

A PRELIMINARY REPORT ON PEDAGOGICAL KNOWLEDGE AMONG PRE-SERVICE ISLAMIC EDUCATION TEACHERS

*Laporan awal tentang pengetahuan pedagogi dalam kalangan guru
pendidikan islam pra-perkhidmatan*

*Nabihah Husna Razali¹, Arifin Mamat¹

¹Kulliyah Pendidikan
Universiti Islam Antarabangsa Malaysia (IIUM)
53100 Kuala Lumpur, Selangor, Malaysia.

*Corresponding author's email: drarifin@iium.edu.my

Submitted:	Accepted:	Revised:	Published:
14-Mar-2026	14-Mar-2026	19-Jun-2026	30-Jun-2026

Abstract

This preliminary study aimed to evaluate the level of pedagogical knowledge readiness among pre-service Islamic education teachers at the Kulliyah of Education (KOED), International Islamic University Malaysia (IIUM). A total of 16 respondents completed a structured questionnaire designed to assess 15 aspects of pedagogical knowledge. Data was analysed using descriptive statistics to determine respondents' levels of pedagogical knowledge. The findings indicate that the respondents generally demonstrated a high level of pedagogical knowledge, with mean scores ranging from 3.75 to 4.69 across the 15 items, suggesting strong agreement with the statements. Items related to understanding students' different learning styles exhibited particularly high mean scores, reflecting confidence and consistency in these areas. In contrast, items addressing the application of learning theories in teaching and the integration of Islamic knowledge with soft skills in lesson planning showed comparatively lower mean scores and greater variability, indicating potential areas for further development. These results provide preliminary evidence of the questionnaire's effectiveness and highlight areas where targeted interventions may enhance pre-service teachers' pedagogical readiness for Islamic Education classrooms.

Keywords: Pedagogical knowledge, Pre-service teachers, Islamic Education, Pedagogical readiness

Abstrak

Kajian awal ini bertujuan untuk menilai tahap kesediaan pengetahuan pedagogi dalam kalangan guru Pendidikan Islam pra-perkhidmatan di Kulliyah Pendidikan (KOED), Universiti Islam Antarabangsa Malaysia (IIUM). Seramai 16 orang responden telah melengkapkan soal selidik berstruktur yang direka untuk menilai 15 aspek pengetahuan pedagogi. Data dianalisis menggunakan statistik deskriptif bagi menentukan tahap pengetahuan pedagogi responden. Dapatan kajian menunjukkan bahawa responden secara umumnya memperlihatkan tahap pengetahuan pedagogi yang tinggi, dengan skor min antara 3.75 hingga 4.69 bagi kesemua 15 item, yang menunjukkan tahap persetujuan yang kuat terhadap pernyataan yang dikemukakan. Item yang berkaitan dengan pemahaman terhadap perbezaan gaya pembelajaran pelajar menunjukkan skor min yang sangat tinggi, mencerminkan tahap keyakinan dan konsistensi dalam aspek tersebut. Sebaliknya, item yang berkaitan dengan aplikasi teori pembelajaran dalam pengajaran serta pengintegrasian ilmu Islam dengan kemahiran insaniah dalam perancangan pengajaran menunjukkan skor min yang lebih rendah dan variasi yang lebih besar, sekaligus menandakan potensi bidang untuk penambahbaikan selanjutnya. Hasil kajian ini memberikan bukti awal tentang keberkesanan soal selidik yang digunakan serta menonjolkan bidang-bidang

yang memerlukan intervensi khusus bagi meningkatkan kesediaan pedagogi guru pra-perkhidmatan dalam bilik darjah Pendidikan Islam.

Kata kunci: Pengetahuan pedagogi, Guru pra-perkhidmatan, Pendidikan Islam, Kesediaan pedagogi

1.0 INTRODUCTION

Teacher quality is widely recognised as a key factor influencing the effectiveness of teaching and learning, particularly within the context of Islamic Education, which emphasises holistic student development encompassing cognitive, affective, spiritual, and moral dimensions. This holistic approach is consistent with the Qur'anic emphasis on the elevation of knowledge and righteous conduct, as Allah says: "Allāh will raise those who have believed among you and those who were given knowledge, by degrees. And Allāh is Aware of what you do." (Surah Al-Mujādilah, 58:11). This verse highlights the central role of knowledge and competent educators in nurturing human development.

In Malaysia, teacher education programmes are guided by national frameworks such as the Malaysian Teacher Standards (Standard Guru Malaysia, SGM) and the Kurikulum Standard Sekolah Menengah (KSSM), which highlight the importance of pedagogical competence, learner-centred approaches, and the integration of values across teaching practices. SGM is implemented through systematic observation, evaluation, and transparent reporting to ensure continuous quality improvement (Rahman & Ikhlas, 2022). These frameworks align with the Islamic principle of accountability (*amanah*) in education.

Pedagogical knowledge forms a core component of the Technological Pedagogical Content Knowledge (TPACK) framework, which conceptualises effective teaching as the integration of content knowledge, pedagogical knowledge, and technological knowledge. Within this framework, pedagogical knowledge refers to teachers' understanding of instructional strategies, classroom management, assessment methods, learner diversity, and learning theories that support student engagement and achievement. In Islam, effective teaching is grounded in wisdom and appropriate methodology, as Allah states: "Invite to the way of your Lord with wisdom and good instruction." (Surah An-Nahl, 16:125). For pre-service Islamic Education teachers, pedagogical knowledge is particularly critical, as it enables them to deliver Islamic content in ways that are meaningful, engaging, and responsive to learners' needs.

