AWLADY: Jurnal Pendidikan Anak
Homepage: https://journal1.uinssc.ac.id/index.php/awlady
P-ISSN: 2541-4658 **E-ISSN:** 2528-7427
Vol. 12, No 2 September (2026)

FACTORS SUPPORTING TEACHER READINESS FOR THE IMPLEMENTATION OF DIGITAL LEARNING MEDIA USING A DEEP LEARNING APPROACH AT AL-IRSYAD KINDERGARTEN

Masittha Izzati
Universitas Trunodjoyo Madura
Email: 220651100039@student.trunojoyo.ac.id

Eka Oktavianingsih
Universitas Trunodjoyo Madura
Email: eka.oktavianingsih@trunojoyo.ac.id

Dinda Rizki Tiara
Universitas Trunodjoyo Madura
Email: dinda.rtiara@trunojoyo.ac.id

Ajeng Rizki Safira
Universitas Trunodjoyo Madura
Email: ajeng.safira@trunojoyo.ac.id

Article received: 21 June 2026, Review process: 01 July 2026,
Article Accepted: 20 August 2026, Article published: 30 September 2026

ABSTRACT
The implementation of digital learning media with a deep learning approach aims to enhance the quality of early childhood learning to be more meaningful and contextual, with teacher readiness serving as a crucial factor in the successful use of digital media. This study aims to determine the factors supporting teacher readiness in implementing digital learning media at Al-Irsyad Kindergarten, Surabaya. This study used a qualitative approach with a case study method. Data collection techniques were carried out through interviews, observation, and documentation, with informants from four homeroom teachers and one principal. Data analysis used data reduction, presentation, and verification. The results showed that factors supporting teacher readiness include knowledge and experience, infrastructure, child readiness, and support from the principal. The strongest factor was teacher knowledge and experience, while the relatively weak factor was internet network infrastructure for successful digital learning. Teachers have been able to operate and utilize digital media interactively in learning. This study recommends improving teacher competency and optimizing the use of digital media in early childhood educationstudy lies in strengthening the academic understanding of children's literature as a narrative medium for representing social development in early childhood education.

Keywords: Teacher Readiness, Digital Learning Media, Deep Learning, Early Childhood Education

INTRODUCTION

Learning media constitute a crucial component of the teaching and learning process, particularly in Early Childhood Education (PAUD). Through learning media, children receive messages and information that contribute to the development of new knowledge while supporting their understanding, interest, and learning motivation (Ramadhan et al., 2023). Along with technological advancements and the demands of 21st-century education, digital learning media have become an increasingly relevant component of early childhood education. Digital media, including interactive videos, animations, educational games, and e-books, enable teachers to present learning content in varied and engaging forms that can be adapted to the characteristics and developmental needs of young children (Nurjanah & Mukarromah, 2021).

The use of instructional media in early childhood education is also relevant to the implementation of a deep learning approach. One of the practices associated with this approach is the creation of a positive and supportive learning environment (Diputera et al., 2024). Various forms of media, including audio, visual, audio-visual, and hands-on materials, can provide children with stimuli that support active engagement in learning activities (LeCun et al., 2015). In this context, media can serve as learning resources and stimuli through which teachers facilitate children's exploration and interaction with learning content. Therefore, the effective implementation of digital learning media requires teachers not only to operate technological devices but also to integrate them appropriately into learning activities.

However, the implementation of digital learning media in early childhood education is not solely determined by the availability of technology. Teacher readiness is an important consideration because teachers are responsible for selecting, preparing, and utilizing digital media according to learning objectives and children's developmental characteristics. Previous research indicates that the digital competence of early childhood teachers is positively associated with educational outcomes (Munar, 2021). Teacher competence is also influenced by opportunities for practical training, digital literacy, and institutional support (Novitasari & Fauziddin, 2022). Limitations in technical competence, practical experience, training opportunities, and school facilities may therefore become barriers to effective implementation.

The issue becomes more complex when digital technology is integrated into a deep learning approach. In early childhood education, technology is not intended merely to make learning more attractive or to replace conventional teaching materials. Rather, its use needs to support learning experiences that are appropriate to children's developmental characteristics and encourage active engagement. The integration of technology has been associated with children's cognitive, social, and motor development as well as critical thinking and creativity (Syahran, 2025). Consequently, teachers need to consider not only how to operate digital technology but also how to use it to create learning experiences that are meaningful, mindful, and joyful.

