



An Islamic-Based Spiritual Competence Instrument for Madrasah Teachers: Psychometric Validation Using Rasch Analysis

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ABSTRACT

Spiritual competence is an important aspect of the teaching and learning process. This study aims to evaluate the psychometric properties of a spiritual competence instrument for *madrasah* teachers, including its unidimensionality, local independence, item fit, and reliability. The instrument consists of three dimensions: *ulul albab*, *akhlakul mahmudah*, and *tasamub*, and was analyzed using the Rasch model. This study employed Gable's affective instrument development approach. The sample comprised 375 *madrasah* teachers, including 177 male and 198 female teachers. Using a multistage cluster sampling technique, participants were drawn from four major cluster areas in Banten Province: Tangerang Regency, Serang City, Pandeglang Regency, and Cilegon City. Data were analyzed using the Rasch model, including tests of unidimensionality, local independence, item fit, Wright map analysis, reliability testing, and item information function analysis. Empirical findings based on the Rasch model confirmed that the items measuring the spiritual competence of *madrasah* teachers were valid and reliable across the three dimensions. The results showed that 20 of the 23 items met the fit criteria (MNSQ: 0.5–1.5; PTMEA: > 0.40). The item reliability was 0.99 (excellent), respondent reliability was 0.76 (moderate), and Cronbach's alpha was 0.77. The Rasch model explained 44.2% of the total raw variance, while the first contrast in the unexplained variance accounted for only 7.1%, which is below the 15% threshold for unidimensionality. Although the instrument demonstrated satisfactory psychometric properties among teachers in Banten Province, cross-validation in other provinces is still needed. The findings provide empirical evidence regarding the reliability of the spiritual competence instrument for *madrasah* teachers and support its use for both research and assessment purposes.

Keywords : *instrument development, madrasah teachers, rasch Model, spiritual competence*

INTRODUCTION

Competence constitutes a fundamental requirement for teachers, as stipulated in Law No. 14 of 2005 concerning Teachers and Lecturers. Through the Ministry of Education and Culture, the government explicitly mandates that teachers possess four core competencies: pedagogical, professional, personal, and social. However, alongside technological advancements in the digital era, teachers also require spiritual competence, which can provide psychological support in fulfilling their responsibilities as educators. Research findings indicate that Islamic spiritual practices in the workplace enhance commitment and success among Muslim educators (Dwiyanti& Meilani, 2025). Furthermore, spiritual competence increases teachers' positive energy in carrying out their duties (Maham et al., 2020), facilitates the internalization of religious values in classroom learning, helps

teachers cope with educational challenges, and contributes to the development of character and religious values (Al-Attas, 1999). Spiritual competence is therefore an important aspect of individual character development (Zailani et al., 2022), extending beyond religious rituals to encompass an individual's ability to internalize divine values, *akhlakul mahmudah* (good morals), *siddiq* (honesty), *mas'uliyah* (responsibility), and to practice *ihسان* (benevolence/professional excellence) while avoiding harm to others in daily life (Al-Ghazali, 2011).

From an Islamic perspective, spiritual competence serves as the foundation for the development of morality and human behavior oriented toward divine values (Al-Jauziyah, 1971). In Islamic education, spirituality is the primary foundation for personality development (Hidayat, 2016), and it views human beings as possessing physical, intellectual, and spiritual dimensions that must be developed in a balanced manner (Muhaimin, 2012). Spiritual competence is not merely concerned with religious practices but places greater emphasis on meaning-making (Yuana et al., 2025; Smith et al., 2026) and continuously evolving beliefs (Cooper, 2001), reflecting an individual's awareness of God's presence, self-control, sincerity in work, moral responsibility, and concern for others. Developments in modern education indicate that educational success cannot be measured solely by academic and intellectual competence but must also account for teachers' spiritual competence (Nasrollahi et al., 2020). In the context of madrasahs and other Islamic educational institutions, teachers' spiritual competence is a strategic element, as it contributes to the development of religious character, moral integrity, and social ethics. Madrasah teachers hold a strategic position in shaping students' character, morality, and spiritual quality. Teachers with strong spiritual competence can foster students' character development (Suwono et al., 2024), as spirituality promotes honesty, responsibility, and respect.

