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Analysis of the Need for a Digital Module Design to Strengthen Digital Skills and Self-efficacy of Elementary School Teachers

Analisis Kebutuhan Desain Modul Digital untuk Meningkatkan *Digital Skills* dan *Self-efficacy* Guru Sekolah Dasar

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Abstract

The main issues in this study are the limitations of elementary school teachers in utilizing digital technology in learning and their low Self-efficacy *in using technology. The urgency of this study lies in the urgent need to strengthen teachers'* Digital Skills *through a collaborative and practical approach. This study aims to analyze the needs of elementary school teachers as a basis for developing peer-tutored digital modules to improve their* Digital Skills *and* self-efficacy. *The research was conducted at SD Negeri Ciranca, Tasikmalaya, using a qualitative approach and needs analysis methods. Data was collected through interviews with five teachers, observations, and documentation, then analyzed thematically. The results of the study indicate that teachers'* Digital Skills *are in the poor to moderate category, and their confidence in integrating technology is still low. However, teachers' motivation to learn is quite high. Teachers demonstrate a very high need for practical, easily accessible, and interactive peer-tutored digital modules. These results form an important basis for designing digital modules that respond to teachers' needs in supporting the strengthening of* Digital Skills *and* self-efficacy. *This research is expected to contribute to the development of educational science and technology, particularly in the preparation of collaboration-based teacher professional development modules.*

Keywords: *Needs analysis, digital skills, peer tutor, digital module.*

Abstrak

Permasalahan utama dalam penelitian ini adalah keterbatasan kemampuan guru sekolah dasar dalam memanfaatkan teknologi digital dalam pembelajaran serta rendahnya efikasi diri (*self-efficacy*) dalam penggunaan teknologi. Urgensi penelitian ini terletak pada kebutuhan mendesak akan penguatan keterampilan digital (*digital skills*) guru melalui pendekatan yang kolaboratif dan praktis. Penelitian ini bertujuan untuk menganalisis kebutuhan guru sekolah dasar sebagai dasar dalam mengembangkan modul digital berbasis *peer tutor* untuk meningkatkan keterampilan digital dan efikasi diri mereka. Penelitian dilakukan di SD Negeri Ciranca, Tasikmalaya, dengan pendekatan kualitatif dan metode analisis kebutuhan. Data dikumpulkan melalui wawancara terhadap lima orang guru, observasi, dan dokumentasi, kemudian dianalisis secara tematik. Hasil penelitian menunjukkan bahwa keterampilan digital guru berada pada kategori tidak baik hingga sedang, serta rasa percaya diri guru dalam mengintegrasikan teknologi masih rendah. Meskipun demikian, motivasi guru untuk belajar cukup tinggi. Guru menunjukkan kebutuhan yang sangat tinggi terhadap modul digital berbasis *peer tutor* yang praktis, mudah diakses, dan interaktif. Hasil ini menjadi dasar penting dalam merancang modul digital yang responsif terhadap kebutuhan guru dalam mendukung penguatan keterampilan digital dan efikasi diri. Penelitian ini diharapkan dapat memberikan kontribusi dalam pengembangan ilmu pengetahuan dan teknologi pendidikan, khususnya dalam penyusunan modul pengembangan profesional guru berbasis kolaborasi.

Kata Kunci: Analisis kebutuhan, keterampilan digital, *peer tutor*, modul digital.

1. Introduction

Education has a strategic role in advancing a nation and requires support and attention from all elements of society (Saputra & Gunawan, 2021). The success of Education in Indonesia is not only the responsibility of the government alone but also a shared responsibility between teachers, parents, and students (Kandiri & Arfandi, 2020). To achieve progress in national Education, a generation of educators who can adapt to the times is needed, especially in the current digital era. The rapid development of information and communication technology (ICT) requires teachers to continue improving their competence, including mastering digital skills. The rapid advancement of information and communication technology requires teachers to continue to improve their competence, and digital transformation is now penetrating various aspects of life, including in the field of Education (Wiryany et al., 2022). This development encourages the greater need for digital technology in various activities, known as digitalization. Digitalization refers to transferring various media, whether print, audio, audiovisual, or video, into digital form (Asaniyah, 2017).