In the Malaysian Islamic Education context, pedagogical knowledge is closely linked to the implementation of KSSM, which advocates active learning strategies, higher-order thinking skills (HOTS), differentiated instruction, and values-based education. Islamic Education teachers are expected not only to transmit religious knowledge but also to cultivate students' *akhlak*, critical thinking, and practical application of Islamic principles. This responsibility reflects the Prophetic model of education, in which teaching was combined with moral exemplification. Hadith reported: Abu Hurayra reported that the Messenger of Allah, may Allah bless him and grant him peace, said, "I was sent to perfect good character." Furthermore, the Qur'anic narrative of Prophet Musa and Khidr (Surah Al-Kahf, 18:60–82) illustrates experiential and reflective learning through observation, patience, and guided practice. This story demonstrates the importance of pedagogical methods such as mentoring, experiential learning, and gradual knowledge development in Islamic education (Fauziah & Rizal, 2019). Makhsin et al. (2022) emphasised that teachers must conduct themselves with integrity, possess strong subject-matter expertise, and

continuously enhance their professional skills. To enhance pedagogical competence and commitment to character development, educators must engage in continuous professional development (Wahyudi et al., 2024).

Despite the strong emphasis on pedagogical competence in national policies and teacher education curricula, there remains a need for empirical evidence on the pedagogical knowledge readiness of pre-service Islamic Education teachers, particularly in the early stages of research and instrument development. Preliminary studies play a crucial role in establishing baseline data, validating research instruments, and identifying areas for improvement. This is consistent with the Islamic principle of self-evaluation (*muḥāsabah*), which encourages reflection and continuous improvement in professional practice.

Accordingly, this preliminary study aims to evaluate the level of pedagogical knowledge readiness among pre-service Islamic Education teachers at the Kulliyah of Education (KOED), International Islamic University Malaysia (IIUM). Guided by the pedagogical knowledge component of the TPACK framework and informed by Malaysian teacher education policies and KSSM requirements, this study employs a quantitative survey approach to provide initial insights into respondents' pedagogical strengths and areas for improvement. The findings are expected to contribute to the refinement of teacher preparation practices and support the development of more effective pedagogical training grounded in both contemporary educational theory and Islamic epistemology.

2.0 PROBLEM STATEMENT

Despite the strong emphasis on pedagogical competence in teacher education programmes and national education policies, limited empirical evidence exists on the pedagogical readiness of pre-service Islamic Education teachers in the Malaysian context. While teacher education programmes aim to equip future teachers with essential instructional skills, classroom management strategies, and assessment practices, previous studies indicate that many pre-service teachers encounter difficulties in applying pedagogical theories, designing aligned lessons, and integrating Islamic values with effective teaching approaches (V. Sathasivam et al., 2024; Wahdah & Elfri, 2024). Empirical studies specifically measuring the level of pedagogical knowledge readiness among pre-service Islamic Education teachers remain scarce, with most existing literature focusing on conceptual discussions of competence rather than its systematic measurement and baseline documentation. Furthermore, the lack of validated instruments and baseline data constrains systematic evaluation of their pedagogical competence. As a result, gaps remain in understanding their actual level of pedagogical readiness and the specific areas requiring improvement. This highlights the need for empirical investigation to assess pre-service teachers' pedagogical knowledge and provide foundational data for enhancing instructional quality and student learning outcomes in Islamic Education classrooms.

3.0 LITERATURE REVIEW

The pedagogical readiness of pre-service Islamic Education teachers is widely recognised as a critical determinant of instructional quality and student learning outcomes. Pedagogical competence extends beyond general teaching skills to

include the ability to integrate Islamic values, moral development, and contemporary instructional strategies within classroom practice.

3.1 pedagogical knowledge in teacher education (tpack)

The foundation of contemporary teacher education is grounded in Pedagogical Content Knowledge (PCK), a concept introduced by Shulman to describe the “special amalgam” of subject matter expertise and pedagogical skills required for effective teaching. PCK emphasises teachers' ability to transform content knowledge into forms that are comprehensible and meaningful to learners. In Islamic Education, this transformation is particularly significant, as teachers are required to convey religious knowledge in ways that are pedagogically sound while fostering moral understanding and spiritual growth (Arraziq & Nurchalis, 2025). Thus, PCK provides a critical theoretical lens for examining teaching effectiveness in values-based educational contexts.

Building upon Shulman's work, the Technological Pedagogical Content Knowledge (TPACK) framework extends the concept of PCK by positioning pedagogical knowledge (PK) as one of three interrelated domains alongside content knowledge (CK) and technological knowledge (TK) (Mishra & Koehler, 2006). Within TPACK, PK plays a central role in shaping instructional decisions, as it governs how content and technology are integrated to support meaningful learning experiences. Pedagogical knowledge within this framework includes teachers' understanding of instructional strategies, classroom organisation, assessment practices, learner diversity, and learning theories (Koehler et al., 2013). Research has shown that weaknesses in PK can constrain teachers' ability to integrate content and technology effectively, underscoring the importance of evaluating PK independently, particularly among pre-service teachers (Chai et al., 2018).

In the context of Islamic Education, pedagogical knowledge is further informed by Islamic pedagogical principles that emphasise holistic human development. Islamic pedagogy is rooted in three interconnected dimensions: *Tarbiyah*, which focuses on the gradual and holistic development of learners; *Ta'aleem*, which refers to the systematic acquisition of knowledge; and *Ta'adeeb*, which emphasises the embodiment of knowledge through ethical conduct and character (Adab). According to Chandio (2022), Islamic pedagogy is the techniques and approaches that a teacher uses to train their students in accordance with their unique potential and capacity. Recent literature highlights that Islamic education is not a static or historical construct but a dynamic field that integrates values-based education into contemporary curricula (Judijanto & Arwen, 2025). Consequently, the development of a PCK model for Islamic Religious Education (IRE) requires careful identification of the pedagogical and content-specific competencies necessary for teaching Islamic beliefs and practices effectively (Mat Yusoff et al., 2025).

Within the TPACK framework, pedagogical knowledge items commonly assessed in pre-service teacher studies can be systematically mapped onto specific TPACK constructs. Understanding students' learning styles, classroom management, and lesson organisation represents core PK that supports the development of PCK by enabling teachers to adapt Islamic content to learners' needs. Items related to the application of learning theories and assessment practices reflect intersections between PK and PCK, as teachers must align pedagogical principles with Islamic learning outcomes. Furthermore, items addressing the integration of Islamic knowledge with values and soft skills can be conceptualised as bridging PK and PCK and, when supported by digital tools, extending into full TPACK. These linkages underscore the central role of pedagogical knowledge as the foundational domain enabling effective integration of content, pedagogy, and technology in Islamic

Education classrooms. Accordingly, pedagogy encompasses and examines the content delivery techniques and instructional approaches used in teaching (Chandio, 2022).