Previous studies have provided important insights into the use of digital learning media and teacher digital competence. Research has examined the contribution of interactive learning media to children's achievement, motivation, and participation (Hasnawiyah & Maslena, 2024), while other studies have highlighted the importance of teachers' digital literacy, training, and institutional support

(Novitasari & Fauziddin, 2022). Research on deep learning has also emphasized the importance of creating positive and supportive learning environments (Diputera et al., 2024). Nevertheless, these studies tend to examine the benefits or implementation of digital media and teacher competence as separate issues. Less attention has been given to how multiple contextual factors collectively support teachers' readiness to implement digital learning media within a deep learning approach, particularly in the context of early childhood education.

This gap is particularly relevant because teacher readiness cannot be understood solely from teachers' technical ability to operate digital devices. Readiness may also be shaped by teachers' knowledge and experience, the availability of facilities and infrastructure, children's readiness to engage with digital learning activities, and institutional support from the school principal. Furthermore, there is a need to examine how these supporting factors are reflected in actual classroom practices, particularly in relation to the principles of meaningful, mindful, and joyful learning. Therefore, an empirical examination of teacher readiness within its specific school context is needed to provide a more comprehensive understanding of the conditions that support the implementation of digital learning media.

To address this gap, this study investigates the factors supporting teacher readiness to implement digital learning media using a deep learning approach at Al-Irsyad Kindergarten, Surabaya. The study focuses on four factors identified through interviews, observations, and documentation: teachers' knowledge and experience, the availability of facilities and infrastructure, children's readiness, and principal support. Rather than proposing a new conceptual model of teacher readiness, this study provides a contextual empirical account of how these factors interact to support teachers' readiness within the specific setting of early childhood education.

Theoretically, this study draws on the principles of deep learning, particularly meaningful learning, mindful learning, and joyful learning (Fauziddin & Elyana, 2018). These principles emphasize children's active engagement in learning experiences that are connected to their experiences, encourage focused participation, and create positive learning experiences. In this study, these principles are used not merely as labels for the use of digital media but as analytical considerations for examining how teachers integrate digital media into classroom activities. Thus, the study seeks to examine whether and how the observed use of digital media provides opportunities for children to connect learning with their experiences, participate attentively, interact with learning content, and experience enjoyment during learning activities.

The findings are expected to contribute to the discussion of teacher readiness for digital learning in early childhood education by providing contextual evidence regarding the factors that support implementation. Practically, the findings may assist early childhood education institutions in identifying areas that require strengthening, including teacher development, access to digital facilities, consideration of children's readiness, and institutional support. In this way, the study may serve as a reference for developing teacher training and school support strategies for the appropriate integration of digital learning media within deep learning practices.

METHODS

This study employed a qualitative approach with a case study design. The qualitative approach was selected because the study aimed to explore and gain an in-depth understanding of teacher readiness and the factors supporting the implementation of digital learning media using a deep learning approach in its natural educational context (Abdussamad, 2021). A case study design was employed to enable the researcher to examine the phenomenon comprehensively within the specific context of Al-Irsyad Kindergarten, Surabaya.

Al-Irsyad Kindergarten was purposively selected as the research site because the school had implemented digital learning media as part of its classroom learning practices and had supporting facilities that enabled teachers to utilize digital technology in the learning process. Digital media were used by teachers in various forms, including instructional videos, presentations, interactive images, and educational games. In addition, the school had begun integrating the deep learning approach into its learning practices. These conditions made Al-Irsyad Kindergarten particularly relevant to the research problem because they provided a context in which teacher readiness could be examined directly through teachers' actual use of digital media, their classroom practices, and the institutional factors supporting such implementation. Therefore, the school was not selected solely as a research location but because its existing practices corresponded directly with the focus of the study.

This study was conducted at Al-Irsyad Kindergarten, Surabaya, between November 2025 and March 2026. Research participants were selected purposively based on their direct involvement and their ability to provide relevant and in-depth information concerning the research focus. The key informants consisted of four homeroom teachers: two teachers from the TK A level (classes A2 and A3) and two teachers from the TK B level (classes B2 and B4). The school principal served as a supporting informant who provided additional information concerning school policies, facilities, institutional support, and efforts to support teachers in implementing digital learning media. The selection of these informants was based on their direct involvement in the implementation and support of digital learning activities at the school.

