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ANALYSIS OF TEACHER READINESS IN FACING DIGITAL EDUCATION TRANSFORMATION

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Abstract

Digital education transformation is an inevitability that cannot be avoided in the current era of technological disruption. The role of teachers as the vanguard in the education process is becoming increasingly crucial in responding to this change. This study aims to analyze teacher readiness in facing digital education transformation through a literature review approach. This study examines various scientific literature, articles, and previous research reports that discuss aspects of teacher digital competence, attitudes towards technology, institutional support, and obstacles faced in the digital adaptation process. The results of the study show that teacher readiness is greatly influenced by factors of experience, information and communication technology training, access to digital infrastructure, and supportive education policies. Although some teachers show enthusiasm and willingness to adapt, there are also significant challenges such as limited access to technology, low digital literacy, and lack of ongoing support from educational institutions. This study recommends the need for a strategy for continuous professional development, provision of equitable technology facilities, and the formation of a digital culture in the school environment as an effort to improve teacher readiness in facing the digital education era.

Keywords: teacher readiness, digital education transformation, digital literacy

INTRODUCTION

The rapid development of information and communication technology has had a significant impact on various sectors of life, including education.

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Digital transformation in education is no longer an option, but a necessity that must be faced by all stakeholders, especially teachers as the spearhead of the learning process. The digital era demands fundamental changes in the way of teaching, the way of learning, and the interaction between educators and students (Sebelas Maret University, Indonesia et al., 2022). The learning process is now no longer limited to conventional classrooms, but extends to virtual spaces that allow unlimited access to information and knowledge. In this context, teacher readiness is a key factor in the successful implementation of digital education.

The transformation of digital education covers various aspects, from the use of technological devices in the teaching and learning process, the use of digital platforms as learning media, to adaptation to a curriculum that emphasizes digital competence. The government and educational institutions have developed various policies and infrastructure to support the digitalization of education. However, the success of these efforts is highly dependent on the readiness of teachers, both in terms of technological competence, digital pedagogy, and mental attitude towards change. Without adequate teacher preparation, digital education transformation will be difficult to implement effectively and can create gaps in the quality of education between one region and another (Hanim, 2024). Teacher preparation in facing digital education transformation includes various interrelated dimensions. The first is technological preparation, which includes mastery of the hardware and software used in digital learning (Babeľová et al., 2023). The use of Learning Management Systems, video conferencing applications, interactive devices, and social media as learning aids requires teachers to have adequate digital skills. The second is pedagogical preparation, namely the ability of teachers to integrate technology into effective and enjoyable learning strategies. This includes digital-based learning planning, selecting appropriate methods, and evaluating learning outcomes through digital media. The third is psychological and attitudinal preparation, namely how teachers accept and respond to change with a positive, proactive, and open attitude towards new learning. This aspect is very important because resistance to technological change is often a major obstacle in the implementation of digital transformation.

Conditions in the field show that teachers' readiness to face digital transformation varies widely. Some teachers are able to adapt quickly and utilize technology optimally in learning (Sahni et al., 2024). However, there are also many who have difficulty operating technology, feel anxious about

change, or even reject the use of technology in the teaching and learning process. This difference can be caused by various factors, such as age, educational background, teaching experience, access to training, and support from the institution where the teacher teaches. Teachers in urban areas generally have better access to technology and training, compared to teachers in rural or remote areas. This indicates a gap that needs to be studied and resolved so that the digital education transformation can run evenly. In addition to internal teacher factors, external support also greatly influences readiness to face digital education. The availability of technological infrastructure, supportive government policies, ongoing training, and a conducive work environment are important elements in encouraging teacher readiness. In some cases, teachers have the motivation and willingness to change, but are constrained by inadequate facilities, limited internet connections, or lack of support from school leaders. Therefore, it is important to see teacher readiness holistically, not only from the individual teacher himself, but also from the environment and systems that support him.

The transformation of digital education also demands a paradigm shift in the teaching and learning process. The role of teachers is no longer merely as a source of information, but more as a facilitator, mentor, and guide in a collaborative learning process based on problem solving. This requires new skills that were previously not part of the basic competencies of teachers (Warsi & Rani, 2024). For example, teachers must be able to guide online discussions, manage virtual classes, create digital learning content, and use digital learning outcome data to design more effective teaching strategies. All of this requires training, coaching, and a change in mindset that is not instant, but must be built sustainably.

