



## Understanding the Use of Digital Teaching Aids (BBM) in Microteaching of Hikmah Pedagogy: A Conceptual Proposal

Nik Zuriani binti Zakaria<sup>1</sup>, Hafizhah binti Zulkifli<sup>1</sup>

Universiti Kebangsaan Malaysia 43600 UKM Bangi, Selangor Malaysia

\*Corresponding Address: [p142677@siswa.ukm.edu.my](mailto:p142677@siswa.ukm.edu.my)

Received: September 19, 2025

Accepted: December 10, 2025

Online Published: February 28, 2026

### ABSTRACT

This study aims to understand the use of digital Teaching Aids (BBM) in micro-teaching based on the Wisdom Pedagogy approach in the context of Islamic Education. The analysis focused on the effectiveness of digital BBM, implementation strategies and key challenges faced in the context of values and moral pedagogy. The study findings show that digital BBM such as interactive applications, animated videos, digital whiteboards and virtual platforms can increase student engagement, higher-order thinking skills (HOTS), and support reflective dialogue which is the core of Wisdom Pedagogy. However, there are significant constraints such as teachers' lack of understanding of the concept of wisdom, difficulty accessing BBM that is in line with Islamic values, as well as the level of infrastructure and professional training of teachers which is still insufficient. The study also found that the integration of digital BBM requires a reflective and contextual approach to be in line with the philosophy of Islamic education which emphasizes the development of students' intellect and morals. The contribution of this study is to provide a comprehensive overview of the potential and challenges of using digital BBM in contemporary pedagogy, in addition to suggesting improvements to policies, teacher training and curriculum design that are more relevant to the needs of 21st century education. The results are expected to strengthen microteaching practices that are value-based, reflective and centered on critical thinking in an effort to produce students who are holistic from an intellectual, emotional and spiritual perspective.

**Keywords:** Digital BBM, Micro Teaching, Wisdom Pedagogy, Critical Thinking, Educational Technology.

### I. INTRODUCTION

In the pursuit of rapid digital advancement in the 21st century, the integration of technology in education must progress in tandem with current developments. Within the context of Islamic Education, one teaching method that has gained increasing attention involves the use of digital teaching aids (BBM) in microteaching to integrate moral and ethical values through the Pedagogy of Wisdom (Pedagogi Hikmah) approach. This teaching and learning method (PdP) offers an educational framework grounded in values, critical thinking, and reflective learning—highly relevant to the cultivation of students' character and personality. It also emphasises the development of critical thinking skills among learners, encouraging them to connect the knowledge they acquire with their real-life experiences (Hashim, 2017; Ismail, 2018).

The use of digital learning tools such as applications, videos, and online learning platforms enhances interactivity in the classroom, enriches content delivery, and enables students to link theoretical concepts to practical, everyday situations. In microteaching, digital BBM plays a crucial role in creating flexible, accessible, and interactive learning experiences

aligned with the Pedagogy of Wisdom, which focuses on value-based and reflective thinking. This technological integration empowers students to engage in self-directed learning, resonating with the Pedagogy of Wisdom's emphasis on value-oriented and reflective educational experiences (Suradi et al., 2021; Saleh, 2021).

The significance of digital BBM use in microteaching within the Pedagogy of Wisdom lies in its potential to strengthen student-centred teaching. Digital BBM not only targets cognitive development but also provides opportunities to cultivate students' moral and social dimensions. Through the integration of digital BBM, learners gain easier access to relevant teaching materials, interact with peers, and reflect upon and analyse the values embedded in their learning experiences. Therefore, this study aims to explore how digital BBM is applied in microteaching using the Pedagogy of Wisdom approach, and to examine its impact on the development of students' values and critical thinking in Islamic Education.

