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Development of The Sa'ādah Scale in the Context of Indonesian Muslim Adolescents

Ahmad Saifuddin[1*], Santi Nuraini[1]
[1]*Universitas Islam Negeri Raden Mas Said Surakarta, Indonesia*

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Abstract. Happiness is one of the factors that support mental health. However, not all theories of happiness are cross-culturally applicable. This condition causes happiness scales that use Western theories to be less relevant to groups of individuals with certain cultures and beliefs. Therefore, this study aims to develop a happiness scale from Al-Ghazali's concept (*sa'ādah* scale) in the context of Indonesian Muslim adolescents. After all items were validated by six raters (content validity coefficients ranged from .79 to .96), the *sa'ādah* scale was tested on 303 Muslim adolescents (female=170, male=133) in Central Java and Yogyakarta (M_{age} = 20.76, SD_{age} = 1.38). The assumptions of unidimensionality and local independence were met. Of the total 32 items, one item was eliminated because the MNSQ outfit score was greater than 1.50. The point-to-measure correlation of the remaining 31 items was greater than .30 with satisfactory PSR and ISR. In addition, the correlation between the *sa'ādah* scale and the *Tathmainn al-Qulūb* Scale (TQS) (r=.498; p<.01) and the gratitude scale (r=.909; p<.01) was satisfactory. Thus, the *sa'ādah* scale was found to be of good quality. This *sa'ādah* scale can be used for research and measurement in efforts to achieve mental health among Muslim adolescents in Indonesia.

Keywords: Indonesian muslim adolescents; Rasch model; sa'ādah scale

Happiness is a complex concept. Some people consider happiness to be a positive emotion (Ng, 2021) that manifests itself in various forms of well-being (Li & Jurdak, 2025). Furthermore, happiness is also interpreted as a positive mental state that includes positive emotions (i.e., present pleasure, past satisfaction, future optimism) and the ability to find meaning in every event and activity, which is achieved through the utilization of one's potential and an enjoyable life through PERMA (Positive Emotions, Engagement, Relationships, Meaning, Accomplishment) (Seligman, 2002). In various cultures, happy people are those experiencing the emotions they desire. Therefore, happiness is not only defined as experiencing positive emotions, but also feeling and expressing negative emotions so that one feels well (Tamir et al., 2017).

Happiness is a factor that supports mental health. Higher level of happiness has been associated with a greater chance of achieving mental health (Almadani & Alwesmi, 2023; Sun, 2023). In addition,

*Address for correspondence: ahmad.saifuddin@staff.uinsaid.ac.id

happiness can also be a protective factor against various mental disorders (Clifton & Stevens, 2021). More specifically, happiness can reduce tendency to experience stress (Zanirah et al., 2025), anxiety (Chau & Nhan, 2024; Zoghi et al., 2022), and depression (Rezaee et al., 2016). In fact, happiness can be a form of therapy and counselling to reduce a number of psychological disorders (Elsharkawy et al., 2021). Happiness also has a positive impact on well-being (Majdi et al., 2025; Pandey, 2024) and flourishing (Kuanr et al., 2022; Scorsolini-Comin et al., 2013).

Numerous studies have found that happiness develops across the lifespan (Galambos et al., 2020). One of the determining factors of happiness is cognitive function (Zhu et al., 2023) and psychosocial abilities (Almahaireh & Omar, 2021; Martell-Muñoz et al., 2025), which evolve as humans develop. As a person gets older, they will be more able to find meaning. The more a person is able to make the meaning of their experiences, the more likely they are to be happy (Besika, 2023; Lia et al., 2019). Cognitive function and psychosocial abilities develop significantly during the adolescent phase (Sanders, 2013), which begins around age 10 and continues until 24 (Papalia & Martorell, 2021; Sawyer et al., 2018). However, happiness in early adolescence is susceptible to decline (Uusitalo-Malmivaara, 2014). Adolescents are prone to experiencing problems, such as stress and depression (Flynn & Rudolph, 2011; Zhang et al., 2023). In fact, adolescence is the peak period of vulnerability to depression. It is also a period marked by significant stress and neurological development in the brain's circuits (Auerbach et al., 2014). In the context of religious life, adolescents are prone to religious doubt and internal religious conflict (Saifuddin, 2019). On this basis, measuring happiness in adolescents is necessary.

The importance of happiness has led scientists to create measurement scales aimed at measuring levels of happiness, for example Subjective Happiness Scale (SHS) (Lyubomirsky & Heidi, 1999), Oxford Happiness Questionnaire (OHQ) (Hills & Argyle, 2002), The Pemberton Happiness Index (Hervás & Vázquez, 2013); happiness scale with only one/single item (Abdel-Khalek, 2006); the Depression-Happiness Scale (DHS) (Joseph & Lewis, 1998); the Memorial University of Newfoundland Scale of Happiness (MUNSH) (Kozma & Stones, 1983); the Measure of Happiness (MH) (Rizzato et al., 2022); and a happiness scale developed from a literature review (Shin & Kim, 2021). In Indonesia, there were several researchers developing happiness scale, such as Sabila et al. (2023), who employed Seligman (2002) dimensions of happiness, and Dini (2018). Some happiness scales are based on Seligman's theory, some are developed based on the results of systematic reviews, and others without any specific theory.

When examining these scales of happiness, it becomes clear that they are all based on theories developed by Western scientists and not specifically intended for adolescents. Although they are general, theories from a particular culture are often less relevant when applied to others. Cultural context in which people live and exist should be acknowledged in understanding human behavior. This is because behavior stems from a system of values, morals and beliefs influenced by the culture in which they live. This condition is known as cultural relativism (Arat, 2022; Brown, 2008).

Inaccurate contexts used in measurements can cause measurement bias (Lee & Jung, 2006; Veenhoven, 2012). When a measurement scale with a specific theoretical concept is used to measure two groups of participants with different cultures, the measurement results of the two groups cannot be compared nor can it be considered equivalent (van de Vijver & Poortinga, 1997). Therefore, the theory

used to develop a measurement scale needs to be carefully considered.

Furthermore, a number of scales of happiness that have been mentioned in the previous paragraph do not link human psychological conditions with God. In the context of religious life, particularly Islam as the second largest religion in the world, humans are creatures who believe in God. They live and interact with entities outside themselves, one of which is God (Plante et al., 2023). These interactions help humans to find meaning and orientation in life (Ma'ruf et al., 2023). Furthermore, these interactions also influence spirituality and religiosity, which ultimately impact mental health (Koenig, 2009, 2012; Moreira-Almeida et al., 2006) and well-being (Leondari & Gialamas, 2009; Phillips et al., 2023).

