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Development of a Digital Media-Based Curriculum for Early Childhood at Aisyiyah Kindergarten, Karangwaru Plupuh, Sragen

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ABSTRACT

This study aims to explore and develop a curriculum model based on the integration of digital media for early childhood education at Aisyiyah Kindergarten in Karangwaru Plupuh, Sragen. In the context of rapid technological advancement, this research is guided by the primary question: To what extent does the current curriculum support the integration of digital media in early childhood learning, and how can the curriculum be further developed to be more adaptive to technological demands? This research employs a qualitative descriptive method, utilizing in-depth interviews with two key informants: the head of the kindergarten and an experienced early childhood education teacher, both of whom have more than 19 years of service. The findings indicate a level of awareness and partial implementation of digital media—such as laptops, tablets, and smartphones—in learning activities. Although both informants have attended training on the use of digital media and occasionally incorporate such tools into their teaching, several challenges persist. These challenges include uneven technical readiness, a lack of collaborative planning among teachers, and the absence of a curriculum that structurally supports digital-based learning. Interestingly, both educators noted that digital media often aids in enhancing children's understanding of the subject matter, and parental support for its usage is relatively positive. However, the existing curriculum is deemed insufficiently responsive to the integration of technology. This study underscores the importance of developing a curriculum that not only acknowledges the presence of digital technologies but also provides tangible support to teachers through clear guidelines, training, and institutional collaboration. The proposed curriculum model has the potential to serve as a foundation for creating a more adaptive and future-oriented early childhood education system.

Introduction

The rapid advancement of digital technology has had a significant impact on various aspects of life, including education. In the context of early childhood education (ECE), the introduction of digital media has emerged as a learning approach deemed capable of enhancing children's engagement, participation, and comprehension of educational material (Spain, 2023). Numerous

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previous studies indicate that digital media, such as interactive videos, educational applications, and devices such as tablets and laptops, can support children's learning processes through visual, auditory, and kinesthetic modalities(Mohammad & Boushehry, 2023). However, the integration of digital media within early childhood education in Indonesia still encounters serious challenges, particularly concerning curriculum preparedness, teacher competencies, and sustainable policy support (Pratiwi, Ismail, Yarliani, Riwanda, & Islamy, 2025).

A significant portion of the current ECE curriculum continues to rely on conventional methods and has yet to explicitly incorporate digital technology as a fundamental component of a systematic learning strategy. Prior research has predominantly concentrated on technology utilization by educators (Undheim, 2022), while relatively little attention has been given to examining how the curriculum can be developed or adapted to facilitate the pedagogical and sustainable use of digital media. Locally, especially in semi-rural areas such as Karangwaru, Sragen, studies addressing the integration of technology into the ECE curriculum are largely absent. This indicates a critical gap that necessitates bridging through contextual studies and the development of a digital media-based curriculum that aligns with the needs of institutions and the characteristics of young children in the region.

The novelty of this research lies in its approach, which not only emphasizes the utilization of technology by educators but also seeks to develop a framework for a curriculum integrated with digital media based on empirical realities in the field. This research combines the assessment of teachers' and school leaders' needs with an analysis of the existing curriculum's capacity to accommodate digital media. Therefore, the findings of this study are not only descriptive but also solution-oriented, resulting in a contextual, applicable, and adaptive curriculum development design in response to the dynamics of educational technology.

The primary contribution of this research is to provide a conceptual and practical foundation for the development of a digital media-based ECE curriculum that can be replicated in similar institutions, both at local and national levels. The findings are expected to enrich the academic discourse in the field of early childhood educational technology and serve as a policy reference for educational institutions, curriculum developers, and other stakeholders in designing a learning system that is more inclusive, interactive, and relevant to current developments.