3.2 developing pre-service teacher competence: bridging the theory–practice divide

A recurring issue in teacher education research is the theory–practice gap experienced by pre-service teachers (PSTs), where strong theoretical understanding does not always translate into effective classroom practice. While PSTs are often equipped with pedagogical theories and instructional frameworks through coursework, many struggle to apply this knowledge in real teaching situations. According to V. Sathasivam et al. (2024), PSTs often perceive a disconnect between the pedagogical expertise learned in coursework and how it is used in actual classroom settings. This conflict is particularly evident during practicum experiences, where PSTs must manage real learners, classroom dynamics, and instructional demands simultaneously. Based on Zakaria et al. (2024), the PSTs encounter a number of challenges that can limit their efficacy during practicum, including time management, lesson implementation, and financial limitations. In Islamic Education contexts, this gap is further complicated by the need to integrate pedagogical knowledge with religious values and real-life grounded practices.

Practical training components such as microteaching and peer feedback have been identified as effective strategies for reducing the theory–practice gap among PSTs. Educational researchers and practitioners have turned to microteaching as an effective method to bridge the divide between theory and practice in teacher education (Yesilbursa, 2011; Park, 2022, as cited in Iliasova et al., 2025). Microteaching allows PSTs to rehearse instructional strategies in a controlled environment, enhancing their confidence and pedagogical competence. Studies indicate that structured peer assessment and constructive feedback during microteaching sessions significantly improve lesson delivery, classroom communication, and classroom management skills (Amrullah et al., 2025). These findings highlight the importance of experiential learning approaches in supporting PSTs' transition from theoretical knowledge to practical pedagogical application.

Despite these benefits, Wahdah and Elfri (2024) found that although PSTs often perform well in lesson planning and classroom execution, they struggle with reflective evaluation, particularly in self-assessing their teaching effectiveness and adapting instructional strategies in real time. In Islamic Education settings, this challenge is compounded by classroom management demands that involve various cultural and religious norms. Pre-service teachers in Islamic schools must navigate gender etiquette, religious discipline, and culturally sensitive interactions, which are often insufficiently addressed in general teacher education modules (Succarie, 2024). Researchers argue that this gap necessitates a more tailored approach to teacher training that incorporates Islamic pedagogical principles, cultural contexts, and real-life application. The integration of critical pedagogy within Islamic teacher education has been suggested as a means to enhance PSTs' reflective capacity, enabling them to critically engage with their teaching practices while maintaining alignment with Islamic values and ethical principles (Karwadi et al., 2025).

3.3 pedagogical competencies of pre-service Islamic education teachers

Pedagogical competence is a fundamental component of teacher readiness and a key determinant of instructional quality. For pre-service Islamic Education (IE) teachers, pedagogical knowledge extends beyond general teaching skills to encompass the integration of Islamic values, moral development, and contemporary

instructional design. A central aspect of pedagogical competence is instructional planning and curriculum alignment. As noted by El-Annan and Hassoun (2025), curriculum, instruction, and assessment constitute the core components of effective education rather than merely a logical framework. Effective teaching begins with the ability to design lessons that are systematically aligned with curriculum objectives while remaining grounded in Islamic principles.

Pre-service teachers are therefore expected to move beyond mere content delivery to ensure consistency with national curriculum standards and intended learning outcomes. Such alignment creates a more coherent learning environment by ensuring that teaching, learning, and assessment processes are mutually reinforcing and directed towards shared educational goals (El-Annan & Hassoun, 2025). Consequently, aligning teacher training with national curriculum standards and learning outcomes is essential for fostering effective instructional practices and enhancing students' academic and moral development.

Building on this, recent studies underscore the importance of holistic lesson design that integrates Islamic knowledge with soft skills, including leadership, communication, and ethical reasoning. Islamic Education plays a pivotal role in Malaysia's educational system, cultivating individuals who uphold Islamic values while engaging effectively with contemporary societal challenges (Mohd Zuraini et al., 2025). This approach aligns with the Islamic concept of Tarbiyah, which emphasises the comprehensive development of intellectual, spiritual, and moral dimensions. By employing contextualised teaching methods, teachers can connect Islamic Education materials to real-world scenarios, demonstrate their relevance in daily life, and motivate students to bridge the gap between theoretical understanding and practical application (Firmansyah et al., 2023).

Another critical dimension of pedagogical competence is the mastery of instructional strategies and subject adaptation, which forms the core of Pedagogical Content Knowledge (PCK). Effective pre-service teachers recognize that fostering student engagement involves moving beyond traditional teacher-centred lectures and adopting more interactive, learner-centred approaches. Through the use of diverse instructional strategies, they accommodate different learning preferences while promoting higher-order thinking skills (Bayraktar & Demirhan Iscan, 2024). Islamic Education subjects such as Fiqh, Aqidah, Akhlaq, and Islamic history require differentiated pedagogical approaches. Each subject has unique characteristics that necessitate tailored teaching methods to enhance student engagement and understanding. For instance, inquiry-based learning may be more suitable for jurisprudential discussions, while storytelling and narrative methods are effective for historical and moral lessons. This approach, which emphasizes inquiry and dialogue, is consistent with Islamic educational philosophy and helps students develop their independence and decision-making abilities (Rofuah, 2025). Gadafi et al. (2025) stated that accommodating a variety of learning preferences and differentiated teaching supports the comprehensive objectives of Islamic education by fostering moral and intellectual development. Additionally, fostering student engagement remains a central concern for novice teachers, with strategies such as collaborative learning, discussion-based activities, and gamification increasingly recognized as effective in promoting active participation in religious subjects. This active learning teaching strategy that can encourage students to participate in active learning through discussions, group projects, and practical exercises (Parsons and Taylor, 2011, as cited in Mduwile & Goswami, 2024).