Data were collected using three complementary techniques: non-participatory observation, semi-structured interviews, and documentation. First, non-participatory observations were conducted by observing classroom learning activities without the researcher becoming actively involved in the learning process (Sugiyono, 2015). The observations focused on teachers' use of digital learning media, their ability to operate and integrate digital media into learning activities, children's responses to the media, and the ways in which digital media were connected to learning objectives and classroom interactions. A structured observation sheet was used to ensure that the observations remained focused on the research objectives.

Second, semi-structured interviews were conducted with all informants to obtain in-depth information regarding the factors supporting teacher readiness in implementing digital learning media (Sugiyono, 2019). The interview guide covered four main areas: teachers' knowledge and experience, the availability of facilities and infrastructure, children's readiness, and principal support. The semi-structured format allowed the researcher to ask follow-up questions when informants provided information requiring further clarification or elaboration.

Third, documentation was used to complement and strengthen the data obtained from observations and interviews. The documentation included photographs of learning activities, teaching modules, digital learning media and devices used by teachers, and teachers' work related to the implementation of digital media in classroom learning. The documentation was used as supporting evidence to help confirm information obtained through the other data collection techniques.

Data analysis in this study primarily employed the interactive model of Miles and Huberman, which consists of data condensation, data display, and conclusion drawing/verification. The analysis was conducted continuously throughout the data collection process. First, data condensation was carried out by selecting, organizing, coding, and focusing the interview, observation, and documentation data according to the research focus. Initial codes were developed from relevant statements and observed activities, such as teacher knowledge and experience, facilities and infrastructure, children's readiness, and principal support. The codes were subsequently grouped into broader categories to identify patterns across the data.

Second, the condensed data were displayed in an organized form, including descriptive narratives and tables containing interview and observation findings. This stage enabled the researcher to compare information obtained from different informants and data collection techniques and to identify relationships and recurring patterns among the categories.

Third, conclusions were drawn and continuously verified by comparing findings across interviews, observations, and documentation. The researcher examined whether the emerging findings were consistently supported by the available evidence and refined the conclusions throughout the analysis process. Thus, Miles and Huberman's interactive model served as the primary analytical framework, while coding and categorization were used as analytical procedures within the data condensation stage. This process resulted in the identification of four main factors supporting teacher readiness in implementing digital learning media: teachers' knowledge and experience, the availability of facilities and infrastructure, children's readiness, and principal support.

The following are the research interview and observation indicators:

Tabel 1 Observation Indicators

. Indikator	Sub Indikator
Experience and Knowledge Factors	1. Teachers' technical skills 2. Proficiency in operating media 3. Ability to explain material using technology
Facilities and Infrastructure Factors	1. Availability of devices 2. Suitability/condition of devices 3. Classroom readiness 4. Internet connectivity
Child Readiness Factors	1. Children's response to digital media 2. Suitability of media for the child's developmental age
Principal Support Factors	1. Availability of facilities 2. Principal's policies regarding usage rules, monitoring, and evaluation

Tabel 2 Interview Indicators

No.	Indikator	Sub Indikator
Faktor Yang Mempengaruhi Kesiapan Guru Dalam Mengintekrasikan Media Pembelajaran Digital Menurut Siregar et al., (2025):	Experience and Knowledge Factors	1. What has your experience been like using digital devices for instruction? 2. To what extent are you able to use digital learning media? Are there any obstacles or challenges? 3. How do you explain the material presented in the media to the children?
	Facilities and Infrastructure Factors	1. In your opinion, what digital facilities and infrastructure are used at the school to support digital learning? What is their condition and what are their specifications? 2. What devices are available and usable for instruction? 3. 3How would you describe the condition of the classroom when used for digital learning? 4. What is the state of the school's internet connection when digital media is in use?
	Child Readiness Factors	1. How do the children respond when you use digital media in the classroom? 2. Do the children appear enthusiastic, or do they seem to struggle when learning with digital media? 3. In your opinion, is the current use of media in the classroom appropriate for the children's developmental stage?
	Principal Support Factors	1. Does the principal provide adequate digital facilities or resources? 2. To what extent does the principal encourage teachers to utilize technology? 3. What form of assistance or support from the school is most impactful?