In elementary schools, teachers are required not only as teachers but also as facilitators who can utilize technology creatively to improve the quality of learning (Abidah et al., 2022). This is in line with the direction of Merdeka Belajar policy and the vision of Education 4.0, which emphasizes the importance of utilizing technology to improve the quality of learning in primary schools. Primary school teachers, especially the generation before the digital era, often face challenges in mastering technology that supports teaching and learning activities. Lack of experience and limited access to digital-based training hinder teachers from integrating technology into daily learning. Based on a national survey by Kemendikbudristek (2021), around 47% of teachers in Indonesia have never participated in formal ICT training, and more than 60% of teachers stated that they were not confident in using digital media independently in learning. Similar findings were also presented by Wahyudi and Jatun (2024), who stated that the low digital literacy of teachers is a significant challenge in implementing technology-based learning in elementary schools.

In contrast, millennial generation teachers have great potential in utilizing technology and tend to adapt more quickly to digital devices. This is an opportunity to optimize the peer tutor model, where millennial teachers assist senior teachers in developing digital skills and increasing self-efficacy. This model is adopted from the practice of peer tutors in students who have proven to create a more collaborative, democratic learning atmosphere and make it easier for students to convey learning difficulties without feeling awkward (Sujiati, 2020). Applying the peer tutor concept among teachers is expected to build a culture of mutual learning and support the realization of professional learning communities in schools. This finding aligns with research conducted by Supriyatna (2024), which explains that the peer tutor model not only describes the application of the peer tutor method in the learning process but also identifies various obstacles that arise during its implementation. In addition, the study showed that using the peer tutor method can positively contribute to improving participants' academic skills and collaborative skills between peers.

The need for digital-based learning media innovation is increasingly urgent, given the limited number of digital learning modules and media available in elementary schools. Teachers have indeed used PowerPoint and learning modules as learning aids. However, they are not entirely optimal because the scope of the material is limited, the preparation is less systematic, and interactive features in modern technology have not been utilized (Muthoharoh, 2019). In addition, printed modules tend to be static and less able to foster interest in learning for teachers and students. This condition indicates a gap between teachers' needs for digital learning media relevant

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to classroom conditions and the availability of such media in schools. In addition, Zebua (2023) revealed that professional teachers in the digital era must have multidimensional competencies, including academic, pedagogical, social, cultural, and technological. In the context of globalization, teachers must equip students with science, technology skills, and characters that reflect Indonesian cultural values.

The digital module designed by the researcher utilizes the Canva application as a platform for designing teaching media that is interactive, attractive, and easily accessible. This module has various supporting features such as audio, video, animation, and interactive links designed to help teachers master using PowerPoint as a digital learning media (Apriani et al., 2025). This Peer Tutor-based digital module is expected to solve the constraints of using printed modules that are monotonous and less flexible in delivering teaching materials. With this model, senior teachers can gain a collaborative learning experience that is more practical and contextual, making them more confident in utilizing technology to support learning. This module also aligns with 21st-century learning principles emphasizing technological literacy, collaboration, and creativity.

In line with this urgency, this study aims to analyze the design needs of peer tutor-based digital modules that aim to develop digital skills and self-efficacy *of* elementary school teachers. This research is expected to strengthen the theory of teacher professional development through collaborative approaches and technology and enrich the literature on peer tutor-based digital learning media innovation. Previous studies have explored the development of teachers' digital skills through intensive training (Tondeur et al., 2020), the use of interactive e-modules (Haerunnisa et al., 2024), and the integration of the TPACK model in technology-based learning (Amer, 2023). The study by Behnamnia et al. (2023) also emphasizes the importance of flexible and accessible media design for teachers with varying levels of digital literacy. However, these studies generally focus on improving teachers' technical abilities, without specifically integrating the peer tutor approach as a collaborative strategy in developing digital teaching media. In addition, strengthening teachers' self-efficacy in using technology has not been a significant focus. Thus, the novelty of this study lies in its approach, which emphasizes collaboration among teachers through a peer tutoring system, not only to improve digital skills but also to build confidence (self-efficacy) in sustainably adopting technology. This more contextual and sustainable approach encourages active participation and mutual learning among peers.

This gap is the focus of this research, which is the need for digital learning media that is practical and interactive and encourages collaboration between teachers through the peer tutor model. The novelty of this research lies in the design of digital modules that combine the peer tutor approach and interactive features to support digital transformation based on the real needs of teachers in the field. Thus, this state of the art research is a peer tutor based collaborative approach to the professional development of elementary school teachers in the digital era. In addition to theoretical contributions, this study is expected to make practical contributions in supporting the implementation of the Merdeka Curriculum and teacher readiness to face future educational challenges in the society 5.0 era.

