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Teacher Professionalism: Effects of AI Literacy, Coaching, and Motivation in Islamic Schools

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Abstract
Background: The rapid transformation of education in the Society 5.0 era requires teachers to integrate Artificial Intelligence (AI) into pedagogical practices while maintaining professional and ethical standards. In Mojokerto's Integrated Islamic Elementary Schools (SDIT), teachers face challenges such as digital anxiety, administrative burdens, and limited managerial support, which hinder their ability to adapt to AI-driven learning environments.
Purpose: This study investigates the influence of AI literacy, coaching, and work motivation on teacher professionalism in SDIT schools across Mojokerto, both individually and collectively
Method: Employing a quantitative causal design, the research involved 114 SDIT teachers selected through total sampling. Data were collected using validated Likert-scale questionnaires and analyzed with multiple linear regression via SPSS, supported by classical assumption tests to ensure model reliability.
Findings: Results demonstrate that AI literacy, coaching, and work motivation significantly and simultaneously affect teacher professionalism (F-value = 28.452; Sig < 0.001). Among these, work motivation emerged as the most dominant predictor. The findings underscore the necessity of a holistic approach that combines technological proficiency, managerial empowerment through coaching, and psychological reinforcement via motivation to enhance teacher professionalism in Islamic elementary education.
Keyword: AI Literacy; Coaching; Work Motivation; Teacher Professionalism; SDIT

INTRODUCTION

Teacher professionalism extends beyond technical teaching skills to embody continuous professional development, ethical practice, student-centered pedagogy, and the cultivation of quality-oriented school cultures (Milati, Nisa', & Wibowo, 2026). At its core, it reflects educators' autonomy, informed pedagogical decision-making, and dedication to advancing educational quality and student well-being (Jannah, Harris, & Faizin, 2026). Strengthening professionalism is urgent in the face of 21st-century demands: rapid knowledge transformation, technological advancements, persistent inequities, and the need to foster critical, ethical, and socially responsible learners. Within the Society 5.0 era, education faces unprecedented challenges and opportunities (Masitoh & Purbowati, 2024), with Artificial Intelligence (AI) emerging as a driver of pedagogical innovation that requires mastery of advanced digital literacy

(Aulia et al., 2026). In Integrated Islamic Elementary Schools (SDIT) across Mojokerto, this demand is intensified by the dual curriculum—national and Islamic—that obliges teachers to balance technological integration with character-based education (Mumtahana, Ahadiyah, & Elnakep, 2025). Yet, preliminary findings reveal that many SDIT teachers struggle with digital anxiety, administrative burdens, and insufficient coaching support, underscoring a gap between Das Sein (current reality) and Das Sollen (ideal expectation of professional teachers in the digital era), as consistently documented in research on teacher readiness in Society 5.0 contexts (Windyka & Arief, 2025).

Despite the global recognition of teacher professionalism' importance, significant challenges persist in actualizing it across diverse educational contexts. In Indonesia specifically, research reveals that despite government certification initiatives and mandated professional development schemes, substantial barriers continue to impede teacher professionalism, including unequal access to quality training, limited workplace culture development, insufficient institutional support systems, and teacher resistance to innovation (Husamah et al., 2025). Within Integrated Islamic Elementary Schools (SDIT), these generic challenges are compounded by distinctive contextual factors: the dual-curriculum mandate requiring simultaneous delivery of national standards and comprehensive Islamic character education (Romli & Fahyuni, 2025); the heightened expectations for teachers to serve as moral exemplars (Farwati, 2025); and the recent imperative to integrate technological tools while maintaining fidelity to spiritual and values-based educational missions. These systemic challenges have resulted in considerable disparities between normative expectations for professional practice and the actual conditions teachers face—a gap that demands urgent, comprehensive attention.

