

PEDAGOGICAL MULTILITERACIES AND ISLAMIC TEACHER COMPETENCE IN NON-FORMAL EDUCATION: INTEGRATING MULTILITERACIES, TPACK, AND *TA'DIB*

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Received: March 2026. Accepted: September 2026. Online First: October 2026. Published: December 2026.

ABSTRACT

Contemporary Islamic teachers increasingly work within digitally mediated, multimodal, and socially diverse learning environments. However, teacher competence in non-formal Islamic education remains insufficiently theorized. Existing studies often examine digital literacy, pedagogical competence, religious literacy, and cultural responsiveness as separate domains, which provides limited understanding of how these capacities relate to teacher competence in community-based Islamic education. To address this gap, this study examined the relationship between pedagogical multiliteracies and Islamic teacher competence using an explanatory sequential mixed-methods design. Quantitative data were collected from 120 teachers working in *madrasah diniyah*, TPQ/TPA, Islamic learning centers, and Islamic training institutions, and analyzed using descriptive statistics, Pearson correlations, and multiple regression. These quantitative findings were then contextualized through semi-structured interviews with 15 teachers. The quantitative model explained 52% of the variance in teacher competence, with collaborative learning showing the strongest unique contribution ($\beta = .34$), followed by multimodal teaching ($\beta = .31$), digital literacy integration ($\beta = .26$), and critical literacy development ($\beta = .21$). Additionally, qualitative findings indicated that these dimensions were enacted through participatory meaning-making, multimodal communication, digital-pedagogical adaptation, and critical-contextual engagement with Islamic knowledge. Overall, this study contributes to the theoretical understanding by integrating Multiliteracies Pedagogy, TPACK, and Al-Attas's concept of *Ta'dib*. Consequently, it proposes the concept of Epistemically Responsible Pedagogical Multiliteracies, a conceptualization of Islamic teacher competence that emphasizes the interconnectedness of pedagogical, technological, communicative, interpretive, and ethical capacities in contemporary non-formal Islamic education.

Keywords: Islamic education, Multiliteracies, Non-formal education, *Ta'dib*, Teacher competence, TPACK

INTRODUCTION

The transformation of twenty-first-century education is increasingly shaped by digitalization, globalization, cultural diversity, and multimodal communication, which collectively are reshaping how knowledge is accessed, interpreted, and communicated (Osiesi & Blignaut, 2025; Ajani & Maphalala, 2026). These converging changes are particularly significant for Islamic education, as they influence the way religious knowledge now circulates through both established scholarly traditions and digitally mediated platforms. Consequently, Islamic teachers must therefore respond to these new modes of learning, all the while striving to preserve the epistemological integrity, contextual relevance, and ethical orientation of Islamic knowledge (Putra et al., 2025; Posangi et al., 2025). This dual responsibility underscores the importance of teacher competence, which becomes a critical issue, requiring pedagogical approaches that effectively integrate technological capability, multimodal communication,

contextual sensitivity, and responsible engagement with religious knowledge (Dharin et al., 2025).

This challenge is particularly significant in non-formal Islamic education in Indonesia, including TPQ/TPA, *madrasah diniyah*, *majelis taklim*, community-based pesantren programs, Qur'anic learning groups, and *halaqah*. These institutions play important roles in religious literacy and moral formation, yet flexible structures, diverse teacher backgrounds, uneven technological resources, and limited professional development create challenges for teacher competence (Mahrus et al., 2025). Contemporary Islamic teachers therefore need to combine religious-content expertise with pedagogical knowledge, digital capability, cultural sensitivity, and critical engagement with information. This multifaceted skill set is essential for effectively addressing the diverse needs of students in a rapidly changing world. Furthermore, multiliteracies offer a relevant perspective by viewing literacy as socially and culturally situated meaning-making across multiple modes and media (Nugraha et al., 2026; Garba et al., 2026). This broader understanding of literacy underscores the importance of equipping teachers with the ability to navigate various communication channels and cultural contexts. This approach helps understand how non-formal Islamic education shows changing expectations of teacher competence (Muliati et al., 2026). It highlights the dynamic nature of teaching expertise amid societal and technological changes, emphasizing the need for ongoing professional development.

Despite the growing body of research on multiliteracies, digital pedagogy, teacher competence, and technology integration (Nabhan & Habók, 2026; Serrano-Ardila et al., 2026; Payong et al., 2026), important conceptual and empirical gaps remain. Existing studies often examine digital, religious, cultural, and pedagogical competencies as separate domains (Pireva Nuci et al., 2026; Tanghe et al., 2026), thereby offering limited insight into how teachers integrate content, pedagogy, technology, multimodal meaning-making, and ethical judgment in practice. Moreover, research has largely focused on formal schooling and higher education; as a result, non-formal Islamic education remains comparatively underexplored. Furthermore, established frameworks are insufficient to address the epistemological and ethical responsibilities involved in interpreting and communicating religious knowledge. As such, the key unresolved issue is how to effectively integrate multiliteracy practices, technological-pedagogical knowledge, and Islamic epistemological responsibility to provide a comprehensive explanation of Islamic teacher competence.