The exemplary conduct and integrity demonstrated by teachers can serve as a primary model for students, helping them navigate the moral challenges of the current digital era (Heredia et al., 2020). Teachers with high spiritual competence are not only responsible for transmitting cognitive knowledge but also for instilling noble values through meaningful, holistic learning experiences (Rodriguez & Rodriguez, 2025). Despite the acknowledged importance of spiritual competence, existing research reveals critical theoretical and empirical gaps. First, no comprehensive, Islamically based spiritual competence framework has been systematically developed specifically for madrasah teachers. Second, there is a notable absence of psychometrically validated instruments within Islamic educational settings that are built upon such a theoretically justified framework. Third, while previous studies have predominantly employed confirmatory factor analysis to examine relationships between indicators and latent constructs (Davis, 2009; Hodge, 2018; Lu et al., 2018; Bowser et al., 2020; Rovers & Kocum, 2010), and while instruments for Muslim populations in Indonesia have mainly targeted students rather than teachers (Eva & Istiyono, 2022), they have rarely applied Rasch Measurement Theory to evaluate the internal structure, diagnostic item-fit, and measurement invariance of spiritual competence instruments.

To address these gaps, the present study proposes and empirically validates a higher-order conceptual model of Islamic spiritual competence for madrasah teachers. In this model, Islamic Spiritual Competence is theorized as a higher-order latent construct comprising three first-order dimensions: *Ulul Albab* (reflective-spiritual cognition), *Akhlakul Mahmudah* (ethical self-regulation), and *Tasamuh* (social-spiritual engagement). These three dimensions do not operate in isolation but rather interact synergistically to produce holistic spiritual competence. Specifically, *Ulul Albab* provides the cognitive and reflective foundation that enables teachers to derive wisdom from divine signs and exercise reasoned spiritual judgment; this cognitive awareness subsequently informs and motivates *Akhlakul Mahmudah*, the ethical self-regulatory capacity to align personal conduct with Islamic moral principles such as patience, responsibility, humility (*tawadhu'*), and forgiveness (Ibnu Qayyim Al-Jauziyah, 1971); finally, both cognitive reflection and ethical regulation manifest in

Tasamuh, the social-spiritual engagement that enables teachers to demonstrate tolerance, open-mindedness, and respect for differences (Shihab, 1996), thereby fostering social harmony within diverse educational settings. Thus, *Ulul Albab* serves as the internal cognitive engine, *Akhlakul Mahmudah* as the behavioral regulatory mechanism, and *Tasamuh* as the outward relational expression, together constituting a coherent, higher-order Islamic spiritual competence construct. This conceptualization explicitly distinguishes the present framework from related constructs such as general religiosity, spiritual intelligence, Islamic work ethic, spiritual well-being, and moral competence, which do not capture the specific integration of reflective cognition, ethical self-regulation, and social engagement that characterizes the madrasah teacher's professional role.

To provide readers with a clear visual understanding of this theoretical framework, the proposed higher-order conceptual model can be represented as follows: at the higher-order construct, Islamic Spiritual Competence functions as the overarching latent variable. From this highest level, three paths extend downward to the first-order dimensions: *Ulul Albab* (Reflective-Spiritual Cognition), *Akhlakul Mahmudah* (Ethical Self-Regulation), and *Tasamuh* (Social-Spiritual Engagement), each of which is then operationalized through its respective set of observable indicator items. This hierarchical structure assumes that covariance among the three dimensions is explained by their shared dependence on the higher-order construct, thereby providing a parsimonious and theoretically defensible representation of Islamic spiritual competence. Such a visual representation not only clarifies the instrument's conceptual framework but also strengthens the manuscript's theoretical contribution and construct validity argument. The present study therefore seeks to develop and psychometrically validate an instrument for measuring madrasah teachers' spiritual competence using Rasch analysis across these three theoretically derived dimensions. Rasch analysis provides invariant measurement (with item and person parameters estimated independently), diagnostic item-fit statistics, and a Wright map that visualizes the targeting between person ability and item difficulty, which is highly useful for refining an instrument before conducting confirmatory factor analysis on a separate sample. To limit the scope of this study, the following research questions were formulated: (a) What dimensions constitute Islamic spiritual competence among madrasah teachers? (b) Do the developed items fit the Rasch model? (c) Is the scale psychometrically valid and reliable? (d) How are the item difficulty levels distributed across the scale?

RESEARCH METHOD

This study employed Gable's affective instrument development model (Gable, 1986). The instrument was administered to teachers using a Likert-scale questionnaire. The instrument development process consisted of three stages: (1) instrument development, (2) instrument testing, and (3) reporting of the results. The instrument development stage began with defining the variable based on relevant theories and constructs, followed by elaborating it into dimensions and indicators, and then formulating these into instrument items (Firdaos, 2017). Construct validity was assessed by five expert validators, consisting of one professor in Islamic Religious Education curriculum development, one professor in *Tasawuf* education, one doctoral expert in measurement and evaluation, and two doctoral experts in Islamic Religious Education. The experts validated several aspects using a 1–4 scale, including the clarity of the statement items, the extent to which the items theoretically reflected accurate information, the relevance of the items to the research objectives, the appropriateness of the information conveyed by the items, and the comprehensibility of the language used.