On this basis, the development of a happiness measurement scale specifically for Muslim adolescents is necessary. The development of a contextual measurement scale plays an important role in producing accurate measurement results. Ultimately, the accuracy of these measurement results can be a modality for predicting psychological conditions (Fokkema et al., 2022; Pavese, 2021; Pratiwi et al., 2023), particularly the happiness of Muslim adolescents in the future. When the measurement scale has a predictive power, problems related to low happiness can be minimized.

Islam's concept of happiness differs from the perspectives of modern psychology. While happiness according to modern psychology focuses on material things, happiness according to Islam focuses on the afterlife (Al-Ghazali, 2023). Therefore, the Islamic concept of happiness is seen as more holistic because it highlights indivisual mental state, which is not only related to worldly matters but also transcendental ones. In Islam, the concept of happiness is known as *sa'ādah*. One concept often referred to in studying *sa'ādah* is concept by Al-Ghazali (2010).

Al-Ghazali (2010) explained that happiness consists of four elements, namely knowing oneself, knowing Allāh, knowing the world, and knowing the hereafter. Knowing oneself includes recognizing the elements that make up the self, such as the body, spirit (*rūh*), heart (*qalbu*), and desires (*nafs*). Knowing Allāh involves understanding that every human being is His creation and that every human being should reflect His attributes (Al-Ghazali, 2010).

Recognizing the world involves using the world to gain useful knowledge that can be used to achieve happiness. Additionally, it can also manifest in the form of safeguarding oneself from worldly matters that distance one from God. Meanwhile, recognizing the hereafter can take the form of believing that there is life after death, which serves as a means of accountability for human actions. Furthermore, the hereafter is also a place where one meets God, so that those who conducted good deeds when living could achieve happiness (Al-Ghazali, 2010).

There has been a number of studies on *sa'ād*ah. For example, a study on *sa'ādah* indicators is based on the Al-Qur'an and hadith (Sofia & Sari, 2018). This research produced a number of indicators of *sa'ādah*, i.e., faith and piety, adhering to religion (*tafaqquh fi al-dīn*), doing good, patience, gratitude, purifying the soul (*tazkiyah an-nafs*), inviting goodness and preventing evil (*amar ma'rūf nahī munkar*), fighting in the path of Allāh (*jihād fī sabīlillāh*), seeking and gaining the approval of Allāh, remembering Allāh, earning the grace of Allāh, self-improvement, setting a good example, surrendering, and being mindful of one's words and actions. This research only compiled happiness indicators and did not develop an Islamic version of the happiness measurement scale based on the indicators (Sofia & Sari,

2018).

Although the concept of *sa'ādah* is based on the Qur'an and hadith, several indicators overlap with other constructs. For example, there are indicators of gratitude, patience, purification of the soul (*tazkiyah an-nafs*), remembrance of Allāh, and contentment (*tawakkul*). Furthermore, Al-Ghazali (2010) concept of *sa'ādah* is considered broader and encompasses various aspects of life because happiness is linked to an understanding of God, oneself, the world, and the afterlife. As a scholar who deeply studied Islam, the concept of *sa'ādah* by Al-Ghazali (2010) is also inseparable from the Qur'an and hadith. Furthermore, the concept of *sa'ādah*, adopted from *Kimiyā' al-Sa'āda*h, is explained in detail and applied to the condition of the human soul.

Another study that also discussed happiness from an Islamic perspective was Hamdan (2016). This study formulated indicators of happiness from an Islamic perspective and compared them with those from a positive psychology perspective. The results revealed several indicators of happiness from an Islamic perspective: a grateful heart, a pious spouse and children, an environment conducive to faith, lawful (*halāl*) wealth, understanding religion, using one's life for diligent worship, and prioritizing happiness in the afterlife over worldly happiness. Looking at these indicators, some indicators are not general and therefore cannot be applied to specific groups. For example, the indicator of a pious spouse and children is only relevant for those who are married. Furthermore, this study only formulated indicators and did not develop a scale for happiness from an Islamic perspective.

A happiness scale for Muslim adolescents was developed by Jati et al. (2022). However, this scale was not specifically designed with Islamic concepts in mind. Furthermore, the number of participants was relatively small, namely 114 Muslim adolescents aged 17–22 years old. This number is less than the recommended minimum number of participants for a pilot study of a measurement scale, which is around 200–300 (Boateng et al., 2018). The analysis technique used was also very simple, calculating corrected item-total correlation and reliability. The reliability coefficient used was Cronbach's alpha. This reliability requires data to be parallel and tau-equivalence (Cho & Kim, 2015; McNeish, 2017). However, the article did not specify whether these prerequisites were met.

Based on this, the development of an Islamic version of the happiness scale (*sa'ādah*) for Muslim adolescents using robust data analysis techniques is necessary. Therefore, the purpose of this study was to develop a *sa'ādah* scale for Muslim adolescents in Indonesia using the Rasch model. The Rasch model was chosen as the analysis method due to its several advantages.

The Rasch model is a data analysis technique for calculating validity, developed by Rasch (1960). Some consider the Rasch model to be part of item response theory, specifically one logistic parameter. However, others consider the Rasch model distinct from item response theory and newer than classical test theory. While item response theory recognizes model modifications when calculation results do not fit the model, the Rasch model does not recognize such mechanisms (Rahayu et al., 2023). The Rasch model provides detailed item-level analysis information that produces robust and objective construct validity information.

There are several basic assumptions of the Rasch model. First, unidimensionality, meaning that the calculated variable consists of only one dimension. If the variable consists of multiple dimensions,

then the calculation process must be broken down into each dimension. Second, local independence, which means that individual response to several items is not influenced by their response to a single item. Third, the parallel item characteristic survey (ICC) states that even if the discrimination parameter for all items is set at 1 (or held constant), the items still fit the mode (Rahayu et al., 2023). The minimum sample size for the Rasch model is 250 (de Ayala, 2022; Wright, 1977).

Based on the background and research gaps described above, our research questions were: 1) What is the content validity coefficient of the *sa'ādah* scale? 2) What is the construct validity of the *sa'ādah* scale? This study aimed to construct and develop a *Sa'ādah* scale for Indonesian Muslim adolescents using the Rasch model. The theory and data analysis methods used distinguish this study from several previous studies.

Methods

Research Participants

This study involved 303 Muslim adolescents (female=170, male=133) in Central Java and Yogyakarta aged between 18 and 24 years old (M=20.759, SD=1.383). Those involved as research participants were undergraduate students. This number exceeded the minimum number of participants required for Rasch model, which is 250 people (de Ayala, 2022).