2. Literature Review

2.1. Digitalization Skills

The concept of digital skills education is an idea that aims to provide opportunities for students and educators to understand and master information technology and operate digital-based service systems (Gusdwisari, 2020). In the context of basic education, digital skills are an essential asset in the digital transformation era. Technological developments have driven changes in learning models, teaching media, tools, and approaches that are increasingly moving away from conventional methods. Digital skills have become essential for educators in the 4th Industrial Revolution and Education 4.0 era. Gusdwisari (2020) states that digital skills encompass mastery of information technology, operation of technology-based systems, and utilization of digital tools in learning practices. This aligns with the findings of Tondeur et al. (2020), who stated that teachers with high digital literacy are better prepared to implement TPACK-based learning models effectively. Behnamnia et al. (2023) also emphasized the importance of a flexible approach in developing teachers' digital competencies, including access to user-friendly and adaptable platforms.

Research by Haerunnisa et al. (2024), shows that the use of technology-based interactive multimedia helps improve the readiness of elementary school teachers in designing digital-based learning. However, most of these studies focus on the technical aspects of technology mastery, and few integrate the strengthening of teachers' self-efficacy in using technology as part of training or professional development strategies. Therefore, in this study, developing digital skills through peer tutor-based digital modules is expected to improve teachers' technical competencies and strengthen their self-efficacy in integrating technology into learning independently and sustainably. Collaborative approaches such as peer tutoring are considered more empowering because they allow teachers to learn contextually and support each other in facing the challenges of educational digitalization.

2.2. Peer Tutor Model

The peer tutor model is one of the approaches in cooperative learning that emphasizes collaboration between individuals to achieve learning objectives. According to Amer (2023), this model aims to increase social sensitivity, sense of comradeship, and adaptability in the learning environment while reducing individualism and building trust among learners. In the context of this thesis, the peer tutor model is adopted as a strategy to develop the digital skills and self-efficacy of primary school teachers through digital modules. This approach allows teachers to learn from each other, share technological knowledge, and build confidence in integrating technology into learning.

Sari (2022) asserts that the peer tutor model facilitates the transformation of knowledge and innovation without awkwardness due to its interactive and cooperative nature. Teachers involved in peer tutor based learning can develop the ability to innovate and create, which is very relevant to the needs of education in the digital era. Furthermore, Wahyudi and Jatun (2024) stated that learning methods, including peer tutor, are activity designs that involve teachers and learners to achieve learning objectives effectively. In this case, peer tutoring becomes a tool to improve the quality of education by fostering motivation, inspiration, and dynamic interaction. This approach enables primary school teachers to learn technology collaboratively to tackle the challenges of digitalization with more confidence.

2.3. Digital Skills in Education

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Digital Skills in education are essential competencies that enable teachers to integrate technology effectively in the learning process, administration, and professional development. Kuncahyono and Kumalasani (2020), in a study entitled "teacher digital skills through e-modules as teaching material innovation in the disruption 4.0 era," emphasized that training in making e-modules can improve teacher competence in creating innovative learning. This research shows that digital skills provide space for teachers to self-actualize, improving the quality of teaching and learning and strengthening their professional competence. In the context of this thesis, developing digital skills through peer tutor-based digital modules is expected to support elementary school teachers in mastering technology and increase their self-efficacy in facing the challenges of the digital era.

Pebriana et al. (2024) identified several digital skills that are relevant to the needs of the world of work, which also apply to the teaching profession, namely: (1) network computing, (2) social and collaborative skills, (3) database management and computing, (4) basic digital functional expertise (accessing and interacting with technology), and (5) general digital skills (using technology in a meaningful and helpful way). Primary school teachers use technology to design lesson plans, create student worksheets, develop learning media, and manage administration, such as reporting through digital systems. In addition, using cloud-based services such as Google Drive for document storage shows that mastery of internet networks and databases is necessary. Therefore, digital skills are a complement and a prerequisite for educators to remain relevant in the education 4.0 era.

3. Research Methods

This research uses a qualitative approach with a needs analysis method. Data were collected through interviews, observations, and documentation. Informants were selected using a purposive sampling technique with the criteria of active teachers at SD Negeri Ciranca who have a minimum of three years of teaching experience and are willing to provide information related to the use of technology. Interviews were conducted with five teachers. The data obtained consisted of verbal data from interviews, visual and behavioral data from observations, and document data such as lesson plans and teaching media used by teachers. All data were analyzed thematically to describe the need for developing digital skills and teacher self-efficacy. The focus of this research is to explore and describe the needs of teachers in improving digital skills and self-efficacy, as a basis for designing peer tutor-based digital modules. Data collection techniques were conducted through interviews, observation, and documentation. Interviews were conducted sequentially using an interview guide to explore teachers' opinions and experiences on digital skills and self-efficacy. Observations were made directly to teacher activities in the classroom and school environment to record behavior and the use of technology in learning. Documentation includes collecting lesson plans, teaching media, and photos of technology-based learning activities.