Based on the qualitative assessment, the experts provided several recommendations for revision, particularly to align the dimensions and indicators of spiritual competence with terminology that is more relevant to Islamic concepts. Examples of these revisions included replacing the indicator “perseverance” with *istikamah*, “honesty” with *as-siddiq*, “humility” with

tawadhu, and “responsibility” with *mas’uliyah*. Based on the quantitative assessment using Aiken’s formula, Aiken’s $V = \sum s / n(c - 1)$, the inter-rater agreement index was $0.896 \geq 0.80$, which falls within the high category. It can therefore be concluded that the instrument demonstrated high content validity and was suitable for empirical testing. The instrument was subsequently tested using item analysis to assess the extent to which the teacher's spiritual competence construct met the validity and reliability requirements. The dimensions and indicators of teacher spiritual competence derived from the theoretical review and expert validation are presented in Table 1.

Table 1 : Dimension and Indicator of Spiritual Competences

No	Dimension	Indicator	Number of Items
1	<i>Ulul Albab</i>	<i>Istikamah</i>	2
		<i>Siddiq</i>	3
		Gratitude	3
2	<i>Akhlakul Mahmudah</i>	<i>Tawadhu</i>	3
		<i>Al-afwu</i>	2
		<i>Mas’uliyah</i>	2
		<i>As-Sobru</i>	2
3	<i>Tasamub</i>	<i>As-samahab</i>	2
		<i>Ihsan</i>	2
		<i>As-Salam</i>	2
		Total	23

The sample in this study consisted of 375 *madrasah* teachers from across Banten Province. The participants met the following criteria: 177 were male teachers, and 198 were female teachers. In terms of educational level, 169 teachers were from the *Madrasah Ibtidaiyah* level, 121 were from the *Madrasah Tsanawiyah* level, and 85 were from the *Madrasah Aliyah* level. The sample characteristics are presented in Table 2.

Table 2 : Research Sample Characteristics

No	Characteristics	Total	Percentage
1	Gender		
	Male	177	47.2%
	Female	198	52.8%
	Total	375	100%
2	Regional Cluster		
	Eastern Region	85	22.66%
	Southern Region	103	27.46%
	Central Region	97	25.86%
	Western Region	90	24.00%
	Total	375	100%
3	School Level		
	<i>Madrasah Ibtidaiyah</i> (Islamic Elementary School)	169	45.06%
	<i>Madrasah Tsanawiyah</i> (Islamic Junior Secondary School)	121	32.26%
	<i>Madrasah Aliyah</i> (Islamic Senior Secondary School)	85	22.66%
	Total	375	100%
4	Years of Teaching Experience		
	5-10 years	175	46%
	> 10 years	200	54%
	Total	375	100%
5	Participation in Religious Activities		
	Active	295	78.66%
	Inactive	80	21.33%
	Total	375	100%

The sample selection criteria in this study were determined using a multistage cluster sampling method. The steps involved in this method were as follows. First, we selected the main clusters by regency and municipality. Four regencies and municipalities were chosen: Tangerang Regency, Serang City, Pandeglang Regency, and Cilegon City. Second, sub-clusters were identified, namely the madrasah clusters within each selected regency and municipality from the main cluster, resulting in the selection of 21 madrasahs. Third, teacher samples were selected from the madrasah clusters included in the sub-clusters. The ideal sample size in Rasch analysis depends on several factors, including the number of items, the type of scale (dichotomous or polytomous), the research objectives, and the desired level of parameter stability. According to Linacre (1995), a sample of 100–200 respondents provides better parameter stability. Similarly, Bond & Fox (2015) suggested that 100–250 respondents are generally sufficient for educational and social research using the Rasch Model. Therefore, the sample of 375 madrasah teachers in this study meets the criteria for an adequate sample size for Rasch Model analysis.

The spiritual competence variable is a latent construct, and its assessment can only be conducted through construct validation methods (Harrington, 2009; Singh, 2006). The data were analyzed using descriptive quantitative methods based on the Rasch model, with support from Winsteps software. This model was selected to convert ordinal responses into interval-scale measurements expressed in logits, allowing a more accurate and objective assessment of teachers' spiritual competence. The evaluation of the instrument's psychometric properties was intended to examine several indicators, namely unidimensionality and local independence, item fit, Wright map, reliability, and item information function, based on specific criteria (Hidayah et al., 2021).

