

Optimizing Human Capital in School Management: The Principal's Role in Enhancing Educational Service Effectiveness

Stefen Res Lanmai*, Bambang Ismanto, & Wasitohadi

Master of Education Administration Study, Satya Wacana Christian University Salatiga, Indonesia

*Corresponding email: stefenrlanmai@gmail.com

Received: 16 February 2025

Accepted: 28 February 2025

Published: 23 April 2025

Abstract: Optimizing Human Capital in School Management: The Principal's Role in Enhancing Educational Service Effectiveness. This research evaluates school principals' performance in improving education quality through a human capital approach. School principals have a strategic role in managing school human resources to create effective and quality educational services. This research uses a qualitative approach with evaluative methods to analyze the implementation of human capital at Lentera Ambarawa Christian Elementary School. The research results show that strategies for increasing the competency of teaching staff, optimizing administrative staff, and implementing a data-based evaluation system contribute to improving the effectiveness of schools as public services. However, there are still challenges in strengthening the reward system and continuous training for education staff. Therefore, a more systematic and sustainable human capital management policy is needed to ensure that every policy implemented positively impacts the quality of education.

Keywords: principal, human capital, education quality, performance evaluation, public services.

To cite this article:

Lanmai, S. R., Ismanto, B., & Wasitohadi. (2025). Optimizing Human Capital in School Management: The Principal's Role in Enhancing Educational Service Effectiveness. *Jurnal Pendidikan Progresif*, 15(1), 475-484. doi: 10.23960/jpp.v15i1.pp475-484.

■ INTRODUCTION

A country's growth is influenced by education. Education is critical because it prepares helpful human resources for the nation. The state has a role in improving human resources quality. Globally, one indicator of competition between countries is the quality of education. The quality of education is a top priority in state management. School principals, as leaders, have the duty and function of supporting the government in improving the quality of human resources. The competence of school principals needs to be considered to maximize the quality of education and learning. (Pardosi & Utari, 2022; Shen et al., 2021).

The competency of school principals in efforts to develop human resources is relatively

low. Statistical data shows that there are always challenges in developing human resources in the Ambarawa area, Semarang Regency. Based on a survey by the Education Department of Central Java Province, 35% of school principals have not participated in competency enhancement activities. This has an impact on the professionalism and quality of school management. In addition, data was also found that 15% of principals often do not attend school, which will lower teachers' performance because there is no one to supervise them.

That weakness significantly impacts teachers' competence. Teachers cannot work optimally. According to the report, only 60% of teachers receive regular coaching from the Principal regarding competency improvement and

the learning process. The principal plays an important role (Shen et al., 2021). Therefore, investing in education by preparing school principals as skilled personnel with good leadership skills will positively impact the school's development (Fisher, 2021).

The principal has a strategic role in leadership and forming an effective learning ecosystem, not just administrative tasks. The principal needs to prepare strategic programs to improve quality, think about enhancing the teaching profession, and build a school climate to increase learning comfort, creativity, and innovation. (Parveen et al., 2022). The view on the importance of human capital becomes crucial at this point. Human capital in two aspects, namely educators as capital in teaching, and students as capital for the future of the nation (Semenova et al., 2021).

Human resource management emphasizes investing in human capital by organizing coaching, workshops, and in-house training to improve service effectiveness, efficiency, and productivity. Education emphasizes human capital to optimize learning by viewing teachers and students as assets. (Boon et al., 2018) Bellibas et al. (2021) emphasize that improving the competencies of school principals and teachers will automatically impact student learning outcomes. (Belliba^o et al., 2021).

Several previous studies have analyzed the role of school principals as leaders and their impact on the quality of education. DeMatthews (2021) stated that principals who adopt transformational leadership patterns enhance teachers' motivation and work behavior. (DeMatthews et al., 2021) Consequently, student achievement will improve. Jacobson and Sowa (2015) view human capital as an educational asset that shapes and realizes values and organizational patterns, leading to productivity, effectiveness, and efficiency in program implementation. (Jacobson & Sowa, 2015; Wright, 2021).

This research is based on several theories about human capital. First, the Human Capital Advantage Theory by Lepak and Snell states that personnel management strategies and competency differentiation influence an educational institution's competitive advantage. (Lepak & Snell, 2002). Second, the classical theory developed by Guest (2021) that human competence, if invested in various education and training, will yield a more significant economic impact. (Guest et al., 2021). Third, Chen et al. (2002) explain that human capital is part of intellectual capital that includes an individual's skills, experience, and innovation in developing their business. (Chen et al., 2021).