Data analysis in this study employed a descriptive qualitative approach based on the interactive analysis model proposed by Miles and Huberman (as cited in Sugiyono, 2015). This model comprises three continuous stages: pre-fieldwork, data collection, and post-collection. The first stage is data reduction, which involves summarizing, selecting key elements, focusing on significant aspects, and discarding irrelevant data. During this stage, the researcher simplifies complex field notes into meaningful categories aligned with the research focus—specifically, the factors supporting teacher readiness for the implementation of digital learning media. The second stage is data presentation, where the reduced data is organized and presented as a descriptive narrative that coherently links findings from interviews, observations, and documentation. This presentation aims to facilitate an understanding of the situation in the field while serving as a basis for drawing conclusions. The third stage involves verification and conclusion drawing—a process of systematically interpreting the presented data to formulate conclusions that are clear, substantiated, and directly address the research problem. Data validity is ensured through source triangulation, involving the simultaneous comparison of data obtained from teachers, school principals, observations, and documentation.

RESULTS AND DISCUSSION

Data regarding the factors supporting teacher readiness for the implementation of digital learning media using a deep learning approach at Al-Irsyad Kindergarten were obtained through interviews and observations. The findings show that the implementation of digital media was not limited to delivering learning materials but was integrated into learning activities that encouraged children to engage with, respond to, and explore the content presented. Teachers used instructional videos, interactive images, presentations, and educational games as stimuli for discussion, questioning, and exploration. These activities provided opportunities for children to connect the learning content with experiences from their daily lives, indicating meaningful learning. Teachers also guided children to pay attention to the content, respond to questions, and express their understanding, reflecting mindful learning. At the same time, children's enthusiasm, active participation, and enjoyment during video-based and game-based activities indicated the presence of joyful learning. Thus, the use of digital media in the observed learning activities demonstrated several observable characteristics associated with the deep learning approach, particularly meaningful, mindful, and joyful learning.

During the observations, teachers used digital media as a stimulus rather than merely as a means of presenting information. For example, after showing learning videos or interactive images, teachers asked children questions related to the content and encouraged them to share what they had seen or experienced. Children were given opportunities to answer questions, identify objects or events displayed on the screen, and relate the material to situations in their daily lives. This interaction indicates meaningful learning because children were encouraged to connect new information with their existing experiences. The teachers also provided guidance by asking children to observe the content carefully, wait for their turn to respond, and explain their answers. These activities encouraged children to focus their attention and become actively involved in constructing their understanding, reflecting the mindful dimension of learning.

The joyful dimension was also observable during the implementation of digital media. Children showed enthusiasm when watching videos, responding to interactive images, and participating in educational games. Some children voluntarily responded to the teacher's questions, followed the activities presented on the screen, and expressed their excitement during game-based activities. The classroom atmosphere became more interactive as children participated in the learning activities rather than only listening to the teacher's explanation. However, the observations also showed that the presence of digital media alone did not automatically produce deep learning. The meaningful, mindful, and joyful characteristics emerged through the way teachers selected, presented, and followed up the digital media with questions, discussion, exploration, and connections to children's experiences. Therefore, teacher readiness was reflected not only in the ability to operate digital devices but also in the ability to integrate digital media into learning activities that provide opportunities for children to engage meaningfully, mindfully, and joyfully.

The interview findings support these observations. The teachers explained that digital media helped them attract children's attention and make learning materials easier to understand. One teacher stated that videos and interactive

images could be used as initial stimuli before children were invited to discuss the topic and answer questions. Another teacher explained that educational games were used to provide opportunities for children to practice concepts while maintaining their interest in the activity. These statements indicate that teachers understood the role of digital media beyond simply displaying learning materials. The principal also emphasized that teachers needed to be able to utilize available digital facilities according to learning objectives and children's needs. Institutional support through the provision of facilities, motivation, and opportunities for teacher development further contributed to teachers' readiness to implement digital learning media.

Implementation of Digital Learning Media within a Deep Learning Approach at Al-Irsyad Kindergarten

The implementation of digital learning media within a deep learning approach at Al-Irsyad Kindergarten is carried out through three main stages: lesson planning, lesson implementation, and lesson evaluation and reflection. These three stages are conducted continuously to create a meaningful learning process and foster children's active engagement in learning activities.