There were 2 people (.66%) aged 18 years; 53 people (17.49%) aged 19 years; 102 people (33.66%) aged 20 years; 58 people (19.14%) aged 21 years; 43 people (14.19%) aged 22 years; 37 people (12.21%) aged 23 years; and 8 people (2.64%) aged 24 years. All research participants stated their willingness to fill out the *sa'ādah* scale. In addition, their identities were kept confidential.

Instrument Development

The *sa'ādah* scale is based on four aspects of happiness formulated by al-Ghazali in *Kimiyā' al-Sa'āda*h, namely recognizing oneself, recognizing Allāh, recognizing the world, and recognizing the hereafter (Al-Ghazali, 2010). Each aspect consists of 8 items (four favorable and four unfavorable), resulting in a total of 32 items on the *sa'ādah* scale. Favorable items are those that support the formation of variables in a person. Meanwhile, unfavorable items are those that do not support the formation of variables in a person. These favorable items were designed to avoid monotony, thus minimizing the potential for response patterns (DeVellis, 2016).

There are five response alternatives, ranging from very appropriate, appropriate, neutral, inappropriate, and very inappropriate. The scoring between favorable and unfavorable items is reversed (Schriesheim & Eisenbach, 1995). For example, on a five-response Likert scale, participants who choose the answer "very appropriate" on a favorable item will receive a score of 5, and those who choose the answer "very inappropriate" on a favorable item will receive a score of 1. Conversely, participants who choose "very appropriate" on an unfavorable item will receive a score of 1, and those who choose the answer "very inappropriate" on an unfavorable item will receive a score of 5 (Likert, 1932).

Items were created by applying several principles, i.e., each item represents behaviors or attitudes

that align with or reflect each aspect/dimension; each item does not represent two behaviors/attitudes; items do not have the potential to elicit social desirability; items do not use predictable patterns; and response choices are easy to understand. A number of items in the *sa'ādah* scale were developed based on an Islamic context to differentiate them from the general happiness scale (Koenig & Zaben, 2021).

Validity Evidence Based on Test Content

Each item on the *sa'ādah* scale was validated by six raters with expertise in psychometrics, Sufism psychology, and Islamic psychology. This process is called professional judgement and is part of the effort to achieve content validity (Grant & Davis, 1997; Lynn, 1986; Nevo, 1985; Roebianto et al., 2023; Schaie, 1963). Meanwhile, the content validity is part of sources of validity in the form of evidence based on test content (American Educational Research Association and American Psychological Association and National Council on Measurement in Education, 2014).

The results of the raters' scoring were then calculated using Aiken's formula to produce V validity coefficient (Aiken, 1985). The minimum validity coefficient when involving six raters is 0.79. This means that items with an Aiken's V coefficient of less than 0.79 are considered invalid. The number of items verified by the raters was 32 items.

Data Collection Technique

Data collection was conducted online using Google Form. Participants were recruited using the convenience nonrandom sampling method, namely by contacting a number of known undergraduate students to fill out the *sa'ādah* scale from February 20, to March 6, 2025.

The online scale consists of several pages. The first page is the researcher's information, followed by instructions for filling out the *sa'ādah* scale, guarantee of confidentiality, benefits of the research, participant rights, possible duration of filling out the *sa'ādah* scale, and the consent form. The second page contains the items of the *sa'ādah* scale in the form of statements and a range of answer choices.

Data Analysis Strategy

The data analysis technique used in this study is the Rasch Rating Scale Model (RSM) (Andrich, 1978). RSM was designed to analyze Likert-type data in which the same response options are used, applying the Rasch logic of comparing a person's ability with item difficulty or endorsability (Andersen, 1997). Furthermore, as part of Rasch measurement theory, RSM offers several advantages, including specific objectivity (or parameter separation), sufficiency, and additivity, which enable objective comparisons among persons and items (Fischer, 1987). These reasons make RSM superior to methods based on classical test theory (e.g., CFA, item-total correlation).

However, for the RSM to produce reliable estimation results, two main assumptions must be met: (1) unidimensionality, meaning that the items in a questionnaire measure only a single construct; and (2) local independence, meaning that the items in a test should not be related to each other (Debelak & Koller, 2020). With regard to unidimensionality, in this study, given that the scale is constructed based on a multidimensional theory, the RSM is calibrated separately for each aspect (Rahayu et al., 2023). This

"separate calibration" approach is a solution to accommodate multidimensionality as an alternative to using a multidimensional Rasch model, e.g. Kelderman (1996).

Thus, each *sa'ādah* aspect (four aspects) is considered to satisfy the principle of unidimensionality if the raw variance explained by the measure is at least 40% (Holster & Lake, 2016). When the unidimensionality assumption is not violated, the next stage is to check whether local independence assumption is fulfilled. Local independence was assessed using Q3 statistics, where the value <.30 indicates the fulfilment of local independence (Aryadoust et al., 2020). After the confirming that the local independence assumption was met, item statistics (i.e., item measure, point-to-measure correlation) and fit measures (i.e., infit and outfit MNSQ) were inspected to determine the construct validity.

At the item level, an item is deemed valid if it has infit and outfit MNSQ values between 0.5 and 1.5. In addition, each item must have a point-to-measure correlation of at least .20, with rating scale functioning not exceeding 2.00. Furthermore, we also calculated the rating scale functioning and item difficulty levels using a Wright map. The reliability coefficient is stated as a person separation reliability with a threshold of .70. In addition to person reliability, we calculated item separation reliability. Item separation reliability is considered good if the score is greater than .90 (Rahayu et al., 2023).

Validity Evidence Based on Relations to Other Variables

This study also examined concurrent validity, which correlated the *sa'ādah* scale with the peace of heart scale, specifically the Tathmainn al-Qulūb scale (TQS). TQS has two dimensions, namely the *al-sukūn* (calmness) and the *al-yaqīn* (confidence). In addition, the *sa'ādah* scale is also correlated with the gratitude scale. The gratitude scale was developed based on Al-Ghazali (1993) consist of three dimensions, namely *'ilmu*/ knowledge, *ihwal*, *'amal*/ good deed. The selection of gratitude as a criterion is based on a number of studies that explain that happiness and gratitude are positively correlated (Cardon & Wong, 2024; Kharbanda & Mohan, 2021; Watkins et al., 2003). Beside that, the selection of peace of heart as a criterion is based on various studies have shown that happiness correlates with peace of heart (Ain et al., 2025; Arnout, 2019). Concurrent validity was calculated using Pearson correlation to determine the correlation between the *sa'ādah* scale, the gratitude scale, and the Tathmainn al-Qulūb scale (TQS). The three were considered correlated if p<.05.

Results

There were 303 research participants who completed the *sa'ādah* scale (170 women and 133 men). In addition, the mean age of the research participants was 20.77 (*SD*=1.432). Furthermore, the ages of the research participants ranged from 18 to 24 years old, in accordance with adolescent target group (Hall, 2004; Sawyer et al., 2018).