Teacher readiness also needs to be seen in the context of the challenges and opportunities offered by digital transformation. The challenges faced are not only technical, but also concern ethical issues, data security, and protection of students in the digital environment. Teachers need to have digital literacy that includes an understanding of privacy, cybersecurity, and social responsibility in the use of technology. On the other hand, digital transformation also opens up great opportunities for teachers to broaden their horizons, access global learning resources, and improve the quality of learning through a more interactive and personal approach. Research on teacher readiness in facing digital education transformation is very relevant and urgent to be carried out. The results of this study can be the basis for formulating teacher training policies, curriculum development, infrastructure

provision, and technology implementation strategies in education. By knowing the level of teacher readiness, both in terms of competence, attitude, and environmental support, related parties can design more targeted and sustainable interventions. In addition, this study can also provide an overview of real conditions in the field, and be a reference in evaluating the success of the education digitalization program that has been implemented so far.

Within the framework of national policy, digital education transformation has become part of the government's strategic agenda, as reflected in the National Medium-Term Development Plan and the Merdeka Belajar policy. Programs such as the Digital Talent Scholarship, online teacher training, and the provision of digital learning platforms are concrete steps in supporting this transformation. However, the implementation of these programs must be accompanied by a comprehensive mapping of teacher needs and readiness so that the benefits can be felt optimally (Aljanazrah et al., 2022). Therefore, an analysis of teacher readiness is not only important to determine the current position, but also to formulate future policy directions. In a global context, digital education is also part of efforts to achieve the Sustainable Development Goals (SDGs), especially the fourth goal which emphasizes the importance of inclusive and equitable quality education. Teacher readiness is an integral part of the global strategy in ensuring that digital education can be a means to improve access and quality of education in various parts of the world. Developed countries have conducted many studies and developments in this field, and Indonesia also needs to take similar steps so as not to be left behind in the flow of technology-based education globalization (Ding & Alharbi, 2025). Thus, research on the analysis of teacher readiness in facing digital education transformation is an important step in responding to the challenges of the digital era.

This research will not only provide a deeper understanding of the actual conditions in the field, but also contribute to the formulation of policies and strategies to improve the quality of education. Teacher readiness is the main foundation in building an adaptive, inclusive, and highly competitive education system amidst the dynamics of the changing era. Through a comprehensive understanding of teacher readiness, we can ensure that digital transformation in education is not just a discourse, but a reality that can improve the quality and equity of education in Indonesia.

RESEARCH METHOD

The research method used in this study is a literature review method that aims to analyze teacher readiness in facing digital education transformation. This approach is carried out by collecting, reviewing, and analyzing various relevant library sources such as scientific journals, books, research reports, and education policy documents that discuss the theme of teacher readiness, technology integration in learning, and the dynamics of education transformation in the digital era.

Data analysis was carried out through a descriptive-qualitative approach by mapping the main findings from each literature reviewed, then identifying patterns, challenges, and strategies related to teacher readiness in responding to technological changes in the educational environment. The main focus of this analysis is to describe the extent to which teachers have digital competence, access to technology, and attitudes and mental readiness in adopting technology-based learning models. In addition, this study also examines the supporting and inhibiting factors that influence this readiness, such as professional training, policy support, and school infrastructure. The results of this literature review are expected to provide a strong theoretical basis and applicable recommendations for policy makers and educational institutions in designing teacher development programs that are adaptive to the digital era.

RESULT AND DISCUSSION

General Level of Teacher Readiness

Teachers are the main actors in the education process who have an important role in shaping the character, knowledge, and skills of students (Lynch et al., 2017). In the context of increasingly rapid development, especially in the era of globalization and digitalization, the level of teacher readiness is one of the main indicators of the success of the education system. Teacher readiness does not only include the ability to teach in the classroom in a traditional way, but also concerns adaptation to technology, curriculum updates, relevant pedagogical approaches, and mental readiness to face today's educational challenges. Therefore, it is important to examine in depth the extent to which teachers currently have adequate readiness to carry out their roles and responsibilities optimally. In general, teacher readiness can be seen from several interrelated aspects, such as professional competence, pedagogical competence, readiness in the use of information and communication technology, and emotional and social readiness in facing the

dynamics of the world of education. In terms of professional competence, teachers are required to master the field of science being taught, understand the curriculum, and have the skills to design effective learning. However, not all teachers have an educational background that is in accordance with the field they teach. This is a challenge in itself, especially in areas that lack qualified educators. The gap between educational background and teaching field can hinder a quality learning process (Vaganova et al., 2019).