Learning Planning

Based on observations and interviews, teachers at Al-Irsyad Kindergarten have engaged in instructional planning by developing lesson plans aligned with themes, child development goals, and planned activities. During this planning process, teachers also determine the use of digital learning media—such as educational videos, interactive images, and simple applications—tailored to the children's needs and characteristics. Scheduling for the use of these media involves coordination between the homeroom teacher and the assistant teacher prior to the lesson. However, teachers face several challenges, including limited time to prepare digital media, difficulties in selecting media that suit the learning theme, and the need to adapt media usage to the children's conditions and abilities to ensure the learning remains effective and engaging.

Implementation

Observations indicate that instruction at Al-Irsyad Kindergarten positions children as active participants in the learning process. Digital learning media are utilized two to three times a week to support instruction integrated into the "learning center" (sentra) system. Teachers employ educational videos and interactive images to introduce topics and facilitate visual understanding, followed by activities such as discussion, questioning, play, and exploration aligned with the learning theme. In selecting these media, teachers consider the children's age and needs while limiting screen time to ensure a balance with hands-on learning activities. Thus, digital media serve not merely to convey information but also to foster active engagement, enabling children to gain meaningful learning experiences.

Learning Evaluation and Reflection

Based on observations, teachers at Al-Irsyad Kindergarten conduct evaluations and reflections following learning activities to assess the children's level of understanding regarding the material covered. Evaluation is carried out through direct observation of the children's engagement, attention, and responses during the learning process. Teachers gauge the children's understanding based on their active participation in activities, their ability to answer simple questions, and the enthusiasm they display during the lesson. The results of these evaluations and reflections serve

as a basis for refining and adjusting future learning activities to better align with the children's needs and developmental stages.

Factors Supporting Teacher Readiness for the Implementation of Digital Learning Media Using a Deep Learning Approach at Al Irsyad Kindergarten

Based on research findings obtained through observation, interviews, and documentation, teachers' readiness to implement digital learning media at Al-Irsyad Kindergarten is influenced by several factors: teacher knowledge and experience, facilities and infrastructure, children's readiness, and support from the school principal.

Teacher Knowledge and Experience Factors

Research findings indicate that teacher knowledge and experience are key factors supporting teachers' readiness to implement digital learning media at Al-Irsyad Kindergarten. Teachers are not only capable of operating various digital media but are also able to plan, select, and adapt the media to align with learning objectives and the characteristics of young children. These capabilities enable teachers to utilize digital media more effectively to support the learning process.

Teachers' knowledge regarding the use of digital media is gained through teaching experience, independent learning, and participation in various school-organized training programs. This experience helps teachers develop skills in selecting and using media appropriate to learning needs. This finding aligns with research by Febrianti et al. (2026), which shows that practice-based training can improve teachers' digital competence because it provides opportunities for direct experience in using learning technology.

Teachers' ability to integrate digital media into learning can also be explained through the Technological Pedagogical Content Knowledge (TPACK) framework proposed by Mishra & Koehler, (2006). The TPACK framework explains that effective technology use depends not only on technological mastery but also on teachers' ability to connect technology with appropriate learning materials and strategies. Research findings indicate that teachers have been able to utilize digital media not merely as a means of conveying information but also as a means to encourage children's active involvement in the learning process.

Furthermore, the use of digital media accompanied by guidance, guidance, and interaction during learning indicates that teachers have moved towards implementing a deep learning approach. Teachers encourage children to observe, ask questions, answer questions, connect the material to everyday experiences, and actively participate in learning activities. This environment enables children to build more meaningful understandings than simply passively receiving information.

The results of this study also support the findings of Oktavianingsih et al. (2026), which show that ongoing training and guidance contribute to improving teachers' knowledge and skills in utilizing digital media. Thus, teachers' knowledge and experience not only play a role in improving technical skills in technology use but also strengthen their readiness to design interactive, meaningful digital learning that aligns with deep learning principles in early childhood education.

Facilities and Infrastructure Factors

Research findings indicate that the facilities and infrastructure at Al-Irsyad Kindergarten support the implementation of digital media-based learning. The school possesses various digital devices used in learning activities, such as smart TVs,

standard televisions, LCD projectors, laptops, speakers, mobile phones, and SmartBoards. Furthermore, the classrooms are equipped with adequate amenities—including air conditioning and sound systems—that create a comfortable learning environment for the children.

Observations and interviews revealed that the available digital devices are in good condition and can be utilized optimally to support learning activities. Teachers noted that the school performs regular maintenance on the equipment, ensuring that technical issues can be addressed promptly. The availability of these resources enables teachers to easily present videos, images, educational games, and various interactive media tailored to the learning needs of early childhood students.