To address this gap, the present study examines the relationship between pedagogical multiliteracies and the competence of Islamic teachers in non-formal educational institutions. It does so by conceptualizing teacher competence as an integrated capacity that encompasses pedagogical, technological, religious-content, cultural, communicative, and ethical dimensions. The study contributes theoretically by moving multiliteracies research beyond isolated literacy skills, positioning it within a broader model of teacher knowledge and Islamic educational epistemology. At the same time, it empirically extends this inquiry into the comparatively underexplored context of non-formal Islamic education. To achieve this, the research integrates Multiliteracies Pedagogy (New London Group, 1996; Cope & Kalantzis, 2009), Technological Pedagogical Content Knowledge (TPACK) (Mishra & Koehler, 2006), and Al-Attas's concept of *Ta'dib* (Al-Attas, 1980). Specifically, Multiliteracies explains how teachers engage with diverse modes, technologies, and socio-cultural contexts of meaning-making, while TPACK elucidates how content, pedagogy, and technology are integrated within teacher competence. Additionally, *Ta'dib* provides the Islamic epistemological and ethical orientation necessary for the responsible interpretation and enactment of knowledge. These perspectives view competent Islamic teachers as adaptable, tech-savvy, and responsible practitioners who interpret and communicate Islamic knowledge effectively, improving Islamic education quality.

METHOD

Data were collected using an explanatory sequential mixed-methods design (QUAN → qual), involving Islamic teachers from non-formal Islamic education institutions, including *madrasah diniyah*, TPQ/TPA, Islamic learning centers, and training institutions. The quantitative phase involved 120 purposively selected teachers with at least two years of teaching experience. In this phase, a five-point Likert questionnaire was employed to assess multimodal teaching, digital literacy, critical literacy, collaborative learning, and Islamic teacher competence. The questionnaire was informed by frameworks such as Multiliteracies Pedagogy (New London Group, 1996; Cope & Kalantzis, 2009) and TPACK (Mishra & Koehler, 2006), which provided a theoretical basis for the evaluation. Following this, the qualitative phase involved purposively selecting 15 of the 120 teachers for semi-structured interviews, aimed at contextualizing the quantitative findings. These interviews focused on their multimodal, collaborative, digital, and critical pedagogical practices, thereby enriching the understanding of the data. Additionally, Al-Attas's concept of *Ta'dib* (1980) served as an epistemological and ethical interpretive lens, rather than a separately measured construct, guiding the analysis. To ensure the validity of the instruments, content validity was first assessed through expert review. Subsequently, construct validity and reliability assessments were conducted to further strengthen the study's methodological rigor.

On the one hand, quantitative data were analyzed using descriptive statistics, Pearson correlation analysis, and multiple regression. Descriptive statistics characterized the participants and summarized the principal study variables. Furthermore, Pearson correlation examined the bivariate relationships between the four dimensions of pedagogical multiliteracies and Islamic teacher competence. Additionally, multiple regression assessed their relative unique contributions to teacher competence by employing R^2 , standardized coefficients (β), t-values, and significance levels. In contrast, interview data were transcribed and analyzed thematically through familiarization, coding, theme development, and interpretive comparison. This analysis focused on teachers' accounts of multimodal and collaborative teaching, digital pedagogical adaptation and critical-contextual engagement with Islamic knowledge. In accordance with the explanatory sequential design, the qualitative findings were subsequently integrated with the quantitative results. This integration aimed to contextualize the statistical patterns and clarify how the four dimensions were understood and enacted in non-formal Islamic education. Meanwhile, Multiliteracies Pedagogy and TPACK served as the principal theoretical frameworks for interpreting the pedagogical and technological findings. In addition, *Ta'dib* functioned as an Islamic epistemological and ethical interpretive lens rather than as an additional empirical construct, thereby enriching the overall analysis.

RESULTS AND DISCUSSION

Participant Characteristics and Descriptive Statistics

The quantitative phase involved 120 Islamic teachers working across four types of non-formal Islamic education institutions: TPQ/TPA (33.3%), *madrasah diniyah* (29.2%), Islamic learning centers (20.8%), and Islamic training institutions (16.7%). Additionally, the participants also represented varied levels of teaching experience, with 40.8% having taught for 6–10 years, 30.0% for 2–5 years, and 29.2% for more than 10 years. Of the total sample, 68 participants (56.7%) were male, and 52 (43.3%) were female. This distribution clearly illustrates that the quantitative dataset encompassed teachers from a variety of institutional settings, including different types of Islamic educational institutions, as well as varying levels of professional experience within community-based Islamic education. Following the initial survey phase, 15 teachers were selected to participate in semi-structured interviews, which

aimed to provide in-depth qualitative explanations of the observed quantitative patterns. Additionally, classroom observations were conducted to serve as an extra source of contextual evidence, offering detailed insights into how multiliteracy-oriented practices are enacted in real classroom settings. As a result, the survey laid the foundation by establishing the overall empirical pattern, while the interviews and observations complemented this data by providing rich, contextual evidence crucial for more nuanced interpretation and validation through triangulation.