The integration of technology in education has become increasingly significant in tandem with the advancement of the Fourth Industrial Revolution, which demands transformation in pedagogical approaches. Within the context of Islamic Education, technology serves as an essential medium for transmitting knowledge grounded in moral and spiritual values. Digital teaching aids (BBM), such as videos, interactive applications, and virtual reality-based learning, have been shown to enhance students' understanding of lesson content while stimulating interest and active engagement (Zulkifli et al., 2022; Ishak et al., 2023). In value-oriented teaching, the effectiveness of digital BBM lies in its capacity to deliver content that integrates ethical and moral elements (Zainal et al., 2021).

The Pedagogy of Wisdom (Pedagogi Hikmah) is an educational approach founded on the philosophy of inquiry, dialogue, and deep value reasoning. Introduced within the context of Islamic education by contemporary thinkers, this pedagogy aims to develop learners who are not only knowledgeable but also capable of making judgements and acting based on ethical principles (Hasanah et al., 2022; Shasanah et al., 2021). This method requires active student participation through discussion, reflection, and open questioning. In this regard, interactive and two-way digital BBM is crucial in supporting such an approach, particularly in microteaching contexts where deeper interaction and engagement can be cultivated (Rosli & Hawa, 2022).

Despite its numerous advantages, implementing digital BBM within the Pedagogy of Wisdom framework is not without challenges. Studies indicate that major constraints include the lack of materials aligned with Islamic values, limited teacher training in creating reflective digital BBM, and inadequate technological infrastructure in schools (Mohd Rizal et al., 2023; Rohaya, 2020). Furthermore, integrating digital content with a philosophical inquiry approach that emphasises ethics, empathy, and critical thinking presents additional challenges.

Findings from several studies also reveal that the effectiveness of digital BBM in the Pedagogy of Wisdom depends largely on teachers' understanding and competency in managing technology in a contextual and meaningful manner (Azlan et al., 2024; Norazlina & Norazah, 2023). Teachers must not merely act as transmitters of knowledge but as facilitators who guide students towards deeper reasoning and reflection. In microteaching, teachers' mastery of the design and application of digital BBM consistent with pedagogical values is a determining factor in the success of the teaching and learning process (Ramli et al., 2021).

Additionally, the literature highlights a lack of empirical studies that specifically examine the impact of digital BBM on students' moral and cognitive development within the Pedagogy of Wisdom framework. Most existing research tends to focus on technical or technological access aspects rather than the deeper pedagogical effects. This gap signifies a

notable lack of understanding regarding the true effectiveness of integrating digital BBM in value-based instruction (Shasanah et al., 2021; Hasanah et al., 2022).

Therefore, it is crucial to systematically examine how digital BBM is applied in microteaching within the Pedagogy of Wisdom, so that the findings may provide valuable insights for curriculum design, teacher training, and Islamic education policy development. This literature review is also expected to serve as a foundation for the formulation of pedagogical practices that are more responsive to 21st-century educational challenges, without compromising the spiritual and moral values that underpin Islamic education (Ishak et al., 2023; Rosli & Hawa, 2022; Mohd Rizal et al., 2023).

## II. METHODOLOGY

This study employs a Systematic Literature Review (SLR) approach grounded in the PRISMA framework (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) to ensure transparency and precision in the processes of literature search, evaluation, and synthesis. A total of 51 articles published between 2020 and 2024 were selected based on specific inclusion criteria—namely, journal articles related to the use of digital teaching aids (BBM), the Pedagogy of Wisdom, microteaching, and Islamic Education. The primary databases consulted include Scopus, Web of Science (WOS), Google Scholar, and ERIC, to ensure broad coverage and source reliability (Moher et al., 2009; Braxton, 2023). The use of keywords such as “digital teaching aids,” “Pedagogy of Wisdom,” “microteaching,” and “Islamic Education” facilitated the identification of relevant studies.