Validity Evidence Based on Test Content

The content of 32 items was verified by raters. Several items had Aiken's V of less than .79 and were therefore deemed invalid (Items 5, 10, 13, 18, 21, 25, 26, 29, and 31). We then revised these items and had

the same raters re-validated them. The result is each item on the *sa'ādah* scale has an Aiken's V ranging from .79 to .96. The minimum limit for the Aiken's V validity coefficient when involving six raters is .79. Therefore, all items are considered valid.

Unidimensionality and Local Independence Testing

Based on the results of the RSM analysis, it was found that each aspect produced a raw variance explained by measure of more than 40% (Table 1). However, the recognizing world aspect has an unexplained variance in first contrast of 2.1, or greater than 2.0. Nevertheless, the mean square scores for these items are fit to the model because they are greater than .5 and less than 1.50. In accordance with Brentari and Golia (2007), the conclusion according to the psychometric evidence would be that these items do not form a separate dimension because the items are still aligned with the recognizing world dimension. In addition to unidimensionality, the assumption of local independence in all aspects/dimensions was not violated. All highest raw residual correlations for each aspect/dimension were less than 0.30 (Aryadoust et al., 2020).

Item Parameters and Fit Statistics

An item is considered fit if it has an infit and outfit MNSQ scores between .5 and 1.5 (Bond & Fox, 2015). There is one item that has an MNSQ outfit score of more than 1.51, namely item 15. Thus, item 15 was removed and re-assessed. As a result, the MNSQ outfit scores of the remaining 31 items ranged from .75 to 1.15. Meanwhile, the MNSQ infit scores for the 31 items ranged from .74 to 1.39. Thus, the MNSQ infit and outfit scores of the 31 items were not less than .50 and not greater than 1.50. Therefore, these 31 items are considered to fit the model and are valid.

The item discrimination index is indicated by the point-to-measure correlation score. The 31 items had point-to-measure correlation scores ranging from .30 to 1.09. Meanwhile, the minimum limit for point-to-measure correlation is .20. This means that all items had an item discrimination index greater than .20. There was no negative correlation between the items and the measure. Furthermore, correlations between the items and the measure of .30 to 1.09 are considered moderate to high. The higher the point-to-measure correlation, the better (Pichardo et al., 2018).

Table 1

Proportion of variance explained, item statistics, and fit measures

Dimensions of *sa'ādah*	Raw variance explained by measure	Unexplained variance in 1st contrast	Item	Aiken's V	Infit MNSQ	Outfit MNSQ	Point to measure correlation
Recognizing self	48.1%	1.5	Item 1	.92	1.02	1.07	.32
			Item 2	.92	1.01	1.08	.30
			Item 9	.87	.74	.75	.63
			Item 10	.92	.82	.78	.67
			Item 17	.79	1.07	.97	.97
			Item 18	.96	.82	.90	.90
			Item 25	.87	1.12	1.03	.64

Table 1 (Continued)
Proportion of variance explained, item statistics, and fit measures

Dimensions of *sa'ādah*	Raw variance explained by measure	Unexplained variance in 1st contrast	Item	Aiken's V	Infit MNSQ	Outfit MNSQ	Point to measure correlation
			Item 26	.92	1.06	1.09	.66
Recognizing Allāh	48.5%	2.0	Item 3	.88	.84	.89	.59
			Item 4	.88	.91	.91	.53
			Item 11	.88	.89	.90	.69
			Item 12	.88	.93	.99	.72
			Item 19	.83	1.00	.99	.55
			Item 20	.83	.97	.99	.52
			Item 27	.88	.82	.76	.71
			Item 28	.83	1.24	1.15	.66
Recognizing world	49.7%	2.1	Item 5	.96	1.01	1.08	.50
			Item 6	.92	.98	1.02	.52
			Item 13	.92	1.07	1.03	.71
			Item 14	.92	.88	.83	.72
			Item 21	.96	.88	.89	.47
			Item 22	.92	1.00	1.04	.55
			Item 29	.96	.84	.82	.73
			Item 30	.92	.93	.88	.76
Recognizing hereafter	41.6%	1.8	Item 7	.79	.92	.90	.61
			Item 8	.96	.98	.97	.54
			Item 16	.92	1.10	1.06	.66
			Item 23	.88	.98	1.00	.49
			Item 24	.96	.87	.91	.52
			Item 31	.96	1.02	.90	.67
			Item 32	.96	.91	.92	.66

Rating Scale Functioning

In general, the Observed Average and Expected Average values show a consistent increasing pattern across all aspects or dimensions. This indicates that the response categories function monotonically, as assumed by the Rasch model. The Andrich thresholds (structure calibration) also generally show an increasing (non-reversed) order, indicating that participants are able to meaningfully distinguish between response categories (see Table 2).

Table 2

Rating Scale Functioning

No	Dimension	Score	%	Observed average	Infit MNSQ	Outfit MNSQ	Structure calibration
1	Recognizing oneself	1	4	-.436	1.21	1.23	None
		2	8	-.291	.82	.70	-.97
		3	10	.079	.71	.52	-.10
		4	43	1.300	.83	1.05	-.71

Table 2 (Continued)
Rating Scale Functioning

No	Dimension	Score	%	Observed average	Infit MNSQ	Outfit MNSQ	Structure calibration
		5	35	1.975	1.12	1.08	1.79
2	Recognizing Allāh	1	2	-.470	1.10	1.27	None
		2	4	-.302	.92	.84	-1.16
		3	7	.069	.51	.41	-.52
		4	44	1.981	.85	1.01	-.64
		5	43	2.616	1.21	1.09	2.32
3	Recognizing the world	1	4	-.628	1.06	1.10	None
		2	6	-.323	.86	.79	-.94
		3	10	.048	.65	.54	-.54
		4	46	1.529	.80	1.01	-.63
		5	34	2.087	1.20	1.11	2.11
4	Recognizing hereafter	1	1	-.236	1.18	1.23	None
		2	3	-.061	1.02	1.00	-1.30
		3	9	.220	.51	.42	-.62
		4	48	1.927	.89	1.03	-.46
		5	39	2.441	1.18	1.09	2.38

