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The Role Of Digital Skills In Improving The Skills Of Elementary School Teachers In Belo In The Era Of Society 5.0

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Abstrak

The era of Society 5.0 requires teachers to possess digital skills not merely as a complement but as a fundamental prerequisite for creating innovative, effective, and student-centered learning. This study aims to analyze the role of digital skills in improving teachers' competencies at SDN Belo and to identify the supporting and inhibiting factors they encounter. This research employed a descriptive qualitative approach with five purposively selected teachers as subjects. Data were collected through in-depth interviews, observations, and documentation, then analyzed using thematic analysis techniques. The findings reveal that teachers have begun to adopt digital skills, albeit in relatively simple forms such as using PowerPoint, YouTube, and communication applications. The utilization of technology has been proven to enhance teaching effectiveness, student engagement, and teachers' confidence. Nevertheless, limited ICT facilities, insufficient practical training, and disparities in digital literacy remain the main obstacles. These findings emphasize the importance of providing practical training, strengthening digital literacy, and improving infrastructure support from the government and educational institutions. Therefore, digital skills play a strategic role in fostering the professionalism of SDN Belo teachers in the Society 5.0 era.

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1. INTRODUCTION

The skills of elementary school teachers play a crucial role in determining the quality of learning. Elementary school teachers are required to master various competencies to carry out their roles effectively and professionally. Based on the Minister of National Education Regulation Number 16 of 2007, teachers are required to possess pedagogical, professional, social, and personality competencies. In the context of 21st-century education, these four competencies need to be further developed to address global challenges, including technology integration and strengthening critical thinking skills (Himchuk et al., 2023; Kolitsynova, 2023; Fakhruddin et al., 2023). However, in practice, many teachers still lack critical thinking skills and digital literacy (Wulandari et al., 2024). For example, teachers at Belo Elementary School (SDN Belo), for example, still largely rely on conventional methods such as lectures and print media, resulting in low student engagement and suboptimal learning outcomes (Nasri & Shanmuganathan, 2025; Kostashchuk & Bilenkova, 2022). Key barriers include a lack of training, limited digital resources, limited infrastructure, and unequal access to information (Spiteri & Rundgren, 2020).

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personality competencies. In the context of 21st-century education, these four competencies need to be further developed to address global challenges, including the integration of technology and strengthening critical thinking skills. However, in practice, many teachers still lack the full mastery of critical thinking skills and digital skills. Teachers at Belo Elementary School, for example, largely rely on conventional methods such as lectures and the use of print media. This results in low student engagement and suboptimal learning outcomes. The main obstacles faced include a lack of training, limited digital resources, limited infrastructure, and unequal access to information. To address these challenges, mastering digital skills is a strategic and inevitable solution. In the era of Society 5.0, digital skills are not merely an addition but a primary requirement for relevant, interactive, and student-centered learning. This research is important because previous studies have been more general in nature and have not specifically addressed local contexts like SDN Belo. Therefore, this study aims to analyze the role of digital skills in improving the skills of SDN Belo teachers in the Society 5.0 era, while also identifying the real challenges and needs of teachers in the field.

2. RESEARCH METHODS

This study employed a descriptive qualitative approach. The subjects were five teachers at Belo Elementary School, selected purposively, considering their teaching experience, involvement in digital training, and readiness to implement technology. Data collection techniques included in-depth semi-structured interviews, participant observation, and documentation. Interviews were used to explore teachers' experiences and perceptions, observations were conducted to directly observe the implementation of digital skills, and documentation in the form of lesson plans, training notes, and digital learning materials was used as a supplement. Data were analyzed using thematic analysis techniques through the stages of data reduction, data presentation, and conclusion drawing. Data validity was maintained through triangulation of methods and sources, as well as reconfirmation (member checking) with informants.

3. RESULTS AND DISCUSSION

The research results show that teachers at Belo Elementary School have begun integrating digital skills into their learning process, although their use is still limited to simple technologies. The most frequently used applications include PowerPoint for presentations, YouTube as a source of learning videos, and communication apps like WhatsApp for coordination and assignments. Furthermore, some teachers have tried using interactive platforms like Canva and Wordwall as learning support tools.

The application of digital skills has been shown to have several positive impacts. First, learning effectiveness increases because teachers can deliver material in more varied and engaging ways. Second, student engagement becomes more active, as evidenced by student enthusiasm and participation when digital media is used. Third, the use of technology boosts teacher confidence, as they feel more capable of delivering learning that meets the demands of the times. These results confirm that digital skills are not merely complementary but have become a key factor in strengthening teacher professionalism.