The research findings demonstrate that the availability of facilities and infrastructure is a key factor supporting teachers' readiness to use digital learning media. Adequate facilities provide teachers with the opportunity to develop learning experiences that are more interactive, engaging, and meaningful. Teachers utilize digital media not only to convey information but also to encourage children to observe, ask questions, explore, and respond to the material being studied.

The results of this study align with the views of Latifah dan Suriansyah (2025 who state that the readiness of facilities and infrastructure is a crucial prerequisite for implementing instruction in the digital era. The availability of adequate devices and infrastructure enables a more effective learning process and supports the use of technology in teaching and learning activities.

These findings also support the research of Tamsiyati & Kurnia (2025), which explains that facilities and infrastructure play a vital role in the successful use of digital media. Accessible facilities assist teachers in integrating technology into instruction, whereas limited facilities can hinder its implementation. Beyond mere availability, the condition and suitability of the equipment also influence teacher readiness. This is consistent with research by Yuliansah (2014), showing that well-maintained facilities and infrastructure can enhance instructional effectiveness and support teachers in utilizing technology.

Nevertheless, adequate facilities and infrastructure must be complemented by teacher competence in utilizing technology optimally. The availability of facilities will not yield maximum impact if teachers lack the necessary skills to integrate digital media into instruction. Therefore, facility readiness must go hand-in-hand with the enhancement of teacher competence to ensure that digital learning media delivers optimal benefits to the learning process.

Thus, the facilities and infrastructure available at TK Al-Irsyad serve as a key factor supporting teacher readiness to use digital learning media. The availability of comprehensive equipment, well-maintained facilities, and a comfortable learning environment creates opportunities for teachers to conduct digital instruction that is effective, interactive, and suited to the characteristics of early childhood learners.

Child Readiness Factors

Research findings indicate that children at Al-Irsyad Kindergarten demonstrate good readiness for learning activities utilizing digital media. This readiness is evident in the children's experience, skills, and attitudes throughout the learning process. Regarding experience, most children are already familiar with using simple digital media through activities such as watching educational videos, observing interactive images, and engaging in digital media-based tasks presented

by the teacher. Such experiences facilitate the children's adaptation to digital learning in the classroom.

In terms of skills, the children are able to use simple digital media according to the teacher's guidance—such as selecting answers in educational games, tapping specific icons, dragging images, and following instructions within educational videos**.** They are also capable of mimicking movements, identifying colors, and counting objects based on the displayed content. These findings demonstrate that the children possess the foundational abilities to interact with the digital media used in learning activities.

Meanwhile, regarding attitudes, the children display good attention and engagement during lessons. They are able to focus on the displayed media, follow the teacher's instructions, wait for their turn, and participate actively in learning activities. Teachers also noted that the use of digital media helps children stay focused, makes them more receptive to guidance, and enables them to grasp the material more quickly. These findings show that the children's readiness is reflected not only in their interest in digital media but also in the skills and attitudes that support a successful learning process. This high level of readiness serves as a factor that assists teachers in implementing digital learning media.

This aligns with the views of Mayer, (2024) who explains that learning is more effective when information is presented through a combination of visual and audio elements. Digital media—integrating images, sound, video, and animation—helps children grasp information more easily by engaging multiple information-processing channels. Furthermore, children's readiness, demonstrated through active engagement during lessons, supports the application of a "deep learning" approach in early childhood education. Children who are focused, enthusiastic, and actively participating are more likely to develop a meaningful understanding of the material. This state facilitates the teacher's ability to design learning activities that foster exploration, interaction, and reflection—key characteristics of deep learning.

These findings also align with research by Rochmah, (2024) which indicates that the use of digital media with young children enhances their attention, engagement, and comprehension during the learning process. Digital media offers a more engaging learning experience, encouraging children to participate actively and making it easier for them to understand the material presented by the teacher. Based on these findings, it is evident that child readiness is a crucial factor in supporting the implementation of digital learning media at TK Al-Irsyad. The experiences, skills, and positive attitudes children bring to digital learning not only foster their engagement in the learning process but also bolster the teacher's readiness to implement digital media and deep learning approaches in the classroom.

