

Digital Competence of Teachers in Enhancing Professional Performance: A Phenomenological Study

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Abstract: This study explores the role of teachers' digital competence in enhancing professional performance in secondary education. Employing a qualitative phenomenological approach, data were collected through interviews, observations, and documentation involving teachers and school management personnel. The findings reveal that digital competence significantly contributes to learning effectiveness, innovation in teaching strategies, and administrative efficiency. Teachers with high levels of digital literacy tend to be more adaptive to educational technology and more active in digital-based learning environments. However, challenges such as limited infrastructure, unequal access to training, and varying levels of motivation remain obstacles. The study concludes that continuous development of digital competence and strong institutional support are essential to sustain teacher performance in the digital era

Keywords: digital competence, teacher performance, educational technology, innovation, qualitative research.

Introduction

Along with the advancement of the times and the rapid development of information technology, learning systems and teaching methods have undergone significant changes (Ria Furmaisuri et.al, 2025). Teachers are no longer merely transmitters of information; they now serve as facilitators, innovators, and motivators capable of creating interactive learning environments that adapt to technological progress (Riswanto, 2024). In the context of modern education, teachers are required to possess comprehensive qualifications and competencies, including pedagogical, personal, social, and professional competencies (Hasna Setyaningrum, 2025). This requirement is reinforced in Law No. 14 of 2005 on Teachers and Lecturers, which stipulates that teachers must have academic qualifications, competencies, educator certification, and sound physical and mental conditions in order to achieve national education goals (Saadah Lubis, 2012).

The development of information and communication technology (ICT) has had a major

impact on all aspects of life, including the field of education. The Electronic Information and Transactions Law (ITE Law) serves as the legal foundation governing the use of digital technology in Indonesia. This law not only protects the digital activities of citizens but also regulates ethical use of technology within the education sector and learning processes. Through an understanding of this regulation, teachers are expected to use technology wisely to support teaching and learning, while also instilling a sense of digital responsibility in students (Astri Aprilianti, 2024)

In the context of teacher professionalism, mastery of digital technology has become a key indicator of professional competence. Nevertheless, a number of teachers are still found to lack optimal skills in the use of educational technology. The Fourth Industrial Revolution, which marks the era of digitalization, has driven a paradigm shift in education toward a cyber-based system, where teaching and learning activities rely heavily on digital devices and online platforms. Consequently, teachers are required to effectively integrate technology into the planning, implementation, and

evaluation of instruction.

Professional teachers are those who are able to adapt to changing times by continuously developing their skills and creativity. According to (Pawartani & Suciptaningsih, 2024), teachers must understand students' individual needs and design engaging learning experiences through digital approaches. Strong competencies enhance the quality of instructional services and improve students' learning outcomes. However, competency development cannot occur instantly; it requires structured coaching strategies, continuous training, and strong institutional support (Agung et al., 2024).

The school principal plays a central role in teacher competency development. As an educational leader, the principal is responsible for conducting supervision, coaching, and monitoring of teaching practices within the school (Rositasari et al., 2024). Through routine supervision activities and the establishment of the Continuous Teacher Development Team (PGB), principals can identify teachers' needs, monitor their progress, and provide the necessary guidance and support (Murtiningsih & Utami, 2024).

The results of observations and interviews conducted on October 12, 2023, at SMP Negeri 3 Palopo indicate that teachers' digital competence has not yet reached an optimal level. Several teachers still experience difficulties in using digital devices such as laptops, computers, and technology-based learning media. Although the school has implemented regular training and evaluation programs, their application has not been fully effective. (Rositasari et al., 2024) This condition affects teachers' performance in the learning process, particularly in the aspects of planning, implementation, and evaluation (Yayasan et al., n.d.).