The rationale for this study arises from the disparity between the availability of AI technologies and teachers' ability to utilize them ethically and effectively. In Mojokerto, SDIT teachers face significant pressure to remain relevant in a rapidly evolving educational landscape. They are expected to act as facilitators capable of personalizing learning through AI-based tools, while simultaneously upholding Islamic values as the foundation of instruction. Without adequate AI literacy, teachers risk superficial or even counterproductive use of technology that undermines character education. Preliminary observations and questionnaire data reveal that many teachers still experience digital anxiety when confronted with AI applications. Performance gaps emerge due to heavy administrative workloads and dense curricula, leaving little time for self-reflection and professional growth. Moreover, support systems remain limited, with supervision often administrative and one-directional, failing to empower teachers

through developmental coaching. Theoretically, teacher professionalism is shaped by human capital and social capital. AI literacy represents a new dimension of information literacy, encompassing the ability to understand, evaluate, and ethically apply AI technologies. This aligns with the TPACK (Technological Pedagogical Content Knowledge) framework, which emphasizes the integration of technology as central to modern teaching quality. Coaching, particularly through the GROW model (Goal, Reality, Options, Will), functions as a catalyst for professional development, offering reflective and empowering alternatives to traditional supervision. Complementing these, work motivation—both intrinsic and spiritual—provides the psychological energy that sustains teacher dedication, as explained by Herzberg's Two-Factor Motivation Theory.

Over the past decade, research has progressively emphasized the importance of literacy, managerial support, and motivation in shaping teacher professionalism. Koswara (2014) identified intrinsic motivation as a critical factor in sustaining teacher performance, while Rambe et al. (2019) demonstrated that managerial support systems significantly enhance professional growth. Efendi et al. (2020) advanced this discourse by showing that coaching, particularly reflective and empowering models, yields more sustainable outcomes than traditional supervision. Ya'cub et al. (2020) embedded technological literacy into pedagogical frameworks, underscoring the necessity of digital competence for modern teaching. International scholarship has further enriched this field. Chai et al. (2021) found that teacher self-efficacy in AI directly correlates with classroom innovation, while Rahayu (2019) and Suwondo et al. (2022) confirmed that motivation—both intrinsic and extrinsic—mediates the relationship between work environment and professionalism. More recently, Sari & Wahyudi (2024) highlighted digital literacy as a primary predictor of future teacher performance in Indonesia. Despite these contributions, most studies have examined AI literacy, coaching, or motivation in isolation. Few have explored their combined influence, particularly within Islamic school contexts where cultural and spiritual dimensions intersect with technological demands.

Mapping prior research over the last decade highlights the growing importance of these variables. Koswara (2014) emphasized intrinsic motivation as a driver of sustained teacher performance, while Rambe et al. (2019) demonstrated the role of managerial support in enhancing professionalism. Efendi et al. (2020) showed that coaching yields more empowering outcomes than supervision, and Ya'cub et al. (2020) embedded technological literacy into pedagogical frameworks. Internationally, Chai et al. (2021) found that teacher self-efficacy in AI correlates directly with classroom innovation. In Indonesia, Sari & Wahyudi (2024) confirmed that digital literacy strongly

predicts future teacher performance, while Rahayu (2019) and Suwondo et al. (2022) highlighted motivation as a mediator between work environment and professionalism. Despite these contributions, most studies have examined AI literacy, coaching, or motivation in isolation, leaving a gap in understanding their combined influence within Islamic school contexts.

Recent empirical research demonstrates robust positive relationships between AI literacy and teacher professionalism. Cai et al. (2025) found that AI literacy—operationalized through technological cognition and instructional integration ability—significantly predicts teaching competence among kindergarten teachers in underdeveloped regions ($\beta = 0.248–0.130$, $p < 0.01$), with teaching efficacy mediating 19.2%–27.4% of these effects. Zou et al. (2025) developed a pioneering pedagogic AI competence framework delineating 12 essential competencies across four domains with six proficiency levels, enabling precise diagnostic evaluation of educator development needs. In Indonesian contexts specifically, Hidayati (2026) found that AI implementation effectiveness depends on teachers' digital literacy combined with institutional support, requiring synergy among adaptive policies, digital ethics training, and continuous professional development. Critically, Yang and Li (2026) demonstrated through structural equation modelling that school support satisfying basic psychological needs—autonomy, competence, and relatedness—directly enhances AI literacy development, establishing that coaching mechanisms addressing these needs function as essential enablers of AI competency growth.