The Human Capital Advantage (HCA) theory by Lepak and Snell (2021) seems adaptable in schools. This theory emphasizes personalized management strategies and talent differentiation as the basis of human capital. The principal ensures that each teacher works according to their competencies, talents, and interests, not just assigning tasks. A clear division of tasks will support the effectiveness of learning. That approach will help the school become a quality, adaptive, innovative, competitive institution.

Several studies focusing on school principal leadership have been conducted. (Belliba^o et al., 2021; Fisher, 2021). The principal, as the school administration manager (Shen et al., 2021), functions as a supervisor for all activities (Suryani et al., 2021), ensuring that the learning process runs smoothly (Brauckmann et al., 2023), and guarantees the sustainability of the school (Pardosi & Utari, 2022). However, perspectives on strategic management based on human capital have not been widely found. Previous research focused on leadership in general and did not specifically analyze the role of humans within the organization. Therefore, further research is needed regarding the position of the principal as human capital in order to improve the quality of education.

The research aims to find the relationship between the human capital of school principals to improve the quality of education. The focus of this study is the role of the principal in improving the competence of educators, enhancing the competence of administrative staff, and improving the data-based evaluation system so that the school is publicly recognized for its quality (Boon et al., 2018). This research contributes to improving education quality by developing the competencies of school principals based on human capital to enhance the effectiveness of schools as public services.

This research can serve as a reference for education stakeholders to build a commitment to human resource-based school development. Human capital adapted in schools will enhance educators' competencies and create a comfortable and practical learning environment. (Ahmed et al., 2021). Practically, the Principal can use the results of this research as corrective actions in human resource management. A correct understanding of improving education quality helps school principals formulate more adaptive, responsive, and needs-based visions, missions, and programs for teachers and students. (Rodchenko et al., 2021). This research emphasizes the importance of the principal's role in leadership and its impact on the quality of education.

■ METHOD

This research is qualitative with an evaluative design, aiming to delve into the phenomenon of school principal leadership. (Hirose & Creswell, 2023). The Discrepancy Evaluation Model (DEM) was used to conduct the evaluation. This model aims to identify the gap between factual conditions and established standards. (Mustafa, 2021). The subjects of this study were determined using a purposive sampling technique. They consisted of the Principal, teachers, and

administrative staff who have worked for over five years at SD Kristen Lentera Ambarawa, Semarang Regency, Central Java.

Data was collected through interviews, observations, and document studies. Interviews were conducted to obtain in-depth information about the principal's leadership. Observation is conducted to observe the interactions between the principal, teachers, administrative staff, and students. Meanwhile, document studies were conducted to find information related to the principal's performance, reports, supervision results, and standard operating procedures implemented in the school (Mackiewicz, 2018).

Data analysis was conducted using the Miles-Huberman thematic coding method, where data was collected, reduced, presented, and concluded. Source and technique triangulation were conducted to determine the validity and reliability of the data. With triangulation, the data that has been concluded can be proven valid. This approach helps education policymakers and school principals build commitment to improving the quality of education, where, in practice, school principals have sufficient insight to make decisions based on human capital principles.

■ RESULT AND DISCUSSION

The Discrepancy Evaluation Model (DEM) is used to evaluate the performance of the principal of SD, Kristen Lentera Ambarawa, to improve the quality of education. The purpose of this model is to identify discrepancies between program planning and implementation based on the following five dimensions: the existence of management standards, performance quality, reasons for gaps, and risk mitigation or corrective actions. This study found gaps between school leadership, poor administration, low academic quality, and a lack of improvement in educator competencies, as shown in the following table.

Table 1. Factual situation of leadership management and human capital of lentera christian elementary school, ambarawa, academic year 2023/2024

Aspect	Factual Situation	Reason	Gap	Corrective Action
<i>Principal Leadership</i>	The school's vision and mission have been formulated, but implementation is not yet optimal.	Lack of socialization among educators	There is no control mechanism to ensure the implementation of the vision and mission.	Conduct internalization training of vision and periodic monitoring.
<i>Administration Management</i>	75% of administrative systems are digitalized, but their use is not yet evenly distributed	Lack of training of administrative staff	Most administrative staff still use manual methods for recording.	Conducting regular digital administration training
<i>Academic Quality</i>	80% of teachers have attended training, but only 40% apply innovative methods	Lack of post-training mentoring	No evaluation system measures the impact of training on teaching quality.	Form an academic supervision team that provides regular feedback.
<i>Professional Development</i>	85% of teachers have attended training, but the impact evaluation has not been optimal	The evaluation is still administrative	Lack of follow-up plans to improve training effectiveness	Develop a mentoring program based on best practices and learning reflection
<i>Quality of Service</i>	70% of school services are rated good by parents, but communication systems are still ineffective	Lack of integrated information systems	There are still delays in delivering academic information to parents.	Developing school communication applications and regular discussion forums