Wright Map

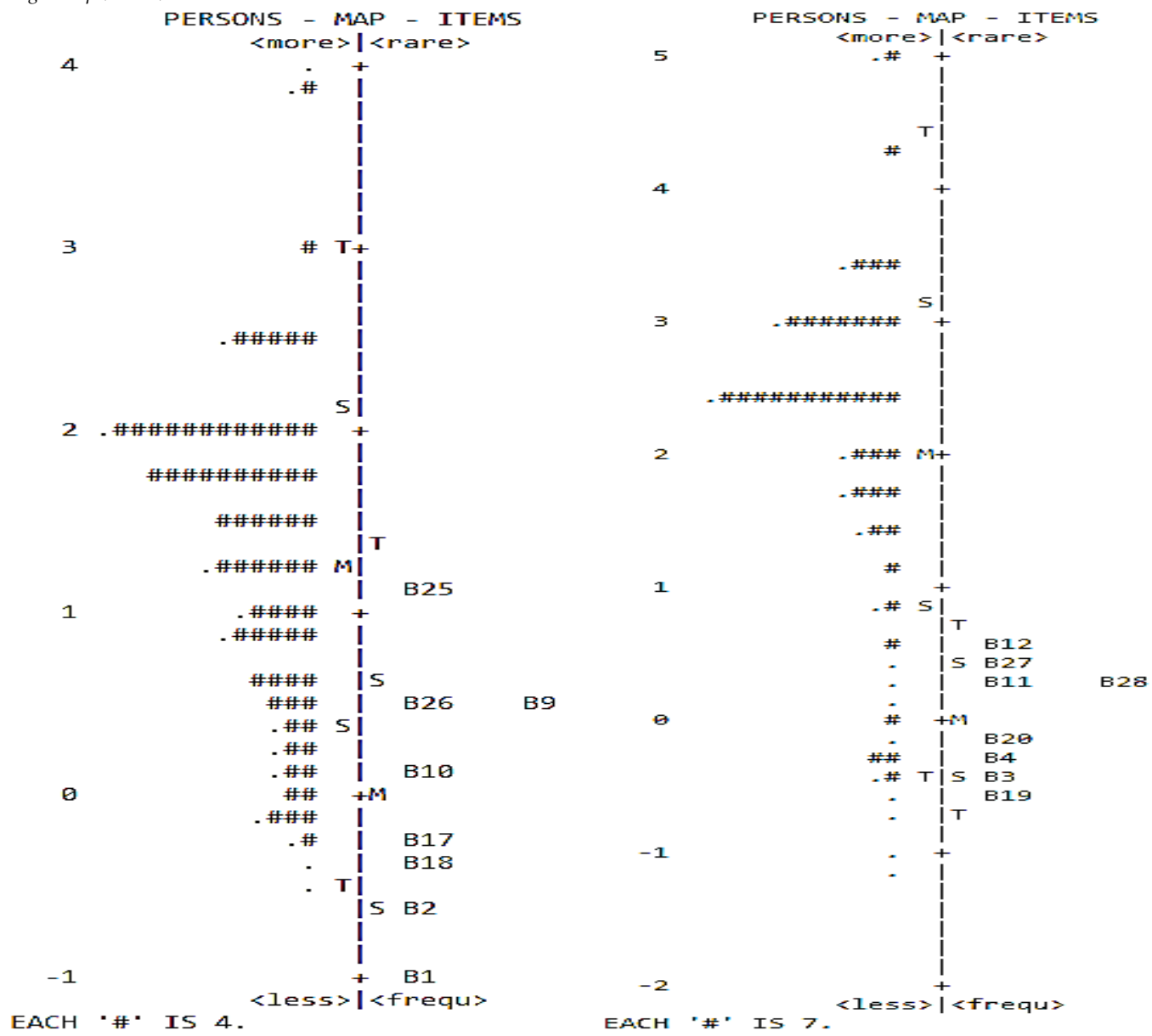
Based on the Person-Item Map (Wright Map) in the Rasch Model analysis results, the distribution of participant abilities (person) is seen on the left side and the level of item difficulty (item) on the right side. The scale of self-awareness ranges from logit -1 to 4. The majority of research participants are concentrated in the logit range of 0 to +2, indicating that most participants have a moderate to high level of self-awareness. On the item side, the order of items based on difficulty level from the most difficult to the easiest is item 25, then item 26 and item 9, item 10, item 17, item 18, item 2, and item 1. This indicates that the difficulty level of this aspect is not too high because the distribution of items is at logit -1 to 1.

The aspect of recognizing Allāh ranges from logit -2 to 5. The majority of research participants were between logit 3 and logit 0. This indicates that the level of research participants in recognizing Allāh was in the moderate to high category. The items with the highest level of difficulty were item 12, followed by items 27, 11 and 28, 20, 4, 3, and 19. The distribution of items in this aspect is between logit -1 to 1, which indicates that the level of difficulty of the items is not too high.

The aspect of recognizing the world ranged from logit -2 to 5. Most participants were in the range of 0 to 3 logits. This indicates that the level of the research participants' ability to recognize the hereafter was in the moderate to high category. Meanwhile, the items with the highest level of difficulty were item 13, followed by items 30, 29, 14, 21 and 6, as well as items 22 and 5. The items in this aspect are on the logit -1 to 1 so it can be assumed that these items are not too difficult. See Figure 1 and 2