Theoretical grounding and sensitivity to learner diversity further strengthen pedagogical competence among pre-service teachers. A solid understanding of learning theories, such as constructivism and behaviourism, enables teachers to make

informed instructional decisions and respond effectively to students' diverse learning needs. Constructivist approaches, for instance, encourage students to actively construct their understanding of Islamic concepts through reflection, dialogue, and inquiry. Sari (2019) emphasised that students should actively develop their knowledge and skills by processing information into internal cognitive frameworks that guide their thinking, rather than treating learning as passive information acquisition.

In addition, effective classroom management and assessment literacy are essential for sustaining a positive learning environment. The literature consistently identifies classroom management as a major challenge for pre-service teachers, particularly in maintaining discipline and student engagement. Serliana et al. (2021) reported that pre-service teachers frequently encounter difficulties related to student misbehaviour, accountability for homework completion, and learning motivation. Within Islamic Education, proactive management strategies grounded in Adab (Islamic etiquette) are emphasised to foster mutual respect, self-discipline, and moral conduct. Similarly, the Islamic educational paradigm places strong emphasis on memory, critical thinking, and character development in nurturing individuals who are both intellectually competent and morally upright (Zuhdi, 2022, as cited in Judijanto & Arwen, 2025). Furthermore, recent studies advocate for diversified assessment practices, including formative, summative, and authentic assessments, to move beyond rote memorisation and evaluate students' ability to apply Islamic values meaningfully in daily life. Such assessments provide continuous feedback that enables educators to refine instructional strategies and enhance student engagement, as highlighted in competency-based learning models (Rahman, 2025). They also measure overall learning outcomes, ensuring that students meet educational standards while reflecting critically on their understanding of Islamic values (Azmi et al., 2024). Authentic assessment, in particular, evaluates students' capacity to apply knowledge in real-life contexts, thereby fostering deeper comprehension of Islamic teachings and sustained character development (Idris & Asyafah, 2020).

4.0 RESEARCH OBJECTIVE AND RESEARCH QUESTION

The research aims to explore how prepared pre-service Islamic Education teachers at KOED are in terms of pedagogical knowledge. Thus, the central research question is: What is the level of pedagogical readiness among these pre-service teachers in teaching Islamic Education at KOED?

5.0 METHODOLOGY

This study was conducted to examine the technological pedagogical content knowledge (TPACK) of pre-service Islamic Education teachers at the Kulliyah of Education, International Islamic University Malaysia (IIUM). The methodology section outlines the procedures employed to achieve the research objectives, including the research design, participants, research instrument, data collection procedures, and data analysis techniques. A quantitative approach was adopted to systematically collect and analyze data, enabling the researchers to assess the levels of pedagogical practices among the Islamic education pre-service teachers.

5.1 Research Design

This study employed a quantitative descriptive research design as preliminary research to evaluate the level of pedagogical knowledge readiness among pre-

service Islamic Education teachers. A survey method was selected to gain respondents' self-reported perceptions of their pedagogical knowledge across multiple dimensions. Preliminary studies are particularly useful for instrument validation and providing baseline data for future large-scale research.

5.2 Samples And Population / Participants

This study employed total population sampling (census sampling), in which all members of the target population who met the study criteria were included as participants. The target population comprised fourth year, first-semester students enrolled in the Bachelor of Islamic Education programme at the Kulliyah of Education (KOED), International Islamic University Malaysia (IIUM) during the study semester. The total enrolment for this cohort was 16 students, and all 16 participated, yielding a complete census of the available population. The programme intake at KOED is characteristically small, and no additional students met the criteria that existed during the data collection period. Total population sampling is a well-established approach for studies involving small, bounded cohorts where exhaustive inclusion is both feasible and preferable to selective sampling (Etikan et al., 2016).

5.3 Research Instruments

Data were collected using a structured questionnaire consisting of 15 items rated on a five-point Likert scale, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The instrument was adapted from Haliza and Sreetharam (2010), whose original questionnaire assessed pedagogical readiness among teacher trainees and demonstrated satisfactory content validity and reliability in its original context. The adaptation was undertaken to align the instrument with the specific requirements of the Islamic Education context at KOED and to anchor the items explicitly within the pedagogical knowledge (PK) domain of the TPACK framework (Mishra & Koehler, 2006). The adaptation process involved reviewing each item for contextual relevance, replacing generic references with Islamic Education-specific language where appropriate, and confirming that the adapted items retained conceptual alignment with the original constructs.

The adapted instrument covered six dimensions of pedagogical knowledge: (1) understanding of pedagogical knowledge; (2) knowledge of teaching strategies; (3) comprehension of the learning process; (4) lesson planning and design; (5) classroom management; and (6) differentiated instruction. Internal consistency reliability for the adapted instrument in the present study was computed using Cronbach's alpha, yielding a coefficient of $\alpha = 0.91$, indicating excellent internal consistency (George & Mallery, 2003).

6.0 DATA ANALYSIS

This study employed descriptive statistical analysis to assess the pedagogical knowledge readiness of pre-service Islamic Education teachers by computing the frequency, percentage, mean, and standard deviation for each questionnaire item.

7.0 RESULTS

This preliminary study examined the level of pedagogical knowledge readiness among pre-service Islamic Education teachers at KOED, IIUM, guided by the pedagogical knowledge component of the TPACK framework. Overall, the findings

indicate that respondents demonstrated a high level of pedagogical knowledge, with mean scores ranging from 3.75 to 4.69 across the 15 items. This suggests that the respondents generally perceive themselves as pedagogically prepared for teaching Islamic Education.

