through his concept of Pedagogical Content Knowledge (PCK), also emphasizes the importance of integrating subject matter expertise with effective teaching strategies to improve educational quality. Therefore, improving teachers' pedagogical competence is a critical effort to ensure high-quality and relevant learning.

## 2. Methodology

This study employed a qualitative explanatory approach aimed at explaining the influence of teachers' pedagogical competence on education quality. This approach was chosen because it aligns with the research objective, namely to reveal how teachers' competence contributes to the quality of education in public elementary schools through systematic interpretation of field data. Sugiyono (2019) states that a qualitative approach emphasizes the exploration of meanings in a natural setting, with the researcher as the key instrument, while data are analyzed inductively to build understanding. This perspective is consistent with Creswell (2023), who explains that qualitative research enables scholars to examine social and educational contexts in depth and to interpret participants' experiences comprehensively. In the present study, this approach was considered appropriate since the focus is on teachers' perspectives regarding their pedagogical competence and its connection with the quality of education in their schools.

The research was conducted over five months, from March 2 to August 2, 2025, in all public elementary schools in Gunem District, Rembang Regency, Central Java Province. The population comprised 144 teachers working across these schools, and the sample of 106 teachers was determined through proportional random sampling using the Slovin formula with a 5% margin of error, ensuring proportional representation of each school. The variables examined in this study were: (1) teachers' pedagogical competence (X), which included dimensions such as understanding learners' characteristics, mastery of learning theories, curriculum development, and fostering student potential; and (2) education quality (Y), which

was measured through dimensions of educational input, learning process, and educational output.

Data were collected exclusively through a closed-ended questionnaire based on a five-point Likert scale, ranging from "strongly disagree" to "strongly agree." The questionnaire was developed from theoretical indicators of pedagogical competence and education quality. Thus, the data taken in this study consisted of teachers' responses reflecting their perceptions and practices related to pedagogical competence, as well as their assessments of education quality in their schools. Wiersma and Jurs (2015) emphasize that questionnaires are systematic and efficient tools for gathering information from a large number of respondents, making them suitable for this study. To ensure the accuracy of the instrument, a validity test using the Pearson Product Moment correlation was conducted, and all items were declared valid as their correlation coefficients exceeded the critical r-value of 0.361. Furthermore, a reliability test was carried out using Cronbach's Alpha, which produced coefficients of 0.973 for pedagogical competence and 0.951 for education quality. According to Ghozali (2016), these values demonstrate excellent reliability, meaning that the instrument has a high level of internal consistency.

The data collected from the questionnaires were subsequently processed through coding, tabulation, and statistical analysis using SPSS version 25. Prior to hypothesis testing, prerequisite tests were conducted, including the Kolmogorov–Smirnov normality test, a linearity test to confirm a linear relationship between variables, and Levene's test to examine homogeneity of variance. After fulfilling these requirements, simple linear regression analysis was performed to examine the influence of teachers' pedagogical competence on education quality. In addition, correlation analysis was applied to measure the strength of the relationship, and the coefficient of determination ($R^2$) was used to calculate the extent of teachers' pedagogical competence contribution to education quality. Through this methodological design, which integrates a qualitative explanatory approach with systematic data collection via questionnaires, the study aims to provide a clear and representative depiction of the quality of education in Gunem District and to explain the extent to which it is influenced by teachers' pedagogical competence.

## 3. Results and Discussion

At the time of the study, public elementary schools in Gunem District, Rembang Regency, were characterized by diverse conditions in terms of student demographics, facilities, and curriculum implementation. Most schools served students from rural backgrounds, with relatively heterogeneous academic abilities and socio-economic conditions. School buildings were generally adequate but varied in maintenance, with some classrooms still requiring renovation and limited access to learning media such as laboratories and libraries. The curriculum implemented was the Merdeka Curriculum, which emphasized student-centered learning, though its application faced challenges due to variations in teacher readiness and available resources. Teachers played a central role in adjusting learning strategies to meet student needs, especially given the limited digital

infrastructure in several schools. Despite these challenges, schools had established supportive learning environments, reflected in collaborative relationships among teachers and efforts to foster students' character and academic growth. This general context provides an important backdrop for understanding the perceptions and responses of teachers in this study.