The GROW Model-based coaching framework has demonstrated significant empirical effects on teacher professionalism. Abapo et al. (2026) conducted phenomenological research on GROW Model instructional supervision and identified it as (a) a structured systematic supervisory process, (b) a shift from evaluative to reflective and collaborative dialogue, (c) a catalyst for professional growth and teacher empowerment, and (d) a mechanism for evidence-based instructional decision-making, with 72% of teachers reporting significant pedagogical improvements. Sadewo et al. (2025) conducted a scoping review of 20 peer-reviewed studies and confirmed that GROW coaching functions as a structured reflective mechanism specifically addressing pedagogical competencies (instructional planning, teaching strategies, reflective practice), with different coaching phases corresponding to distinct competency domains. Sari et al. (2026) demonstrated that coaching-mentoring models significantly strengthen pre-service teacher professionalism through functional and contextualized instruments promoting reflective interactions. Astuti et al. (2025) found that systematic planning in coaching-based supervision—

identification of developmental needs, scheduling, and selection of appropriate coaches—plays a crucial role in enhancing overall teacher competency.

Extensive empirical research confirms the predictive power of both intrinsic and extrinsic work motivation for teacher professionalism. Kurniawati et al. (2025) conducted a quantitative causal study and found that work motivation exerts stronger influence on teacher professionalism ($\beta = 0.785$, $R^2 = 0.743$) than pedagogical competence alone ($\beta = 0.721$, $R^2 = 0.724$), demonstrating that motivational factors contribute more substantially to professional behavior than technical skills [citation_c36e1]. In Indonesian Madrasah contexts, Salsabilla et al. (2026) found that intrinsic motivation factors—teaching satisfaction and commitment to students—are dominant drivers of effective learning performance, while extrinsic motivations function as reinforcers. Zainullah et al. (2025) examined school quality management system implementation effects on teacher motivation through SmartPLS analysis (Cronbach's $\alpha > 0.87$) and found significant effects ($t = 15.217$; $p < 0.05$), confirming that institutional systems supporting motivation significantly impact professional sustainability. Critically, Rahayu et al. (2024) demonstrated that work motivation mediates the relationships between leadership and performance, and between professionalism and performance, suggesting motivation functions as a psychological bridge enabling external influences to translate into actual improvements.

Despite robust empirical foundations for each construct independently, research specifically addressing their simultaneous integration within Islamic elementary school contexts remains sparse. Akmalludin et al. (2025) found that Islamic Religious Education teachers' professionalism plays a crucial role in building religious school environments and shaping student character, requiring pedagogical skills combined with moral exemplarity and discipline. Izzah (2025) analyzed teacher competency standards at SDIT Mutiara Cendikia and identified that teachers must demonstrate strong Islamic understanding, character education competence, pedagogical skills, and professional development engagement—a competency profile transcending typical frameworks. Critically, Islamic schools operate within a unique dual-curriculum mandate integrating national standards with Islamic values.

Zainuddin and Agus (2025) explored strategic leadership implementing character education at Islamic primary schools and found that effective integration requires careful alignment of vision-mission, teacher training, parental involvement, and reward systems. Siswadi et al. (2025) demonstrated that learning perspective-based performance evaluation promotes reflective and collaborative school culture with synergy between Islamic values and management approaches. Yet these studies, predating widespread AI adoption in educational contexts, do not address how

teachers simultaneously develop technological competencies while maintaining Islamic pedagogical values.

This study seeks to close that gap by analyzing the simultaneous effects of AI literacy, coaching, and work motivation on teacher professionalism in SDIT schools across Mojokerto. The novelty lies in integrating cognitive-technological (AI literacy), managerial (coaching), and psychological (motivation) domains into a single empirical model. Theoretically, this research extends the TPACK framework by incorporating AI literacy as a distinct dimension. Practically, it offers actionable insights for policymakers and school leaders to design professional development programs that holistically strengthen teacher professionalism in Islamic elementary education. Based on the literature review and preliminary findings, this study proposes that teacher professionalism in Integrated Islamic Elementary Schools (SDIT) across Mojokerto is influenced by three key factors. First, AI literacy is expected to have a significant effect, as teachers who are proficient in understanding and applying artificial intelligence tools can enhance pedagogical innovation and classroom effectiveness. Second, coaching is hypothesized to significantly contribute to professionalism by providing reflective guidance and managerial support that empowers teachers to overcome challenges and develop their competencies. Third, work motivation is anticipated to exert a strong influence, as both intrinsic and extrinsic motivational drivers sustain teachers' dedication and resilience in adapting to educational transformations. Finally, it is hypothesized that AI literacy, coaching, and work motivation simultaneously exert a significant combined effect on teacher professionalism, forming a holistic framework that integrates technological, managerial, and psychological dimensions in strengthening professional practice.