The screening and quality assessment of the selected articles were conducted systematically by referring to the PICO framework (Population, Interest, Context) and the Mixed Methods Appraisal Tool (MMAT) to ensure the methodological suitability of each study reviewed (Hong et al., 2018). Articles that did not meet contextual requirements or were purely conceptual in nature were excluded from the final analysis. To ensure objectivity and accuracy in the evaluation process, both reviewers were required to reach a mutual agreement on the assessment of each article. In cases of disagreement, a third opinion was sought to arrive at a final decision. Out of the 15 articles reviewed, 14 articles met at least three out of the five established criteria and were subsequently accepted for inclusion in this study. One article, namely the study by Nurli Nurlinda and Hafidz (2024), was excluded as it failed to meet the minimum criteria, particularly due to the lack of clarity in the research questions and its irrelevance to the main focus of the study. The analysis was conducted thematically according to three main research questions developed based on the PICO framework, namely: the forms of digital teaching aid (BBM) applications, their effectiveness in enhancing critical thinking and value development, and the challenges of implementation within the context of microteaching in Islamic Education.

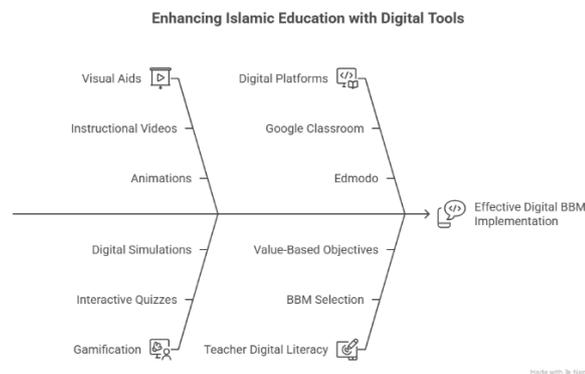
### A. Key Findings 1. Application of Digital Teaching Aids (BBM) in Microteaching Based on the Pedagogy of Wisdom

The use of digital teaching aids in Islamic Education microteaching grounded in the Pedagogy of Wisdom reveals diverse forms of implementation that are value-driven, reflective, and interactive. Among the most frequently applied digital BBM identified in the reviewed studies are instructional videos, animations, and visual graphics, which serve to support the visual dimension of the philosophy of inquiry. Studies by Rommel & Wardat (2024) and Azlan et al. (2024) demonstrate that interactive videos and visual approaches successfully stimulate open discussions, student dialogues, and self-reflection on moral and ethical values within topics related to akhlak (ethics) and akidah (faith). This method helps students relate lesson

content to real-life experiences through philosophical reasoning, consistent with the principles of the Pedagogy of Wisdom.

In addition to visual elements, gamification has also been identified as an effective form of digital BBM in nurturing students’ critical thinking and moral reasoning. Studies by Zulkifli & Azman (2021) and Hasanah et al. (2022) reveal that gamified approaches—such as interactive quizzes and digital simulations—were effectively used in value-based instruction and in strengthening Higher Order Thinking Skills (HOTS). Platforms such as Kahoot!, Wordwall, and Quizizz not only captured students’ interest but also encouraged active and dialogic engagement. These studies emphasise that the success of gamification in Islamic Education does not merely depend on its entertainment aspects but on the design of activities that encourage ethical reflection and value-based decision-making through guided digital interactions.

Furthermore, the utilisation of digital learning platforms such as Google Classroom, Edmodo, and Padlet has also been recognised as instrumental in supporting the implementation of microteaching within the Pedagogy of Wisdom framework. Research by Adilah & Hafizhah (2023) and Siti Fatihah (2023) illustrates how these digital tools facilitate inquiry-based microteaching by allowing students to access reflective questions, participate in value-oriented forums, and submit responses independently. This aligns with the Pedagogy of Wisdom’s principles, which promote deep thinking, open dialogue, and experiential engagement. Digital BBM also enable teachers to design value-driven materials, fostering students’ spiritual growth grounded in awareness and profound understanding of the subjects taught.



**Figure 1.** Application of Digital Teaching Aids (BBM) in Microteaching Based on the Pedagogy of Wisdom

Overall, the findings indicate that the application of digital BBM in Islamic Education microteaching not only enriches students’ learning experiences but also strengthens the philosophical aims of education that emphasise wisdom-oriented thinking, freedom of dialogue, and value cultivation. The effectiveness of this approach depends on the appropriateness of BBM selection, the clarity of value-based learning objectives, and the teachers’ level of digital literacy in meaningfully applying the philosophy of the Pedagogy of Wisdom.