Given this phenomenon, it is necessary to conduct an in-depth study to analyze the extent to which teachers' digital competence influences their performance in teaching activities. This research also aims to identify the opportunities and challenges faced by teachers in developing their digital skills and to formulate appropriate strategies for improving learning effectiveness in the digital era. Therefore, the main objective of this study is to analyze teachers' digital competence in enhancing professional performance at SMP Negeri 3 Palopo

Materials and Methods

Study area

The study was conducted at SMP Negeri 3 Palopo, located on Andi Kambo Street, Wara District, Palopo City, South Sulawesi Province. This school is one of the pioneering junior secondary education institutions actively implementing digital-based learning. The school environment is situated in an urban area with access to information technology facilities, such as school internet networks, computer devices, and classroom projectors. The site was selected based on the consideration that SMP Negeri 3 Palopo has made significant efforts to integrate digital technology into the learning process but continues to face challenges in ensuring equal levels of digital competence among teachers. These conditions make the school an appropriate setting for an in-depth exploration of how teachers' digital competence influences their professional performance in teaching activities.

Procedures

1. Research Approach

This study employs a descriptive qualitative approach using a field research design. This approach was chosen to provide an in-depth description of phenomena related to teachers' digital competence in enhancing their professional performance at SMP Negeri 3 Palopo. A phenomenological approach was applied to enable the researcher to directly understand teachers' lived experiences and realities in integrating digital technology into the learning process. Meanwhile, the descriptive approach was used to present empirical facts regarding the forms of digital competence, strategies for improvement, and their influence on teacher performance at the school.

The main focus of this study lies in analyzing teachers' digital competence in improving their performance, which encompasses three key aspects: (1) teachers' ability to understand, use, and integrate digital technology into the learning process; (2) strategies implemented to enhance digital competence in support of effective performance; and (3) internal and external factors influencing the development of teachers' digital competence,

including the opportunities and challenges encountered within the school environment.

In this context, teachers' digital competence is defined as the ability to effectively utilize information technology in learning activities from understanding digital tools and using educational applications to adapting to technological developments. Meanwhile, teacher performance refers to the ability and effectiveness of teachers in carrying out their professional duties, including lesson planning, implementation, evaluation, and contribution to improving the quality of education in the school.

The research design was structured through four stages: (1) planning, which included determining the topic, location, and preparation of research instruments; (2) data collection in the field; (3) data analysis based on interviews, observations, and documentation; and (4) drawing conclusions aligned with the objectives of the study.

2. Data Collection

Data collection was conducted using three techniques: observation, interviews, and documentation. Observation was carried out to directly examine the implementation of digital-based learning at the school. Interviews were conducted with the principal and teachers to gather information regarding their understanding, application, and development of digital competence. Meanwhile, documentation was used to obtain additional evidence in the form of activity records, photographs, and relevant school archives.

3. Data Sources and Instruments

The data sources in this study consist of primary and secondary data. Primary data were obtained directly through interviews with the principal, teachers, and students of SMP Negeri 3 Palopo, while secondary data were derived from documents, books, journals, and other relevant sources that serve as supporting and comparative materials.

4. Data Validation

The validity of the data was ensured through triangulation techniques, which included source triangulation, technique triangulation, prolonged engagement, and member checking. Source triangulation was carried out by comparing information obtained from the principal, teachers,

and students, while technique triangulation was conducted by combining interviews, observations, and documentation methods.

Data analysis

Data analysis was conducted using the interactive model of Miles and Huberman, which consists of three stages: (1) data reduction, the process of simplifying and selecting essential data relevant to the research focus; (2) data display, the systematic organization of information to facilitate understanding; and (3) conclusion drawing and verification, which involves formulating concise findings and ensuring data accuracy through rechecking with the informants.

Results and Discussion

Results and Discussion should be written as a series of connecting sentences, however, for manuscript with long discussion should be divided into subtitles. Results should be clear and concise.

Digital Competence of Teachers at SMP Negeri 3 Palopo

Based on interviews with the principal, teachers, and students, it was found that most teachers at SMP Negeri 3 Palopo have demonstrated a relatively good level of digital competence. The teachers are able to operate digital devices such as laptops, LCD projectors, and other technology-based learning media. The COVID-19 pandemic served as a major catalyst that accelerated teachers' ability to adopt online learning technologies and utilize various digital platforms in teaching and learning activities.

The principal stated that teachers are regularly encouraged to enhance their digital skills through internal training sessions and mentorship programs. These activities are conducted periodically through a learning community platform, where teachers share experiences, discuss challenges, and explore new technologies for classroom instruction.