Method

This research employs a descriptive qualitative approach to thoroughly explore the perceptions and experiences of preschool teachers and the head of the Aisyiyah Karangwaru Kindergarten regarding the implementation of digital media in early childhood education (Thorne, 2016). This approach was selected due to its capacity to provide a contextual and comprehensive understanding of the phenomenon under investigation (Springer, 2009). The primary focus of this study is to examine how the current curriculum supports (or fails to support) the integration of digital media, as well as to assess the potential for developing the curriculum in alignment with practical needs.

The subjects of this research include two key informants: the Head of Aisyiyah Karangwaru Kindergarten and one teacher with a Bachelor's degree in Early Childhood Education (PAUD), possessing 20 years and 19 years and 10 months of teaching experience, respectively. Data collection was conducted through in-depth face-to-face interviews guided by a semi-structured framework, allowing the researcher to explore open and reflective responses from each

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informant. The interview instrument was developed based on indicators of digital media engagement in learning, participation in technology training, and perceptions of the curriculum and environmental support.

The interviews were conducted in person at the Aisyiyah Karangwaru Kindergarten, with each session lasting approximately 45 to 60 minutes. All interview data were recorded and transcribed verbatim to ensure the accuracy of the information. Data analysis was performed using thematic analysis, which involved organizing the data according to key themes such as the use of digital media, teacher training, technical challenges, collaboration among educators, and views on the curriculum. Triangulation was carried out through discussions between the researcher and experts in early childhood education to ensure the validity and credibility of the findings (Thurmond, 2001).

To uphold research ethics, all informants were provided with explanations about the purpose of the study and were asked to give written consent prior to the commencement of the interviews. The identities of the informants were anonymized to maintain confidentiality and ensure the comfort of the participants. This research was conducted from February to March 2025 within the Aisyiyah Karangwaru Kindergarten in Plupuh Sragen. It is anticipated that the results of this methodology will offer a tangible overview of the needs for developing a digital media-based curriculum and provide a foundation for policy recommendations in early childhood education that are more adaptive to the digital era.

Result and Discussion

1. Preparedness of Teachers and School Principals in Integrating Digital Media

The preparedness of teachers and school principals to confront advancements in educational technology is a critical element in the transformation process of a curriculum based on digital media (West, 2012). Based on comprehensive interview results at Aisyiyah Kindergarten Karangwaru Plupuh Sragen, both the school principal and the teachers exhibited a positive attitude towards the utilization of digital media in early childhood education. They possess formal educational backgrounds, holding Bachelor's degrees in Early Childhood Education (S1 PAUD), along with over 19 years of teaching experience, which serves as a significant foundation for understanding the dynamics of early childhood development and appropriate pedagogical approaches.

Both respondents also indicated that they have participated in training related to digital media, although the frequency and coherence of such training have yet to reach optimal levels. This indicates an initial initiative on their part to equip themselves with digital skills; however, it has not been systematically structured as ongoing training or based on practical field needs. The training undertaken has not specifically focused on the systemic integration of digital media into the Early Childhood Education (PAUD) curriculum but has leaned more towards the introduction of basic tools and applications.

In terms of preparedness, the respondents further demonstrated that the use of digital media such as laptops, tablets, or smartphones has been engaged, albeit at varying levels. The teachers reported using digital devices "occasionally," while the school principal indicated that usage occurs "frequently." This discrepancy suggests that direct involvement in both the learning

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process and administrative tasks influences the frequency of usage, underscoring the essential role of school principals in promoting a digital ecosystem within the school environment.

Despite their extensive teaching experience, the pedagogical readiness of the teachers still faces challenges in planning lessons that are based on digital media. The teachers expressed that they have not yet fully designed systematic digital-based learning activities. This reflects that the incorporation of digital media has not been integrated into daily curriculum design but remains optional and situational. Such observations strengthen the argument that the existing curriculum does not provide a clear framework or guidelines for teachers to effectively implement technology.