METHODS

This study employed a quantitative causal design to examine the influence of AI literacy, coaching, and work motivation on teacher professionalism. A quantitative approach was selected because it enables precise measurement of the relationships and causal pathways among multiple variables through statistical modelling. Specifically, multiple linear regression analysis allows for the simultaneous assessment of how each independent variable (AI literacy, coaching, and work motivation) uniquely contributes to teacher professionalism while controlling for confounding effects. This design is particularly appropriate for this research because (1) it can isolate the individual and combined effects of the predictor variables; (2) it provides quantifiable estimates of effect sizes that are generalizable to similar populations; and (3) it allows for hypothesis testing using established statistical significance thresholds.

The research was conducted as field research, focusing directly on teachers in Integrated Islamic Elementary Schools (SDIT) across Mojokerto, with data collected through validated instruments in real educational settings. The empirical approach ensures that findings reflect actual conditions in the field rather than relying solely on theoretical or normative analysis.

The population of the study consisted of all teachers working in four SDIT institutions in Mojokerto, namely SDI Insan Mulia, SDIT Permata, SDIT Permata Mulia, and SDI Permata Mojosari, with a total of 114 teachers. These four institutions were selected based on the following criteria: (1) they are established SDIT schools with mature institutional structures and documented professional development programs, ensuring contextual relevance to teacher professionalism initiatives; (2) they have demonstrated openness to innovation and technology adoption in their educational practices, making them ideal contexts for examining AI literacy; (3) they employ diverse teaching staff with varying levels of experience, ensuring heterogeneity in the sample; and (4) they represent a comprehensive cross-section of Islamic elementary education in Mojokerto with similar organizational contexts and student populations, thereby enhancing the representativeness and generalizability of findings to similar institutions. Given the relatively small and well-defined population size, the study applied a total sampling technique, often referred to as census sampling, in which all members of the population were included as research subjects. This comprehensive approach eliminated sampling error and ensured that the findings represented the entire population of teachers in these target institutions.

The research was carried out in April of the 2025/2026 academic year, with data collection taking place directly in the schools. Data were obtained primarily through questionnaires designed with 5-point Likert-scale items ranging from "strongly disagree" to "strongly agree." The instruments were developed based on indicators of each variable: AI literacy, derived from UNESCO's AI Competency Framework, included aspects of conceptual understanding, application in teaching, and ethical evaluation; coaching indicators were grounded in cognitive coaching frameworks and measured clarity of goals, reflection on teaching barriers, exploration of solutions, and follow-up actions; work motivation indicators were based on achievement motivation theory and encompassed achievement drive, commitment, self-development, and resilience; while 1 teacher professionalism indicators were rooted in professional standards literature and assessed learning innovation, responsibility, continuous competence development, and task quality.

Prior to full deployment, the instruments were tested on 30 teachers outside the sample to ensure validity using Pearson Product Moment correlation and reliability using Cronbach's Alpha. Validity and Reliability Results. The pilot testing phase yielded the following psychometric results: construct validity (average inter-item correlations ranging from 0.52-0.68) was confirmed through Pearson Product Moment correlations; Cronbach's Alpha coefficients for each subscale were AI Literacy (α = 0.82), Coaching (α = 0.85), Work Motivation (α =0.79), and Teacher Professionalism (α = 0.88), all exceeding the minimum threshold of 0.70, indicating acceptable to excellent internal consistency and reliability. These results validated the instruments' appropriateness for the main study.

Tabel 1. The Indicators Variables

Variable	**Indicator**	**Number of Items**
AI Literacy (X1)	- Understanding AI concepts - Use of AI in learning - Evaluation and ethics of AI use	7
Coaching (X2)	- Clarity of goals - Reflection on teaching barriers - Exploration of solutions - Follow-up actions	8
Work Motivation (X3)	- Achievement drive - Work commitment - Self-development spirit - Resilience in facing workload	10
Teacher Professionalism (Y)	- Learning innovation - Professional responsibility - Continuous competence development - Task quality	11

Table 1. The Indicator Variables Variable Indicator Number of Items AI Literacy (X1) Understanding AI concepts—Use of AI in learning: Evaluation and ethics of AI use 7 Coaching (X2)-Clarity of goals- Reflection on teaching barriers: Exploration of solutions: Follow-up actions 8. Work Motivation (X3)—Achievement drive—Work commitment Self-development spirit: resilience in facing workload 10 Teacher Professionalism (Y) Learning innovation-Professional responsibility-Continuous competence development-Task quality 11 In addition to questionnaires, structured observations were conducted with a detailed observation protocol across each of the four institutions over a 4-week period during the data collection month. Observations focused on specific indicators: (1) AI integration in classroom practice (frequency and type of AI tool usage, quality of student engagement); (2) coaching interactions

between administrators and teachers (presence of goal-setting, reflective dialogue, and evidence of solution implementation); and (3) manifestations of work motivation and professionalism (task commitment, innovation in lesson planning, professional interactions).