Furthermore, the survey established the overall empirical pattern of pedagogical multiliteracy practices and Islamic teacher competence. In addition, the subsequent interviews and classroom observations offered supplementary evidence, enhancing interpretation and enabling methodological triangulation. The quantitative phase involved 120 Islamic educators from diverse non-formal Islamic education settings. As summarized in Table 1, the participants varied in gender, teaching experience, and institutional affiliation, thereby allowing the study to capture a broad range of professional and organizational contexts.

Table 1. Participant Characteristics (N = 120)

Variable	Category	<i>n</i>	%
Gender	Male	68	56.7
	Female	52	43.3
Teaching experience	2–5 years	36	30.0
	6–10 years	49	40.8
	>10 years	35	29.2
Institutional type	<i>Madrasah diniyah</i>	35	29.2
	TPQ/TPA	40	33.3
	Islamic learning centers	25	20.8
	Islamic training institutions	20	16.7

As shown in Table 1, the sample was relatively balanced by gender, with 56.7% male and 43.3% female participants. The largest group had 6–10 years of teaching experience (40.8%), followed by those with 2–5 years (30.0%) and more than 10 years (29.2%). Participants were also distributed across four major types of non-formal Islamic education institutions, with TPQ/TPA representing the largest proportion (33.3%). This was followed by *madrasah diniyah* (29.2%), Islamic learning centers (20.8%), and Islamic training institutions (16.7%). This distribution indicates that the study included educators with varied levels of experience and institutional backgrounds.

To further understand the variables under study, descriptive analysis was conducted to summarize the central tendency and variability of the main constructs. As presented in Table 2, all constructs recorded mean scores above the midpoint of the five-point scale, which indicates generally high levels of pedagogical multiliteracy practices and perceived Islamic teacher competence. Specifically, collaborative learning practice showed the highest mean score ($M = 4.10$, $SD = 0.58$), followed closely by Islamic teacher competence ($M = 4.05$, $SD = 0.63$) and multimodal teaching practices ($M = 4.02$, $SD = 0.61$). Additionally, digital literacy integration also showed a relatively high mean ($M = 3.88$, $SD = 0.67$). In contrast, critical literacy development recorded the lowest mean among the measured dimensions ($M = 3.75$, $SD = 0.72$), which may suggest areas for further emphasis in educator development programs.

Table 2. Descriptive Statistics of the Main Study Constructs

Construct	Mean	SD	Descriptive level
Multimodal teaching practices	4.02	0.61	High
Digital literacy integration	3.88	0.67	High
Critical literacy development	3.75	0.72	High
Collaborative learning practice	4.10	0.58	Very high
Islamic teacher r competence	4.05	0.63	High

As shown in Table 2, collaborative learning and multimodal teaching were the most strongly established pedagogical practices among the participants. In contrast, critical literacy was comparatively less developed. These descriptive differences thus provided an important empirical basis for the subsequent explanatory sequential analysis. Stronger scores for collaborative and multimodal practices, along with a lower critical literacy score, prompted further examination in the qualitative phase. Interviews and observations explored how these practices occurred, were experienced, and constrained in non-formal Islamic education. Combining survey, interview, and observational data allowed triangulation across self-reports, teachers' explanations, and observed practices, with convergence and divergence analyzed in the qualitative and mixed-methods sections.

Bivariate Relationships Between Pedagogical Multiliteracy Dimensions and Teacher Competence

Pearson correlation analysis was conducted to examine the bivariate relationships between the four measured dimensions of pedagogical multiliteracies, multimodal teaching practices, digital literacy integration, critical literacy development, and collaborative learning practice, and Islamic teacher competence. Table 3 portrayed that all four dimensions were positively and statistically significantly related to teacher competence. Collaborative learning practice showed the strongest correlation ($r = .64, p < .01$), followed by multimodal teaching practices ($r = .62, p < .01$), digital literacy integration ($r = .59, p < .01$), and critical literacy development ($r = .55, p < .01$). These coefficients indicate moderate-to-strong positive associations across all four dimensions.

Table 3. Bivariate Relationships Between Pedagogical Multiliteracy Dimensions and Islamic Teacher Competence

Pedagogical multiliteracy dimension	<i>r</i> with teacher competence	<i>p</i>
Multimodal teaching practices	.62	< .01
Digital literacy integration	.59	< .01
Critical literacy development	.55	< .01
Collaborative learning practice	.64	< .01

Table 3 shows that collaborative learning and multimodal teaching were most strongly associated with Islamic teacher competence, suggesting that interactive, participatory, and multimodal pedagogical practices are particularly salient in non-formal Islamic education. Furthermore, digital literacy also demonstrated a substantial positive association, although its relationship was somewhat weaker than those of collaborative and multimodal practices. In addition, critical literacy showed the smallest correlation among the four dimensions, but nonetheless, the association remained statistically significant. These findings indicate that

higher engagement in multiliteracy-oriented teaching practices is associated with higher perceived teacher competence. Moreover, they highlight that the four pedagogical dimensions differ in the strength of their relationships with competence.