The data in this study were obtained primarily through questionnaires distributed to 106 teachers from 20 public elementary schools in Gunem District. The questionnaire was designed to measure teachers' pedagogical competence and perceptions of education quality, consisting of several indicators that reflected theoretical constructs. Each teacher responded to items that captured their understanding of learners, mastery of teaching methods, curriculum implementation, and efforts to develop student potential. In addition to questionnaires, supporting data were collected through informal interviews with selected teachers and document reviews, such as school profiles and lesson plans, to strengthen the interpretation of findings. These combined methods ensured that the study not only relied on statistical responses but also captured contextual realities of teaching and learning practices in the schools. Examples of the questionnaire items used are summarized in Table 1.

Table 1. Sample Questionnaire Items

| Variable | Dimension | Sample Question Item |
|---|---|---|
| Teachers' Pedagogical Competence (X) | Understanding Learners' Characteristics | "How do you identify the different learning needs and characteristics of your students?" |
| | Mastery of Learning Theories | "To what extent do you apply learning theories in designing classroom activities?" |
| | Curriculum Development | "How do you integrate curriculum standards into your lesson plans?" |
| | Fostering Student Potential | "What efforts do you make to help students develop their talents and interests?" |
| Education Quality (Y) | Educational Input | "How would you assess the adequacy of facilities and resources available in your school?" |
| | Learning Process | "How do teaching and learning activities in your school encourage student engagement?" |
| | Educational Output | "In your view, how well do students' achievements reflect the quality of education in your school?" |

***Source**: Research questionnaire developed by the author, 2025*

The descriptive analysis in this study was conducted to describe respondents' perceptions of the two main variables: teachers' pedagogical competence (X) and education quality (Y). Data were collected through a Likert-scale questionnaire administered to 106 public elementary school teachers in Gunem District, Rembang Regency. Each respondent's score was calculated and categorized into five levels (very poor, poor, fair, good, and very good), providing a comprehensive overview of the distribution of teacher perceptions. To provide a clearer picture of the overall

responses, the statistical results including the lowest and highest scores, mean, standard deviation, and categorical interpretation for each variable are summarized in Table 2**.**

Table 2. Descriptive Statistics of Research Variables

| Variable | Lowest | Highest | Mean | Std. Deviation | Category |
|---|---|---|---|---|---|
| Education Quality (Y) | 112 | 159 | 138.00 | 10.71 | Good – Very Good |
| Teachers' Pedagogical Competence (X) | 134 | 192 | 158.52 | 12.44 | Fair – Very Good |

*Source: Processed Primary Data, 2025*

As shown in Table 2, teachers' perceptions of education quality were generally positive. Most respondents fell into the "good" (30.2%) and "very good" (34.0%) categories, with only a small portion categorized as "poor" (0.9%) and none in "very poor." This indicates that teachers perceive their schools as having adequate educational inputs, processes, and outputs. Meanwhile, teachers' pedagogical competence showed a wider spread of responses: although 28.3% of respondents were in the "good" category and 30.2% in "very good," as many as 32.1% were categorized as "fair" and 9.4% as "poor." This finding highlights that a significant portion of teachers still require systematic support to strengthen their pedagogical practices. Overall, the descriptive analysis reveals that while both variables were generally perceived positively, pedagogical competence exhibited greater variation among teachers. This gap indicates the urgent need for targeted professional development to enhance teaching effectiveness, which in turn will improve the overall quality of education.