The types of data collected are verbal data (interview results), visual and behavioral data (observation results), and textual data (learning documents). The research instruments used were interview guidelines, observation sheets, and document checklists. Validity and validity of data were obtained through source triangulation by comparing and combining findings from interviews, observations, and documentation to obtain credible and indepth results. Data from interviews and observations provide direct perspectives from teachers related to the needs in the field, while documentation is used to support and strengthen field findings. Furthermore, the data were analyzed continuously through data reduction, presentation, and conclusion drawing (Sugiyono, 2022). Interview data was reduced by identifying key themes such as teachers' experiences, needs,

challenges, and motivations in using technology. Observation data was analyzed by looking at the frequency and quality of teachers' digital behavior in the field. In contrast, documentation was analyzed to strengthen information about the readiness and use of digital learning media. All data were then presented as thematic narratives, studied for their interrelationships, and interpreted holistically to obtain a complete picture of the needs of teachers in developing digital competencies and self-efficacy.

4. Results and Discussion

Teacher needs analysis was conducted through interviews, observations, and documentation. This process was carried out to get a complete picture of the teachers' conditions, especially related to their readiness and needs in developing digital skills and implementing peer tutors. Interviews were conducted with teachers at SD Negeri Ciranca, who provided information based on five leading indicators.

4.1. Research Results

4.1.1. Digital Background and Competence

Based on interviews with five teachers at SD Negeri Ciranca, information was obtained about their experiences and abilities in using digital technology for learning and administration. All teachers stated that they are only accustomed to using Microsoft Word to create questions, assignment letters, and simple documents, with limited feature utilization. Teachers generally only create basic slides without interesting visual elements when using PowerPoint. Some teachers admitted to having difficulty organizing the slides and often asked for help from colleagues or family members to complete digital-based assignments. In addition, teachers are not used to using learning applications such as Google Classroom, Zoom, or other platforms that support online learning. Some teachers also mentioned that they do not know how to store and manage files using cloud services like Google Drive. Regarding the readiness to be a peer tutor, most teachers said that they were not confident in their abilities and worried that they could not help their peers well, because they felt that their mastery of technology was still lacking.

When using PowerPoint, teachers admitted they could only create simple slides without an attractive design. Teachers often find it challenging to organize the slides and ask for help from colleagues or family members, such as more tech-savvy children. Teachers revealed that they are not accustomed to utilizing other features supporting the quality of digital-based teaching materials. Regarding self-confidence as a prospective peer tutor, the teacher mentioned that she felt unsure because her abilities were inadequate. Teachers are worried if their role is not maximized and even confuse other co-teachers. This is in line with research (Wahyudi & Jatun, 2024), which states that many teachers in elementary schools have not optimized technological features in making teaching media. Furthermore, Pebriana et al. (2024) revealed that teacher awareness of the use of technology in supporting learning is still relatively low.

4.1.2. Need for Peer Tutor Role

In the indicator of the need for the peer tutor role, teachers stated that they need practical, structured training that can be followed easily. The training will provide clear stages, from the basics to direct practice. Teachers expect each step in the training to be equipped with real examples and opportunities to try themselves to be more confident. The digital module should include written instructions, illustrative images, and video guides to help understand the material better. Teachers also hope the module can be used independently, allowing discussion or assistance

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when needed. This is in line with the research of Surur et al. (2023), which revealed that training activities can improve teachers' ability to use innovative learning media. In addition, Widiyan et al. (2025) emphasize the importance of interactive learning resources to support competency improvement so that teachers can practice independently but still directed. This is the basis on which digital module design must emphasize clarity and applicability.

4.1.3. Anticipated Challenges

In the anticipated challenges indicator, teachers expressed concerns regarding technical obstacles that may arise while mentoring fellow teachers. One challenge often faced is an unstable internet connection, so digital-based learning activities are sometimes disrupted. In addition, teachers also mentioned that the devices used, such as laptops or projectors, sometimes experience technical problems that make the teaching-learning process not optimal. Teachers added that another challenge is encouraging co-teachers who are less proficient in using technology or are hesitant to try to be more open and willing to learn. Teachers realize that changing habits and building interest in technology in colleagues requires a patient and persuasive approach. This finding supports the results of research Shela's (2025), which states that the readiness of participants and infrastructure support strongly influences the success of Peer Tutors. This challenge indicates that the development of digital modules needs to consider technical conditions in the field and strategies to build teacher motivation and interest in technology.