Unidimensionality was assessed by evaluating the eigenvalue criterion for unexplained variance, with a value below 15% (Boone et al., 2014), and by examining the proportion of variance explained by the measured data, which should exceed 30% (Linacre, 2010). Compliance with this assumption is necessary to ensure that the spiritual competence construct measures a single underlying construct (Wright & Stone, 1999). In addition to unidimensionality, the Rasch model also requires local independence. Local independence means that after controlling for respondents' ability levels, responses to one item are no longer influenced by responses to other items; in other words, the items are not dependent on one another. According to Linacre, in the context of Rasch modeling, the criterion for local independence is met when the raw residual correlation between items falls between 0.20 and 0.40 (Linacre, 1995).

Item fit analysis was then conducted to identify the degree of fit between the items and the model (Morgado et al., 2026). If some items do not fit the model, researchers may revise or remove them (Sumintono dan Widhiarso, 2015b). According to the Rasch analysis specifications, acceptable item fit is indicated by values within the range of $0.5 < \text{MNSQ} < 1.5$, with 1 considered ideal (Bond & Fox, 2015). Mean Square Fit Statistics (MNSQ) represent an empirical validity component that measures the extent to which the data deviate from the Rasch model, particularly in cases of extreme misfit, such as responses that do not correspond to the questions or items that are excessively easy or difficult (Putranta & Afifah, 2020). Another item-fit parameter can be observed through the Point Measure Correlation, with the ideal criterion ranging from $0.40 < \text{Pt Measure Corr} < 0.85$ for identifying item suitability (Boone et al., 2014).

To represent a Rasch model, the Wright Map can be examined by plotting respondents' ability levels (θ /ability) on the left and item difficulty levels (b /difficulty) on the right, both displayed on the same logit scale (Engelhard & Wind, 2019). This concept was first popularized by Benjamin Drake Wright, a leading figure in the development of measurement theory. The Wright Map also helps optimize measurement by identifying gaps between individuals' ability levels and item difficulty levels. In addition to item fit analysis, Cronbach's Alpha reliability, item reliability, and person reliability were evaluated using the following criteria: 0.67–0.80 (moderate), 0.81–0.90

(good), 0.91–0.94 (verygood), and > 0.94 (excellent) (Bond& Fox, 2015;Boone et al., 2014). Likewise, the precision with which an instrument measures respondents' ability can be determined by examining the information function of the Rasch model (Hambleton& Swaminathan, 2013).

The following are examples of items from the Spiritual Competence instrument administered to several respondents. These items were developed based on relevant theoretical constructs (Al-Jawziyya, 1996), which were then operationalized into dimensions and indicators, and subsequently formulated into instrument items.

Table 3 : Examples of Spiritual Competence Instrument Items

No	Dimensions	Indicators	Items
	<i>Ulul Albab</i>	<i>Istikamah</i> , <i>siddiq</i> , and gratitude	I consider moral values before making important decisions (+)
			I communicate information truthfully even when it may pose a risk to myself (+)
			I realize that success in carrying out tasks is a blessing from God (+)
			An attitude of <i>istikamah</i> helps me perform my duties in a more meaningful way (+)
	<i>Akhlakul Mahmudah</i>	<i>Tawadhu</i> , <i>al-af'wu</i> , <i>mas'uliyah</i> , and patience in carrying out duties	I feel that I perform better at work than other people (-)
			I carry out my duties with a strong sense of responsibility toward God and others (+)
			I allow personal conflicts to influence the performance of my duties (+)
	<i>Tasamuh</i>	<i>As-samahah</i> , the attitude of <i>ihsan</i> , and <i>as-salam</i>	I act wisely when dealing with the mistakes of colleagues (+)
			I treat all people fairly regardless of their cultural or religious background (+)
			I remain professional even under high levels of pressure (+)
			I impose my personal views on others when carrying out my duties (-)
			I uphold humanitarian values in every task I perform (+)

FINDINGS AND DISCUSSION

Findings

1. Unidimensionality – Construct Validity

At this stage, the first Rasch analysis presented is the unidimensionality test. This test aims to ensure that the items developed for the Teacher Spiritual Competence instrument measure only a single underlying construct. The results of the unidimensionality analysis are presented in Table 4.