However, some senior teachers still face difficulties adapting to technological advancements due to age-related factors and limited information

technology infrastructure. Teachers also reported that the principal conducts weekly evaluations of teachers' digital performance and provides direct feedback. These evaluations aim to ensure continuous improvement in the integration of technology into the learning process.

In addition, collaboration with parents is established through a digital parenting group, which facilitates communication among teachers, parents, and students regarding learners' academic progress.

Table 1. Indicators of Teachers' Digital Competence at SMP Negeri 3 Palopo

Indicator	Description
Digital literacy	Teachers are able to use laptops, projectors, and digital media in the learning process.
Professional development	Teachers regularly participate in digital training and workshops.
Collaboration	There is coordination with parents and digital-based learning communities.
Challenges	Limited ICT facilities and adaptation difficulties among senior teachers.

(Source: Field Interview Results, November 2024)

The Influence of Digital Competence on Teacher Performance

The second finding indicates that digital competence has a positive impact on improving teacher performance at SMP Negeri 3 Palopo. Teachers employ various learning strategies such as discussion, demonstration, and digital presentations using LCD projectors and multimedia tools. One teacher mentioned that discussion-based learning encourages active student participation, while the use of digital tools makes the delivery of learning materials more engaging and easier to understand.

Students also expressed that digital-based learning feels more interactive and less monotonous. The integration of digital platforms enables the use of online quizzes, digital lesson plans (RPP), and multimedia teaching materials, which enhance the effectiveness of both the learning and evaluation processes. However, limited internet connectivity remains a major challenge for some students.

Teacher Opportunities and Challenges in Teachers' Digital Competence

The third finding reveals that there are both opportunities and challenges in the development of teachers' digital competence. The opportunities include broader access to global learning resources, the implementation of project-based learning, and the enhancement of teachers' creativity in designing instructional media. Digital technology provides teachers with the opportunity to access a wide range of global educational references and to develop innovative teaching methods. However, the challenges encountered include limited digital skills among some teachers, insufficient time to participate in training programs, and a lack of adequate digital infrastructure. Teachers emphasized that the school's commitment to providing continuous training and mentoring support is a crucial factor in addressing these challenges.

Table 2. Opportunities and Challenges in Teachers' Digital Competence

Aspect	Opportunities	Challenges
Pedagogical Innovation	Use of digital media and project-based learning methods	Teachers' digital literacy remains limited
Learning Resources	Access to global educational content and references	Inadequate internet access
Collaboration	Strengthening communication between teachers, students, and parents	Limited time for training

School Policy	Availability of regular training and mentoring	Uneven teacher participation
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Source: Teacher Interview, November 2024

Discussion

The research findings indicate that the **digital competence of teachers at SMP Negeri 3 Palopo** ranges from **fair to good**, supported by the principal's leadership and ongoing professional development initiatives. This finding aligns with (Supriani et al., 2024) who emphasize that the principal's role is crucial in driving digital transformation through strategic guidance and continuous training facilitation.

Furthermore, this study supports the findings of (Handiyani & Abidin, 2023) who assert that teacher professionalism in the digital era is not only measured by mastery of subject matter but also by the ability to utilize digital tools to enhance the quality of learning. Teachers at SMP Negeri 3 Palopo have implemented this by using digital platforms for lesson planning, classroom management, and learning assessment.

Nevertheless, several challenges hinder the optimal implementation of digital learning, including age-related factors, technological readiness, and limited infrastructure. These conditions are consistent with (Nashrullah et al., 2025) who emphasize that sustainable digital literacy among teachers largely depends on institutional support and continuous professional training.

Conclusions

Based on the research findings and discussion, it can be concluded that the digital competence of teachers at SMP Negeri 3 Palopo is at a fairly good and progressively developing level. Teachers have demonstrated the ability to operate digital devices, utilize technology-based learning media, and integrate digital tools into the teaching and learning process. The principal plays a crucial role in fostering the improvement of these competencies through regular training, mentoring, and continuous evaluation. Digital competence has been proven to have a positive impact on enhancing

teacher performance, particularly in the areas of lesson planning, implementation, and learning assessment. Moreover, the implementation of learning communities and collaboration among teachers, students, and parents has created a learning environment that is adaptive to technological developments.