These bivariate findings establish the first quantitative pattern of the explanatory sequential analysis but should not be interpreted as evidence of causal effects or independent predictive contributions. Because each correlation examines one pedagogical dimension in relation to teacher competence without controlling for the other dimensions, the results indicate association rather than the unique contribution of each predictor. A multiple regression analysis was conducted to see if multimodal teaching, digital literacy, critical literacy, and collaborative learning explained teacher competence when considered together. The differences in correlation coefficients guided the qualitative phase, helping to explore how teachers experienced these practices and why some were more closely linked to perceived competence.

Relative Predictive Contributions to Islamic Teacher Competence

Multiple regression analysis was conducted to examine the relative contribution of the four pedagogical multiliteracy dimensions to Islamic teacher competence when considered simultaneously. As presented in Table 4, the overall model explained 52% of the variance in teacher competence ($R^2 = .52$), indicating that multimodal teaching practices, digital literacy integration, critical literacy development, and collaborative learning practice collectively accounted for a substantial proportion of the variation in teachers' reported competence. All four predictors made statistically significant positive contributions. Collaborative learning practice showed the strongest standardized coefficient ($\beta = .34$, $t = 5.21$, $p < .001$), followed by multimodal teaching practices ($\beta = .31$, $t = 4.82$, $p < .001$), digital literacy integration ($\beta = .26$, $t = 3.97$, $p < .001$), and critical literacy development ($\beta = .21$, $t = 3.12$, $p < .01$).

Table 4. Relative Predictive Contributions of Pedagogical Multiliteracy Dimensions to Islamic Teacher Competence

Predictor	β	t	p	Relative contribution
Collaborative learning practice	.34	5.21	< .001	Strongest
Multimodal teaching practices	.31	4.82	< .001	Second strongest
Digital literacy integration	.26	3.97	< .001	Moderate
Critical literacy development	.21	3.12	< .01	Smallest
Model R^2	.52			

As demonstrated in Table 4, each dimension of pedagogical multiliteracy made a statistically significant and unique contribution, even when controlling for the other predictors. Notably, collaborative learning emerged as the most prominent predictor, followed closely by multimodal teaching, which suggests that interaction, shared meaning-making, learner participation, and varied forms of representation are particularly salient components of teacher competence in non-formal Islamic education. Digital literacy contributed significantly but had a smaller effect; critical literacy showed the weakest association. The standardized coefficients reveal these four dimensions do not contribute equally to teacher competence. Meanwhile, collaborative and multimodal practices had stronger predictive relationships than digital and critical literacy. These findings supported subsequent qualitative analysis of how teachers experienced and enacted these dimensions.

Moreover, it is important to interpret these findings as predictive associations rather than causal effects, given the cross-sectional design of the quantitative phase. Nonetheless, the

differences in predictive strength offered an important foundation for the explanatory qualitative phase. In particular, the stronger contributions of collaborative and multimodal practices, contrasted with the comparatively weaker contribution of critical literacy, raised pertinent questions about how these practices are enacted in everyday teaching. This includes examining how teachers blend religious content with pedagogical and technological resources, and which contexts or epistemologies influence their decisions. The qualitative findings aim to explore the mechanisms and experiences underlying these patterns, rather than merely replicate the statistics.

The original qualitative data support three recurring themes: multimodal teaching, digital pedagogical skills, and critical Islamic literacy, derived from interviews with 15 teachers. The section below elaborates on these findings specifically as explanations of the quantitative patterns, while deliberately avoiding claims not supported by the available interview evidence.

Qualitative Explanations of the Quantitative Patterns

Following the quantitative phase, semi-structured interviews with 15 selected Islamic teachers and complementary classroom observations were conducted to explore how the statistically identified multiliteracy practices were understood, enacted, and constrained in non-formal Islamic education. To begin with, the qualitative analysis generated three interrelated themes: (1) multimodal and collaborative enactment of Islamic teaching, (2) digital-pedagogical adaptation, and (3) critical-contextual interpretation of Islamic knowledge. The interview data provided valuable insight into teachers' perceptions, experiences, and pedagogical rationales, while the classroom observations offered evidence of how these reported practices were enacted in instructional settings. Moreover, the two sources of qualitative evidence were compared during thematic analysis to identify areas of convergence and divergence, thereby providing methodological triangulation between reported practice and observed practice. Triangulated findings show quantitative measures linked positively to teacher competence via different pedagogical mechanisms. Qualitative evidence highlights the strong influence of collaborative and multimodal practices, the smaller role of digital literacy, and limited impact of critical literacy from regression analysis.