To clarify the findings in the field, the following is a summary of the research results in table form:

Table. Summary of Research Results: Actual Conditions, Impacts, Obstacles, and Solutions

Research Aspects	Real Conditions at SDN Belo	The Impact That Occurred	Obstacles Faced	Expected Solution
Utilization of Digital Technology	Teachers are starting to use PowerPoint, YouTube,	The material is more interesting, students are more focused, the	Usage is still limited to simple technology; not yet evenly	Structured training is needed to expand the use of more complex digital applications.

Research Aspects	Real Conditions at SDN Belo	The Impact That Occurred	Obstacles Faced	Expected Solution
	WhatsApp, Canva, and Wordwall in their learning.	learning process is more varied	distributed among all teachers	
Positive Impact on Teachers	Teachers are more confident when teaching with digital media	Self-confidence increases, teachers are more creative, and independent initiatives emerge.	Not all teachers dare to try new applications due to limited knowledge.	Individual mentoring so that teachers who lack confidence can get used to using digital media
Impact on Students	Students are more enthusiastic and actively involved in digital learning	Increased participation, better understanding through audio-visual media	Device limitations reduce students' opportunities to interact directly with technology.	Provision of computer/laptop facilities at schools or collaboration with external parties
Teacher Digital Literacy	There is a striking difference between digitally literate teachers and those who are not.	High digital literacy teachers are more innovative (Google Drive, online communities, independent digital media)	Teachers who are not digitally literate still rely on traditional methods.	Hands-on based training and sharing sessions between teachers
School Support	The school provides projectors and limited internet access.	Helping smooth some digital learning	Unstable internet network; minimal device	Optimizing school budgets for ICT and cooperation with local governments
The Need for Teachers in the Field	Teachers need ongoing and applied training	Potential for huge skill enhancement if needs are met	The existing training is more theoretical, less practical.	Practice-based training programs, ongoing mentoring, and adequate infrastructure support

The table above shows that although digital technology adoption is beginning to take off, structural and technical barriers remain key challenges. Teachers with higher digital literacy demonstrate greater initiative and creativity, while others still require intensive mentoring. School support is in place, but it is not yet optimal due to limited infrastructure and internet access. This demonstrates that digital transformation can only be successful if implemented holistically: including strengthening teacher capacity, providing adequate facilities, and supporting school and government policies.

Thus, it can be confirmed that SDN Belo teachers are strongly motivated to adapt to the demands of the Society 5.0 era, but require concrete support from schools, the government, and educational institutions. Without intensive training, practical mentoring, and infrastructure improvements, digital transformation in learning will be slow and uneven. Therefore, the results of this study reinforce the urgency of digital skills as an absolute requirement for improving teacher competency, no longer merely an option.

Research Documentation Attachment

Figure 1. Teachers use PowerPoint media in science learning in class.

Caption: The teacher displays material about planet Earth using an LCD projector. Students are seen paying close attention, demonstrating that the use of digital media can improve student focus and understanding.

Picture 2. Interview process with SDN Belo teachers

Description: The researcher conducted an in-depth interview with one of the teachers regarding the use of digital skills in learning.

Picture 3. Documentation with SDN Belo teachers (1)

Caption: Photo of the researcher with one of the class teachers at SDN Belo after the interview and observation session.

Picture 4. Documentation with SDN Belo teachers (2)

Caption: Photo of researchers with other teachers after a discussion activity regarding obstacles and needs for digital literacy.

Picture 5. Documentation with SDN Belo teachers (3)

Caption: Researchers take photos with subject teachers who are actively using digital learning media.

Figure 6. Interview process and data validation (member checking)

Description: Researchers and teachers reconfirmed the results of interviews and observations to ensure the validity of the data.

Figure 7. Teacher digital literacy training certificate
Caption: Digital literacy training certificate obtained by one of the teachers at Belo Elementary School as proof of increased competence.


SERTIFIKAT
Certificate of Participation
Diberikan kepada:
TRI WIDIARTI, S.Pd
Sebagai peserta dalam
Pelatihan Literasi Digital Guru SDN Belo

4. CONCLUSION

This study concludes that digital skills play a strategic role in improving the skills of SDN Belo teachers in the Society 5.0 era. Teachers have begun to gradually adopt digital technology, both in the preparation of teaching materials, the use of learning videos, and the utilization of digital applications. The application of technology has had a positive impact in the form of increased learning effectiveness, teacher confidence, and more active student engagement. However, limited ICT facilities, a lack of application training, and the digital literacy gap among teachers are challenges that need to be addressed immediately. Teachers are highly motivated to develop, but require real support in the form of practice-based training, adequate infrastructure, and ongoing mentoring. Digital literacy has proven to be a key aspect that enables teachers to adapt to technological developments, learn independently, and improve the quality of teaching. Thus, collaboration between schools, the government, and training institutions is crucial to creating an adaptive, inclusive, and competitive education ecosystem in the era of digital transformation.