Table 4 : Standardized Residual Variance (in Eigenvalue Units)

	Eigenvalue	Observed	Expected
Total raw variance in observations	41.2435	100.0%	100.0%
Raw variance explained by measures	18.2435	44.2%	50.9%
Raw variance explained by persons	5.4905	13.3%	15.3%
Raw Variance explained by items	12.7529	30.9%	35.6%
Raw unexplained variance (total)	23.0000	55.8%	100.0%
Unexplned variance in 1st contrast	2.9124	7.1%	12.7%
Unexplned variance in 2nd contrast	2.3345	5.7%	10.2%
Unexplned variance in 3rd contrast	1.3633	3.3.%	6.3%
Unexplned variance in 4th contrast	1.2465	3.0%	5.9%
Unexplned variance in 5th contrast	1.2060	2.8%	5.4%

Based on Table 4, the raw variance explained by the data was 44.2%, indicating that the minimum unidimensionality requirement of 20% was met. This result is good because it exceeded 40%. Meanwhile, the unexplained variance of 7.1% also met the criterion, as it did not exceed 15%. The local independence criterion was also satisfied. Based on the Winstep output, the items with the highest raw residual correlations were Items 20 and 21, each at 0.40. The local independence analysis showed that the highest residual correlation was 0.40. This value was slightly above the ideal threshold of 0.30, suggesting a mild level of local dependence between several item pairs. However, since the value remained below the critical threshold of 0.50, the instrument can generally be considered to meet the assumption of local independence. In terms of language, meaning, purpose, and item readability, several items with residual correlations greater than 0.30 did not indicate duplicate characteristics. The output results are presented in Table 5.

Table 5 : LargestStandardizedResidualCorrelations

No	Correlation	EntryNumber ITE	EntryNumber ITE
1	0.40	20 Y20	21 Y21
2	0.36	8 Y 8	13 Y13
3	0.34	3 Y 3	15 Y15
4	0.29	12 Y 12	23 Y 23
5	0.27	20 Y 20	23 Y 23
6	0.26	21 Y 21	23 Y23
7	0.24	2 Y 2	13 Y13
8	0.23	12 Y 12	21 Y21
9	0.22	12 Y 12	20 20

2. ItemFit

After confirming that the items in the teacher spiritual competence instrument originated from a single construct, the next step was to assess the items' quality and appropriateness by examining the item-fit results. Based on the Mean Square and Point Measure Correlation criteria, the item fit results are presented in Table 6.

Table 6 : Item Fit

Item	Measure	Infit	Outfit	PTMEA
15	2.56	2.18	3.90	-0.44
3	1.15	1.55	1.63	0.29
13	0.66	0.93	0.98	0.44
8	0.62	0.83	0.83	0.58
2	0.57	0.77	0.77	0.52
19	0.57	1.34	1.34	0.52
14	0.46	0.85	0.85	0.52
10	0.29	1.48	1.48	0.47
16	0.24	0.97	0.97	0.48
5	0.21	1.38	1.38	0.42
11	-0.01	0.72	0.72	0.55
9	-0.11	0.56	0.56	0.60
22	-0.27	1.33	1.33	0.43
17	-0.35	1.21	1.21	0.45
6	-0.40	0.78	0.78	0.48
18	-0.48	1.07	1.07	0.43
1	-0.49	1.18	1.18	0.33
7	-0.67	0.75	0.75	0.46
4	-0.72	1.06	1.06	0.43

Item	Measure	Infit	Outfit	PTMEA
20	-0.80	0.71	0.71	0.48
21	-0.84	0.88	0.88	0.48
12	-1.05	0.79	0.79	0.44
23	-1.16	0.87	0.87	0.42

Items with values greater than 1.5 on the infit and outfit MNSQ criteria are considered misfitting and may be too difficult or too easy for respondents. In contrast, items with scores below 0.5 are considered overly predictable by the model and are unable to differentiate respondents' abilities. The selection of fit items was based on two criteria: the MNSQ criterion and the PTMEA criterion. If an item failed to meet both criteria, it was automatically removed from the instrument. Based on the information presented in the table above, three items were eliminated because they exceeded the acceptable limits. These items were item 15, with an infit value of 2.18, an outfit value of 3.90, and a PTMEA value of -0.44; item 3, with a PTMEA value of 0.29; and item 1, with a PTMEA value of 0.33. The remaining 20 items met the required criteria and were therefore considered valid for measuring madrasah teachers' spiritual competence.

3. Wright Map

To provide an overview of the distribution of respondents' abilities relative to item difficulty on the same logit scale, the Wright Map is shown in Figure 1. This continuum line represents the range of ability from the lowest to the highest level. In the context of measuring teachers' spiritual competence, the Wright Map indicates that most items fall within the respondents' ability range (logit -1 to +1). However, one outlier item (item 15) falls outside the respondents' ability range, with a logit value of 2.56 for the statement *"I easily become angry when facing mistakes or obstacles,"* which is the unfavorable item in the *commendable moral character* dimension. This item was also identified as a misfit because it exceeded the acceptable limits for both the outfit and PTMEA criteria. The easiest item for respondents to endorse was item 23, the statement *"I uphold humanitarian values in carrying out every task,"* which was the favorable item in the *tolerance* dimension, with a logit value of -1.16.