Figure 1

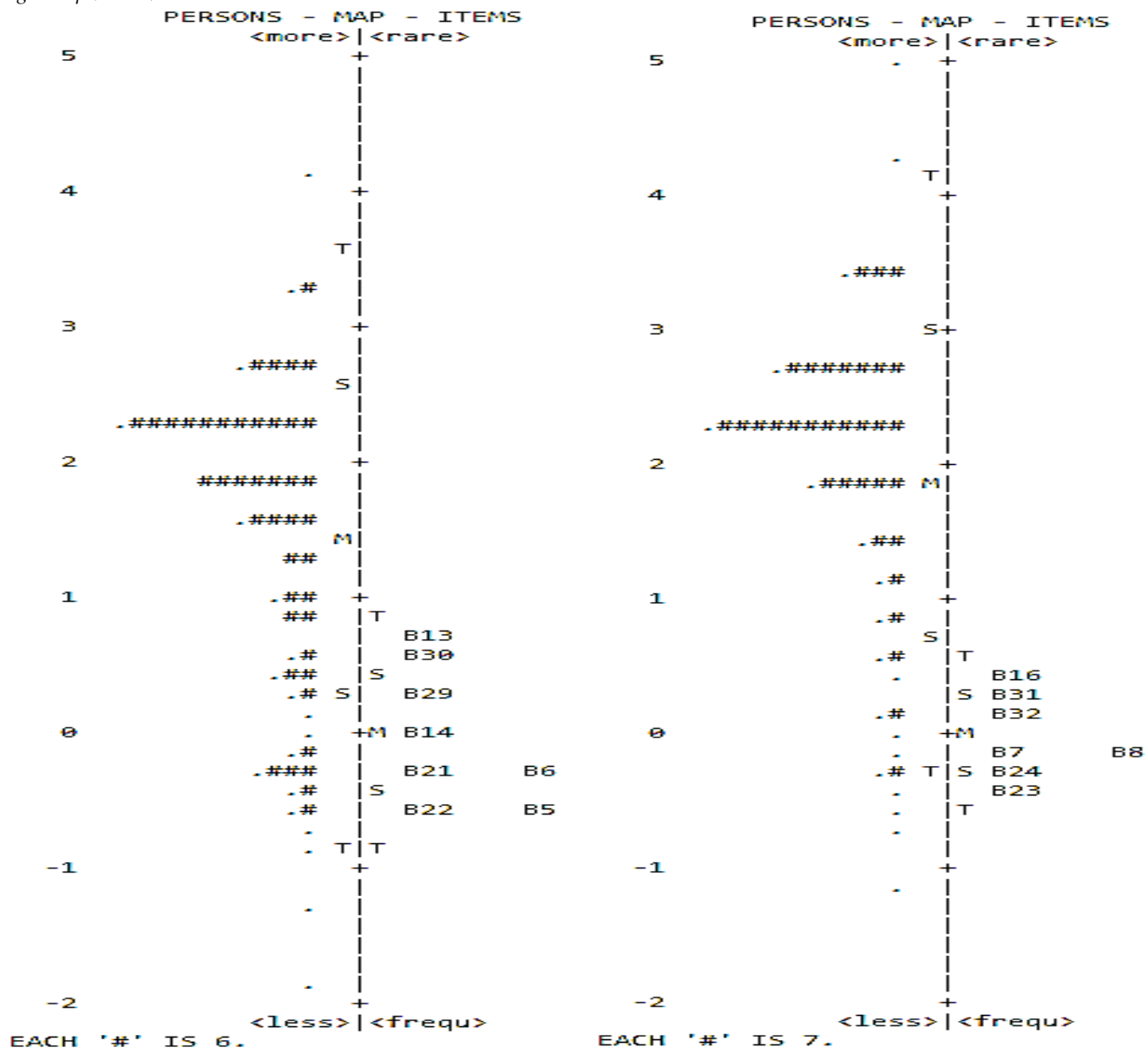
Wright map (Part 1)



The aspect of recognizing the hereafter ranged from logit -2 to 5. The majority of research participants were in the logit 1 to logit 3 range, indicating that the research participants' ability to recognize the world was in the moderate to high category. The items with the highest level of difficulty were items 16, 31, 32, 7, 8, 24, and 23. Similar to the items in the previous aspect, the items in this aspect are clustered between logit -1 to 1. In fact, somewhat different from the previous three aspects, the distribution of items from this aspect is closer to logit 1, which can be interpreted as meaning that the level of difficulty of this aspect is lower than the other aspects. See Figure 3

Figure 2

Wright map (Part 2)

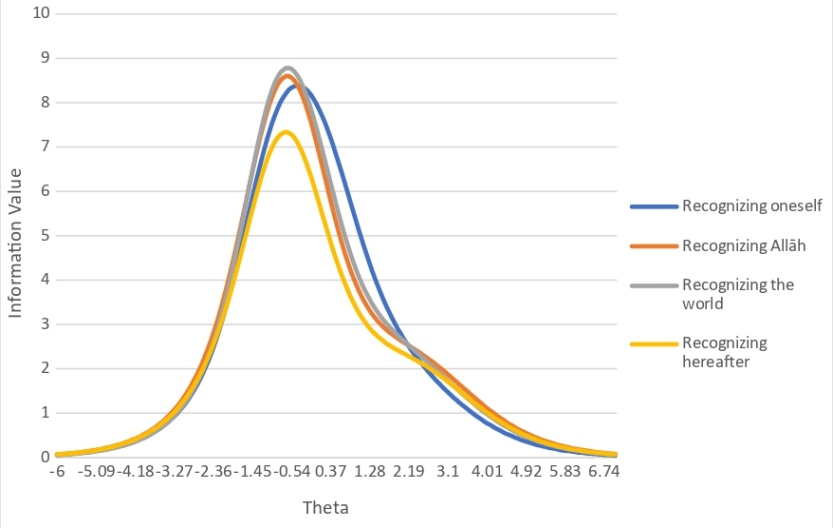


Test Information Function

The aspect/dimension of recognizing oneself has the highest information value of 8.38 at theta logit -.41 to -.35. This means, this aspect will provide maximum information to individuals who have theta logit -.41 to -.35. Meanwhile, the aspect/dimension of recognizing Allāh SWT has the highest information of 8.56 at theta logit -.74 to -.54. This means that this aspect will provide maximum information to individuals who have theta logit -.74 to -.54. Furthermore, the aspect/dimension of recognizing world has the highest information of 8.78 at theta logit -.67 to -.61. This means that this aspect will provide maximum information to individuals who have theta logit -.67 to -.61.

Figure 3

Test Information Function



Finally, the aspect/dimension of recognizing hereafter has the highest information of 7.34 at theta logit -.67. This means that this aspect will provide maximum information to individuals who have a theta logit -.67.

Reliability

When looking at the results calculated using the Rasch model, it was found that the aspects of recognizing oneself and recognizing the afterlife had low person separation reliability (PSR), namely .62 for the aspect of recognizing oneself and .63 for the aspect of recognizing the afterlife. This is because these two aspects have a PSR of less than .70. Meanwhile, the PSR for the aspects of recognizing Allāh and recognizing the world were .70 and .72, respectively. All aspects have a person separation index of less than 2, so the instrument is considered not sensitive enough to identify individuals with high and low ability in the variable measured (Mallinson et al., 2004; Smith, 2012).

The aspects of recognizing oneself, recognizing Allāh, and recognizing the world had fairly high item separation reliability scores because greater from .90, namely .99, .94, and .97, respectively. Meanwhile, the item separation reliability score for the aspect of recognizing the afterlife was .89. On the other hand, the item separation index for the aspects of recognizing oneself, recognizing God, and recognizing the world were greater than 3, namely 8.24; 3.99; and 5.40, respectively. Meanwhile, the item separation index for the aspect of recognizing the afterlife was less than 3 but close to 3, namely 2.88. Thus, it can be concluded that the sample is large enough to confirm the hierarchy of difficulty of the items, that is, the construct validity of the instrument (Mallinson et al., 2004; Smith, 2012).