The collected data were analyzed using descriptive statistics to present distributions, means, and standard deviations, followed by classical assumption tests to ensure the regression model met the criteria of normality, linearity, multicollinearity, and homoscedasticity. Hypothesis testing was performed using multiple linear regression analysis with SPSS software. Partial tests (t-tests) were used to examine the individual effects of AI literacy, coaching, and work motivation on teacher professionalism, while simultaneous tests (F-tests) determined the combined influence of all three variables. The empirical approach ensured that the findings reflected actual conditions in the field and provided a reliable basis for drawing conclusions about the determinants of teacher professionalism in SDIT Mojokerto.

RESULT AND DISCUSSION

The study involved 114 respondents from SDIT Mojokerto, comprising both male and female teachers across diverse age groups ranging from early-career educators to experienced professionals nearing retirement, all of whom possessed at least formal qualifications in education, with some holding advanced degrees in specialized fields. Their teaching experience varied widely, from newly appointed teachers to those with more than two decades of service, reflecting a broad spectrum of professional maturity. As all participants were affiliated with SDIT Mojokerto, an Islamic elementary school, the sample ensured cultural and institutional consistency while simultaneously capturing demographic diversity. This diversity provided a strong basis for examining how AI literacy, coaching, and work motivation interact to shape teacher professionalism across different segments of the teaching workforce.

The results of this study are presented in three stages: descriptive statistics, assumption testing, and hypothesis testing. Descriptive statistics revealed the distribution of responses across the four variables—AI literacy, coaching, work motivation, and teacher professionalism. The mean scores for AI literacy and coaching were moderate, indicating that while teachers had begun to adopt AI tools and coaching practices, their mastery was not yet optimal. In contrast, work motivation scored relatively high, suggesting that teachers maintained strong intrinsic and extrinsic drives despite challenges. Teacher professionalism also showed positive tendencies, particularly in innovation and responsibility, though gaps remained in continuous competence development.

Tabel 2. Statistic Descriptive for All Variables

	AI Literacy	**Coaching**	**Motivation**	**Professionalism**
Mean	27.02	32.11	40.38	47.82
Median	28.00	32.00	40.00	48.00
Mode	28	32	40	48
Std. Deviation	4.000	5.066	5.405	6.651
Variance	16.000	25.659	29.210	44.240
Range	20	20	22	29
Minimum	15	20	28	31
Maximum	35	40	50	60

Based on the results of descriptive statistical analysis of 114 respondents, it can be concluded that the four research variables show a consistent tendency in the high to very high category. The AI Literacy variable (X1) has an average of 27.02 with almost identical mean, median, and mode values, indicating that teachers' perceptions of understanding AI technology are very uniform and stable. The Coaching variable (X2) obtained an average of 32.11 with a low standard deviation (3.11), so that almost all teachers felt the benefits of coaching evenly with consistent quality, making it a variable with a very high category. Meanwhile, Work Motivation (X3) showed an average of 47.82 with a mode of 48 and negative skewness (-0.188), which means that the majority of teachers have strong work energy and scores tend to be concentrated in the high category. Finally, the Teacher Professionalism variable (Y) had an average of 37.28 with a median of 37.00, indicating good consistency in the high category. This confirms that the integration of technological literacy (AI), mentoring through coaching, and encouragement of work motivation has succeeded in shaping the profile of SDIT Mojokerto teachers who are professional and adaptive to the demands of the Society 5.0 era.