However, challenges such as limited infrastructure, unequal levels of digital literacy, and age-related factors among teachers remain obstacles that need to be addressed. Therefore, sustained commitment from both the school and the government is essential to strengthen support for digital training, the provision of ICT facilities, and the cultivation of a digital learning culture within the school environment. Overall, the enhancement of teachers' digital competence at SMP Negeri 3 Palopo represents a strategic step toward achieving sustainable educational transformation under the Merdeka Curriculum, which emphasizes autonomy, innovation, and collaboration in the learning process.

References

- Agung, S., Bogor, P., & Barat, J. (2024). *2024 JURNAL ASIK: Jurnal Administrasi, Bisnis, Ilmu Manajemen, & Kependidikan*. Published by BAIK Publishers. 2(1).
- AstriAprilianti. (2024). *Undang-undang, Efektivitas Implementasi Elektronik, Transaksi Tantangan, Indonesia*. 15.
- Handiyani, M., & Abidin, Y. (2023). *Peran Guru dalam Membina Literasi Digital Peserta Didik pada Konsep Pembelajaran Abad 21*. 6(2), 408–414. <https://doi.org/10.31949/jee.v6i2.5360>
- Hasna Setyaningrum, E. a. (2025). *Membentuk Guru Profesional: Peran kompetensi Pedagogik dan Kepribadian Jurnal Teknologi Pendidikan Dan Pembelajaran (JTTP)*. 2(4), 1032–1036.
- Holisoh, I. (2025). *Kepemimpinan Inovatif Dalam Manajemen Berbasis Sekolah: Studi Kasus Pada Sdn Patia 1*. 5(3), 2616–2625.
- Murtiningsih, D. H., & Utami, S. (2024). *Guru Di Sekolah Dasar School Principal ' S Strategies In Improving Teacher*. 2364–2374.
- Nashrullah, M., Rahman, S., Majid, A., Hariyati, N., & Surabaya, U. N. (2025). *Transformasi Digital Dalam Pendidikan Indonesia: Analisis Kebijakan Dan Implikasinya*

Terhadap Kualitas. 7.

- Pawartani, T., & Suciptaningsih, O. A. (2024). *Pengembangan Kompetensi Guru untuk Mendukung Implementasi Kurikulum Merdeka.* 7, 2182–2191.
- Ria Furmaisuri et.al. (2025). *Peran, Evolusi Dari, Guru Konvensional, E R A Era, K E Dalam, Teknologi Kemajuan, Meningkatkan.* 1881–1892.
- Riswanto, D. M. (2024). *Peran Guru dan Kepala Sekolah sebagai Aktor Pendidikan di Tengah Perubahan Lingkungan Pendidikan yang Berubah Cepat.* 3(6), 1186–1192.
- Rositasari, I., Wuryandini, E., Pendidikan, M., Guru, K. P., & Inggris, B. (2024). *Manajemen Supervisi Kepala Sekolah dalam Meningkatkan Kompetensi Profesional Guru Bahasa Inggris Program Keahlian Perhotelan di SMK HKTI Temanggung.* 5(1), 181–191.
<https://doi.org/10.51874/jips.v5i1.208>
- Saadah Lubis. (2012). *Analisis Profesionalisme Guru Berdasarkan Undang-Undang Ri No. 14 Tahun 2005 Tentang Guru Dan Dosen.* 1(1).
- Supriani, Y., Evta, E., Prayogi, Y., Arifin, Z., Rolia, E., & Arifudin, O. (2024). *Fasilitasi kebutuhan belajar dan berbagi praktik baik pengawas sekolah ke kepala sekolah.* 2(1), 65–75.
- Yayasan, D. I., Kenaniyah, A. L., & Timur, J. (n.d.). *Evaluasi kinerja guru dalam peningkatan mutu pendidikan di yayasan al kenaniyah jakarta timur.* 139–149.