Teachers' pedagogical competence is also an important aspect in measuring general readiness. A teacher must be able to design learning that not only focuses on delivering material, but also encourages active student participation, builds curiosity, and develops critical thinking skills and creativity. This pedagogical readiness includes an understanding of student characteristics, appropriate learning strategies, and the ability to conduct comprehensive learning evaluations. Although many teachers have participated in pedagogical training, there are still monotonous and non-contextual learning practices. This shows that the training carried out has not fully equipped teachers with skills that can be directly applied in dynamic classes.

The use of technology in education is increasingly becoming a necessity that cannot be ignored. The COVID-19 pandemic is a moment that shows how important teacher readiness is in utilizing technology as a learning medium. However, the reality in the field shows that not all teachers are technically and psychologically ready to switch to an online learning system. Some teachers have difficulty operating digital devices, using learning applications, and compiling materials in an attractive and effective digital format. This is not solely due to lack of training, but also due to differences in generational background, limited access to devices and internet networks, and minimal technical support from educational institutions. The level of teacher readiness in terms of technology is also closely related to government policies and educational institutions in providing adequate training and resources. Several technology training programs for teachers have been run by the government, both online and offline (Mohamed et al., 2017). However, the effectiveness of these programs is still debated, considering that not all training is based on direct practice, and many teachers feel that the training provided is too theoretical or does not match the real conditions they face in the classroom. In addition, teachers in remote areas often do not have the same access to technology training and resources, creating a digital divide between teachers in big cities and teachers in the regions.

Teacher readiness in emotional and social aspects also cannot be ignored. Being a teacher in today's era is not easy. The challenges faced are increasingly complex, ranging from administrative pressure, rapid changes in education policies, to demands from parents and society for student learning outcomes. All of this requires teachers to have high emotional resilience. It is not uncommon to find cases of teachers experiencing mental fatigue due to heavy workloads and constant pressure. On the other hand, teachers' social relationships with colleagues, students, and parents are also an important part of the comprehensive education process. This social readiness includes communication skills, teamwork, and empathy for the problems faced by students (Hung, 2016). Evaluation of the general level of teacher readiness must also consider external factors such as education policies, school culture, and community support. Teachers cannot stand alone in carrying out their duties, but need a supportive education ecosystem. Inconsistent policies, lack of appreciation for the teaching profession, and minimal community involvement in supporting the education process are factors that can hinder teacher readiness (Afanasyeva et al., 2018). Therefore, improving teacher readiness is not only the responsibility of individual teachers themselves, but also requires an active role from various stakeholders in the world of education. Pre-service teacher education and continuing education are important components in improving teacher readiness in general. In pre-service education, prospective teachers need to be equipped with a foundation in educational science, teaching skills, and adequate field practice. Meanwhile, continuing education such as training, seminars, workshops, and teacher learning communities can help teachers to continue updating their knowledge and skills in accordance with current developments. However, there are still challenges in implementing these programs, including lack of motivation, time constraints, and minimal incentives for teachers to continue learning. Therefore, a more effective and sustainable strategy is needed in organizing teacher professional development programs.

In addition, the 21st century-oriented learning approach also requires teachers to be ready to develop critical thinking skills, collaboration, communication, and creativity among students. This requires teachers to not only master the content, but also become learning facilitators who are able to create a learning environment that supports the development of soft skills. This challenge is even greater when teachers are still trapped in traditional teacher-centered teaching patterns, instead of adopting a student-centered

approach. This paradigm shift requires high readiness from teachers, both in terms of mindset and practical skills.

Overall, the level of teacher readiness in general in Indonesia still shows complex dynamics. On the one hand, there are many teachers who are highly dedicated and continue to strive to improve themselves through various training and professional forums. On the other hand, there are still a large number of teachers who face obstacles in improving their readiness due to internal and external factors. For this reason, a comprehensive approach is needed in efforts to improve teacher readiness, starting from reforming the teacher education curriculum, improving welfare and appreciation for the teaching profession, providing supporting facilities, to strengthening collaboration between teachers, schools, government, and the community.