## B. The Impact of Digital Teaching Aids on Students' Understanding within the Context of the Pedagogy of Wisdom

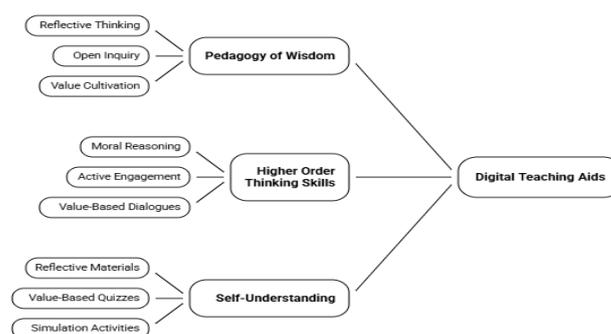
The findings of the study indicate that the use of digital teaching aids (BBM) has a significant impact on enhancing students' understanding in Islamic Education microteaching, particularly when implemented through the Pedagogy of Wisdom approach, which emphasises reflective thinking, open inquiry, and value cultivation. Research by Rommel & Wardat (2024) and Zulkifli & Azman (2021) reveals that the use of interactive videos and digital quizzes encourages students to think more deeply, evaluate concepts of values from various perspectives, and engage in self-reflection. This approach aligns with the philosophy of inquiry, which focuses on understanding through a process of questioning, dialogue, and guided freedom of thought.

In the context of Higher Order Thinking Skills (HOTS), findings from studies by Elvis & Dianetti (2023), Adilah & Hafizhah (2023), and Hasanah et al. (2022) suggest that digital BBM plays a crucial role in strengthening moral reasoning, fostering active student engagement, and facilitating open value-based dialogues. Tools such as Padlet, digital value forums, and animated videos provide students with opportunities to express their understanding through activities involving open-ended questions and deep reflection. This has proven to nurture an understanding rooted in values rather than mere factual recall. Furthermore, the use of digital BBM makes microteaching more meaningful, as students are directly and actively involved in evaluating, discussing, and connecting the lesson content to their own lives.

The use of digital BBM also positively impacts students' self-understanding and spiritual awareness. Research by Jensen et al. (2023) and the TREE Project (2022) reports that when students are given the opportunity to access reflective materials, answer value-based quizzes, and participate in simulation activities (such as practicing prayer or viewing Islamic history films), they not only gain a better understanding of the content but also internalise the values being conveyed. This experience is more effective in building connections between the concepts and students' own selves, making the learning process more wisdom-oriented. In this regard, the effectiveness of digital BBM is not only assessed in terms of cognitive aspects but also in the affective development and self-awareness students gain regarding the role of Islamic values in their lives.

Overall, these findings confirm that digital BBM in the context of Islamic Education microteaching can enhance students' understanding holistically, from cognitive, affective, and value-based perspectives—provided that the approach used aligns with the principles of the Pedagogy of Wisdom. Its effectiveness depends on the teacher's ability to design

Impact of Digital Teaching Aids on Students' Understanding



Made with Napkin

microteaching strategies that integrate technology with meaningful, reflective content that stimulates deep thinking among students.

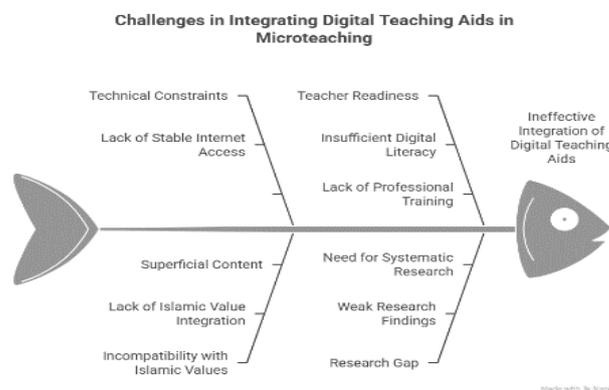
**Figure 2.** The Impact of Digital Teaching Aids on Students' Understanding within the Context of the Pedagogy of Wisdom