Table 3

Reliability of the sa'ādah scale

Dimensions of *sa'ādah*	Person separation reliability	Person separation index	Alpha coefficient	Item separation reliability	Item separation index
Recognizing oneself	.62	1.28	.69	.99	8.24

Table 3 (Continued)
Reliability of the *sa'ādah* scale

Dimensions of *sa'ādah*	Person separation reliability	Person separation index	Alpha coefficient	Item separation reliability	Item separation index
Recognizing Allāh	.70	1.52	.82	.94	3.99
Recognizing the world	.72	1.59	.80	.97	5.40
Recognizing hereafter	.63	1.30	.74	.89	2.88

Correlation Among Factors

When examining the intercorrelation results of the aspects of the *sa'ādah* scale, it was found that all aspects have a highly significant correlation, indicated by a significant p-value at the .01 level (Table 4). This indicates that all aspects of *sa'ādah* are closely related. This positive correlation between aspects/dimensions indicates that although the *sa'ādah* scale is multidimensional, it contains aspects/dimensions that are interrelated in the same direction in giving rise to *sa'ādah* behavior in an individual.

Validity Evidence Based on Relations to other Variables

Concurrent validity in this study was applied by correlating the *sa'ādah* scale with gratitude and peace of heart in an Islamic context. The correlation between the *sa'ādah* scale and gratitude was .909 (p<.01), while the correlation between the *sa'ādah* scale and TQS was .498 (p<.01). In addition, the correlation between the *sa'ādah* scale and each aspect of gratitude and TQS is also significant at .01 level (Table 5). These correlation results indicate that the *sa'ādah* scale is positively correlated with gratitude and peace of heart. Furthermore, when examining the correlation results between the *sa'ādah* scale and each aspect of the gratitude scale and TQS, a significant positive correlation (p<.01) was also observed. On this basis, it can be concluded that the *sa'ādah* scale has good concurrent validity.

Table 4

Descriptive Statistics and Correlation Among Factors

	N	Mean	SD	Min	Max	Skewness	Kurtosis	Recognizing oneself	Recognizing Allāh	Recognizing world	Recognizing hereafter
Recognising oneself	303	32.17	4.295	21.00	40.00	-.707	-.491	1	.734**	.758**	.717**
Recognising Allāh	303	34.11	4.5115	17.00	40.00	-1.503	1.616	.734**	1	.674**	.757**
Recognising the world	303	32.15	4.999	12.00	39.00	-1.080	.397	.758**	.674**	1	.739**
Recognising hereafter	303	29.49	3.592	15.00	35.00	-1.421	1.679	.717**	.757**	.739**	1

**. Correlation is significant at the 0.01 level (1-tailed).

Table 5

Correlation between the scale of sa'ādah and aspects of TQS and gratitude

	Al-Sukūn	*Al-Yaqīn*	*'Ilmu*/knowledge	*Ihwal*	*'Amal*/good deed	TQS	Gratitude
Sa'ādah	.475**	.364**	.771**	.877**	.874**	.498**	.909**
Recognizing oneself	.343**	.354**	.716**	.766**	.752**	.414**	.799**
Recognizing Allāh	.491**	.172**	.789**	.760**	.807**	.393**	.841**
Recognizing world	.370**	.456**	.603**	.830**	.788**	.491**	.811**
Recognizing hereafter	.513**	.299**	.651**	.765**	.771**	.482**	.792**

*. Correlation is significant at the .05 level (1-tailed)

**. Correlation is significant at the .01 level (1-tailed)

Discussion

The *sa'ādah* scale is a measurement scale that aims to measure happiness from an Islamic perspective using the *sa'ādah* theory of Al-Ghazali (2010). Before the *sa'ādah* scale was tested, it was verified by six experts in psychometrics, Sufi psychology, and Islamic psychology. The validation assessment range provided consists of five ranges. This study utilized Aiken's V formula. When involving six raters with five validation assessment ranges, the minimum limit for the Aiken's V item validity coefficient is .79 (Aiken, 1985). The final result of content verification showed that the 32-item *sa'ādah* scale had good content validity. This indicates that the raters assessed the items in this scale as reflecting each aspect/dimension and that no items deviated from the measurement objectives (American Educational Research Association and American Psychological Association and National Council on Measurement in Education, 2014).

Based on the Rasch model results, the raw variance explained by the measure for all aspects is greater than 40% (Linacre, 1998). In addition, when the items on the *sa'ādah* scale were calculated as a whole rather than separately, the raw variance explained by the measures was 41.3%. This indicates that each aspect of the *sa'ādah* scale is unidimensional and that there is no overlap between aspects.

An interesting finding is that although the raw variance explained by the measures across all aspects or dimensions exceeds 40%, one aspect—the recognizing world dimension—shows an unexplained variance in the first contrast greater than 2.0 (i.e., 2.1). This may indicate the presence of additional dimensions within that aspect, warranting further examination.

However, all items within this aspect demonstrate acceptable fit statistics, with infit and outfit MNSQ values ranging between 0.60 and 1.40 (Bond & Fox, 2015). This suggests that the items adequately represent the intended construct rather than measuring different dimensions (Brentari & Golia, 2007).

This interpretation is further supported by expert evaluations conducted during the professional judgment process, which ensured alignment between items and their respective aspects or dimensions. Such evidence strengthens the validity argument based on test content (American Educational Research Association and American Psychological Association and National Council on Measurement in Education, 2014; Sireci & Faulkner-Bond, 2014). Therefore, overall, the items can be considered appropriate in terms of both content and measurement criteria.

The infit and outfit mean square scores for all items are also within the range of .50 to 1.50, except for item 15, which has an outfit mean square score of 1.51. This means that all items, except item 15, have good validity. In fact, even when using stricter parameters, the infit mean square and outfit mean square ranges for the Likert scale are between .60 and 1.40 (Bond & Fox, 2015). Therefore, 31 items are still considered to have good item validity.

This is because the infit mean square range of the 14 items are between 0.74 and 1.39, while the outfit mean square range is between .75 and 1.15. On this basis, the 31 items are declared valid.

In the context of the Rasch model, valid items are considered to fit the Rasch model. Ideally, the infit and outfit MNSQ scores should be 1. However, often both scores are less than or more than 1. The further away from the score of 1, the less fit the item to the model (Linacre, 2002). The calculation results show that only one item is very far from a score of 1, namely item 15 with an outfit MNSQ of 1.51. Meanwhile, 31 items have infit and outfit MNSQ scores that are not too far from 1 so that even though they are considered deviant, they are still considered to be in the fit category.

In addition to item validity, it is also necessary to consider the item discrimination demonstrated by the point-to-measure correlation score. Items with good item discrimination are indicated by a point-to-measure score greater than .20 (Rahayu et al., 2023). Meanwhile, 31 items on the *sa'ādah* scale have scores ranging from 0.30 to 1.09. This means that 31 items on the *sa'ādah* scale have good item discrimination, meaning that they have a high sensitivity in differentiating between people with high, medium, and low abilities (Rahayu et al., 2023).