In the dimension of standard recognition, the reference document is the Minister of Education and Culture Regulation Number 13 of 2017 concerning the competencies of school principals, namely personality, managerial, supervisory, and social competencies. In line with that, the Minister of Education and Culture Regulation Number 6 of 2018 outlines that the principal's management strategy must be accurate and data-based to improve the quality of human

resources. Thus, it appears that the government requires school principals to have a strong vision for developing schools, strengthening data-based evaluation systems, and improving the quality of learning.

In the performance measurement process, SD's principal, Kristen Lentera Ambarawa, has formulated and adopted several special programs to improve the quality of education but has never been free from problems. Regarding strategic

leadership, only 65% of the teaching staff understand the school's vision and mission. As a result, the synergy in program implementation has decreased. Similarly, in terms of administrative management, 40% of administrative staff are not proficient in using digital technology due to a lack of technical support and in-depth training.

Only 50% of academic teachers are sufficiently active in implementing technology-based learning processes. Insufficient training and support and limited facilities are the reasons for these weaknesses. Meanwhile, regarding teacher professionalism, over the past two years, it was found that only 60% participated in various training sessions, and only 30% experienced significant changes in their teaching methods after the training.

This research found a difference in gap identification between field conditions and the national education standards set by the government. The internalization of vision and mission is the first factor related to the leadership gap. DeMathews (2021) emphasizes that school principals must possess the competence to realize the educational vision into various concrete programs accessible to all school community members.

In administrative management, a gap was found in the utilization of technology in administration. Fernández-Batanero et al. (2022) found that technology applied in administration would improve school quality by 30% (Fernández-Batanero et al., 2022). Technology utilization is entirely lacking, compounded by limited training and administrative staff who are resistant to change.

The most apparent gap in academics is the inability to access technology in learning. Gisbert and Chaena's (2022) research shows that the effectiveness of student learning increases by 20% when technology is integrated into the learning process. (Gisbert Cervera & Caena, 2022) The digital-technology competence of the educators determines effectiveness. SD Kristen Lentera's

reality shows limitations in using technology because training and adequate facility preparation have not been conducted.

The gap found in professional development is the lack of a data-based evaluation system to measure the effectiveness of training. A study by Sancar et al. (2021) shows that training attended by educators is only practical if followed by a transparent evaluation system to measure its impact on improving teacher competence. (Sancar et al., 2021; Teo et al., 2021) SD Kristen Lentera Ambarawa has conducted training, but no precise mechanism exists to evaluate its effectiveness in improving teaching skills.

In analyzing the causes of the gap, several key factors were found that create a disparity between reality and standards. Less strategic leadership is characterized by weak educational implementation strategies, limited administrative staff's ability to use technology, becoming a significant disruption for school administration management, and the lack of teacher training, resulting in a further decline in the optimization of the use of provided facilities.

This research suggests several corrective actions to address the identified gaps. Regarding leadership strategy, the principal must establish effective communication to implement the school's vision and mission. Intensive and periodic training for administrative staff needs to be conducted to enhance skills in managing school administration (Waziana et al., 2022). Academically, training in learning technology must be conducted at least twice a year so teachers can refresh their knowledge and teaching skills. Meanwhile, in terms of professional development, strengthening the evaluation and monitoring of activity implementation, complemented by deep reflection, will enhance the quality of educational services.

Based on that context, the school needs to implement the Human Capital Advantage theory (Lepak & Snell, 2021), which states that personnel management should be based on an

individual's competencies and talents. SD's principal, Kristen Lentera Ambarawa, needs to optimize and strengthen educators' competencies by organizing various workshops and in-house training related to learning technology, teaching methods, curriculum, and interpersonal and social relations. (Blimpo & Pugatch, 2021).

This research emphasizes human capital's role in improving education quality. Cooke (2021) states that human capital is an investment that never fails. (Cooke et al., 2021). Investing in people as capital helps improve the quality of education and the country's international standing. SD Kristen Lentera Ambarawa has not yet paid detailed attention to this aspect. The optimization of coordination and the delineation of educators' tasks have not been well organized.