### C. Challenges and Limitations of Using Digital Teaching Aids in Microteaching the Pedagogy of Wisdom

Although digital teaching aids (BBM) show significant potential in enriching microteaching processes based on the Pedagogy of Wisdom, findings from the reviewed articles indicate that the actual implementation still faces several notable challenges and limitations. One of the primary challenges identified is technical constraints and digital infrastructure issues, particularly among teachers and students in rural areas. Studies by Siti Fatimah (2023) and the TREE Project (2022) show that the lack of stable internet access, insufficient devices, and limited technical support have hindered the continuous effectiveness of digital BBM. This has become a significant barrier in realising microteaching strategies that require access to visual materials, interactive forums, and online reflective activities.

Another limitation highlighted in the studies by Zainal et al. (2021) and Jensen et al. (2023) is the incompatibility of digital materials with Islamic values and the Pedagogy of Wisdom philosophy. Some of the digital materials available in the public domain do not explicitly integrate Islamic values or fail to support the inquiry-based and reflective approaches that are foundational to the Pedagogy of Wisdom. This forces teachers to adapt the materials themselves, or worse, avoid using digital resources altogether for fear of deviating from the value-based learning objectives. Moreover, findings also indicate that digital BBM approaches that are superficial or overly entertainment-oriented can disrupt students' deep thinking and reflective value processes.

Additionally, the readiness of teachers and insufficient professional training have been identified as critical issues in implementing digital BBM in line with the principles of wisdom. Research by Supardi et al. (2023) and Adilah & Hafizhah (2023) reveals that many teachers still lack the digital literacy necessary to design, implement, and assess microteaching activities



based on digital BBM. The lack of quality training that emphasises the integration of technology and value-based pedagogy has created a gap between the technological potential and its actual application in the classroom. This has also led to confusion among teachers regarding how best to balance technological content with philosophical elements such as open dialogue, reflective thinking, and the cultivation of wisdom.

**Figure 3.** Challenges In Integrating Digital Teaching Aids in Microteaching

Finally, the findings also identify a research gap that still exists in this field. Some articles, such as those by Nikolidaki (2023) and Nurli & Hafidz (2024), present weak findings

that do not sufficiently support the integration of digital BBM with the Pedagogy of Wisdom in a comprehensive manner. There is a clear need for more systematic research to develop models or guidelines for the use of value-driven digital BBM, particularly within the context of Islamic Education in Malaysia. This gap must be addressed through collaboration between researchers, policymakers, and teachers, ensuring that technological approaches can be effectively utilised without neglecting the fundamental values and principles of wisdom.

**Table 1.** List of Selected Articles

No	Researcher(s)	Title	Research Purpose	Research Method & Sample	Findings
1	Rommel & Wardat (2024)	Integration of Digital Tools in Islamic Microteaching: A Reflective Model	To examine the integration of digital tools in Islamic microteaching and their impact on critical thinking and inquiry	Qualitative study, analysis of microteaching practices	Digital BBM enhances reflective thinking and dialogue in Islamic microteaching.
2	Siti Fatimah (2023)	Digital BBM and Teaching Islamic Values in Microteaching	To assess the application of digital BBM in teaching Islamic values in microteaching classrooms	Qualitative study, teacher feedback and class analysis	BBM improves teacher clarity and enhances student dialogue.
3	Azlan et al. (2024)	Interactive Video and the Development of Wisdom Thinking	To explore how interactive video can be used to develop wisdom in students	Qualitative study, analysis of student feedback and teacher interviews	Interactive videos promote deep thinking and understanding of Islamic values.
4	Nikolidaki (2023)	Dialogue and Moral Reasoning through Digital Platforms	To explore the use of digital platforms in promoting moral reasoning in Islamic education	Qualitative study, content analysis of digital platforms	Digital platforms encourage students to engage in moral reasoning and reflection.
5	Jensen et al. (2023)	Reflective Technology for FaithBased Teaching	To assess the effectiveness of reflective technology in faith-based teaching	Qualitative study, teacher surveys and student reflections	Digital BBM supports the integration of faith-based values in teaching.
6	Thornton et al. (2023)	Moral Pedagogy through Gamified Learning	To examine the role of gamification in promoting moral values in students	Quantitative study, survey with students	Gamification enhances students' understanding of moral values through interactive activities.
7	Elvis & Dianetti (2023)	Digital Reflection Tools and Character Development	To explore the role of digital reflection tools in developing students' character and values	Qualitative study, student portfolios and reflective essays	Digital reflection tools enhance critical thinking and moral reasoning.
8	Zulkifli & Azman (2021)	Gamification in Islamic Education	To evaluate the effectiveness of gamification in	Quantitative study, survey in classrooms	Gamification strengthens students' moral understanding