Furthermore, the technical preparedness of the teachers and school principal is not uniform. The teachers reported "frequently" encountering technical difficulties when utilizing digital media, such as unstable internet connections, inadequate devices, and a lack of technical support when faced with obstacles. In contrast, the school principal mentioned that technical difficulties occur rarely, likely due to their role being more oriented toward oversight and policy-making rather than direct involvement in teaching.

This gap in perception illustrates that digital readiness encompasses not only individual capabilities but also the ecosystem and institutional support available. As direct implementers, teachers require tangible support in the form of technical training, provision of adequate devices, and a robust technical assistance system when issues arise (Gfrerer, Hutter, Füller, & Ströhle, 2021). Absent a strong infrastructure and institutional support, personal readiness is unlikely to materialize into consistent learning practices.

In theoretical discussion, these findings align with the concepts proposed by Mishra and Koehler (2006) in their Technological Pedagogical Content Knowledge (TPACK) model, which emphasizes that teaching readiness with technology necessitates the integration of content knowledge, pedagogical skills, and technological understanding (Mishra & Koehler, 2006). It is insufficient for teachers merely to know how to operate devices; they must also comprehend how to integrate these tools into appropriate teaching strategies that align with the cognitive development of young children.

The readiness of teachers is significantly influenced by the leadership of the school principal. In this context, the principal plays a strategic role in shaping a school vision that is adaptive to technology. The principal of Aisyiyah Kindergarten in Karangwaru demonstrates openness to change; however, this is not yet supported by long-term planning that engages all elements of the school. Institutional readiness must be underpinned by internal policies that support digital transformation, including curriculum development, resource provision, and regular enhancement of human resource capacity.

From an organizational culture perspective, collaboration among teachers, as well as between teachers and the principal, has not yet been fully optimized. Discussions regarding the integration of digital media into learning occur only sporadically, indicating the absence of a forum or professional reflection space that routinely addresses the implementation of technology. It should be noted that digital learning requires continuous adaptation and a collective response to change, rather than relying solely on individual initiatives.

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Therefore, it can be concluded that the readiness of the teachers and the principal at Aisyiyah Kindergarten Karangwaru is currently at an initiation stage, with significant potential for further development. Both parties exhibit willingness, experience, and a positive outlook towards the use of digital media. However, this readiness is not yet bolstered by a responsive curriculum system, ongoing training, or robust institutional collaboration. Consequently, the development of a curriculum based on digital media should commence with an assessment of teachers' needs and comprehensive structural support.

2. Frequency and Patterns of Digital Media Usage in Learning Activities

The utilization of digital media in the educational activities at Aisyiyah Kindergarten, Karangwaru Plupuh, Sragen, reveals an intriguing dynamic. Based on interviews with both teachers and the head of the school, it has been established that digital media such as laptops, tablets, and smartphones are employed in the learning process; however, their frequency of use varies significantly. The teachers indicated that they utilize digital media “occasionally,” while the head of the school reported a more frequent occurrence of usage, described as “often. ” This discrepancy illustrates that the adoption of digital practices in the educational setting is uneven among educators and tends to be more individualistic rather than systematic.

In the process of teaching and learning (hereafter referred to as "TL"), digital media are generally employed to display educational videos, interactive songs, or illustrative materials. Nevertheless, the design of digital-based activities has not been executed in a structured manner. Teachers acknowledged that the planning of lessons specifically incorporating digital media remains infrequent. This indicates that the use of digital media functions primarily as an adjunct rather than as an integral component of the curriculum that is designed from the outset.

Furthermore, the engagement of children in learning activities involving digital media is still quite limited. Teachers reported that they only “occasionally” involve children in direct interaction with digital devices, such as touching the tablet screen or collectively watching educational content. On the other hand, the head of the school noted that child engagement occurs “often,” yet primarily within the context of collective demonstrations rather than individual utilization. This reveals limitations in both the available tools and the pedagogical approaches appropriate for early childhood education.