Table 1 Table of Preliminary Pedagogical Knowledge Readiness

PR No.	Statements	SD % (N)	D% (N)	N% (N)	A% (N)	SA% (N)	Means	Std. Deviation
	I can apply a variety of strategies to present the content of Islamic Education	-	-	-	62.5 (10)	37.5 (6)	4.38	.500
	I know how to focus on student understanding as well as the delivery of content.	-	-	6.3 (1)	68.8 (11)	25.0 (4)	4.19	.544
	I know how to select effective teaching approaches to guide student thinking and learning in Islamic Education.	-	-	-	62.5 (10)	37.5 (6)	4.38	.500
	I know how to adapt my teaching methods to suit the subject matter.	-	-	-	75.0 (12)	25.0 (4)	4.25	.447
	I use my understanding of learning theories (e.g., constructivism, behaviorism) to guide my teaching practices.	-	6.3 (1)	31.3 (5)	43.8 (7)	18.8 (3)	3.75	.856
	I can effectively teach Islamic Education subjects.	-	-	18.8 (3)	37.5 (6)	43.8 (7)	4.25	.775
	I know how to attract students' interest in learning in Islamic Education.	-	-	18.8 (3)	25.0 (4)	56.3 (9)	4.38	.806
	I am aware of how different students learn (e.g., visual, auditory, kinesthetic).	-	-	-	31.3 (5)	68.8 (11)	4.69	.479
	I can design lessons that align with curriculum goals and standards.	-	-	25.0 (4)	56.3 (9)	18.8 (3)	3.94	.680
	I plan activities that encourage active student participation and engagement.	-	-	6.3 (1)	50.0 (8)	43.8 (7)	4.38	.619
	I can create lesson plans for Islamic Education that integrate both Islamic knowledge and soft skills.	6.3 (1)	-	18.8 (3)	50.0 (8)	25.0 (4)	3.88	1.025
	I can design activities that connect learning to students' real-life experiences.	-	-	-	56.3 (9)	43.8 (7)	4.44	.512
	I know how to address students' behavioral issues effectively in the classroom.	-	-	12.5 (2)	56.3 (9)	31.3 (5)	4.19	.655
	I use different assessment methods to evaluate students' learning based on their individual needs.	-	6.3 (1)	12.5 (2)	50.0 (8)	31.3 (5)	4.06	.854
	I can use real-life examples that blend Islamic values with contemporary teaching practices.	-	-	-	62.5 (10)	37.5 (6)	4.38	.500

Overall, the findings indicate that the respondents demonstrated a high level of pedagogical knowledge readiness. Based on the combined interpretation of mean scores and standard deviations, several pedagogical knowledge items reflected strong and consistent competency, notably PK8 (M = 4.68, SD = 0.479), PK4 (M = 4.25, SD = 0.447), and PK12 (M = 4.44, SD = 0.512). In addition, PK1, PK3, and PK15 yielded identical results, each recording a mean score of 4.38 with a standard

deviation of 0.500. PK2 demonstrated a moderately strong and consistent level of competency among the respondents, with a mean score of 4.19 and a standard deviation of 0.544. This was followed by PK10, which recorded a mean of 4.38 with a standard deviation of 0.619, and PK13, with a mean score of 4.19 and a standard deviation of 0.655.

Several items indicated good levels of pedagogical knowledge but with uneven mastery among the respondents, namely PK6 ($M = 4.25$, $SD = 0.775$), PK7 ($M = 4.38$, $SD = 0.806$), and PK14 ($M = 4.06$, $SD = 0.854$). Although respondents generally agreed with these items, the relatively higher standard deviations suggest variations in mastery or differences in pedagogical experiences. In contrast, PK9 ($M = 3.94$, $SD = 0.680$), PK11 ($M = 3.88$, $SD = 1.025$), and PK5 ($M = 3.75$, $SD = 0.856$) recorded comparatively lower mean scores accompanied by greater variability, indicating potential areas of concern that may require further refinement or targeted pedagogical support.

8.0 DISCUSSION

This preliminary study examined the level of pedagogical knowledge readiness among pre-service Islamic Education teachers at the Kulliyah of Education (KOED), International Islamic University Malaysia (IIUM). Based on descriptive statistical analysis, the findings indicate that respondents demonstrated a generally high level of pedagogical knowledge, with mean scores ranging from 3.75 to 4.69 across the fifteen pedagogical knowledge items. These results suggest that the respondents largely agreed with the statements measuring pedagogical competence, reflecting positive pedagogical readiness. However, variation across individual items indicates that pedagogical development is not uniform and remains differentiated across key domains.

Several items demonstrated strong and consistent mastery, notably PK8, PK12, PK4, and the cluster of PK1, PK3, and PK15. These items, which recorded high mean scores with low standard deviations, reflect respondents' confidence in fundamental pedagogical practices such as lesson organisation, instructional clarity, and general teaching preparedness. Within the TPACK framework, these competencies represent core pedagogical knowledge that forms the foundation for effective integration of content and technology (Mishra & Koehler, 2006).

This finding is consistent with Koehler et al. (2013), who emphasised that strong pedagogical grounding enables teachers to make informed instructional decisions. In Islamic Education, this strength is particularly significant, as teachers are required to transform religious knowledge into meaningful learning experiences that foster moral and spiritual development (Arraziq & Nurchalis, 2025). The consistency observed across these items suggests that current teacher education programmes are relatively effective in developing general pedagogical competence, particularly in lesson planning and instructional delivery, as highlighted by El-Annan and Hassoun (2025).

Items PK2, PK10, and PK13 demonstrated moderately strong mean scores with acceptable consistency, indicating that respondents generally perceived themselves as competent in areas related to instructional adaptation, learner responsiveness, and assessment awareness. These competencies lie at the intersection of pedagogical knowledge and pedagogical content knowledge, where teachers are required to align instructional strategies with subject-specific learning outcomes.

The literature indicates that pre-service teachers often acquire conceptual understanding of assessment practices and learner diversity during training but require sustained practice to apply these principles effectively (Chai et al., 2018). In Islamic

Education, aligning assessment with values-based learning outcomes presents additional challenges, as assessments must evaluate both academic understanding and character development (Azmi et al., 2024; Rahman, 2025). The moderate strength observed in these items supports previous findings that pre-service teachers generally demonstrate emerging pedagogical competence; however, limited classroom experience during teacher preparation may constrain the refinement and application of these skills in authentic teaching contexts (Ghufron et al., 2022; Mak et al., 2022).