Multimodal and Collaborative Enactment of Islamic Teaching

The first qualitative theme concerned teachers' use of multiple representational and interactive approaches to communicate Islamic knowledge. Across the interviews, participants described moving beyond predominantly text-based instruction by incorporating visual presentations, digital materials, storytelling, multimedia resources, and collaborative discussion. These practices were perceived as ways to make Islamic concepts more accessible and relevant to learners' experiences. For instance, Teacher 4 explained that combining multimedia resources with collaborative activities helped learners understand Islamic teachings more effectively (T4, Personal Communication, November 2025). Similarly, other participants described storytelling, visual materials, and discussion as complementary approaches to presenting and contextualizing Islamic knowledge.

Furthermore, collaborative learning was closely embedded within this multimodal pattern rather than emerging as a separate qualitative theme. Participants characterized collaborative discussion as a means of encouraging learner engagement, exchanging interpretations, and connecting Islamic content with learners' experiences. This qualitative pattern aligns with the quantitative findings, in which multimodal teaching demonstrated a strong contribution to Islamic teacher competence ($\beta = .31, p < .001$), while notably, collaborative learning showed the strongest contribution ($\beta = .34, p < .001$). Hence, the

interview findings provide valuable contextual insights into how these practices were understood and enacted by teachers. Meanwhile, the relative statistical contributions are considered further in the integration and discussion sections.

Digital-Pedagogical Adaptation

The second qualitative theme concerned teachers' adaptation of instructional practices to increasingly digital learning environments. Across the interviews, participants described using digital platforms, social media, and online learning resources to supplement face-to-face instruction, provide additional materials, communicate with learners, and extend Islamic learning beyond the classroom. For instance, Teacher 7 explained that digital resources allowed teachers to provide learners with extra materials and maintain communication outside of regular sessions (T7, Personal Communication, November 2025). Similarly, other participants emphasized the growing importance of digital resources for younger learners, who increasingly encounter Islamic information through online environments.

The interview accounts suggest that teachers viewed digital competence not merely as the ability to operate technological tools, but as the capacity to incorporate digital resources into pedagogical practices. This integration is seen as essential to match learners' changing ways of accessing and engaging with information. Furthermore, this finding offers contextual insight into the significant yet comparatively smaller contribution of digital literacy to overall teacher competence ($\beta = .26, p < .001$). At the same time, it is important to note that the qualitative evidence does not demonstrate a complete integration of technological, pedagogical, and Islamic-content knowledge, which would be necessary to empirically confirm the full TPACK framework. Accordingly, while TPACK serves as a useful theoretical lens for interpreting technology–pedagogy integration, it should be understood as a conceptual model rather than a directly validated qualitative construct.

Critical and Contextual Interpretation of Islamic Knowledge

The third qualitative theme concerned teachers' efforts to move religious learning beyond mere memorization toward interpretation, reflection, discussion, and contextual application. Across the interviews, participants described encouraging learners to relate Islamic texts to contemporary social situations and everyday experiences. For instance, Teacher 9 explained that learners were encouraged to discuss the relevance of Islamic teachings to situations they encountered in their daily lives (T9, Personal Communication, November 2025). Similarly, other participants emphasized discussion and reflection as essential means of helping learners transition from simply reproducing textual information to actively considering its deeper meanings and contextual applications.

These accounts provide contextual insight into the positive relationship between critical literacy and Islamic teacher competence, although critical literacy showed the smallest unique contribution among the four predictors ($\beta = .21, p < .01$). The interviews suggest that critical engagement involved interpretive and reflective processes through which teachers guided learners in connecting religious knowledge with contemporary contexts. This dimension is particularly relevant to Islamic education because teaching involves not only communicating religious knowledge but also supporting its contextual understanding and responsible application. The findings therefore provide an empirical basis for interpreting teacher competence through the Islamic educational concept of *Ta'dib*, while recognizing that *Ta'dib* itself was not directly measured as an empirical construct in this study.

Overall, the qualitative findings complement the quantitative results by illustrating different ways in which pedagogical multiliteracies were understood and enacted. Specifically, multimodal and collaborative practices emphasized participatory and varied forms of

meaning-making, while digital-pedagogical adaptation extended learning across technologically mediated environments. Critical-contextual literacy fosters reflective engagement with Islamic knowledge, explaining positive associations across four dimensions. It suggests pedagogical, technological, communicative, and interpretive capacities often operate together rather than independently. Their relationships are more thoroughly explored through mixed-methods using Multiliteracies, TPACK, and *Ta'dib* perspectives.

Integration of Quantitative and Qualitative Findings

Integration of the quantitative and qualitative findings revealed a coherent but differentiated pattern in the relationship between pedagogical multiliteracies and Islamic teacher competence. Quantitatively, the four dimensions jointly explained 52% of the variance in teacher competence, with collaborative learning showing the strongest unique contribution ($\beta = .34$), followed by multimodal teaching ($\beta = .31$), digital literacy integration ($\beta = .26$), and critical literacy development ($\beta = .21$). The qualitative findings offer insight into how teachers understand and practice the four dimensions. Table 5 shows that collaborative learning involves discussion and shared meaning; multimodal teaching uses various representations; digital literacy connects to purposeful technology use; and critical literacy highlights reflective engagement with Islamic knowledge.