These patterns of usage suggest that there are currently no standardized guidelines for integrating digital media into educational activities. Teachers predominantly rely on personal initiatives or improvisational methods to determine the timing and manner of digital media usage. As articulated by Yelland (2018), the effectiveness of digital media in early childhood education significantly depends on meticulous instructional design grounded in curriculum development(Yelland & Arvanitis, 2018).

Moreover, discussions among teachers indicate that the practice of exchanging strategies for digital learning is also conducted “occasionally. ” This implies that there is currently no regular forum for sharing experiences or reflecting on the use of technology in the educational process. This represents a challenge in cultivating a collaborative, technology-driven professional learning culture within the school environment. Teachers require professional spaces to learn together and support one another in developing digital creativity.

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The following table summarizes the data regarding the frequency of digital media use as reported by teachers and the head of the school based on the interview outcomes:

Table 1. Frequency of Digital Media Usage by Teacher and School Principal

Aspect	**Teacher**	**School Principal**
Attended digital media training	Yes	Yes
Frequency of using laptop/tablet/phone for teaching	Occasionally	Frequently
Designing digital-based learning activities	Rarely	Occasionally
Discussion with colleagues about digital media	Occasionally	Occasionally
Involving children in digital activities	Occasionally	Frequently
Experiencing technical difficulties	Frequently	Rarely

The table underscores that the practice of digitization at Aisyiyah Kindergarten remains fluctuating and is not yet standardized institutionally. Teachers encounter more technical challenges compared to the head of the school, highlighting the necessity for more intensive and equitable technical training across the educational workforce.

The non-uniform pattern of digital media use also reflects a gap in the professional development of teachers. In the absence of ongoing training and curriculum support, educators may struggle to design effective activities utilizing digital media. The current curriculum does not provide explicit guidance regarding when and how technology can be appropriately employed in accordance with early childhood developmental stages.

These findings align with research by Plowman et al. (2012), which emphasizes the importance of a pedagogical framework in the application of technology for children. The lack of guidelines or models of best practice may lead to the utilization of digital media merely as a gimmick or a substitute for traditional visual aids, without fundamentally transforming the essence of the educational approach (Plowman, Stevenson, Stephen, & McPake, 2012).

Therefore, the development of a digital media-based curriculum at Aisyiyah Kindergarten must incorporate components related to usage standards, digital learning planning, and effectiveness assessment. Educators should be provided with practical guidelines and hands-on training to enable them to design educational and engaging digital activities aligned with the principles of early childhood development.

In this context, research findings indicate a pressing need to formulate curriculum guidelines that position digital media as an integral element of the learning process, rather than merely an adjunct or improvisation by teachers. The curriculum should be tailored to the local context and the capabilities of the available human resources within the educational institution.

3. Technical and Institutional Challenges in the Implementation of Digital Media

Despite the enthusiasm exhibited by teachers and school principals regarding the integration of digital media, the practical implementation in the field faces various challenges,

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both technical and institutional in nature. Based on interview results, teachers frequently encounter significant technical obstacles, such as inadequate devices, limited internet connectivity, and insufficient technical support. These issues profoundly affect the smooth execution of learning processes that are intended to utilize digital media effectively.

In contrast, principals have reported that technical difficulties occur rarely, suggesting a potential disparity in perception between frontline implementers (teachers) and management (principals). This discrepancy may arise from differences in the intensity of direct involvement in the teaching process. Such a gap signifies an informational divide between managerial stakeholders and classroom practitioners, which presents a specific challenge in formulating school policies that adequately address the actual needs observed on the ground.

The absence of dedicated technicians or IT support constitutes a significant factor within these technical challenges. Teachers are compelled to resolve various technical issues independently, often without adequate assistance. In many instances, educators resort to self-initiated problem-solving efforts, such as utilizing personal data plans, seeking online tutorials, or soliciting help from parents. This additional burden can detract from the teachers' primary focus on facilitating early childhood learning.