PK6, PK7, and PK14 recorded good mean scores but were accompanied by relatively higher standard deviations, indicating variability in pedagogical mastery. This pattern suggests that while many respondents demonstrated confidence in these areas, others experienced difficulties, possibly due to differences in practicum exposure, mentoring quality, and school contexts.

These findings reflect the theory–practice gap widely documented in teacher education research. Previous studies have shown that pre-service teachers may understand pedagogical principles theoretically but struggle to apply them consistently in real classroom settings (V. Sathasivam et al., 2024; Zakaria et al., 2024). In Islamic Education contexts, these challenges are intensified by culturally embedded classroom norms, including gender etiquette and religious discipline (Succarie, 2024). Such variability suggests that experiential learning opportunities, including microteaching and practicum-based mentoring, remain critical for strengthening applied pedagogical competence (Amrullah et al., 2025).

The lowest mean scores and highest variability were observed in PK5 (application of learning theories, $M = 3.75$, $SD = 0.856$), PK9 (designing curriculum-aligned lessons, $M = 3.94$, $SD = 0.680$), and PK11 (integrating Islamic knowledge with soft skills in lesson planning, $M = 3.88$, $SD = 1.025$). These results are consistent with the theory-practice gap that is extensively documented in pre-service teacher education, a pattern in which strong theoretical understanding during coursework does not readily translate into confident applied practice (V. Sathasivam et al., 2024; Wahdah & Elfri, 2024). The variability observed in PK11, in particular, suggests that respondents' ability to design lessons integrating Islamic knowledge with soft skills is uneven across the cohort, potentially reflecting differences in individual coursework engagement, practicum quality, or prior exposure to integrated lesson design.

An alternative explanation for these patterns warrants consideration. Given the self-report nature of the data, lower mean scores in applied and reflective domains may reflect greater epistemic humility among respondents, that is, an awareness of their limitations in complex areas, rather than actual competence deficits. This interpretation does not diminish the significance of the findings; however, it underscores the need for future studies to triangulate self-report data with observational and interview-based evidence to establish a more comprehensive picture of pedagogical readiness.

Within the TPACK framework, reflective practice plays a central role in enabling teachers to integrate pedagogical, content, and technological knowledge effectively. Reflection allows teachers to evaluate instructional effectiveness, adapt strategies, and respond to learners' needs (Mishra & Koehler, 2006). In Islamic Education, reflective practice is closely linked to the concept of Ta'adeeb, which emphasises ethical self-regulation and continuous self-improvement (Judijanto & Arwen, 2025). The relatively weaker performance in these items suggests that current training programmes may insufficiently emphasise structured reflection, critical pedagogy, and adaptive teaching practices, consistent with the concerns raised by Karwadi et al. (2025).

Overall, the findings indicate that pedagogical knowledge functions as the central enabling domain within the TPACK framework for pre-service Islamic Education teachers. Strong foundational pedagogical skills support the development of pedagogical content knowledge and facilitate meaningful instructional practice. However, uneven mastery in applied and reflective domains may hinder full pedagogical integration. These results reinforce the need for teacher education programmes to strengthen experiential learning, reflective practice, and culturally responsive pedagogy in order to prepare future Islamic Education teachers for complex classroom environments.

9.0 CONCLUSION

This preliminary study examined the level of pedagogical knowledge among pre-service Islamic Education teachers at the Kulliyah of Education, IIUM, within the framework of contemporary teacher education and the TPACK model. The findings indicate that the respondents generally demonstrated a high level of pedagogical readiness, particularly in understanding learner diversity, instructional planning, and classroom organisation. These competencies reflect a strong foundation in core pedagogical principles necessary for effective teaching in Islamic Education classrooms. However, relatively lower mean scores in areas related to the application of learning theories and the integration of Islamic knowledge with soft skills suggest the need for further professional development. Overall, the study provides initial empirical evidence supporting the reliability of the instrument and highlights the central role of pedagogical knowledge in strengthening pre-service teachers' instructional effectiveness and readiness for integrated teaching practices.

10.0 LIMITATIONS AND RECOMMENDATIONS

Despite its contributions, this study has several limitations that should be considered when interpreting the findings. First, the study was conducted with a single, small cohort of 16 students, representing the entire population of fourth-year Bachelor of Islamic Education students at KOED, IIUM, during the study semester. While total population sampling ensures completeness within this bounded context, the findings cannot be generalised to pre-service Islamic Education teachers at other institutions or in other semesters. Second, the reliance on self-reported data introduces the potential for response bias; participants' perceptions of their pedagogical readiness may overstate their actual classroom competence, as individuals may respond in socially desirable ways or may not accurately assess their own practice (Podsakoff et al., 2003). Third, the study employed a descriptive design, which provides a useful snapshot of perceived readiness but does not permit causal or longitudinal conclusions about pedagogical development.

Furthermore, the small and identifiable nature of the cohort, namely a programme with only 16 students at a single institution, raises important ethical considerations regarding participant anonymity. While all reasonable precautions have been taken to protect participant confidentiality, researchers working with similarly small cohorts should be cognisant of this constraint.

Future research is therefore recommended to involve larger and more diverse samples across multiple institutions to enhance external validity. Longitudinal and mixed-method approaches, which combine survey data with classroom observation, microteaching assessment, and semi-structured interviews, would provide richer and

more triangulated insights into the development of pedagogical competence over time (Creswell & Creswell, 2018). Furthermore, future studies should examine the interaction between pedagogical, content, and technological knowledge domains more comprehensively to advance understanding of TPACK integration in Islamic Education. Investigating the impact of targeted training interventions on pre-service teachers' pedagogical practices would also contribute to improving teacher education programmes and closing the theory-practice gap.

11.0 ETHICAL CONSIDERATIONS

This study was conducted in accordance with established ethical principles for educational research. Prior to data collection, all participants were informed of the study's purpose, voluntary nature, and their right to withdraw at any time without consequence. Written informed consent was obtained from all 16 respondents before the questionnaire was administered. Participant confidentiality and anonymity were maintained throughout the study; no identifying information is disclosed in the reporting of findings. Given the small and identifiable nature of the cohort, particular care was exercised to ensure that individual responses could not be attributed to specific participants. Data were stored securely and accessed only by the research team.