Spiritual Competence instrument for madrasah teachers demonstrates a moderate level of consistency in measuring the intended construct. Therefore, further refinement of the items may be necessary to achieve a higher level of internal consistency, as reflected by Cronbach's Alpha. Similarly, the Person Separation Index of 1.71 indicates that the instrument has an adequate ability to distinguish respondents by level of the measured ability and to classify the min to approximately three ability strata: low, moderate, and high. However, because these paration value has not yet reached 2.00, the instrument's discriminating power can still be improved. Such improvement may be achieved by adding high-quality items or by increasing the sample's diversity and size, there by enhancing the instrument's ability to differentiate among respondents.

The item information function in the Rasch model serves as an indicator of an instrument's precision in measuring respondents' ability levels (Hambleton& Swaminathan, 2013). Maximum information is obtained when the difficulty level of the items matches the respondents' ability level. This condition indicates that the items function most reliably within that range. Figure 2 presents the results of the item information function analysis for the Spiritual Competence instrument.

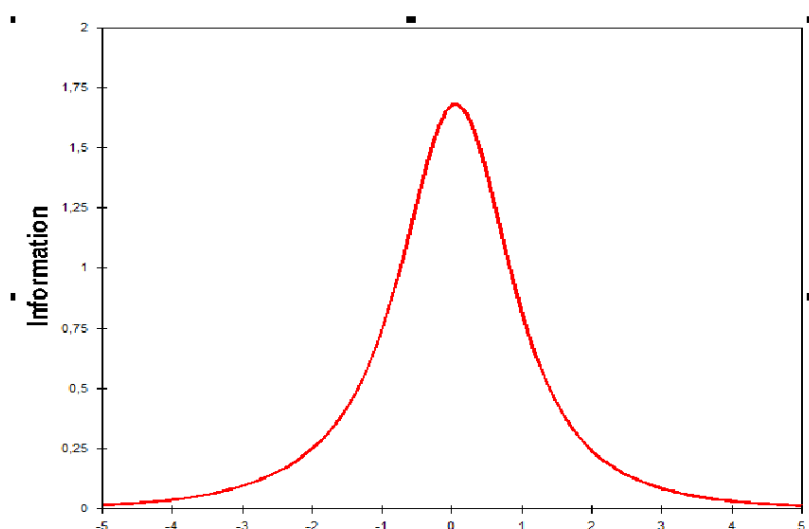


Figure 2 : Item Information Function

Based on Figure 2, the amount of information obtained from the measurement is relatively low among respondents with low ability levels. Similarly, respondents with high ability levels also yield relatively low measurement information. In contrast, the information function reaches its highest value among respondents with moderate ability levels. This finding indicates that the Spiritual Competence items provide optimal measurement precision when administered to respondents with a moderate level of spiritual competence. Therefore, the instrument is most effective at distinguishing individuals in the middle range of the latent trait. At the same time, its measurement accuracy decreases at the lower and upper ends of the competence continuum.

Discussion

The primary objective of this study was to develop and psychometrically validate an Islamic-based spiritual competence instrument for madrasah teachers using Rasch analysis. The empirical findings indicate that the proposed instrument meets acceptable psychometric standards and holds promise for assessing and cultivating spiritual competence among madrasah teachers. However, beyond merely reporting these statistical outcomes, this discussion aims to interpret the *why* and *so what* of the findings, situate them within the broader international literature on spiritual competence, teacher professionalism, workplace spirituality, character education, and spiritual intelligence, and articulate the theoretical and practical implications arising from the validated tri-

dimensional structure of *ulul albab* (reflective-spiritual cognition), *akhlakul mahmudah* (ethical self-regulation), and *tasamuh* (social-spiritual engagement). Statistically, the results demonstrate satisfactory reliability and validity. Based on Winstep output using infit-outfit MNSQ criteria, 20 items fell within the acceptable range of 0.53–1.41, while Point Measure Correlation (PTMEA) values ranged from 0.40 to 0.58. Respondent reliability reached 0.76, with a Cronbach's alpha of 0.77, indicating moderate internal consistency, whereas item reliability was exceptionally high at 0.99. These findings are generally consistent with previous psychometric work in related domains. For instance, Eva and Istiyono (2022) reported a reliability coefficient of 0.705 for a spiritual attitude instrument targeting ninth-grade students across dimensions including *tasamuh*, gratitude, worship, and *aqidah*. Similarly, Lu et al. (2018) developed a spiritual competence scale for 176 counselors using confirmatory factor analysis across six dimensions (assessment, self-awareness, diagnosis and treatment, human and spiritual development, culture, and communication), obtaining a reliability index of 0.70.