Moreover, institutional challenges are also critical considerations. Currently, there exists no explicit school policy that regulates the integration of digital media into the early childhood education curriculum. The lack of written guidelines or ongoing capacity development programs results in an individualized and non-standardized approach to implementing digital media. The school has yet to devise a strategic plan for long-term digital transformation.

Furthermore, opportunities for discussion or collaboration among teachers regarding the use of digital media have not been adequately facilitated. According to interview responses, both teachers and principals indicated that such discussions occur only "occasionally. " This suggests a lack of regular forums or learning communities within the school environment to specifically address digital-based learning practices, which hinders the enhancement of competencies and the dissemination of best practices.

Another aspect of institutional challenges is the absence of periodic evaluations concerning the effectiveness of digital media utilization. The principal has not established specific indicators to assess the extent to which digital media contributes to children's learning outcomes. Current evaluations remain overly general and are not based on concrete data concerning the integration of technology in the educational process.

In terms of resources, the limited availability of devices such as laptops, tablets, or projectors also serves as a major impediment. Teachers are often required to share available facilities or, in some cases, use personal devices for instructional purposes. This situation not only constrains teachers' creativity but also inhibits the continuity of digital media-based learning, which ought to be consistent and sustainable.

Support from external entities, such as the education department or partner organizations, remains significantly inadequate. The school has yet to establish collaborations with educational technology institutions for training, hardware acquisition, or digital curriculum development. The lack of networking in this regard has resulted in the school operating in isolation to advance

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digitalization practices. Over time, this could hinder the institution's growth in adapting to contemporary demands.

The summary of technical and institutional challenges identified through interviews is presented in the following table:

Table 2. Types of Challenges Faced by Teacher and School Principal

Type of Challenge	**Teacher**	**School Principal**
Frequently experiences technical difficulties	Yes (Frequently)	No (Rarely)
Technical support from the school	Not available	Not available
Regular discussions on digital media	Occasionally	Occasionally
Specific policy on digital curriculum	Not available	Not available
Evaluation of digital media usage	Not conducted	Not conducted
Access to digital devices	Limited	Limited
External collaboration (training/tools)	Not yet available	Not yet available

The table elucidates that the challenges faced are not solely rooted in the individual limitations of educators, but are also systemic issues that necessitate policy intervention and managerial improvements. Without significant attention from school administration and relevant authorities, achieving a comprehensive transformation in digital media-based learning will prove to be difficult.

Therefore, the development of a curriculum centered around digital media must extend beyond merely enhancing teacher competencies; it must also encompass the improvement of institutional structures, policy formulation, the provision of necessary infrastructure, and the establishment of a digital culture within the school environment (Williamson, 2013). Only through a holistic approach can digital media-based learning be implemented effectively and sustainably in early childhood education.

4. Parental and Environmental Support for Digital Learning in Early Childhood Education

One of the key factors influencing the successful integration of digital media in early childhood education is the extent of involvement and support from parents and the surrounding community. Based on interview outcomes, the responses from teachers and school principals indicate a variation in the levels of support offered by parents regarding the use of digital media in the learning process.

The school principal noted that a significant proportion of parents consistently support the use of digital media, both morally and through the provision of facilities. This support is evidenced by their openness to teachers utilizing digital devices in the classroom, with some parents even providing tablets or gadgets for their children to use during online learning activities or homework assignments. Such support constitutes a vital social capital that strengthens technology-based learning approaches.

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However, teachers conveyed that this support is often sporadic. This implies that not all parents appreciate the importance of digital media in early childhood education. Some parents still perceive technology negatively, particularly concerning the risks of screen addiction or age-inappropriate content. These concerns lead certain parents to withhold full permission from their children to engage with digital devices, even in educational contexts.

The differing perceptions underscore the necessity for intensive communication approaches between schools and parents. Without a mutual understanding regarding the objectives, methods, and benefits of digital media usage, it will be challenging for educational institutions to fully implement a digital-based curriculum. Schools should facilitate regular communication forums or socialization events to convey the role of digital media in optimally supporting children's development.