4.1.4. Perception of Peer tutor Impact

On the indicator of perception of the impact of peer tutors, teachers mentioned that despite initially feeling less confident, the role of peer tutors is a good opportunity to improve their digital skills. By guiding other co-teachers, teachers feel encouraged to study harder and master the material more deeply. Teachers believe this experience can strengthen their abilities and increase their confidence in integrating technology into the learning process. Teachers view peer Tutoring as a mutually beneficial process, as it helps peers and enriches personal experience and competence. This is in line with the opinion of Zebua (2023), who revealed that Peer tutoring allows teachers to learn from peers in a non-intimidating atmosphere, which is crucial to overcoming anxiety about technology. In digital modules, peer tutors can be implemented using digital tools through virtual training sessions, group discussions, or simulations. Furthermore Amer (2023), asserts that the peer tutor model facilitates the transformation of knowledge and innovation without awkwardness due to its interactive and cooperative nature.

4.1.5. Recommendations for the Model

On the indicator of recommendations for the model, teachers suggested that the digital module developed uses easy to understand and straightforward language without many technical terms that can be confusing. Teachers hope that the material in the module is relevant to the context of learning in elementary schools, equipped with real examples and applicable steps that can be directly applied in the classroom. In addition, teachers mentioned the importance of school support in the form of special time allocations so that teachers can focus on learning technology without interfering with daily tasks. Teachers also expect intensive assistance from researchers or facilitators in the early stages of peer tutor implementation so that the program runs smoothly and teachers feel more confident in carrying out their new role. This finding aligns with research conducted by Supriyatna (2024), who explained that the peer tutor model describes the application of the peer tutor method in the learning process and identifies various obstacles that arise during

its implementation. In addition, the study showed that the peer tutor method can positively improve participants' skills, both in terms of academic and collaborative skills among peers.

4.2. Observation Results

Based on the observation of five teachers at SD Negeri Ciranca, data on several aspects of digital skills and self-efficacy was obtained. In the digital skills aspect, most teachers only use devices such as laptops or smartphones for basic purposes such as typing documents in Microsoft Word and accessing WhatsApp. Learning applications such as PowerPoint, Google Classroom, or Zoom are still minimal, and teachers are not used to utilizing interactive features in the learning process. Teachers still rely on manual recording in data management and have not optimally used digital storage or cloud-based services. Regarding digital security, some teachers understand the importance of maintaining account and data privacy but do not fully understand digital security practices such as using strong passwords or protecting student data.

Regarding self-efficacy, teachers appear hesitant when using digital devices independently and tend to ask for help from colleagues or family members. Some teachers also showed reluctance to try new technologies without assistance. Observations also noted that teachers' enthusiasm for the training was very high. Teachers seemed interested when introduced to the peer tutor-based digital module and showed interest in learning more if clear, easy-to-understand guidelines were provided.

Teachers can use technological devices such as computers and smartphones for simple purposes but have not optimally mastered digital learning applications such as Google Classroom or Zoom and are not yet skilled in creating digital teaching materials such as interactive presentations, videos, or quizzes. The ability to manage student data digitally is still limited. In the digital security aspect, teachers show **moderate** ability, meaning that there is already some understanding of data privacy and security, but it still needs to be improved. What stands out is that teachers rated themselves as **Very Good** in need of training, indicating that teachers realize the importance of improving digital skills and feel strongly that they need additional training.

On the self-efficacy aspect, the observation results show that teachers' ability to integrate technology into learning, adapt to new technology, and overcome technical obstacles is still in the **Not Good** category. Teachers do not feel confident enough to face the challenges of using technology in the learning process. However, teachers rated themselves in the **Moderate** category on digital collaboration skills, which means they are confident enough to work with fellow teachers in using technology, although it is not yet optimal. On the other hand, teachers' motivation to improve digital skills is in the **Good** category, indicating that although teachers feel their skills are still low, there is a strong desire to develop and learn.