The slightly higher reliability coefficient in the present study (0.77) may be attributed to the adequate sample size, the quality of the items, and the good fit between items and respondents. However, the moderate respondent reliability index of 0.76 warrants interpretation. Rather than indicating a deficiency, this moderate value likely reflects genuine variability in the latent spiritual competence levels among madrasah teachers. This finding suggests that the construct is not uniformly distributed across the population but rather exhibits substantial individual differences shaped by factors such as teaching experience, religious education background, and workplace spirituality climate (Pargament, 1997; Tombaugh et al., 2011). This interpretation aligns with contemporary understandings of spiritual intelligence, which emphasize that spiritual capacities develop in varying ways across individuals, depending on their meaning-making processes and exposure to noble values (Marshall, 2004). One of the most analytically instructive findings concerns Item 15 ("I become easily angry when facing mistakes or obstacles"), which was identified as the most difficult for respondents to endorse and also failed to meet statistical criteria. A purely descriptive reading would stop at noting the misfit. However, a theoretically grounded interpretation must consider why this item behaves unexpectedly.

The finding likely reflects a complex interplay between emotional regulation, occupational stress, administrative burden, and workplace spirituality. Substantively, the heavy administrative workload imposed on madrasah teachers can create chronic psychological pressure, leading to negative emotional responses (Jalil, 2019; Massora et al., 2025). However, the very fact that teachers *did not endorse* this item easily that is, they tended to disagree with the statement "*I become easily angry*" may paradoxically indicate a socially desirable response pattern shaped by Islamic ethical ideals of *akhlakul mahmudah*, which emphasize patience (*sabr*), emotional self-control, and forgiveness. In other words, teachers may recognize that anger is inconsistent with their professional and religious identity, leading them to underreport such experiences even when they occur. This interpretation is supported by contemporary research on workplace spirituality, which suggests that spiritually grounded individuals develop greater capacities for emotion regulation and are less likely to endorse reactive negative emotions (Tombaugh et al., 2011; Pargament, 1997). Future iterations of the instrument might benefit from rephrasing Item 15 to reduce social desirability bias, for example, by using situational or frequency-based wording rather than direct trait attribution.

Conversely, Item 23 ("*I uphold humanitarian values in carrying out every task*"), belonging to the *tasamuh* dimension, was the most easily endorsed (logit value = -1.14). This finding is theoretically coherent. In Islamic educational contexts, *tasamuh*, meaning tolerance, open-mindedness, and respect for differences, constitutes an essential aspect of social life that promotes harmony, peace, and brotherhood among human beings (Shihab, 1996; Mutaqin et al., 2023). Humanitarian values such as respect for human dignity, justice, compassion, empathy, exemplary conduct, and moral responsibility are deeply embedded in the Qur'anic ethical vision (Tirri, 2010). The ease of

endorsement for this item suggests that madrasah teachers strongly identify with *tasamuh* as a core professional virtue, likely because it is explicitly taught, socially rewarded, and publicly expected in Indonesian Islamic education settings. This finding contributes to the international literature on character education by demonstrating that tolerance and humanitarian values are not merely abstract principles but are internalized as actionable spiritual competencies among Muslim educators (Thomas Lickona, 1991; Achmad, 2017).

Beyond these individual item interpretations, the validated three-dimensional structure of Islamic spiritual competence carries significant theoretical implications for the broader literature on teacher professionalism and spiritual intelligence. The findings confirm that *ulul albab* (reflective-spiritual cognition), *akhlakul mahmudah* (ethical self-regulation), and *tasamuh* (social-spiritual engagement) are not redundant but represent distinct yet interrelated facets of spiritual competence. This tripartite model advances beyond generic conceptualizations of spiritual competence that often conflate cognitive, behavioral, and social dimensions. Specifically, *ulul albab* contributes to the literature on reflective practice and critical spiritual thinking, aligning with contemporary scholarship on spiritual intelligence, which emphasizes the capacity to act and create meaning based on noble values (Marshall, 2004). Teachers who possess strong reflective-spiritual cognition are better equipped to integrate Islamic values with technological and pedagogical demands. This finding resonates with Khimmataliev's (2025) work on critical thinking and cultural sensitivity in dynamic educational settings. *Akhlakul mahmudah* contributes to the literature on ethical self-regulation and moral competence, supporting the view that spiritual competence directly shapes personal integrity, professional commitment, and character education outcomes (Bashori et al., 2026; Kao et al., 2020).