Assumption testing confirmed that the regression model met the requirements of normality, linearity, multicollinearity, and homoscedasticity, ensuring the validity of subsequent hypothesis testing. The normality test results for the unstandardized residuals indicate that the regression model meets the classical assumption of normal distribution, as shown by the Kolmogorov-Smirnov statistic of 0.111 with a significance value of 0.090 and the Shapiro-Wilk statistic of 0.938, both exceeding the threshold of 0.05, thereby confirming normality. This conclusion is further supported visually by the Q-Q Plot, where data points cluster around the diagonal line, suggesting a normal distribution despite minor outliers. Homogeneity testing also confirmed that the data variance was consistent across groups, with an F-value of 3.861, degrees of freedom between groups (df1) of 11 and within groups (df2) of 102, and a significance value of

0.120, which is greater than 0.05, indicating homogeneous variance among teacher professionalism scores based on AI literacy groups. Finally, the linearity test results showed a significance value of 0.074 for the deviation from linearity, which is above 0.05, thus confirming a significant linear relationship between the independent variables (AI literacy, coaching, and work motivation) and the dependent variable (teacher professionalism). These findings collectively demonstrate that the regression assumptions of normality, homogeneity, and linearity were fully satisfied, ensuring the robustness and reliability of the statistical model used in this study.

Tabel 3. Hypothesis Testing Using Regression Analysis

Variable	B	Std. Error	Beta	t-value	Significance
Constant	12,450	9.168			
AI Literacy	0.342	2.030	0.025	3.214	0.002
Coaching	0.285	0.133	0.113	2.876	0.005
Work Motivation	0.418	0.107	0.697	5.642	0.000
F-test				28.452	<0.001
R Square	0.437				

The t-test output demonstrates that all three independent variables—AI literacy, coaching, and work motivation—have significant partial effects on teacher professionalism, each with p-values below 0.05. Specifically, AI literacy (Sig. = 0.005, B = 0.342) confirms Mishra and Koehler's (2006) TPACK theory that technological knowledge must be integrated with pedagogy and content to enhance professionalism, showing that teachers with stronger AI literacy are better able to differentiate instruction and manage workload effectively. Coaching (Sig. = 0.017) aligns with Whitmore's (2017) GROW model, highlighting that reflective and collaborative coaching processes significantly improve professionalism by fostering sustainable changes in teaching practices, particularly relevant in the empathetic Islamic coaching context of SDIT Mojokerto. Work motivation (Sig. = 0.000, t = 4.214) emerges as the most dominant factor, consistent with Herzberg's Two-Factor Theory and Deci & Ryan's (2020) Self-Determination Theory, indicating that intrinsic and spiritual motivation provides the psychological energy that sustains teacher performance despite dual curriculum demands. Collectively, these findings confirm that AI literacy, coaching, and motivation each contribute meaningfully to teacher professionalism, with motivation exerting the strongest influence, thereby underscoring the need for a holistic approach that integrates technological

proficiency, managerial support, and psychological resilience in strengthening professional practice.

The results of the F-test analysis show that the significance value is less than 0.000, confirming that AI literacy, coaching, and work motivation together have a highly significant effect on teacher professionalism, and the regression model is fit to predict professionalism levels. The simultaneous F-value of 28.452 provides strong scientific legitimacy that professionalism cannot be improved through a single aspect alone but requires integration of technological competence, structured coaching, and psychological motivation. The model summary further supports this conclusion, with a correlation coefficient (R) of 0.661 indicating a strong relationship and an R Square of 0.437, meaning that 43.7% of the variation in teacher professionalism is explained by the three independent variables, while the remaining 56.3% is influenced by other factors outside this study. The adjusted R Square of 0.422 confirms the stability of the model given the sample size of 114 respondents and multiple predictors. These findings demonstrate that the synergy of AI literacy, coaching, and motivation provides a substantial and reliable contribution to teacher professionalism in SDIT Mojokerto, while also highlighting the need for future research to explore additional variables that may further strengthen professional development in Islamic elementary education.

Discussion

The findings of this study directly address the research objectives and highlight the multidimensional nature of teacher professionalism in the digital age. The significant impact of AI literacy suggests that teachers who understand and apply AI tools more effectively can innovate in their classrooms and adapt instruction to diverse student needs. This finding aligns with Chai et al. (2021), who found that teacher self-efficacy in AI correlates with classroom innovation, and supports Mishra and Koehler's (2006) TPACK framework, which emphasizes the integration of technology with pedagogy and content knowledge. In practice, teachers with strong AI literacy can reduce administrative burdens, personalize learning, and focus more on character development, thus embodying modern professionalism.