Improving teacher readiness can also be strengthened through the use of professional communities such as teacher working groups, subject teacher deliberations, and digital teacher networks. These communities provide a space for teachers to share experiences, discuss challenges faced, and support each other in improving the quality of learning. When these communities are active and productive, teachers will feel more confident and motivated to continue to develop (Summak et al., 2010). However, the success of these professional communities also depends heavily on leadership, active participation of its members, and support from schools and education offices. In the long term, increasing the level of teacher readiness is a very strategic investment for the future of education. Teachers who are ready in terms of competence, technology, and emotion will be able to create the next generation of the nation who are not only academically intelligent, but also have strong character and life skills. To realize this, a joint commitment is needed from all elements of education, including teachers themselves, to continue to learn, adapt, and innovate in facing the challenges of the times.

Dimensions and Factors Influencing Teacher Readiness in Facing Digital Education Transformation

Digital education transformation has become inevitable in the world of modern education, especially along with the rapid development of information and communication technology. In today's digital era, the role of teachers is not only limited to conventional teaching, but is also required to be able to adapt to fundamental technological changes. Digital education has changed the learning paradigm from one-way to collaborative, adaptive, and technology-based. Therefore, teacher readiness in facing this transformation

is one of the most crucial elements in ensuring the success of the implementation of digital education. This readiness includes various dimensions that are not only limited to mastery of technology, but also include attitudes, pedagogical skills, and environmental support (Pelekas, n.d.). The dimensions of teacher readiness in the context of digital education transformation include aspects of digital competence, psychological readiness, pedagogical capacity, and institutional support. Digital competence is the main dimension that is very important, because teachers need to understand how various digital platforms, learning software, and supporting applications for online and hybrid learning processes work. However, mastery of technology alone is not enough if it is not accompanied by good psychological readiness. Many teachers experience anxiety or stress when dealing with new technologies, especially if they come from a generation that did not grow up with digital developments. Lack of confidence in using technology, concerns about technical failure, and reluctance to leave their comfort zone are challenges that affect teachers' psychological readiness (Lu & Wang, 2023).

In addition, the dimension of pedagogical capacity also plays an important role in teacher readiness. The use of technology in learning requires changes in teaching approaches and strategies (Al-Rikabi & Montazer, 2022). Teachers no longer only act as conveyors of information, but also as facilitators, guides, and collaborators in the student learning process. In this case, teachers need to be able to integrate technology with appropriate pedagogical principles so that the learning process remains meaningful and oriented towards achieving student competencies. Teachers also need to understand the characteristics of students in a digital context, such as different learning styles, students' digital literacy levels, and their tendencies in accessing information from various sources.

External factors are also no less important in influencing teacher readiness. Support from educational institutions, such as the provision of regular training, adequate technological infrastructure, and policies that support educational innovation, are important foundations in shaping teacher readiness. Without adequate system support, teachers' efforts to adopt digital technology will face many obstacles. In addition, the role of professional communities and collaborative networks between teachers are also significant supporting factors. Through interaction and discussion in these communities, teachers can share experiences, solutions, and best practices in implementing digital learning.

Individual factors also cannot be ignored. Personal motivation, willingness to learn, and openness to change are the main drivers in shaping teacher readiness personally. Teachers who have high intrinsic motivation tend to be more adaptable and develop themselves in the face of change. This is closely related to attitudes towards lifelong learning, which is a key principle in the world of 21st-century education. Teachers who are aware that learning is a continuous process will be better prepared to continue to develop their digital skills, adjust teaching methods, and evaluate teaching effectiveness more reflectively.

On the other hand, not all teachers have the same access to technological resources. The digital inequality that still occurs in various regions, especially in remote or less developed areas, is a structural challenge that hinders teacher readiness. Limited internet access, lack of technological devices, and low technical support are real obstacles that must be faced. Therefore, it is important for policy makers to design inclusive and adaptive strategies to support teacher readiness in various geographic and socio-economic contexts.

In addition, school culture also influences teacher readiness in facing the digital education transformation. A school environment that supports innovation, collaboration, and active use of technology will encourage teachers to be more courageous in trying new approaches. On the other hand, a conservative school culture that is not open to change tends to hinder teacher initiatives in developing digital learning. A collaborative work culture, visionary school leaders, and an organizational structure that supports flexibility in teaching are important factors in building collective readiness at the educational institution level (Mansor et al., 2021).