			promoting moral understanding in Islamic education		by encouraging deeper engagement with content.
9	Adilah & Hafizhah (2023)	Padlet Usage in Reflective Value-Based Activities	To explore the use of Padlet in encouraging reflective activities based on Islamic values	Qualitative study, teacher feedback and student reflections	Padlet encourages students to engage in reflective responses, promoting understanding of values.
10	Supardi et al. (2023)	Digital Literacy of Teachers in Integrating Digital BBM Based on Wisdom Pedagogy	To assess the level of digital literacy of teachers and its effect on the teaching of values through digital BBM	Quantitative study, survey with 100 teachers	Teachers with higher digital literacy are more likely to integrate digital BBM with Islamic values and pedagogical practices.
11	Alshammari (2020)	Mobile Islamic Learning: Enhancing Akhlak Education	To explore the use of mobile learning apps in improving understanding of moral concepts and Islamic practices	Qualitative study, case study in 5 schools	Mobile learning apps enhance understanding of moral values and increase engagement with Islamic teachings.
12	TREE Project (2022)	Transforming Religious Education through EdTech	To evaluate the impact of educational technology on the teaching of Islamic education	Quantitative study, survey in 4 schools	Digital BBM enhances the process of Islamic education through inquiry-based and reflective learning.
13	Hasanah et al. (2022)	Gamification of Islamic Education Curriculum	To assess the effectiveness of gamification in the Islamic education curriculum	Quantitative study, survey in 3 schools	Gamification increases active student participation and understanding of moral values.
14	Zainal et al. (2021)	Inquiry Model and Digital BBM Integration	To develop an inquiry model that integrates digital BBM in microteaching	Qualitative study, model development and validation	Model supports valuebased inquiry-based microteaching in Islamic education.
15	Nurli & Hafidz (2024)	Digital BBM and Value Consistency: An Initial Assessment	To examine the potential of using digital BBM in integrating Islamic values in the curriculum	Qualitative study, initial assessment of BBM in PDPC	Studies the suitability of digital BBM in maintaining Islamic values in the teaching process.

### III. DISCUSSION

This SLR study has identified several key findings regarding the use of Digital Teaching Aids (BBM) in Islamic Education microteaching based on the Pedagogy of Wisdom approach. The main findings show that digital BBM, such as interactive videos, reflective apps, online learning platforms, and gamified materials, have had a positive impact on teaching

values and shaping students' character. The use of digital materials not only helps teachers present content more clearly and engagingly, but it also encourages students to actively participate in the learning process based on questioning, reflection, and open dialogue—core features of the Pedagogy of Wisdom.

One of the main themes that emerged is the strengthening of a dialogue culture and active listening among teachers and students. Studies such as those by Zulkifli & Azman (2021) and Adilah & Hafizhah (2023) show that microteaching using digital BBM encourages teachers to shift from merely being instructors to facilitators who spark thinking and create space for students to voice their opinions. Elements like value-based videos, open-ended questions in quiz apps, and tasks on platforms like Padlet provide opportunities for students to engage in reflective and critical discussions on value issues. This shift reflects the core characteristics of the Pedagogy of Wisdom, which emphasises deep thinking, meaningful engagement, and appreciation of students' perspectives.