Table 5. Joint Display of Quantitative and Qualitative Findings

Quantitative pattern	Qualitative explanation	Integrated inference
Collaborative learning was the strongest predictor of teacher competence ($\beta = .34, p < .001$).	Teachers described collaborative discussions and interactive activities as enabling greater participation, exchange of perspectives, and shared construction of meaning.	Teacher competence appears particularly associated with the ability to create participatory learning environments in which Islamic knowledge is communicated and negotiated through interaction rather than one-way transmission.
Multimodal teaching showed the second strongest contribution ($\beta = .31, p < .001$).	Participants reported using visual materials, storytelling, multimedia resources, digital materials, and discussion to represent Islamic teachings in different forms.	Multimodal competence broadens teachers' representational repertoire and enables religious content to be communicated through forms responsive to different learners and learning contexts.
Digital literacy integration made a significant but comparatively smaller contribution ($\beta = .26, p < .001$).	teachers used social media, digital platforms, and online resources to supplement instruction, communicate with learners, and extend learning beyond the classroom.	Technology contributes to teacher competence primarily when incorporated into pedagogical practice rather than functioning as an isolated technical skill.
Critical literacy showed the smallest, although significant, contribution ($\beta = .21, p < .01$).	teachers described moving beyond memorization toward discussion, reflection, interpretation, and connecting Islamic teachings with contemporary social realities.	Critical literacy represents an interpretive dimension of competence that supports contextual understanding of religious knowledge, although it appears less routinely enacted than collaborative, multimodal, and digital practices.

As shown in Table 5, the two strands converge in indicating that Islamic teacher competence is associated with several complementary pedagogical capacities rather than with a single dimension of pedagogical multiliteracies. Specifically, collaborative and multimodal practices demonstrated the strongest quantitative contributions and were qualitatively characterized by participation, interaction, and varied forms of representation. Furthermore, digital literacy extended these capacities into technologically mediated learning environments, while critical literacy emphasized reflective and contextual engagement with Islamic knowledge. Together, these findings point to three interconnected patterns: multimodal and collaborative meaning-making, digital-pedagogical adaptation, and critical-contextual interpretation.

The integrated findings also provide a basis for interpreting the results through the study's combined theoretical framework. In particular, the emphasis on multiple modes, participation, and contextual meaning-making aligns closely with Multiliteracies Pedagogy. Moreover, teachers' accounts of using digital resources for instructional purposes offer an interpretive connection to TPACK, particularly its focus on the relationship among technology, pedagogy, and content. Similarly, the emphasis on interpretation, reflection, and contextual application of Islamic knowledge can be effectively interpreted through *Ta'dib* as an epistemological and ethical orientation toward responsible engagement with knowledge. However, because TPACK and *Ta'dib* were not measured directly as separate empirical constructs, these theoretical connections should be viewed as interpretive lenses rather than as independently tested effects.

Overall, the mixed-methods integration indicates that pedagogical multiliteracies are associated with Islamic teacher competence across interconnected dimensions of participation, multimodal communication, digital-pedagogical adaptation, and critical-contextual engagement with Islamic knowledge. The quantitative phase confirmed the relative strength of these associations, while the qualitative phase provided valuable contextual insight into how these practices were understood and enacted by teachers. Consequently, this integrated interpretation lays a solid foundation for the Discussion, where the findings can be further examined through the lenses of Multiliteracies Pedagogy, TPACK, and *Ta'dib*.

The strongest quantitative pattern identified in this study was the contribution of collaborative learning to Islamic teacher competence. This was closely followed by the impact of multimodal teaching. Furthermore, the qualitative findings help to elucidate this pattern by illustrating that teachers employed discussion, storytelling, visual materials, multimedia resources, and interactive activities to communicate Islamic knowledge and actively engage learners in the learning process. Rather than functioning solely as transmitters of religious content, teachers appeared to facilitate learning through interaction, multiple forms of representation, and the shared construction of meaning. This pattern aligns well with the principles of Multiliteracies Pedagogy, which conceptualizes learning as socially situated meaning-making occurring across linguistic, visual, digital, spatial, and other representational modes (New London Group, 1996; Cope & Kalantzis, 2009). From this perspective, the relatively strong contributions of collaborative and multimodal practices suggest that teacher competence in contemporary non-formal Islamic education depends not only on what teachers know but also critically on their ability to redesign and communicate knowledge in accessible, participatory, and responsive forms that resonate within learners' social and communicative environments.