5. SUGGESTION

Based on the research results, several recommendations can be made. Teachers need to improve digital literacy through both independent learning and by joining online teacher communities. Furthermore, teachers are advised to familiarize themselves with the use of digital media in daily learning to further hone their skills. Schools are expected to provide adequate ICT facilities, including stable internet access and supporting devices, and to conduct applicable and sustainable internal training programs. Furthermore, for governments and educational institutions, it is crucial to provide hands-on training tailored to the actual needs of teachers in the field, as well as provide equitable digital infrastructure support, especially for elementary schools in rural areas. For future researchers, it is recommended to conduct research with a broader range of subjects or use a quantitative approach to more objectively measure the level of digital skills mastery.

6. BIBLIOGRAPHY

Astuti, J. W. T. (2024). Increasing teacher professionalism through digital skills development in the modern era. *El Bidayah: Journal of Primary Education, 6*(2), 65–74.

Fakhruddin, A. M., Annisa, A., Putri, L. O., & Sudirman, P. R. A. T. (2023). Kompetensi seorang guru dalam mengajar. *Journal on Education, 5*(2), 3418–3425.

Malicsi, H. A. M. (2023). Digital competencies and challenges on teachers' instructional capabilities among public elementary schools. *International Journal of Research Publications, 129*(1), 1–10.

Masitoh, S. D., & Purbowati, D. (2024). Enhancing teacher professionalism in Indonesia: Challenges and strategies for digital technology utilization in the Society 5.0 era. *Heutagogia: Journal of Islamic Education, 4*(1), 55–68.

Monashu, R. A. F. (2023). *The urgency of digital literacy skills for educators to face global challenges in Society 5.0 era. Jurnal Kependidikan, 8*(2), 77–86.*

Nasri, N. M., & Shanmuganathan, K. (2025). Implementation of digital approaches in teaching and learning in primary schools. *International Journal of Academic Research in Progressive Education and Development, 14*(1), 45–56.*

Nurjanah, D. S. N., Masithoh, U. D., & Zulfaidah, R. A. (2024). Literasi digital dalam dunia pendidikan di era revolusi Society 5.0 termasuk pemanfaatan ICT pada pendidikan. *Jurnal Tonggak Pendidikan Dasar, 3*(1), 35–45.*

Nugraeni, D., & Suyatno. (2024). Literasi digital guru dalam pembelajaran daring di sekolah dasar. *Jurnal Paedagogy, 10*(4), 122–132.*

Rustandi, J., Ansori, M. R., Fahlepi, R., Iriansyah, I., & Marliat, M. (2024). Teacher competence in the digital era: A phenomenological study. *Jurnal Konseling Pendidikan Islam, 5*(2), 527–534.*

Sihombing, A. A., Putranti, H. R. D., Noviani, N. L., Woho, A. D., & Arini, D. (2024). *Technology-based education transformation: Futuristic, quality, resilient, and sustainable education system in the age of Society 5.0. Indonesian Journal of Educational Research and Review, 7*(2), 150–164.*

Spiteri, M., & Rundgren, S.-N. C. (2020). Literature review on the factors affecting primary teachers' use of digital technology. *Technology, Knowledge and Learning, 25*(1), 115–128.*

Syahid, A. A., Isrokatun, I., & Nugraha, D. (2023). Development of a training curriculum structure to improve ICT competencies of teachers in primary schools. *Mimbar Sekolah Dasar, 10*(1), 35–49.*

Wicaksono, R. B., & Prasetiyo, W. H. (2023). Digital competence for students in the networking society 5.0: A systematic review. *Jurnal Civics: Media Kajian Kewarganegaraan, 20*(2), 211–224.*

Wulandari, M. A., Senen, A., Susilawati, S., Mukarromah, A., Nurdiansah, T. H., & Pratama, D. F. (2024). Critical thinking skill: Primary school teachers' knowledge and its learning strategy. In *Proceedings of the International Conference on Education and Learning Strategies* (pp. 14–22). Atlantis Press.*

Yemchuk, T. (2022). Increasing the digital competence of the teacher by means of information and communication technologies. *Scientific Notes, 1*(204), 114–119.*