The Observed Average value shows a consistent pattern of increase in each response from each aspect. This indicates that the response categories function monotonically in accordance with Rasch's assumption. The infit and outfit mean square (MNSQ) values from the rating scale functioning results for all categories in all aspects are less than 2.00 (Linacre, 2006). This indicates that no category deviates from the model. The order of the Andrich Threshold/structure calibration of each response on all aspects that increase (not reversed) indicates that research participants could logically distinguish differences between response categories.

When observing the Wright Map, the distance between adjacent items on all aspects indicates that the difference in difficulty levels between items is not significant. In addition, the position of the items is also within the logit range of -1 to 1. This means that the difficulty level of all items is not too high so that research participants can understand the statements in all items and provide appropriate responses. This is in line with the large number of participants who reported a high level of happiness, indicated by the large number of participants who occupy logit 1 to 3 (Omolade & Stephenson, 2025; Wilson, 2011).

The findings of this study indicate that the *sa'ādah* scale is a multidimensional construct. This also aligns with several previous studies explaining that happiness consists of several aspects/dimensions (Hamdan, 2016; Jati et al., 2022; Sofia & Sari, 2018), although the theories used in the previous studies used different scales. Furthermore, this multidimensionality is also related to the complexity of happiness, as explained by previous literature. Happiness is a positive emotion related to many aspects of life (Awaludin, 2017; Li & Jurdak, 2025; Seligman, 2002). In the Islamic context, this complexity is manifested in the interconnectedness of happiness with God, oneself, life in the world, and the afterlife (Al-Ghazali, 2010). In the Indonesian context, the dimensions of the *sa'ādah* scale are relevant because the understanding of Islam in Indonesia contains elements of Sufism, which then also influences the concept of happiness in Indonesian culture. This is due to the integration between Islam and Sufism with Indonesian culture (Nasir, 2019; Wahyuni, 2017).

The calculation results showed that each aspect/dimension of the *sa'ādah* scale is positively correlated. This indicates that recognizing Allāh SWT, oneself, the world, and the afterlife is interconnected, thus forming transcendental happiness in a person. Someone who understands Allāh will strive to understand themselves as His creation well. Conversely, recognizing oneself well cannot be separated from understanding Allāh as one's creator. When understanding oneself well is based on an understanding of Allāh, one will understand that each individual has good potential, so that good potential can be optimized. This optimization is intended for Allāh and does not require validation from others. At this point, happiness can be established.

Likewise, recognizing the world requires recognizing both Allāh and oneself. The world is understood as a means of worship and good deeds, as Allāh created humans to be good leaders (caliphs). The world is also understood as a means of self-actualization, thus requiring a good understanding/recognition of oneself. A

good understanding of the world will guide human toward a proper understanding of the afterlife. The world is understood as a place to prepare for the afterlife. Conversely, the afterlife is understood as a means of responsibility, allowing humans to manage their behavior in the world.

Overall, the *sa'ādah* scale has fairly good reliability. This indicates that the *sa'ādah* scale consistently produces scores for individuals when used repeatedly (Reynolds et al., 2021). The *sa'ādah* scale also has a positive correlation with peace of heart as measured by Tathmainn al-Qulūb (TQS) with a correlation coefficient of .498 (p<.01). In addition, the *sa'ādah* scale also correlates positively with the *sukun* aspect (r= .475, p<.01) and the yaqin aspect (r = .364, p<.01) of TQS. This indicates that the *sa'ādah* scale has good concurrent validity.

A number of studies show that the higher the level of happiness, the higher the level of peace of heart (Ain et al., 2025; Arnout, 2019). A happy person will have positive emotions within them. Positive emotions can buffer against stress. Furthermore, a person's happiness is related to the production of serotonin. This hormone plays a role in regulating mood and emotions. An increase in serotonin levels has been associated with calmness, mood improvement, and increased emotional resilience (Young, 2007).

Beside serotonin, another hormone that plays an important role in happiness and calamity is endorphin (Ali et al., 2021; de Vries et al., 2022). Dopamine is another hormone that plays an important role in happiness. High level of dopamine triggers pleasure within individuals, causing them to feel calm (Kao, 2024). These hormones can be stimulated by practicing meditation and increasing mindfulness (Mitsea et al., 2022). Contemplation of God is one form of mindfulness. Therefore, the *sa'ādah* scale correlates positively with Islam-based peace of heart.

Good concurrent validity is also indicated by a positive correlation between the *sa'ādah* scale and gratitude (r=.909, p<.01). In addition, the *sa'ādah* scale also correlates positively with all aspects of gratitude, namely knowledge (r= .771, p < .01), ihwal (r=.877, p<.01), and good deeds (r= .874, p<.01).

A number of studies have shown that the higher the level of gratitude, the higher the level of happiness (Cardon & Wong, 2024; Kharbanda & Mohan, 2021; Watkins et al., 2003). When someone is grateful, they focus on everything they have received, not on what they do not have. Gratitude also increases acceptance, so that people do not ask for more than they need. Therefore, when someone is grateful, they feel happy.

Limitations

This study has several limitations. First, the participants were drawn only from two Indonesian provinces (Central Java and the Special Region of Yogyakarta), which may limit the generalizability of the findings. Second, the sample consisted solely of university students, restricting representation across broader age groups and social backgrounds.

Additionally, this study relied primarily on a unidimensional Rasch approach without testing alternative structural models.

Conclusion

The *sa'ādah* scale compiled based on Imam al-Ghazali's theory has good psychometric qualities. This study successfully developed a multidimensional scale with satisfactory validity evidence in terms of content and internal structure across 31 items. The Rasch parameters indicate optimal item properties and reliability.

Implications

Theoretically, the *sa'ādah* scale contributes to increasing the diversity of happiness scales for adolescents, particularly in an Islamic context. Moreover, the use of the Rasch model represents a methodological contribution, as it is rarely applied in happiness scale development.

Practically, this scale can serve as an alternative instrument for researchers and practitioners to measure the

happiness of Muslim adolescents in Indonesia. It may also be utilized as part of assessment efforts to help identify vulnerability to psychological problems, given the negative correlation between happiness and such conditions.

Recommendations

Future research is encouraged to validate the *sa'ādah* scale using more diverse samples across different regions and demographic characteristics. In addition, further studies could examine the factor structure more comprehensively, for example by testing multidimensional or second-order models.

Declarations

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Author Contributions

AS: Validation, formal analysis, investigation, methodology, project administration, resources, visualization, writing—original draft preparation, and writing—review and editing.
SN: Conceptualization, data curation, methodology, project administration, and resources.

Conflict of Interest

The authors declare no conflict of interest

Orcid ID

Ahmad Saifuddin https://orcid.org/0000-0002-3863-8953
Santi Nuraini SN: https://orcid.org/0009-0008-1296-8218

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