The prominence of collaborative learning is particularly important because it indicates that Islamic teacher competence is fundamentally relational and participatory rather than solely an individual possession of subject knowledge or instructional technique. Moreover, within Multiliteracies Pedagogy, situated practice emphasizes engagement with learners' experiences

and social contexts, while transformed practice involves applying and redesigning meaning in new situations (New London Group, 1996; Cope & Kalantzis, 2009). In this context, collaborative discussions can support both processes by allowing learners to connect Islamic teachings with lived experiences, articulate interpretations, and negotiate meaning with teachers and peers. This interpretation is broadly consistent with studies emphasizing collaborative pedagogy and professional learning in Islamic educational settings, where interaction and shared learning have been associated with pedagogical development and more participatory instructional environments (Widodo et al., 2025; Assalihe et al., 2024). Building on these insights, the findings show collaborative practice is key in non-formal Islamic education, where structures are flexible and teacher prep less standardized. Here, competence is often expressed through teachers' ability to organize dialogue, foster participation, and facilitate socially situated learning, highlighting collaboration's role across educational contexts.

The similarly strong contribution of multimodal teaching further suggests that contemporary Islamic teacher competence involves the ability to represent religious knowledge across different communicative forms while preserving its substantive meaning. Moreover, previous multiliteracies and multimodal-learning research has emphasized that combining textual, visual, digital, and interactive representations can broaden opportunities for meaning-making and learner participation (Rahmanu & Molnár, 2024; Dewi et al., 2023; Linder & Falk-Ross, 2024). In addition, research on multiliteracies has likewise highlighted teachers' need to move flexibly across representational modes and culturally situated forms of communication (Andriyati et al., 2025; Mandarani et al., 2024; Veliz & Nguyen, 2025). This study shows multimodal practices like storytelling, visual tools, multimedia, and digital content used with discussion and interaction. It extends evidence from formal education to community-based Islamic education and suggests that multimodality is a pedagogical ability, not just a technological innovation, allowing redesign of religious knowledge communication based on learners, contexts, and modes of meaning-making.

This interpretation has particular significance for Islamic education because religious knowledge involves more than the transfer of information; furthermore, teachers must communicate concepts whose textual meaning, normative significance, and interpretive authority require careful mediation. Therefore, multimodal representation cannot be understood as indiscriminately simplifying religious content but rather as the pedagogical capacity to communicate that content through varied forms without detaching it from its substantive and ethical foundations. In addition, studies on multiliteracies and religious or Islamic educational pedagogy similarly highlight the growing importance of contextual, multimodal, and digitally responsive teaching in contemporary religious learning environments (Ikhwan et al., 2019). Findings indicate that participatory and multimodal meaning-making are central to modern Islamic teacher competence. Competent teachers are not only knowledgeable in religious content but also able to transform that knowledge into dialogical, meaningful, and multimodally accessible learning experiences while preserving its integrity.

Digital literacy also made a significant positive contribution to Islamic teachers' competence, although its predictive strength was lower than that of collaborative learning and multimodal teaching. Moreover, the qualitative findings help explain this pattern by showing that teachers used social media, online resources, digital platforms, supplementary materials, and digital communication to extend learning beyond face-to-face settings. However, these practices indicate that the educational value of digital literacy lies not simply in the ability to operate technologies, but in how technologies are incorporated into purposeful teaching. This distinction can be interpreted through the Technological Pedagogical Content Knowledge

(TPACK) framework, which emphasizes the interdependence of technological, pedagogical, and content knowledge in effective teaching (Mishra & Koehler, 2006). Although the present study did not directly measure the complete TPACK structure, teachers' accounts suggest that digital resources became meaningful when they were selected and used in relation to pedagogical purposes, Islamic content, learner characteristics, and instructional contexts. This interpretation is also consistent with existing scholarship that emphasizes the importance of integrating digital technologies into pedagogical practice, rather than treating technological competence as an independent professional skill (Zuhriyeh et al., 2025; Mahmudi, 2024; Falloon, 2020). Overall, it can be concluded that effective digital literacy in teaching is dependent not only on technological skills but also on the purposeful integration of these technologies within pedagogical frameworks.

The relatively limited impact of digital literacy might thus indicate that simply having access to or using technology does not necessarily lead to improved teacher competence. Moreover, digital tools become pedagogically productive only when teachers can determine why, when, and how particular technologies support the communication and understanding of specific religious content. In this sense, digital competence in Islamic education is better understood as technology–pedagogy–content integration rather than as technical proficiency alone. This interpretation, therefore, helps explain why collaborative and multimodal practices showed stronger associations with teacher competence: these practices are directly embedded in pedagogical interaction and meaning-making. Conversely, technology primarily functions as an enabling resource, whose effectiveness depends on the quality of its pedagogical integration. Additionally, studies on digital literacy and technology integration in Islamic education similarly indicate that teachers need capacities that extend beyond operational skills toward pedagogically appropriate and context-responsive uses of digital resources (Suhendi, 2024; Huda et al., 2023; Arif et al., 2025).