*Dimensional Analysis*

To complement the descriptive results, each variable was examined at the dimensional level to identify which aspects were perceived as stronger and which required more attention. This analysis also served to confirm the validity of each indicator using the Pearson Product Moment correlation, with a critical r-value of 0.361 at the 5% significance level (N = 106). The results of the dimensional analysis are presented in Table 3**.**

Table 3. Dimensional Analysis of Research Variables

| Variable / Dimension | Correlation (r) | Interpretation |
|---|---|---|
| **Teachers' Pedagogical Competence (X)** | | |
| Understanding Learners' Characteristics | 0.721 | High Validity |
| Mastery of Learning Theories | 0.804 | Very High |
| Curriculum Development | 0.760 | High Validity |
| Fostering Student Potential | 0.732 | High Validity |
| **Education Quality (Y)** | | |
| Educational Input | 0.791 | Very High |
| Learning Process | 0.811 | Very High |
| Educational Output | 0.831 | Very High |

*(Source: Processed Primary Data, 2025)*

As shown in Table 3, all dimensions met the validity criteria, indicating that the instrument was consistent and reliable. For teachers' pedagogical competence, the strongest indicator was *mastery of learning theories* (r = 0.804), confirming that theoretical knowledge plays a central role in teachers' pedagogical practices (Vîşcu et al., 2023). Other dimensions such as *curriculum development* and *fostering student potential* also showed high validity, although with slightly lower values. For education quality, the highest correlation was in *educational output* (r = 0.831), reinforcing the view of Setiabudi et al. (2024) that student outcomes are the primary indicator of quality. These findings suggest that while both constructs are multidimensional, outcomes and learning theory mastery are the most emphasized aspects according to teacher perceptions.

### *Hypothesis Testing*

After confirming the validity of each dimension, the next step was to test the research hypothesis, namely whether teachers' pedagogical competence has a significant influence on education quality. To achieve this, a simple linear regression analysis was carried out, supported by correlation and determination coefficients to measure both the strength of the relationship and the proportion of variance explained. The regression results are summarized in Table 4**.**

Table 4. Results of Hypothesis Testing (Regression Analysis)

| Model | r | $R^2$ | B | t-value | Sig. | Interpretation |
|---|---|---|---|---|---|---|
| X → Y | 0.630 | 0.397 | 0.512 | 8.379 | 0.000 | Significant |

*(Source: Processed Primary Data, 2025)*

The results in Table 4 show that teachers' pedagogical competence has a strong and significant positive effect on education quality. The correlation coefficient (r = 0.630) indicates a solid relationship between the two variables, while the coefficient of determination ($R^2$ = 0.397) shows that 39.7% of the variation in education quality is explained by teachers' pedagogical competence**.** The regression coefficient (B = 0.512) with a significance value of 0.000 (< 0.05) further confirms that the effect is statistically significant. These findings highlight that improvements in pedagogical competence directly contribute to better educational quality, although more than half of the variance (60.3%) is still influenced by other external factors such as facilities, resources, and community support.

## Discussion

The findings of this study provide clear evidence that teachers' pedagogical competence significantly influences the quality of education in public elementary schools in Gunem District, Rembang Regency. The regression results showed a strong positive correlation (r = 0.630) and a determination coefficient of 0.397, meaning that nearly 40% of the variation in education quality can be explained by teachers' pedagogical competence. This indicates that competence in planning, implementing, and evaluating learning processes is not only relevant but also a determining factor in shaping the quality of education. However, the results also suggest that more than half of the variance (60.3%) is influenced by other external

factors, such as school facilities, curriculum support, policy implementation, and socio-economic conditions of the students' families.

These findings are consistent with Santi et al. (2025) and Lindawati (2025), who emphasized that pedagogical competence is a key factor that directly impacts the quality of education. Teachers with high levels of competence tend to be more innovative in designing learning activities, more adaptable in facing challenges in the classroom, and more capable of creating effective and engaging learning environments. In the context of Gunem District, where variations in teacher competence were found to be quite wide, this result highlights that schools with teachers demonstrating stronger pedagogical competence are more likely to achieve higher levels of educational quality compared to those where teachers' competencies remain in the fair-to-poor range.

The results also support the perspective of Darling-Hammond (2020), who stressed that pedagogical competence enables teachers to adjust their instructional strategies to meet diverse student needs. This adaptability is crucial for ensuring inclusive and equitable learning outcomes, particularly in heterogeneous classrooms commonly found in public schools. Similarly, Shulman (2021) underlined that pedagogical competence integrates content knowledge with the ability to transform that knowledge into effective teaching practices. In the present study, teachers who reported stronger mastery of learning theories and curriculum development were also those who tended to perceive higher levels of education quality, which resonates with Shulman's concept of *pedagogical content knowledge (PCK)*.