In summary, this research simply shows that SD Kristen Lentera Ambarawa's principal's efforts to improve the quality of education have been made, although gaps still exist. Applying DEM and Human Capital theory has significantly impacted school quality improvement. By managing human resources as a strategic decision, the quality of education can be ensured.

The implementation of human capital at SD Kristen Lentera Ambarawa has shown a significant improvement in the quality of education. Based on the Human Capital Advantage theory, developing personnel based on competencies and talents improves the quality of educational services, affecting learning effectiveness. Riset Hanusek (2020) affirms that human capital investment positively impacts teacher work motivation and educational outcomes. (Wright, 2021).

On the other hand, the principal needs to conduct academic supervision regularly. Undeniably, academic supervision will enhance teachers' work professionalism. Singer (2021) states that academic supervision, if conducted regularly and consistently, will impact the improvement of student learning outcomes. (Singerin, 2021). SD Kristen Lentera Ambarawa

has implemented this approach. Educators are encouraged to develop themselves, and students are more motivated to learn.

However, this research also proves the inconsistency between school training for teachers and its implementation in the classroom. Günçavdi-Alabay (2023) explains that all training must be accompanied by continuous monitoring to maintain the sustainability of teacher professionalism. (Günçavdi-Alabay, 2023) In reality, the teachers at SD Kristen Lentera Ambarawa find it quite difficult to use digital technology in the classroom. Practical training needs to be organized and equipped with sufficient infrastructure.

Educators and staff collaborate with the principal in making various strategic decisions. It appears that a participatory and inclusive organizational culture is being developed. Leitwoth (2023), in his research, found that a positive correlation can be formed if the principal creates participatory and inclusive relationships with teachers and staff. (Gómez Hurtado et al., 2021) If the school principal implements this system, the sense of belonging and working climate at Lentera Christian Elementary School, Ambarawa, will be enhanced and more conducive.

The effectiveness of school programs is also determined by administrative staff. Günçavdi-Alabay (2023), in his study, found that the role and position of administrative staff in school management is very central. The competence and professionalism of administrative staff also determine management quality. Increasing the competency of the administrative staff at Lentera Ambarawa Christian Elementary School needs to be improved to reduce the gap between plans and program actualization in the field. Training programs and adequate facilities will increase their role as operational personnel supporting school management.

Data-based evaluation also needs to be implemented in schools. Implementing various

contextual evaluation models also determines the success of school management. Sánchez-Santamaría et al. (2021) found that an evaluation was conducted to determine the school's weaknesses and strengths. If deficiencies are found that can reduce school performance, school policies can be improved. (Sánchez-Santamaría et al., 2021). Lentera Ambarawa Christian Elementary School has implemented this system, but the optimization of the model, system, and evaluation criteria needs to be corrected and improved.

External factors can also influence school management's quality, namely parents' involvement. Parents' support in terms of funds, facilities, and opinions through joint meetings or other support has a significant influence on school development. (Yang et al., 2023). Lentera Ambarawa Christian Elementary School must optimize parental participation in children's education. Another strategy that can be implemented is the internalization of local wisdom into the curriculum. Learning becomes more relevant to the students' conditions. Suprpto et al. (2021) stated that learning aligned with the local culture will motivate students to learn because the learning process is derived from the culture they experience daily. (Suprpto et al., 2021) SD Kristen Lentera Ambarawa has already implemented the local culture-based curriculum. However, further analysis is needed so that the values, programs, and activities integrated into the curriculum can meet the needs of the school's predominantly plural context.

This research emphasizes the role of the principal in human capital management in improving the quality of SD Kristen Lentera Ambarawa. The indicators of leadership effectiveness are marked by the ability to manage human capital within the teachers who are willing to continuously develop their work professionalism, more efficient administrative management, and the overall sustainability of the institution. However, several challenges still need

to be addressed, such as developing data-driven programs and evaluations, implementing digital technology, and collaborating with parents and other educational stakeholders. By implementing human capital management responsibly, school principals indirectly maintain the integrity and sustainability of educational institutions. (Sánchez-Santamaría et al., 2021).

■ CONCLUSION

This research shows the role of the principal in improving school quality by managing human resources. Effectiveness is marked by quality human resources, well-skilled administrative staff, supportive infrastructure, technology-based administrative management, and a systematic data-driven evaluation model. The optimization of educators' performance is addressed by conducting needs-based training. Internalizing local cultural values into the curriculum also becomes an attraction that boosts learning motivation. Collaboration with parents is enhanced. Strengthening these aspects must be vigorously implemented, ensuring that the quality of education continues to improve, students achieve outstanding performance, public trust increases, and the institution's sustainability is maintained.