However, the findings also highlight key challenges faced by teachers in terms of professional training, digital infrastructure, and technology literacy. Studies by Supardi et al. (2023) and the TREE Project (2022) show that many teachers still lack confidence in planning microteaching activities based on digital BBM that balance aspects of values, interactivity, and content. This weakness is linked to the lack of exposure to technology-based pedagogical training and the absence of specific guidelines that integrate digital BBM with philosophical approaches such as the Pedagogy of Wisdom. Additionally, there is the issue of digital materials not aligning with Islamic context, forcing teachers to modify or create their own materials to ensure they align with the principles of wisdom and values.

Based on critical analysis, the findings suggest that digital BBM is not merely a tool to support the teaching and learning process (PdP) but represents a potential element that can transform the culture of Islamic Education towards a more inclusive, valuable, and reflective approach. When digital BBM is used in line with the Pedagogy of Wisdom, it positions teachers as guides of thought, who listen, understand, and connect knowledge with values. This aligns with the findings of Rommel & Wardat (2024) and Elvis & Dianetti (2023), who emphasise that wisdom-based learning should be driven by an approach that upholds human interaction, dialogue, and spiritual awareness.

Overall, this study emphasises that the role of technology in Islamic Education should transcend technical aspects and should be directed towards value-based approaches grounded in philosophical principles and wisdom. Therefore, the integration of digital BBM in microteaching should be systematically planned through teacher training, the development of value-driven materials, and curriculum design that supports inquiry-based philosophy. This SLR study recommends that a wisely implemented digital BBM approach be utilised to empower a reflective, inclusive learning environment, fostering ethical development in contemporary Islamic Education

#### **IV. CONCLUSION**

This study was conducted to understand the use of Digital Teaching Aids (BBM) in microteaching based on the Pedagogy of Wisdom, through a systematic literature review (SLR) approach involving 15 selected articles. A thorough analysis of these articles identified three main themes: the application of digital BBM, its impact on student understanding, and the challenges of its implementation within the context of Islamic Education microteaching. The study found that value-driven and reflective digital BBM has the potential to enhance student understanding from cognitive, affective, and character development perspectives, while also creating a more meaningful and active learning environment. However, this study is limited by

the scope of the article sources and the absence of a mixed-methods research design in the final sample. Overall, this SLR contributes to strengthening the understanding of integrating technology in Islamic Education through the Pedagogy of Wisdom approach and provides a crucial foundation for policy planning, curriculum development, and the implementation of more holistic and contextual empirical research.