In practice, the implications of these findings are substantial. Teachers with higher pedagogical competence are more likely to implement varied and student-centered learning strategies, such as Problem-Based Learning (PBL), differentiated instruction, and programs that emphasize literacy and numeracy skills. Such practices not only improve the learning process but also enhance student engagement and achievement. In addition, teachers with strong pedagogical competence tend to employ more comprehensive assessment methods, combining summative, formative, and diagnostic approaches. This comprehensive assessment practice ensures that learning is continuously monitored and improved, thereby directly supporting education quality.

At the same time, the fact that a considerable proportion of teachers in this study were categorized as only "fair" or even "poor" in their pedagogical competence highlights a gap that needs to be addressed. Without systematic and sustainable professional development, the potential of teachers to positively influence education quality will remain uneven across schools. This underscores the importance of ongoing teacher training programs, mentoring, and reflective teaching practices, particularly in rural contexts where access to professional resources may be limited. Overall, the findings of this study reinforce the position of pedagogical competence as the foundation for high-quality teaching and learning. They also call for greater policy attention to teacher professional development as a strategic investment for improving education quality in public schools. By ensuring that teachers continually enhance their competence, schools

will be better equipped to provide effective learning experiences, raise student achievement, and meet broader educational goals.

## 4. Conclusion

The findings of this study highlight that teachers' pedagogical competence is an essential factor in determining the quality of education in public elementary schools in Gunem District, Rembang Regency. The results demonstrate that when teachers are able to understand the characteristics of their students, master learning theories, design and implement curriculum effectively, and foster the potential of learners, the overall quality of education tends to improve. This improvement is reflected not only in the availability and readiness of educational inputs but also in the quality of learning processes and, ultimately, in better educational outcomes.

The study also shows that, in general, teachers perceive the quality of education in their schools as good to very good. This reflects that schools are already making positive progress in ensuring effective learning environments. However, the research also reveals variations in the level of teachers' pedagogical competence. While many teachers demonstrate high levels of ability, a considerable portion are still at a moderate or low level. This uneven distribution of competence has implications for the consistency of education quality across different schools in the district. It indicates that certain schools may experience more challenges in achieving optimal outcomes because not all teachers are equally equipped with the necessary pedagogical skills.

In conclusion, the study affirms that strengthening teachers' pedagogical competence is a strategic and urgent effort to improve the quality of education. Professional development, mentoring, and reflective practices must be continuously provided so that all teachers have equal opportunities to develop their competence. Improving pedagogical competence across the board will ensure that every child has access to effective teaching, a supportive learning climate, and improved learning outcomes. Ultimately, consistent investment in teacher competence will lead to sustainable improvements in the overall quality of elementary education.

## References

Anwar, R. (2020). *Sistem Penjaminan Mutu Pendidikan di Madrasah*. Jakarta: Kencana.

Burga, R. (2019). *Pendidikan dan Nilai-nilai Kemanusiaan*. Yogyakarta: Pustaka Pelajar.

Creswell, J. W. (2021). *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research* (6th ed.). Boston: Pearson Education.

Creswell, J. W. (2023). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (6th ed.). Thousand Oaks: SAGE Publications.

Darling-Hammond, L. (2020). *The Flat World and Education: How America's Commitment to Equity Will Determine Our Future*. New York: Teachers College Press.

Darling-Hammond, L. (2021). *Quality Teaching and Learning: International Perspectives*. London: Routledge.

Efendi, T., Suwandi, M., & Harjo, S. (2022). Fungsi Pendidikan dalam Meningkatkan Kualitas Bangsa. *Jurnal Pendidikan Nasional*, 8(1), 1–15.

Epstein, J. L. (2020). *School, Family, and Community Partnerships: Preparing Educators and Improving Schools*. New York: Routledge.

Fullan, M. (2020). *The New Meaning of Educational Change*. New York: Teachers College Press.

Ghozali, I. (2016). *Aplikasi Analisis Multivariate dengan Program IBM SPSS 23* (8th ed.). Semarang: Badan Penerbit Universitas Diponegoro.