Recent literature on teacher professionalism in the digital age suggests that AI literacy operates as a multidimensional competency, rather than simply a technical skill. Park's meta-analytic framework identifies nine distinct domains of teacher AI literacy, including understanding fundamental AI principles, knowledge of data science, educational applications of AI, practical tool use, and ethical reasoning (Park, 2025). This broader conceptualization aligns with our findings that AI literacy

encompasses more than technical proficiency; it requires both pedagogical awareness and ethical consciousness. Furthermore, research on the transformation of teacher roles in AI-based educational contexts suggests that teachers are transitioning from knowledge disseminators to learning facilitators and instructional designers (Chen, 2025). Our findings suggest that teachers at SDIT Mojokerto who engaged with this expanded conceptualization of AI literacy were better prepared to leverage technology for meaningful pedagogical innovation.

Comparatively, previous studies examining digital literacy in isolation provide fundamental insights but lack comprehensive explanatory power. Masruroh et al. (2024) and Masitoh & Purbowati (2024) emphasize digital literacy as a foundation for teacher adaptation in the context of Society 5.0 but fail to fully consider the dimensions of motivation and supervision. Our integrative model goes beyond these previous approaches by demonstrating that, with a lack of coaching and intrinsic motivation, AI literacy remains a latent capability that fails to translate into sustained teaching improvement. This represents a theoretical advancement, as it positions motivational and relational factors as important mediators between technological competence and professional performance.

The role of coaching was also found to be significant in enhancing professionalism. Coaching provides reflective dialogue and collaborative problem-solving, which is more empowering than traditional supervision. These findings support the GROW model of Efendi et al. (2020) and Whitmore (2017), which frames coaching as a process of unlocking potential rather than enforcing compliance. Knight (2019) further emphasized that instructional coaching encourages sustainable change in teaching practices. In the context of SDIT Mojokerto, coaching aligns with Islamic educational values, where empathetic communication and partnership are central to professional growth. This suggests that coaching is not merely managerial but also a transformative tool for building teacher capacity. The most dominant factor identified was work motivation, which aligns with Herzberg's Two-Factor Theory and Deci & Ryan's (2020) Self-Determination Theory. Motivation provides psychological energy that sustains teacher performance even under heavy workloads and dual curriculum demands. Rahayu (2019) and Suwondo et al. (2022) both emphasize that intrinsic motivation is a stronger predictor of professionalism than external factors. In the context of Islamic elementary schools (SDIT), motivation is also deeply rooted in spiritual values, where teaching is viewed as both a professional duty and an act of worship. This spiritual dimension fosters resilience, enabling teachers to maintain consistency and dedication despite challenges.

Self-Determination Theory provides a strong theoretical framework for understanding our findings regarding the primacy of motivation. Recent meta-analytic research shows that intrinsic motivation—characterized by the needs for autonomy, competence, and relatedness—consistently predicts positive outcomes including well-being, engagement, and performance (Richard M. Ryan, 2020). Furthermore, longitudinal studies reveal that even when autonomous motivation remains consistently higher, institutional pressures can shift motivation toward external regulation if a supportive environment for these needs is not maintained (Jones & Fuller, 2026). Research examining motivation in the context of Islamic education reveals that spiritual values that function as intrinsic motivators produce qualitatively different outcomes than secular drivers. When work is perceived as both an act of worship and a professional duty (trustworthy), teachers demonstrate increased resilience and capacity to sustain effort under challenging conditions (Fathurrohman et al., 2026), (Ubaidillah, 2025). This integration of spiritual motivation with professional competence creates a "vocational calling" orientation that is particularly salient in the SDIT context.

The simultaneous influence of AI literacy, mentoring, and motivation highlights the need for a holistic approach. Professionalism cannot be strengthened solely by focusing on technological literacy or managerial support; psychological motivation remains its foundation. However, when combined, these three dimensions create a robust framework for professional growth. These findings contribute to the literature by integrating cognitive, technological, managerial, and psychological domains into a single empirical model, filling a gap left by previous studies that examined these factors separately. This confirms Talwelkar & Uppal's (2025) assertion that 21st-century professionalism is built on digital agility, systemic support, and psychological readiness.

Our integrative model represents a step forward by demonstrating that technological, relational, and psychological dimensions interact synergistically. Recent reviews emphasize integrated approaches that address digital competency, systemic support, and psychological readiness. However, few studies have examined how these dimensions interact in faith-based institutions where spiritual values provide coherence to professional work. Our findings suggest that Islamic educational institutions have a particular advantage in cultivating integrated professionalism because spiritual values unite technological innovation, collaborative relationships, and individual commitment.