The education policy aspect also helps shape teacher readiness in facing digital transformation. Regulations that provide space for innovation, incentives for teachers who excel in technology integration, and curriculum development that is adaptive to digital developments will create a conducive education ecosystem. The government and higher education institutions need to work together to create teacher training programs that not only focus on technical skills but also build a critical and ethical digital thinking paradigm.

The transformation of digital education is not just a process of technologization, but also a process of changing culture and ways of thinking in education. Teacher readiness in facing this transformation cannot be seen narrowly as the ability to operate technological devices alone, but must be seen as a multidimensional readiness that includes cognitive, affective, and

contextual aspects. Teachers who are ready to face digital transformation are those who are able to continue learning, adapt to the needs of the times, and build strong relationships with students in the context of digital learning (Alfiras, 2024). By understanding the various dimensions and factors that influence teacher readiness, teacher professional development strategies also need to be designed holistically. The interventions carried out should not be partial or just short-term projects, but must be designed as part of a sustainable education system. Digital education requires teachers who are not only technologically proficient, but also pedagogically wise and emotionally mature. Therefore, investment in increasing teacher capacity must be a top priority in the national education transformation agenda, because the success of the transformation ultimately depends on the extent to which teachers are able to carry out their role as agents of change in the digital era.

Challenges Faced by Teachers in Digital Transformation

Digital transformation in the world of education has become an inevitability in the era of globalization that continues to move very rapidly. The development of information and communication technology has not only changed the way individuals interact and work, but has also revolutionized the teaching and learning process in the classroom. In this context, teachers are one of the key actors who play an important role in bridging these changes. However, digital transformation cannot be easily adopted by all educators. There are various complex challenges faced by teachers in undergoing and implementing digital transformation in their learning activities (Kovalchuk et al., 2022). One of the main challenges faced by teachers in digital transformation is limited technological competence (Alhubaishy & Aljuhani, 2021). Not all teachers have sufficient background or training in the use of digital devices and online learning platforms. For some teachers, especially those from the previous generation, the transition from conventional teaching methods to technology-based approaches often requires significant adaptation. Lack of knowledge of the use of Learning Management Systems, difficulty in operating educational applications, and lack of confidence in trying new methods are quite significant obstacles. This is exacerbated by the uneven distribution of formal and ongoing technology training for teachers. In many cases, teachers are forced to learn independently or rely on help from colleagues, which of course is not always adequate to support digital learning needs optimally.

In addition to limited competence, uneven digital infrastructure is also a crucial challenge in digital transformation. Not all schools, especially those in remote or disadvantaged areas, have access to adequate hardware and internet networks (Brunetti et al., 2020). Teachers in these areas often have difficulty accessing online learning platforms or even do not have basic facilities such as computers and stable internet connections. This inequality widens the educational gap between developed and disadvantaged areas, which ultimately impacts the quality of teaching. Although the government and various institutions have made efforts to distribute devices and strengthen digital networks, the reality on the ground still shows that many schools have not been evenly touched by digital transformation. This condition forces teachers to find alternative methods that are sometimes inefficient and suboptimal in delivering technology-based learning materials.

Another important aspect is the increasing workload of teachers due to digitalization (Ovcharuk et al., 2022). With the entry of technology into the world of education, teachers are not only required to teach, but also to manage learning platforms, prepare digital content, evaluate online learning, and communicate with students and parents through various digital channels. These tasks add to the complexity of teachers' work, which was already quite busy. Many teachers feel overwhelmed by the demands of digital administration, especially when the system used is not user-friendly or experiences technical problems. In addition, expectations from schools and the community regarding teacher performance in online learning are also increasing, which is often not accompanied by adequate human resource and technological support. This tension can cause emotional exhaustion and work stress, which ultimately affects the quality of teaching itself.

Another challenge lies in the resistance to change that is still quite high among teachers. Not a few teachers feel comfortable with conventional methods and are reluctant to change their teaching methods. This attitude can come from fear of failure, doubts about the effectiveness of online learning, or even distrust of technology as the main tool in the educational process. This resistance is a psychological barrier that cannot be underestimated because it can slow down the overall digital transformation process. Changing the teaching paradigm takes time, an internalization process, and strong motivation from within the teacher themselves. Therefore, the training and coaching approach must pay attention to this psychological aspect and not solely emphasize the transfer of technical

knowledge. In other words, it is important to foster teacher awareness and willingness to adopt change as part of improving the quality of education.