The surrounding community, including local society and community leaders, also plays an indirect role in shaping parental perceptions towards digital media utilization. When the social environment is more receptive to educational innovations, parental acceptance of technology tends to be higher. Conversely, if the community regards technology as a threat, parents are likely to restrict its use, including in school-related activities.

Another equally important factor is the educational and economic background of the parents. Parents with higher educational qualifications are more inclined to embrace digital learning approaches and are better positioned to provide supporting facilities. In contrast, parents from lower-middle-income groups often face challenges related to access to digital devices and the mastery of their use, thereby complicating support for digital learning.

Observations indicate that parental support is not solely measured by the provision of tools but also by their engagement with their children's activities at home. Children who receive verbal encouragement, assistance during study sessions, and regulation of screen time demonstrate better adaptation to digital learning. This highlights that parental involvement is just as crucial as teacher interventions in schools.

The following table summarizes the level of parental support for digital learning at TK Aisyiyah Karangwaru:

Table 3. Aspects of Parental Support According to Teacher and School Principal

Aspect of Parental Support	**Teacher**	**School Principal**
Always supports the use of digital media	Occasionally	Always
Provides devices (tablet/laptop)	Occasionally	Frequently
Accompanies children in learning with digital devices	Occasionally	Frequently
Understands the benefits of digital media for children	Occasionally	Frequently
Participates in school socialization activities	Rarely	Occasionally

This table reinforces findings indicating that parental perceptions and involvement in digital learning vary significantly. The disparity in viewpoints between teachers and the principal

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illustrates the necessity for tailored communication strategies and persuasive approaches that consider the socio-economic context of the students' families.

In the context of curriculum policy, parental support must be considered from the outset as a crucial component in the design and implementation process. An effective curriculum should not only encompass content and classroom learning strategies but also take into account the continuity between education at school and at home. Consequently, family involvement emerges as a key factor in shaping an inclusive and effective digital learning ecosystem.

Thus, the findings of this research indicate that strategies for developing a digital media-based curriculum should include programs aimed at strengthening partnerships with parents and the surrounding community. Schools should organize parental training sessions, establish regular communication forums, and develop home-based learning modules utilizing digital media to enhance the optimal implementation of the curriculum.

5. The Necessity for Development of a Digital-Based Adaptive Curriculum

The demand for an adaptive curriculum that responds to advancements in digital technology has become increasingly urgent in the era of the Fourth Industrial Revolution and Society 5. 0, particularly in the context of early childhood education (Supa'at & Ihsan, 2023; Voronkova, Vasyl'chuk, Nikitenko, Kaganov, & Metelenko, 2023). Based on interview findings, both school principals and teachers have indicated that the existing curriculum does not fully support the integration of digital media in early childhood learning. They collectively agree that curriculum renewal is essential to ensure that learning remains relevant to contemporary developments.

The principal of Aisyiyah Kindergarten Karangwaru has noted that the national curriculum remains general in nature and does not explicitly allow for the structured use of digital media. As a result, teachers are compelled to rely on their individual creativity when designing technology-based learning media. This situation has led to disparities in the quality and sustainability of digital learning among teachers within the same educational institution. An adaptive curriculum would promote uniformity in the direction and standards for utilizing digital media.

From the teachers' perspective, there exists a strong desire for concrete guidelines regarding the use of digital media, encompassing the types of devices, appropriate applications, recommended duration of use, and methods for assessing learning outcomes based on media. In the absence of such guidance, teachers often experience confusion when attempting to establish the limits and effectiveness of digital technology, especially considering the distinctive and sensitive developmental characteristics of early childhood learners.

The necessity for an adaptive curriculum also arises from teachers' aspirations to enhance active participation among children. Digital media is perceived to facilitate exploration and imagination if utilized appropriately. However, to harness this potential, teachers require a curriculum structure that pedagogically supports technology-based approaches, which is not yet fully reflected in the current curriculum documents.