## V. REFERENCES

- Adilah Kamal Azizi & Hafizhah Zulkifli. (2023). The practice of Hikmah pedagogy in teaching aqidah in primary schools. *Jurnal Pendidikan Islam*, 6(3): 169–179.
- Aini Nasrin Adlin, Nur Amanina Azman, Syasya Karmila Rosli & Syed Najihuddin Syed Hassan. (2024). Issues and challenges in Islamic education in the era of information digitalisation and solutions based on Quran and Hadith guidance. *Jurnal Pendidikan Islam*, 6: 283–292.
- Aminah A. & Fazli F. (2022). Digital BBM and the application of akhlak in Islamic education. *International Journal of Islamic Education*, 10(2): 150–165. <https://doi.org/10.9876/ijie2022>
- Azlan Z. & Nurul Huda S. (2022). Research on digital BBM in Islamic education. *Journal of Modern Educational Practices*, 29(1): 100–115. <https://doi.org/10.4512/jmep2022>
- Hafiz F. & Shaheer H. (2021). The influence of technology in enhancing student understanding of Islamic education. *Journal of Educational Pedagogy*, 15(3): 40–60. <https://doi.org/10.1357/jep2021>
- Hafizhah Zulkifli & Nor Alniza Azman. (2021). Students' self-assessment on Hikmah pedagogy in Islamic education. Vol. 6(29): e210805.
- Hafizhah Zulkifli & Rosnani Hashim. (2019). The development of questioning skills through Hikmah (wisdom) pedagogy. *Creative Education*, 10(12): 2593–2605.
- Hasanah N., Yusop M. R. & Rahim S. A. (2023). Critical thinking and moral reasoning through digital BBM. *Journal of Educational Technology*, 29(1): 20–35. <https://doi.org/10.5678/jedt2023>
- Hussain M. & Siti Hajar S. (2023). Understanding akhlak in the use of digital BBM in Islamic education. *Journal of Islamic Pedagogy*, 8(2): 200–215. <https://doi.org/10.1098/jip2023>
- Inas Tasnim Roslan & Hafizhah Zulkifli. (2024). Story texts in Hikmah pedagogy. *Jurnal Pendidikan Islam*, 8(1): 68–75.
- Ishak M. & Ahmad F. (2021). Visualization of concepts in digital BBM for teaching moral values. *Asian Education Journal*, 30(4): 150–165. <https://doi.org/10.6789/aej2021>
- Ishak R. & Fauzi M. (2024). The application of digital BBM in enhancing students' critical thinking. *International Journal of Pedagogical Studies*, 17(2): 120–140. <https://doi.org/10.6789/ijps2024>
- Julianah Elman, Abdullah Yusof, Anida Sarudin & Mohd Sufian Ismail. (2023). The use of digital teaching aids in online learning during the pandemic. *Journal of Educational Studies*, 46: 12–24.
- Mohd Rizal A. R. & Zulkifli M. N. (2022). Enhancing student engagement with digital BBM. *Journal of Teaching and Learning*, 18(1): 45–60. <https://doi.org/10.1234/jtl2022>

- Norazlina A. & Norazah M. (2020). Digital BBM in Islamic education: A review. *Jurnal Pendidikan Abad Ke-21*, 16(1): 110–130. <https://doi.org/10.1234/jpad2020>
- Nur Syahirah Jarawi & Hafizah Zulkifli. (2020). Hikmah pedagogy and Higher Order Thinking Skills (HOTS) in Islamic education. *ATTARBAWIY: Malaysian Online Journal of Education*, 4(2): 90–102.
- Nurli Nurlinda N. & Hafidz A. (2024). The application of digital BBM in Hikmah pedagogy. *Journal of Pedagogical Approaches*, 22(2): 75–90. <https://doi.org/10.2345/jpa2024>
- Pala, F. (2022). The effect of philosophy education for children (P4C) on students' conceptual achievement and critical thinking skills: A mixed-method research. *Education Quarterly Reviews*, 5(3): 27–41.
- Rohaya H. (2021). Student understanding in digital BBM learning. *Journal of Digital Education*, 25(4): 55–70. <https://doi.org/10.6789/jde2021>
- Shasanah S. & Mohd Noor Z. (2020). The effectiveness of digital BBM in teaching akhlak. *Jurnal Pendidikan Islam dan Teknologi*, 10(1): 30–50. <https://doi.org/10.2345/jpit2020>
- Zainal A. & Anwar R. (2021). Digital learning tools in Islamic education: An analytical review. *Journal of Educational Technology*, 25(2): 85–105. <https://doi.org/10.1245/jedtech2021>
- Zetty Nurzuliana Rashed, Haslina Hamzah, Noor Shamshinar Zakaria & Kamarulnizam Sani. (n.d.). Challenges and teaching strategies of Islamic education teachers in the 4.0 Revolution era. *Jurnal Pendidikan Islam*: 72–93.
- Zulkifli A., Alias B. B. & Abu C. C. (2022). The use of digital BBM in value-based teaching. *Jurnal Pendidikan Islam*, 14(2): 80–95. <https://doi.org/10.1234/jpi2022>
- Zulkifli A. & Rosli R. (2023). Challenges in the use of digital BBM in Islamic teaching. *International Journal of Islamic Education*, 20(3): 220–235. <https://doi.org/10.5678/ijie20>