The challenges in digital transformation are also closely related to pedagogical issues, namely how teachers can adjust their teaching approaches to be relevant in a digital context. Digital transformation is not just about replacing a whiteboard with a monitor screen or replacing printed books with e-books, but also includes a change in the way of thinking in designing the learning process. Teachers are required to be more creative in designing interactive, participatory, and collaborative learning activities with the help of technology. They also need to understand the characteristics of students in the digital era who are more critical, independent, and accustomed to instant information. However, the pedagogical skills needed to design digital learning are often not possessed by some teachers. Many are still trapped in a one-way teaching pattern even though they use technology, so that the use of digital devices has not had a significant impact on student learning outcomes. This lack of understanding of digital pedagogy requires an increase in teacher capacity not only in technical aspects, but also in the framework of instructional design that is adaptive to the digital learning environment (Kies & Kies, 2024). It is undeniable that digital transformation also presents challenges in terms of maintaining the quality of interactions between teachers and students. In online learning, face-to-face interactions that are characteristic of conventional teaching have shifted.

Teachers must adapt to communication models that are more text-based, voice, or video-based, which are not always effective in building emotional connections and deep understanding. Many teachers complain about the difficulty in monitoring student engagement, identifying learning difficulties, and building discipline in virtual classes. This challenge becomes even more difficult when students experience obstacles in participating in online learning, either due to limited devices, networks, or an unconducive learning environment at home. In such conditions, teachers are required to have high communication skills, empathy, and flexibility in implementing a student-centered learning approach. However, in reality, not all teachers are equipped with adequate social-emotional competencies to answer these challenges.

In terms of policy, the challenges faced by teachers in digital transformation are also influenced by inconsistent regulations and institutional support. Many educational digitalization programs are running without strong coordination between the central government, regional

governments, and educational units. As a result, teachers are often confused about the direction of policies, the use of different platforms, and unclear indicators of success. The minimal involvement of teachers in formulating digitalization policies also makes program implementation less in line with the reality on the ground. In fact, teacher participation as the main implementers of digital transformation is very important in ensuring the success of the program. In addition, the lack of a structured monitoring and evaluation system also makes it difficult to measure the effectiveness and real impact of digital transformation on the quality of learning. Overall, the challenges faced by teachers in digital transformation are multidimensional, covering technical, pedagogical, psychological, social, and policy aspects. Overcoming these challenges requires a holistic and sustainable approach. Investment in teacher capacity development, improving digital infrastructure, and creating a collaborative and supportive learning ecosystem must be top priorities in educational transformation strategies. Teachers are not only policy implementers, but also agents of change who need to be actively involved in the educational innovation process. The success of digital transformation in schools is highly dependent on the readiness and willingness of teachers to grow and develop along with the changing times. Therefore, every challenge that arises should not be seen as an obstacle alone, but also as an opportunity to reflect on learning practices, update skills, and strengthen commitment to the profession as educators in the digital era.

CONCLUSION

Based on the results of the research that has been conducted, it can be concluded that teacher readiness in facing the digital education transformation is still at various levels. Some teachers show quite good readiness, especially in terms of using basic digital devices and online learning applications. However, there are still a number of teachers who face obstacles in terms of technological competence, infrastructure availability, and lack of in-depth and continuous training in mastering more complex educational technology. This shows that teacher readiness is not only influenced by individual abilities, but also by the support of the education system and institutional policies.

The digital education transformation demands a paradigm shift from conventional teaching methods to more innovative and technology-based approaches. Teachers are not only required to be proficient in using digital devices, but also to be able to design interactive, collaborative, and relevant

learning to the needs of students in the digital era. Therefore, teacher readiness is closely related to adaptive abilities, the willingness to continue learning, and the existence of an environment that supports continuous professional development. This study shows that digital transformation will not be optimally successful without the active involvement and thorough readiness of educators.

Thus, collaborative efforts are needed from various parties, including the government, educational institutions, and training institutions, to strengthen teacher readiness in facing this transformation. Providing adequate facilities, relevant and ongoing training, and an adaptive evaluation system to technological developments are important keys to creating resilient teachers who are ready to face the era of digital education. Only with comprehensive readiness can the transformation of digital education be realized evenly and effectively in improving the quality of learning in Indonesia.

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