Principal Support Factor

Research findings indicate that the principal provides strong support for the use of digital learning media at Al-Irsyad Kindergarten. This support is demonstrated through the provision of learning facilities, teacher motivation, the organization of training sessions, and the monitoring and evaluation of technology-based instruction. Observations reveal that the school has provided various resources to support digital learning—such as televisions, instructional equipment, and adequate internet connectivity—to facilitate the use of digital media in the classroom. Furthermore, the school provides financial support for digital learning needs, including the procurement of the media and applications used by teachers during lessons. The

principal encourages teachers to utilize technology in instruction to foster active student engagement through observing, questioning, exploring, and solving simple problems, in alignment with the principles of deep learning.

Teachers noted that the principal's support extends beyond the provision of facilities to include motivation and opportunities for training that enhance their competence in using educational technology. This support has boosted the teachers' confidence and preparedness to integrate digital media into their instructional activities.

Research findings indicate that principal support is a crucial factor in fostering teachers' readiness to use digital learning media. Support in the form of facilities, policies, training, and mentoring creates an environment conducive to teachers developing their digital competencies. These findings align with the views of Witarsa (2023), who stated that programs, supervision, and support from principals influence teachers' readiness to utilize digital technology as a learning medium.

The results can also be explained through Albert Bandura's social learning theory, which posits that individual capabilities develop through interaction with a supportive social environment. In this study's context, the principal acts as part of an environment that provides support, guidance, and learning opportunities, thereby making it easier for teachers to develop their skills in using digital media. Such support boosts teachers' confidence in attempting to implement technology in their instruction.

Furthermore, the principal's role as a facilitator and motivator reinforces teachers' readiness to navigate the shift toward technology-based learning. These findings support research by Nurbaiti dan Yuliejantiningsih (2022), which demonstrated that principal support can enhance teachers' confidence in utilizing educational technology. Similarly, a study by Sari dan Sulastri (2024), found that teachers who received support—such as training, facilities, and mentoring—exhibited higher levels of readiness to integrate technology into the learning process.

Thus, principal support serves as a strategic factor in fostering teachers' readiness to use digital learning media. The more optimal the support provided—through the provision of facilities, training, motivation, and mentoring—the greater the teachers' readiness to implement digital learning media and deep learning approaches within early childhood education settings.

CONCLUSION

Based on the research findings, it can be concluded that the factors supporting teacher readiness for implementing digital learning media using a deep learning approach at Al-Irsyad Kindergarten Surabaya consist of four main elements: teacher knowledge and experience, facilities and infrastructure, children's readiness, and principal support. Teacher knowledge and experience emerge as the most dominant factor, as they enable teachers to be more competent, confident, and prepared to select and utilize digital media in alignment with learning themes and the characteristics of early childhood learners.

Furthermore, the availability of facilities and infrastructure—such as smart TVs, laptops, speakers, and internet connectivity—facilitates the implementation of digital learning, making the process easier and more engaging. Children's readiness, evidenced by their enthusiasm, focus, and active participation during lessons, also boosts teachers' confidence in using digital media. Principal support—manifested

through the provision of facilities, motivation, training, and opportunities for discussion—further strengthens teacher readiness to implement digital learning media.

Thus, teacher readiness for implementing digital learning media using a deep learning approach at Al-Irsyad Kindergarten Surabaya is shaped by the interplay between teacher competence, facility support, children's readiness, and principal support. The stronger these four factors are, the higher the level of teacher readiness to conduct digital learning in the classroom.

REFERENCES

Diputera, A. M., Zulpan, E. G., & Eza, G. N. (2024). Memahami konsep pendekatan Deep Learning dalam pembelajaran Anak Usia Dini yang meaningful, Mindful dan Joyful: Kajian melalui filsafat pendidikan. *Bunga Rampai Usia Emas*, *4*(2), 108-120.

Abdussamad, Z. (2021). No Metode Penelitian Kualitatif. In *Educacao e Sociedade* (Vol. 1, Issue 1).

Alvian Maranalom Siregar, Kiki Renhardi Napitupulu, Lusia Oktaviani, Queen Helen Br. Bukit, Rosma Purba, Qamara Aulia, & Elfayetti Elfayetti. (2025). Analisis Kesiapan Guru terhadap Perkembangan Teknologi dalam Pembelajaran Geografi di SMAPAB 8 Saentis. *Jurnal Sadewa : Publikasi Ilmu Pendidikan, Pembelajaran Dan Ilmu Sosial*, *3*(3), 209–216. https://doi.org/10.61132/sadewa.v3i3.2003

Diputera, A. M., Zulpan, & Eza, G. N. (2024). *Memahami Konsep Pendekatan Deep Learning dalam Pembelajaran Anak Usia Dini Yang Meaningful , Mindful dan Joyful : Kajian Melalui Filsafat Pendidikan*. *10*(2), 108–120.