Guskey, T. R. (2020). *Evaluating Professional Development*. Thousand Oaks: Corwin Press.

Hidayat, R., Mutaqin, A., & Hermawati, E. (2024). Penguatan kompetensi pedagogik guru melalui TIK. *Jurnal Teknologi Pendidikan*, 15(1), 45–52.

Kurniati, S., & Divan, R. (2020). Implementasi nilai-nilai pendidikan karakter dalam kehidupan sehari-hari siswa. *Jurnal Pendidikan Karakter*, 10(1), 77–89.

Leithwood, K., Harris, A., & Hopkins, D. (2020). *Seven strong claims about successful school leadership revisited*. Nottingham: National College for Leadership of Schools and Children's Services.

Lindawati. (2025). Kompetensi guru dalam pelaksanaan pembelajaran berdiferensiasi di sekolah dasar. *Jurnal Pendidikan Dasar Indonesia*, 10(2), 87–98.

Molebila, J. S. (2024). Budaya sekolah dan pembentukan karakter siswa. *Jurnal Kependidikan*, 20(2), 145–153.

Mulyasa, E. (2015). *Menjadi Guru Profesional: Strategi Meningkatkan Kualifikasi dan Kualitas Guru di Era Global*. Bandung: Remaja Rosdakarya.

OECD. (2021). *Education at a Glance 2021: OECD Indicators*. Paris: OECD Publishing.

Peraturan Direktur Jenderal Guru dan Tenaga Kependidikan. (2023). *Perdirjen GTK Nomor 2626/B/HK.04.01/2023 tentang Model Kompetensi Guru*.

Ryan, R. M., & Deci, E. L. (2020). Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions. *Contemporary Educational Psychology*, 25(1), 54–67.

Salmon, G. (2022). *E-Moderating: The Key to Teaching and Learning Online*. London: Routledge.

Santi, D. R., Rapi, N. M., & Rachman, R. (2025). Pengaruh kompetensi pedagogik guru terhadap mutu pembelajaran siswa sekolah dasar. *Jurnal Ilmiah Pendidikan dan Pembelajaran*, 11(1), 42–51.

Setiabudi, S., Iskandar, & Pahrudin. (2024). Manajemen mutu pendidikan dan pengembangan kurikulum. *Jurnal Manajemen Pendidikan*, 13(1), 40–52.

Shulman, L. S. (2021). Knowledge and Teaching: Foundations of the New Reform. *Harvard Educational Review*, 57(1), 1–22.

Siswopranoto, D. (2022). Mutu pendidikan dan manajemen pembelajaran. *Jurnal Ilmu Pendidikan dan Pengajaran*, 12(3), 57–66.

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

Suwartini, T. (2017). Pengaruh kompetensi guru terhadap hasil belajar siswa di sekolah dasar. *Jurnal Pendidikan Guru Sekolah Dasar*, 2(4), 27–35.

Tamam, H. (2023). Konsep mutu dalam sistem pendidikan. *Jurnal Mutu Pendidikan*, 18(1), 12–24.

Triatna, C. (2016). *Manajemen Pendidikan: Konsep, Strategi dan Aplikasi dalam Pengembangan Mutu Sekolah*. Bandung: Remaja Rosdakarya.

UNESCO. (2022). *Global Education Monitoring Report 2022: Technology in Education*. Paris: UNESCO Publishing.

Wantika, I. K. (2024). Kompetensi pedagogik yang harus dimiliki guru di era Merdeka Belajar. *Jurnal Guru Indonesia*, 5(1), 55–63.

Vîşcu, L., Runcan, P. L., & Năstasă, L. E. (2023). Pedagogical competence and effective teaching. *Procedia – Social and Behavioral Sciences*, 90, 90–95.

WHO-UNICEF. (2022). *Safe to Learn: Ending Violence in and Through Schools*. New York: UNICEF.

Wiersma, W., & Jurs, S. G. (2015). *Research Methods in Education: An Introduction* (10th ed.). Boston: Pearson.

Wijanarko, P. (2024). Prinsip pengembangan budaya sekolah. *Jurnal Administrasi Pendidikan*, 11(2), 132–141.

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