12.0 CONFLICT OF INTEREST

The authors declare that there is no conflict of interest regarding the publication of this article. The research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

13.0 ACKNOWLEDGEMENT

The author gratefully acknowledges the guidance and support of the supervisor, Assoc. Dr Arifin Mamat throughout this study. Appreciation is also extended to the pre-service Islamic Education teachers who participated in this research, as well as to the staff of the Kulliyah of Education, IIUM, for facilitating the study. The constructive feedback and encouragement received from colleagues and peers were invaluable in completing this work.

14.0 AUTHORS' CONTRIBUTION

Nabihah Husna Razali conceptualised the study, designed the research instrument, collected and analysed the data, and drafted the manuscript. Arifin Mamat supervised the research process, provided methodological guidance, reviewed and edited the manuscript, and contributed to the interpretation of findings. Both authors read and approved the final version of the manuscript.

15.0 REFERENCES

Ahmad, N., Alias, F., Hamat, M., & Mohamed, S. (2024). Reliability analysis: application of cronbach's alpha in research instruments.

- https://appspenang.uitm.edu.my/sigcs/2024-2/Articles/20244_ReliabilityAnalysis-ApplicationOfCronbachsAlphalnResearchInstruments.pdf
- Amrullah, A., Apriani, E., & Idris, M. (2025). Enhancing pedagogical competence of pre-service islamic education teachers through peer assessment and constructive feedback. *Jurnal Pendidikan Islam*, 14(1), 191–208. <https://doi.org/10.14421/jpi.2025.141.191-208>
- Arraziq, M. I., & Nurchalis. (2025). Reflective practice in islamic teacher education: Insights from PAI teaching practicum for the formation of professional and pedagogical identity. *At-Turats*, 19(2), 206–217. <https://doi.org/10.24260/atturats.v19i2.5051>
- Azmi, E. F., Hidayat, I., & Abdul Azhari. (2024). Evaluation of education in islamic education. *Jurnal Pendidikan Islam*, 1(3), 149–158. <https://doi.org/10.70938/judikis.v1i3.49>
- Bayraktar, A., & Demirhan Iscan, C. (2024). Investigation of effective teaching according to pre-service teachers' views and their teaching methods. *International Journal of Contemporary Educational Research*, 11(3), 293–308. <https://doi.org/10.52380/ijcer.2024.11.3.385>
- Chai, C. S., Hwee Ling Koh, J., & Teo, Y. H. (2018). Enhancing and modeling teachers' design beliefs and efficacy of technological pedagogical content knowledge for 21st century quality learning. *Journal of Educational Computing Research*, 57(2), 360–384. <https://doi.org/10.1177/0735633117752453>
- Chandio, J. H. (2022). Fundamentals of islamic pedagogy: Nature and significance. *International of Journal of Early Childhood Special Education*, 14, 1611–1618. <https://doi.org/10.9756/INT-JECSE/V14I3.188>
- El-Annan, S. H., & Hassoun, R. A. (2025). Teachers' perceptions of curriculum alignment, professional development, and teaching practices. *International Journal of Instruction*, 18(3), 141–158. <https://doi.org/10.29333/iji.2025.1838a>
- Fauziah, A., & Rizal, A. S. (2019). Implikasi edukatif kisah nabi musa dan nabi khidir dalam qs. al-kahfi/18: 60-82. *TARBAWY : Indonesian Journal of Islamic Education*, 6(1), 33. <https://doi.org/10.17509/t.v6i1.19467>
- Firmansyah, Siti Fatimah, Ali, M., Zulkipili, & Kanada, R. (2023). Development of contextual learning methods in islamic religious education learning. *International Journal of Global Sustainable Research*, 1(2), 133–142. <https://doi.org/10.59890/ijgsr.v1i2.537>
- Gadafi, K., Saputra, A., & Gusmaneli, G. (2025). Peran strategi pembelajaran diferensiasi dalam meningkatkan kualitas pendidikan islam. *Jurnal Budi Pekerti Agama Islam*, 3(2), 297–308. <https://doi.org/10.61132/jbpai.v3i2.1081>
- Ghufron, M. A., Taufiq, A., & Riskiyanto, M. (2022). Pre-Service english teachers' pedagogical competence in teaching english: A case of teaching internship program (TIP). *English Learning Innovation*, 3(1), 27–41. <https://doi.org/10.22219/englie.v3i1.19382>
- Idris, M. M., & Asyafah, A. (2020). Penilaian autentik dalam pembelajaran pendidikan agama islam. *Jurnal Kajian Peradaban Islam*, 3(1), 1–9. <https://doi.org/10.47076/jkpis.v3i1.36>
- Iliasova, L., Nekrasova, I., Mena, J., & Estrada-Molina, O. (2025). Microteaching on pre-service teachers' education: Literature review. *Frontiers in Education*, 10. <https://doi.org/10.3389/feduc.2025.1562975>
- Judijanto, L., & Arwen, D. (2025). A bibliometric review of islamic pedagogy in modern educational systems. *The Eastasouth Journal of Learning and Educations*, 3(01), 28–41. <https://doi.org/10.58812/esle.v3i01.498>