Eka Oktavianingsih, Siti Fadjryana Fitroh, Muhlis Tahir, Fatmawati, Masittha Izzati, M. K. (2026). *Penguatan Kompetensi Guru Melalui Pembelajaran Ramah Anak Berbantuan Game Edukasi Digital untuk Pencegahan Bullying*. *7*(1), 173–182.

Fauziddin, M., & Elyana, L. (2018). Meningkatkan kemampuan kognitif dengan metode bermain media benda konkrit pada anak usia dini. *Indonesian Journal of Islamic Early Childhood Education*, *3*(1), 85–96.

Febrianti, Henanggil, Adlya, dan P. (2026). *Peningkatan Keterampilan Digital Guru Melalui Pelatihan Pembuatan Media Pembelajaran Inovatif Berbasis Google Sites dan AI*. *7*(1), 129–138.

Hasnawiyah, H., & Maslena, M. (2024). Dampak Penggunaan Media Pembelajaran Interaktif Terhadap Prestasi Belajar Sains Siswa. *Jurnal Review Pendidikan Dasar : Jurnal Kajian Pendidikan Dan Hasil Penelitian*, *10*(2), 167–172. https://doi.org/10.26740/jrpd.v10n2.p167-172

LeCun, Y., Bengio, Y., & Hinton, G. (2015). *Deep learning*. Nature, 521(7553), 436–444. https://doi.org/10.1038/nature14539

Mayer, R. E. (2024). The Past , Present , and Future of the Cognitive Theory of Multimedia Learning. *Educational Psychology Review*, *36*(1), 1–25. https://doi.org/10.1007/s10648-023-09842-1

Mishra, P., & Koehler, M. J. (2006). Technological Pedagogical Content Knowledge: A Framework for Teacher Knowledge. *Teachers College Record: The Voice of Scholarship in Education*, *108*(6), 1017–1054. https://doi.org/10.1177/016146810610800610

Munar, A. (2021). *Implementasi model pembelajaran sentra bahan alam untuk meningkatkan kreativitas anak usia 4-5 tahun*. *8*(c).

Novitasari, Y., & Fauziddin, M. (2022). Analisis Literasi Digital Tenaga Pendidik pada Pendidikan Anak Usia Dini. *Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini*, *6*(4), 3570–3577. https://doi.org/10.31004/obsesi.v6i4.2333

Nurjanah, N. E., & Mukarromah, T. T. (2021). Pembelajaran Berbasis Media Digital Pada Anak Usia Dini Di Era Revolusi Industri 4.0 : Studi Literatur. *Jurnal Ilmiah Potensia*, *6*(1), 66–77. https://doi.org/10.33369/jip.6.1.

Rochmah, N. (2024). *The Influence of Multimedia Learning Media on the Development of Early Childhood Literacy*. *5*(2), 103–115.

Satria Ramadhan, M., Diah Apriliani, S., Sahda Firjatullah, N., & Yolanda Puji Pratama, R. (2023). Dampak Perkembangan Teknologi Digital Di Sektor Pendidikan. *Journal of Comprehensive Science (JCS)*, *2*(6), 1772–1784. https://doi.org/10.59188/jcs.v2i6.399

Sugiyono. (2019). *Metode Penelitian Kuantitatif Kualitatif dan R&D*. Alfabeta.

Syahran, Y. ; D. (2025). *Integrasi Teknologi dalam Pembelajaran Anak Usia Dini*. *8*(2), 1034–1040. https://doi.org/10.31004/aulad.v8i2.1055

Tamsiyati, E., & Kurnia, R. (2025). *Kesiapan guru menyongsong era 5.0*. *1*, 63–67.

Witarsa, R. (2023). *Penerapan Program Kepala Sekolah terhadap Kemampuan Guru dalam Menggunakan Informasi Teknologi dan Literasi Digital di Sekolah Dasar*. *4*(3), 957–963.

Yuliansah, L. (2014). *Kesiapan Sarana Prasarana Pembelajaran Dan Kompetensi Guru Teknik Gambar Mesin Di Smk N 2 Pengasih*. 131–136.