While critical literacy yielded a smaller statistical regression coefficient compared to collaborative or multimodal dimensions, qualitative evidence underscores its vital role in moving Islamic education beyond rote memorization toward contextual reflection, critical framing, and meaningful application (Karwadi et al., 2025). In digital religious spaces, where fragmented information and competing authorities abound, effective digital competence extends beyond mere technical selection to encompass the ethical, pedagogical, and epistemic evaluation of content (Ahmad & Abdullah, 2023; Arif et al., 2025). Ultimately, critical literacy serves as an indispensable bridge between digital capability and interpretive responsibility, enabling teachers to navigate complex digital landscapes, mediate religious knowledge authentically, and connect sacred texts with contemporary real-world realities (Huda et al., 2023; Mahrus et al., 2025; Muliati et al., 2026). Interpreted through Al-Attas's concept of *Ta'dib* (1980), these findings reveal that critical engagement in Islamic education extends beyond generic critique or the relativization of religious knowledge. Instead, it demands an epistemically responsible literacy grounded in adab, contextual judgment, and ethical responsibility (Karwadi et al., 2025; Huda et al., 2023). While Multiliteracies accounts for the critical negotiation of meaning and TPACK addresses digital-pedagogical integration (Dharin et al., 2025; Assalihe et al., 2024; Nabhan & Habók, 2026), *Ta'dib* supplies the essential normative orientation needed to evaluate credibility, respect religious authority, and counter the rapid circulation of unverified digital information (Suhendi, 2024; Mahrus et al., 2025). Consequently, Islamic teacher competence incorporates a crucial epistemic–ethical dimension that not only regulates how multimodal and technological practices are responsibly enacted but also acts as a vital conceptual bridge that binds Multiliteracies, TPACK, and *Ta'dib* into a holistic framework for contemporary instruction (Garba et al., 2026; Muliati et al., 2026; Putra et al., 2025).

Ultimately, the findings demonstrate that contemporary Islamic teacher competence is best understood as an integrated capacity, termed Epistemically Responsible Pedagogical Multiliteracies, rather than a set of isolated technical or pedagogical skills (Payong et al., 2026; Tanghe et al., 2026). By synthesizing Multiliteracies Pedagogy (Linder & Falk-Ross, 2024; Andriyati et al., 2025; Nabhan & Habók, 2026), TPACK (Dharin et al., 2025; Pireva Nuci et al., 2026), and *Ta'dib* (1980; Garba et al., 2026), this framework addresses what no single theory can accomplish on its own. Together, these dimensions show that competent teachers do not merely adopt digital tools or rely solely on traditional content knowledge; instead, they dynamically coordinate multimodal communication, pedagogical adaptation, and contextual interpretation to foster participatory learning while safeguarding the ethical integrity and core purpose of Islamic knowledge (Muliati et al., 2026; Posangi et al., 2025; Putra et al., 2025).

This synergy among diverse pedagogical approaches underscores the importance of a holistic understanding of teacher competence. This study's principal theoretical contribution, therefore, lies in integrating Multiliteracies Pedagogy, TPACK, and *Ta'dib* into a unified framework, demonstrating that digital-pedagogical integration in non-formal Islamic education requires balancing multimodal meaning-making with epistemic integrity and ethical-normative grounding (Garba et al., 2026; Muliati et al., 2026; Nabhan & Habók, 2026). Rather than treating religious knowledge, generic pedagogy, and technical skills as isolated domains, the findings highlight that teacher competence hinges on collaborative, multimodal, and ethically responsible practices (Dharin et al., 2025; Assalihe et al., 2024; Hong & Hua, 2020). Consequently, institutions and professional development programs must move beyond simple technology adoption. Instead, they should actively foster collaborative learning communities, critical digital religious literacy, and structural support that empower teachers to become pedagogically adaptive and ethically grounded mediators of Islamic knowledge in modern digital environments (Ajani & Maphalala, 2026; Widodo et al., 2025).

CONCLUSION

This study shows that pedagogical multiliteracies are significantly associated with Islamic teacher competence in non-formal educational settings. Specifically, collaborative learning demonstrates the strongest unique contribution, followed by multimodal teaching, digital literacy integration, and critical literacy. The qualitative findings further contextualize these patterns by illustrating how teachers understand and enact participatory meaning-making, multimodal communication, digital-pedagogical adaptation, and critical-contextual engagement with Islamic knowledge. Moreover, by bringing together Multiliteracies Pedagogy, TPACK, and Al-Attas's concept of *Ta'dib*, the study proposes Epistemically Responsible Pedagogical Multiliteracies as a conceptualization of contemporary Islamic teacher competence. This framework views pedagogical, technological, communicative, interpretive, and ethical capacities as interconnected. Consequently, this conceptualization extends multiliteracies and teacher-knowledge perspectives into non-formal Islamic education, emphasizing that pedagogical and technological adaptation should remain connected to the contextual and responsible engagement with religious knowledge. Practically, the findings suggest that professional development should integrate religious-content competence with collaborative and multimodal pedagogy, digital-pedagogical capability, critical engagement with religious information, and responsible interpretation of Islamic knowledge. Given the cross-sectional design, purposive sampling, and reliance on self-reported quantitative measures, future research should examine the proposed conceptualization across broader institutional and cultural contexts. Therefore, using longitudinal, comparative, and more robust measurement designs would be beneficial to validate and extend these findings.

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