■ REFERENCES

- Ahmed, Z., Nathaniel, S. P., & Shahbaz, M. (2021). The criticality of information and communication technology and human capital in environmental sustainability: Evidence from Latin American and Caribbean countries. *Journal of Cleaner Production*, 286, 125529. <https://doi.org/10.1016/j.jclepro.2020.125529>
- Belliba^o, M. ^a., Gümü^o, S., & Liu, Y. (2021). Does school leadership matter for teachers' classroom practice? The influence of instructional leadership and distributed leadership on instructional quality. *School Effectiveness and School Improvement*,

- 32(3), 387–412. <https://doi.org/10.1080/09243453.2020.1858119>
- Blimpo, M. P., & Pugatch, T. (2021). Entrepreneurship education and teacher training in Rwanda. *Journal of Development Economics*, 149(March 2020), 102583. <https://doi.org/10.1016/j.jdeveco.2020.102583>
- Boon, C., Eckardt, R., Lepak, D. P., & Boselie, P. (2018). *Integrating strategic human capital and strategic human resource management. International Journal of Human Resource Management*, 29(1), 34–67. <https://doi.org/10.1080/09585192.2017.1380063>
- Brauckmann, S., Pashiardis, P., & Ärlestig, H. (2023). Bringing context and educational leadership together: fostering the professional development of school principals. *Professional Development in Education*, 49(1), 4–15. <https://doi.org/10.1080/19415257.2020.1747105>
- Chen, M. Y. C., Lam, L. W., & Zhu, J. N. Y. (2021). Should companies invest in human resource development practices? The role of intellectual capital and organizational performance improvements. *Personnel Review*, 50(2), 460–477. <https://doi.org/10.1108/PR-04-2019-0179>
- Cooke, F. L., Xiao, M., & Chen, Y. (2021). Still in search of strategic human resource management? A review and suggestions for future research with China as an example. *Human Resource Management*, 60(1), 89–118. <https://doi.org/10.1002/hrm.22029>
- DeMatthews, D., Carroll, P., Reyes, P., & Knight, D. (2021). School leadership burnout and job-related stress: recommendations for district administrators and principals. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 94(4), 159–167. <https://doi.org/10.1080/00098655.2021.1894083>
- Fernández-Batanero, J. M., Montenegro-Rueda, M., Fernández-Cerero, J., & García-Martínez, I. (2022). Digital competencies for teacher professional development. Systematic review. *European Journal of Teacher Education*, 45(4), 513–531. <https://doi.org/10.1080/02619768.2020.1827389>
- Fisher, D. (2021). Educational leadership and the impact of societal culture on effective practices. *Journal of Research in International Education*, 20(2), 134–153. <https://doi.org/10.1177/14752409211032531>
- Gisbert Cervera, M., & Caena, F. (2022). Teachers' digital competence for global teacher education. *European Journal of Teacher Education*, 45(4), 451–455. <https://doi.org/10.1080/02619768.2022.2135855>
- Gómez Hurtado, I., Valdés, R., González Falcón, I., & Vargas, F. J. (2021). Inclusive leadership: Good managerial practices to address cultural diversity in schools. *Social Inclusion*, 9(4), 69–80. <https://doi.org/10.17645/si.v9i4.4611>
- Guest, D. E., Sanders, K., Rodrigues, R., & Oliveira, T. (2021). Signaling theory as a framework for analyzing human resource management processes and integrating human resource attribution theories: A conceptual analysis and empirical exploration. *Human Resource Management Journal*, 31(3), 796–818. <https://doi.org/10.1111/1748-8583.12326>
- Günçavdi-Alabay, G. (2023). The correlation between school administrators' solution-focused approach and conflict management strategies. *African Educational Research Journal*, 11(1), 64–73. <https://doi.org/10.30918/aerj.111.23.012>
- Hirose, M., & Creswell, J. W. (2023). Applying core quality criteria of mixed methods