Teachers who exhibit honesty, humility, responsibility, and patience serve as primary role models for students, consistent with Thomas Lickona's (1991) framework of character education. *Tasamuh* contributes to the literature on social cohesion, multicultural education, and peaceful coexistence, demonstrating that Islamic spiritual competence is not inwardly focused but has explicit outward, relational dimensions that foster empathy, compassion, and a service-oriented mindset (Tombaugh et al., 2011; Tirri, 2010). The present findings also engage with international scholarship on workplace spirituality. Research has shown that spiritual values help individuals manage conflict, reduce stress, and enhance meaning-making at work (Pargament, 1997). In the madrasah context, strong spiritual competence enables teachers to practice more humane classroom management, create meaningful learning environments, and adapt to students' diverse needs (Badrudin et al., 2025; Rodriguez & Rodriguez, 2025). These qualities are essential for professional practice in dynamic, digitally saturated educational settings where teachers must simultaneously transmit knowledge, guide moral character, and protect students from negative online content. Furthermore, the cultivation of spiritual values is an integral part of character education. It can be experienced more meaningfully when teachers themselves serve as the primary medium for transmitting values, supported by curriculum innovations grounded in ideal spiritual character (Afriana & Rokhimawan, 2022; Ancok & Suroso, 2011). The instrument developed in this study provides a practical tool for assessing these competencies, thereby enabling targeted professional development interventions.

Finally, this study makes several original contributions to the field. First, it provides a theoretically justified, empirically validated higher-order conceptual model of Islamic spiritual competence specifically for madrasah teachers, filling a gap left by previous instruments that focused on students (Eva & Istiyono, 2022) or on Western, Christian populations (Rovers & Kocum, 2010). Second, by employing Rasch analysis rather than exclusively relying on confirmatory factor analysis, the study offers invariant measurement, diagnostic item-fit statistics, and a Wright map that visualizes targeting between person ability and item difficulty, methodological advantages that are rarely applied in Islamic educational measurement (Davis, 2009;

Hodge, 2018). Third, the study connects Islamic spiritual competence to international discourses on spiritual intelligence (Marshall, 2004), workplace spirituality (Pargament, 1997; Tombaugh et al., 2011), character education (Lickona, 1991; Achmad, 2017), and teacher professionalism (Kao et al., 2020; Bashori et al., 2026), thereby positioning the findings within a globally accessible scholarly conversation. The 20 retained items, distributed as six for *ulul albab*, eight for *akhlakul mahmudah*, and six for *tasamuh*, offer a practical, psychometrically sound instrument for assessing the affective domain of madrasah teachers. As role models, teachers are responsible not only for transferring knowledge but also for fostering mental wellbeing and character education (Kao et al., 2020). It is hoped that this instrument will make a positive contribution to the assessment and development of Islamic spiritual competence, ultimately supporting madrasah teachers in fulfilling their sacred educational mission

CONCLUSION

Based on the Rasch analysis, the development study of this spiritual competence instrument demonstrated adequate construct validity. The evaluation of its psychometric properties provided important evidence, indicating that the key indicators required in the testing process were satisfactorily met. The final 20-item instrument was shown to be unidimensional and reliable ($\alpha = 0.77$; item reliability = 0.99; person reliability = 0.76). Overall, it can be concluded that this spiritual competence instrument may serve as an alternative measurement tool for assessing the spiritual competence of madrasah teachers, particularly those in Banten Province. Future studies may continue to refine the instrument developed in this research. For example, researchers may consider adding indicators to each dimension, where necessary, to provide a more comprehensive assessment of teachers' spiritual competence. Further studies may also employ confirmatory factor analysis, conduct cross-provincial cross-validation, and perform differential item functioning (DIF) analyses based on gender and school level, as well as comparisons between madrasah teachers and teachers in general schools. Nevertheless, several limitations must be acknowledged, and an advanced psychometric validation agenda is required.

The sample was restricted to Banten Province, self-report may introduce social desirability bias, and the present study employed only Rasch analysis. Future research must conduct: (1) Confirmatory Factor Analysis to test the higher-order structure; (2) measurement invariance testing across gender, school level, and teaching experience; (3) Differential Item Functioning (DIF) analysis; (4) convergent validity with related constructs such as spiritual intelligence and workplace spirituality; (5) discriminant validity against unrelated constructs; and (6) criterion-related validity predicting job satisfaction, character education outcomes, or classroom climate. Cross-provincial and cross-national validation is also recommended. Addressing these steps will transform the instrument from a promising initial development into a fully validated measure suitable for high-stakes assessment and cross-cultural research. In conclusion, this study provides a theoretically grounded and empirically validated instrument for assessing spiritual competence among madrasah teachers, contributing to Islamic character education and holistic teacher professionalism.

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