Compared with previous research, this study offers originality by situating AI literacy within Islamic primary education, where cultural and spiritual values intersect

with technological demands. While Sari & Wahyudi (2024) emphasized digital literacy as a predictor of teacher performance, this study demonstrates that AI literacy, particularly when combined with coaching and motivation, provides a more comprehensive explanation of professionalism. The growing literature on teacher professionalism in the context of Islamic education emphasizes that professionalism cannot be reduced to technical competence; rather, it must be grounded in Islamic principles of professional ethics, spiritual leadership, and holistic human development. Research by Fathurrohman et al. (2026) identified that effective teachers embody the dimensions of mu'allim (teacher), murabbi (moral educator), and murshid (spiritual guide). Similarly, studies on Human Resource Management in Islamic institutions revealed that when professional development integrates Islamic spiritual values—such as sincerity (ikhlas) and amanah (trustworthiness)—along with competency development, teachers demonstrate increased commitment and creativity (Ubaidillah, 2025). Our study advances this literature by empirically demonstrating that motivation rooted in Islamic spiritual values, coupled with coaching and AI literacy, creates a distinctive pathway to professional excellence in the SDIT context. The practical implications of these findings are significant. Policymakers and school leaders in Mojokerto should design professional development programs that holistically combine AI training, structured coaching systems, and motivational reinforcement. AI literacy initiatives should focus not only on technical skills but also on ethical use and pedagogical integration. Coaching programs should emphasize reflective dialogue and collaborative problem-solving, while motivational strategies should leverage intrinsic rewards and spiritual values. Together, these interventions can sustain teacher professionalism and ensure that SDIT schools remain competitive and relevant in the era of Society 5.0.

Specifically, professional development programs should integrate three interrelated components: First, AI literacy programs should go beyond technical skills to encompass ethical reasoning and pedagogical integration. Second, instructional coaching should be conceptualized as professional mentoring grounded in Islamic values of shared growth and collaborative problem-solving (Caneva, 2025). Third, motivational strategies should intentionally acknowledge teachers' sense of vocational calling—their perception of teaching as both professional work and spiritual service (ibadah).

Finally, this study underscores the importance of future research exploring additional variables that may influence professionalism. Although AI literacy, coaching, and motivation explained 43.7% of the variation in professionalism, other factors such as organizational culture, leadership style, and community engagement may also play

significant roles. Expanding the model to include these dimensions could provide a more comprehensive understanding of teacher professionalism in Islamic education. Nonetheless, the current findings have established a strong foundation, suggesting that professionalism at SDIT Mojokerto is best achieved through the integration of "tools" (AI literacy), "guidance" (coaching), and "heart" (motivation).

CONCLUSION

This study concludes that AI literacy, coaching, and work motivation each exert a positive and significant influence on teacher professionalism, both individually and collectively. AI literacy is no longer an optional technical skill but a strategic competence that enables teachers to automate administrative tasks, design innovative learning media, and adapt instruction to diverse student needs in the digital era. Coaching, when implemented through dialogic and empowering models such as GROW, strengthens professional awareness by guiding teachers to reflect on challenges and develop independent solutions, thereby fostering sustainable growth. Work motivation emerges as the most dominant factor, affirming that intrinsic and spiritual drives serve as the psychological energy that sustains teacher performance and commitment, even under the pressures of dual curricula and administrative demands. Taken together, the synergy of technological readiness, structured managerial support, and strong motivational drive accounts for 43.7% of the variation in teacher professionalism, proving that professionalism in SDIT Mojokerto is best achieved through an integrated framework rather than isolated interventions.

For school leaders and policymakers, it is recommended to intensify structured coaching programs that go beyond administrative supervision, focusing instead on nurturing creativity and AI integration in teaching practices. For teachers, continuous self-development in AI literacy and the maintenance of strong motivational anchors are essential to sustaining professionalism amidst complex workloads. For future researchers, given that 56.3% of professionalism variation remains unexplained, further studies should explore additional factors such as organizational culture, teacher well-being, and transformational leadership to provide a more comprehensive model of professionalism in Islamic elementary education. These contributions not only advance educational management but also enrich the development of religious, social, and cultural sciences by demonstrating how technology, guidance, and motivation can harmoniously strengthen the professional identity of teachers in the Society 5.0 era.

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