Below is a summary table of perceptions and expectations regarding the development of a digital-based curriculum:

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Table 4. Aspects of Digital Curriculum According to Teacher and School Principal

Aspect of Digital Curriculum	Teacher	School Principal
Current curriculum does not support digital media	Always	Occasionally
Needs technical guidelines for digital curriculum	Yes	Yes
Requires age-appropriate apps/media standards	Yes	Yes
Curriculum should encourage children's creativity and imagination	Yes	Yes
Need for integration of digital learning with character values	Yes	Yes
Need for training based on digital curriculum	Frequently	Frequently
Expectation of contextual digital curriculum modules	Yes	Yes

The table above illustrates that all stakeholders recognize the importance of transitioning the curriculum towards a more adaptive and contextual framework. Curriculum modifications must be demanded not only from a technological perspective but also from pedagogical, developmental psychology considerations, and the Islamic values that underpin Aisyiyah Kindergarten as an educational institution.

Furthermore, teachers have expressed that the existing training programs have not addressed curriculum design aspects. The training tends to focus on technical aspects (e. g., the use of specific applications) without accompanied pedagogical or curricular frameworks. Therefore, there is a significant expectation for comprehensive training that is curriculum-based and capable of providing concrete examples of implementation in the classroom.

The contributions of this research indicate that curriculum development cannot occur in isolation from the realities on the ground. An effective curriculum must be dynamic, grounded in the practical needs of teachers, while preserving the essence of early childhood education that focuses on holistic development. Utilizing digital approaches is merely a tool; a well-constructed curriculum will guide the judicious use of such tools.

As a recommendation, it is imperative to develop a digital media-based curriculum collaboratively crafted by early childhood educators, academics, educational technology experts, and policymakers. This curriculum should incorporate integrated aspects, such as moral, social, spiritual, and cognitive values, designed to be flexibly and easily accessible to teachers in various regions. In this manner, Aisyiyah Kindergarten Karangwaru and other schools can emerge as pioneers of digital education for early childhood, even in rural settings.

Conclusion

The results of this study indicate that the utilization of digital media in early childhood education at Aisyiyah Kindergarten in Karangwaru Plupuh Sragen has been implemented to a limited extent, yet it demonstrates positive potential. Teachers and the principal have shown initiative in utilizing digital devices such as laptops and tablets, albeit with varying frequency. Parental support for digital learning is also present, although not uniformly distributed. Factors

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such as limited training, technical challenges, and the absence of a curriculum that explicitly supports digital integration have emerged as significant obstacles to optimal digital integration.

From the interviews and analyses conducted, a pressing need has been identified for the development of a curriculum that is adaptable to technological advancements. The proposed curriculum should effectively integrate digital media with appropriate pedagogical approaches for early childhood, which includes the formulation of technical guidelines, development of age-appropriate media, and reinforcement of character values within digitally-based activities. Environmental support, particularly from parents and the surrounding community, is identified as a crucial component for the successful implementation of this curriculum.

Based on these findings, it is recommended that relevant stakeholders, such as curriculum developers, educational authorities, and teacher training institutions, design a curriculum that is contextual, flexible, and responsive to the evolving times. This curriculum should be accompanied by comprehensive training modules for teachers, as well as the provision of relevant resources to support creativity and innovation in the learning process. The engagement of teachers as the primary implementers must be a focal point in the curriculum development process to ensure alignment with the actual needs in the field.

Furthermore, schools should establish robust partnership systems with parents to enhance family digital literacy. This approach will not only improve the success of the digital media-based curriculum implementation but also expand children's access to contextual, enjoyable, and meaningful learning experiences. Consequently, the development of this curriculum is anticipated to serve as a strategic step in shaping a generation of youth that is prepared to face the challenges of the digital world in a healthy, critical, and ethical manner from an early age.

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