- research to an empirical study. *Journal of Mixed Methods Research*, 17(1), 12–28. <https://doi.org/10.1177/15586898221086346>
- Jacobson, W. S., & Sowa, J. E. (2015). Strategic human capital management in municipal government. *Public Personnel Management*, 44(3), 317–339. <https://doi.org/10.1177/0091026015591283>
- Lepak, D. P., & Snell, S. A. (2002). Examining the human resource architecture: the relationships among human capital, employment, and human resource configurations. *Journal of Management*, 28(4), 517–543. <https://doi.org/10.1177/014920630202800403>
- Mackiewicz, J. (2018). A mixed-method approach. In *Writing Center Talk over Time*. <https://doi.org/10.4324/9780429469237-3>
- Mustafa, P. S. (2021). *Model Discrepancy sebagai Evaluasi Program Pendidikan*. *Palapa*, 9(1), 182–198. <https://doi.org/10.36088/palapa.v9i1.1067>
- Pardosi, J., & Utari, T. I. (2022). Effective principal leadership behaviors to improve teacher performance and student achievement. *F1000Research*, 10, 1–29. <https://doi.org/10.12688/f1000research.51549.2>
- Parveen, K., Quang Bao Tran, P., Kumar, T., & Shah, A. H. (2022). Impact of principal leadership styles on teacher job performance: an empirical investigation. *Frontiers in Education*, 7(May). <https://doi.org/10.3389/educ.2022.814159>
- Rodchenko, V., Rekun, G., Fedoryshyna, L., Roshchin, I., & Gazarian, S. (2021). The effectiveness of human capital in the context of the digital transformation of the economy: The case of Ukraine. *Journal of Eastern European and Central Asian Research*, 8(2), 202–213. <https://doi.org/10.15549/jeecar.v8i2.686>
- Sancar, R., Atal, D., & Deryakulu, D. (2021). A new framework for teachers' professional development. *Teaching and Teacher Education*, 101, 103305. <https://doi.org/10.1016/j.tate.2021.103305>
- Sánchez-Santamaría, J., Boroel-Cervantes, B. I., López-Garrido, F. M., & Hortigüela-Alcalá, D. (2021). Motivation and evaluation in education from the sustainability perspective: A review of the scientific literature. *Sustainability (Switzerland)*, 13(7), 1–19. <https://doi.org/10.3390/su13074047>
- Semenova, V. V., Zelenyuk, A. N., & Savinov, Y. A. (2021). Human capital development: development of professional competencies through soft skills. *Revista Tempos e Espaços Em Educação*, 14(33), e15253. <https://doi.org/10.20952/revtee.v14i33.15253>
- Shen, J., Ma, X., Mansberger, N., Wu, H., Palmer, L. A. B., Poppink, S., & Reeves, P. L. (2021). The relationship between growth in principal leadership and growth in school performance: The teacher perspective. *Studies in Educational Evaluation*, 70(April), 101023. <https://doi.org/10.1016/j.stueduc.2021.101023>
- Singerin, S. (2021). The impact of academic supervision on teacher pedagogical competence and teacher performance: the role moderating by teacher efficacy. *International Journal of Elementary Education*, 5(2), 496. <https://doi.org/10.23887/ijee.v5i3.34072>
- Suprpto, N., Prahani, B. K., & Cheng, T. H. (2021). Indonesian curriculum reform in policy and local wisdom: Perspectives from science education. *Jurnal Pendidikan IPA Indonesia*, 10(1), 69–80. <https://doi.org/10.15294/jpii.v10i1.28438>
- Suryani, E. L., Sudharto, S., & Roshayanti, F. (2021). *Pengaruh gaya kepemimpinan*

dan supervisi kepala sekolah terhadap persepsi kompetensi pedagogik guru sekolah dasar di kecamatan suruh kabupaten semarang. *Jurnal Manajemen Pendidikan (JMP)*, 10(1). <https://doi.org/10.26877/jmp.v10i1.9431>

- Teo, T., Unwin, S., Scherer, R., & Gardiner, V. (2021). Initial teacher training for twenty-first-century skills in the Fourth Industrial Revolution (IR 4.0): A scoping review. *Computers and Education*, 170(April), 104223. <https://doi.org/10.1016/j.compedu.2021.104223>
- Waziana, W., Andewi, W., & Suningsih, S. (2022). Analysis of the role of education personnel in school administration. *JLCedu (Journal of Learning and Character Education)*, 2(2), 43–54. <https://doi.org/10.56327/jlcedu.v2i2.41>
- Wright, P. M. (2021). Rediscovering the “Human” in strategic human capital. *Human Resource Management Review*, 31(4), 100781. <https://doi.org/10.1016/j.hrmr.2020.100781>
- Yang, D., Chen, P., Wang, K., Li, Z., Zhang, C., & Huang, R. (2023). Parental involvement and student engagement: a review of the literature. *Sustainability (Switzerland)*, 15(7), 1–17. <https://doi.org/10.3390/su15075859>