- Karwadi, Bin Zakaria, A. R., Setiyawan, A., & Ferdi Hasan, Moh. (2025). Integration of critical pedagogy in islamic education: A case study of pre-service teacher training. *British Journal of Religious Education*, 1–22. <https://doi.org/10.1080/01416200.2025.2560905>
- Koehler, M. J., Mishra, P., & Cain, W. (2013). What is technological pedagogical content knowledge (TPACK)? *Journal of Education*, 193(3), 13–19.
- Mak, P., Yang, M., & Yuan, R. (2022). Fostering teacher competence through classroom-based research during field experiences. *Journal of Education for Teaching*, 49(5), 1–16. <https://doi.org/10.1080/02607476.2022.2150963>
- Makhsin, M., Ping, T. Y., & Ismail, N. H. (2022). Standard guru malaysia 2.0 dalam kemenjadian jiwa pendidik. *INTERNATIONAL JOURNAL of EDUCATION, PSYCHOLOGY and COUNSELLING (IJEPC)*, 7(46). <https://gaexcellence.com/ijepe/article/view/3463>
- Mat Yusoff, S., Lijie, H., & Basal, M. H. (2025). Investigating the influence of pedagogical content knowledge on formative assessment practices in islamic religious education of malaysian secondary schools. *International Journal of Asia Pacific Studies*, 21(2), 89–113. <https://doi.org/10.21315/ijaps2025.21.2.5>
- McDowall, A., Mills, C., Cawte, K., & Miller, J. (2020). Data use as the heart of data literacy: An exploration of pre-service teachers' data literacy practices in a teaching performance assessment. *Asia-Pacific Journal of Teacher Education*, 49(5), 1–16. <https://doi.org/10.1080/1359866x.2020.1777529>
- Mduwile, P., & Goswami, D. (2024). Enhancing student engagement: Effective strategies for active learning in the classroom in secondary schools. *MULTIPLE: Journal of Global and Multidisciplinary*, 2(5), 1746–1757. <https://journal.institercom-edu.org/index.php/multiple/article/view/350>
- Mishra, P., & Koehler, M. J. (2006). Technological pedagogical content knowledge: A framework for teacher knowledge. *Teachers College Record*, 108(6), 1017–1054. <https://doi.org/10.1111/j.1467-9620.2006.00684.x>
- Mohd Zuraini, N. S., Embong, R., Mohamad, J., Omar, M. C., & Subaidi, S. (2025). Holistic management of islamic education in the 21st century: A strategic framework for malaysia. *International Journal of Research and Innovation in Social Science*, IX(VII), 5813–5824. <https://doi.org/10.47772/ijriss.2025.907000468>
- Park, E. (2022). The reflectivity of EFL preservice teachers in microteaching practice. *International Journal of Learning, Teaching and Educational Research*, 21(4), 186–204. <https://doi.org/10.26803/ijlter.21.4.11>
- Parsons, J., & Taylor, L. (2011). Improving student engagement. *Current Issues in Education*, 14(1). https://www.researchgate.net/publication/277031893_Improving_Student_Engagement
- Rahman, M. R. A., & Ikhlas, M. F. (2022). Teacher quality: Malaysian teacher standard. *International Journal of Academic Research in Business and Social Sciences*, 12(7). <https://doi.org/10.6007/ijarbss/v12-i7/13054>
- Rahman, N. A. (2025). Competency-Based and ethical assessment models in contemporary islamic pedagogy. *Sinergi International Journal of Islamic Studies*, 3(1), 57–69. <https://doi.org/10.61194/ijis.v3i1.710>
- Rofuah, U. A. (2025). Filsafat pendidikan islam dalam mendorong kemandirian anak melalui pendekatan inquiry-based learning di KB assa'diyah tuban. *Lentera Anak*, 6(1). <https://doi.org/10.34001/jla.v6i1.7865>
- Sari, O. (2019). The implementation of constructivism learning in islamic religious subject at senior high school plus bina insani. *JPP (Jurnal Pendidikan Dan Pembelajaran)*, 26(1), 22–27. <https://doi.org/10.17977/um047v26i12019p022>

- Serliana, A., Utami, P. P., & Kamil, A. B. (2021). Pre-Service teachers' challenges in classroom management during teaching practice. *IDEAS: Journal on English Language Teaching and Learning, Linguistics and Literature*, 9(2), 73–80. <https://doi.org/10.24256/ideas.v9i2.2075>
- Succarie, A. (2024). Examining the implications of islamic teacher education and professional learning: Towards professional identity renewal in islamic schools. *Education Sciences*, 14(11), 1192. <https://doi.org/10.3390/educsci14111192>
- V. Sathasivam, R., Abdullah, M. N. S., & Abd Rauf, R. A. (2024). Theory-Practice divide: Pre-service teachers' application of pedagogical knowledge during teaching practicum. *Pertanika Journal of Social Sciences and Humanities*, 32(1), 69–86. <https://doi.org/10.47836/pjssh.32.1.04>
- Vaske, J. J. (2008). *Survey research and analysis: Applications in parks, recreation and human dimensions*. Venture Pub.
- Wahdah, W., & Elfri, R. (2024). Evaluating pedagogical competence of pre-service teachers in islamic education: Insights from school field practice program. *Journal of Educational Management and Instruction (JEMIN)*, 4(2), 254–266. <https://doi.org/10.22515/jemin.v4i2.9691>
- Wahyudi, M., Yuliani, D., & Ningrum, A. (2024). Profesionalisme dalam pendidikan islam (studi literatur). *PEDAGOGIC Indonesian Journal of Science Education and Technology*, 4(2), 95–102. <https://doi.org/10.54373/ijset.v4i2.2275>
- Yesilbursa, A. (2011). Reflection at the interface of theory and practice: An analysis of pre-service english language teachers' written reflections. *Australian Journal of Teacher Education*, 36(3). <https://doi.org/10.14221/ajte.2011v36n3.5>
- Zakaria, M. K., Embong, A. M., Shun, H. J., Mohd Zaini, M. M., Ayub, A. B., Ab. Wahab, N. A., Wan Ibrahim, C. W. I. R. C., Wan Kassim, W. Z., Wan Salam, W. N. B., Salaebing, M., Sabdin, A. J. B., & Hussain, J. (2024). Experiencing the pre-service teachers' ideas and thoughts during practicum: Quantitative and qualitative approaches. *English Education Journal*, 15(2), 58–76. <https://doi.org/10.24815/eej.v15i2.38077>
- Zuhdi, M. (2022, August 23). The future of islamic education: Ideology, technology, pedagogy & professionalism. *International Conference on Education in Muslim Society (ICEMS)*. <https://repository.uinjkt.ac.id/dspace/bitstream/123456789/69810/1/Artikel.pdf>