In the aspect of the need for a peer tutor-based digital module, teachers assessed the need for a module that is practical and relevant, easily accessible, and interactive, in the **Good** to **Very Good** category. Teachers want a module that can help them understand digital technology more easily through the peer tutor approach and a module equipped with interactive features such as videos, quizzes, or discussion forums. These results show that teachers still need much support to improve their digital skills and confidence in using technology. However, teachers' good motivation and the high demand for peer tutor-based digital modules are important assets in designing targeted module solutions.

Based on the needs analysis results obtained from interviews, observations, and documentation, a solution systematically designed to answer teachers' challenges and needs is needed. One effort that can be made is to design a digital module that aims to improve the digital

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skills and self-efficacy of elementary school teachers so that they can be more confident and skilled in utilizing technology to support the learning process.

4.3. Discussion

4.3.1. Digital Competence and Readiness of Teachers as Peer Tutors

Based on the interviews and observations, it can be concluded that the digital competence of teachers at Ciranca State Elementary School is still limited. Most teachers only use digital devices for basic activities such as typing in Microsoft Word and communicating via WhatsApp. Learning applications such as Google Classroom, Zoom, and PowerPoint are still rare, and interactive features have not been utilized to their full potential. These findings align with the research results by Wahyudi and Jatun (2024), which revealed that most elementary school teachers have not optimized digital features to create engaging and interactive teaching media. In addition to technical limitations, teachers also showed hesitation in carrying out their role as peer tutors. They felt that they were not competent and confident enough to guide their peers. This supports the findings of Pebriana et al. (2024), who stated that teachers' awareness and readiness to utilize technology in learning are still low. In the context of professional development, self-confidence is an essential part of self-efficacy, which influences the readiness to adopt technological innovations in learning (Chen & Tsai, 2025).

4.3.2. Teachers' Needs for Peer tutor Modules

Teachers need practical, structured, and easily accessible training modules. They want guidance that includes illustrations, videos, and examples of real-classroom applications. This desire reflects that teachers need a learning approach that is not only theoretical but also contextual and applicable. This aligns with the findings of Surur et al. (2023), who emphasized that practical training can enhance teachers' competencies in using digital learning media. Widiyan et al. (2025) also highlighted the importance of interactive learning resources that allow teachers to learn independently yet remain guided. Digital modules that adopt a peer tutor approach are considered strategic because they enable teachers to learn from fellow teachers in a collaborative and non-intimidating atmosphere. According to Utami (2022), the peer tutoring model helps teachers develop skills through direct and reflective experiences in peer interactions. This reinforces the view that collaborative learning can overcome technology anxiety and progressively improve skills.

4.3.3. Challenges in Implementing Peer Tutoring and Its Implications for Module Design

Teachers revealed technical challenges that may be encountered during peer tutoring, such as limited devices, unstable internet connection, and individual readiness. In addition, teachers also felt the need for intensive guidance in the early stages to build confidence in their role as peer tutors. Shela (2025) emphasized that participants' readiness greatly influences the success of peer tutoring, the availability of infrastructure, and the approach used in building peer motivation. These findings indicate that teachers' technical and psychosocial aspects must be considered when designing digital modules based on peer tutoring. Modules must be flexible, easy to understand, and developed according to the context of elementary schools. Support from schools, such as time allocation, guidance, and appreciation for teacher participation, is also an essential factor, as explained by Supriyatna (2024), highlighting the importance of a supportive ecosystem in implementing peer tutoring.

4.3.4. Self-efficacy and the Potential of Peer Tutoring as a Transformation for Teachers

Although teachers feel less confident, they state that the peer tutor role can be an opportunity to improve their digital skills. By guiding other teachers, they are encouraged to learn more deeply and expand their mastery of technology. This shows that peer tutoring is a means of sharing and a medium for self-development. These findings align with Utami (2022), who noted that peer tutoring is interactive, cooperative, and supports personal and professional transformation in a supportive environment.

5. Conclusion

Based on the analysis, elementary school teachers show that digital skills are still in the unfavorable to moderate category. Teachers only master technology at a basic level and are not optimal in creating digital teaching materials, managing data, or understanding digital security. Teachers' self-efficacy is also low, indicated by a lack of confidence in integrating technology into learning and facing technical obstacles. Nevertheless, teachers are highly motivated to improve their competence and show a great need for digital modules that are easy to understand and practical and encourage collaboration. Therefore, the development of a peer tutor-based digital module is needed as a solution to strengthen teachers' digital skills and self-efficacy. This module must be designed to be responsive to needs, with simple, applicable materials and assistance in its implementation. This research supports the importance of a collaborative approach in teacher professional development in the digital era and the Merdeka Curriculum.

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