

Measuring Peace of Heart: The Development and Validation of *Tatmainn al-Qulūb* Scale (TQS)

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Abstract

Peace of heart is an inner spiritual experience that generates an emotional feeling of harmony. Peace of heart (*tatmainn al-qulūb*) is an important aspect applicable for the life of the Muslim community as a treatment for the psychological problems of the modern era, mainly due to the absence of peace. Thus far, no research has been done on the development of peace of heart to capture the uniqueness, specific aspect, and distinctive aspect of peace in Muslim community. A total of 744 respondents responded to this research. Six experts were involved to examine item wording in this research (CVR= .67-1.00). This study has found that the TQS consists of two components (*al-sukūn* and *al-yaqīn*) with a good loading factor (.687-.884), Cronbach's Alpha (.844), and item consistency (.545-.857). All items had a good difficulty level and appropriate rating. Convergence validity on this scale was indicated by its correlation with The Brief Serenity Scale ($r = .612$). The criterion-related validity on this scale was indicated by its correlation with *dhikr* quality ($r = .629$), Islamic positive religious coping ($r = .518$), perceived stress ($r = -.453$), and sensibility ($r = .103$). Further studies need to be done based on the followings: 1) Examining the measurement on this topic with larger respondents having equal variance; 2) Considering gender, education level, and age in norming study of this scale; 3) Validating with other measurements to add validity information, especially discriminant validity

Keywords: calmness, confidence, peacefulness, scale, serenity

Abstrak

Ketenangan hati adalah pengalaman spiritual batin yang menghasilkan perasaan harmoni emosional. Ketenangan hati (*tatmainn al-qulūb*) merupakan aspek penting yang dapat diterapkan dalam kehidupan umat Islam sebagai pengobatan atas problem psikologis era modern, terutama karena tidak adanya kedamaian. Sejauh ini belum ada penelitian tentang pengembangan ketenangan hati untuk menangkap keunikan, aspek khusus, dan aspek khas ketenangan hati dalam komunitas Muslim. Sebanyak 744 responden terlibat dalam penelitian ini. Enam ahli dilibatkan untuk menguji konten item dalam penelitian ini (CVR= .67-1.00). Penelitian ini menemukan bahwa TQS terdiri dari dua komponen (*al-sukūn* dan *al-yaqīn*) dengan *loading factor* (.687-.884), Cronbach's Alpha (.844), dan konsistensi item (.545-.857) yang baik. Semua item memiliki tingkat kesulitan yang baik dan *rating* yang sesuai. Validitas konvergen pada skala ini ditunjukkan oleh korelasinya dengan The Brief Serenity Scale ($r = .612$). Validitas kriteria pada skala ini ditunjukkan oleh korelasinya dengan kualitas dzikir ($r = .629$), *Islamic positive religious coping* ($r = .518$), persepsi stres ($r = -.453$), dan sensibilitas ($r = .103$). Perlu dilakukan penelitian lebih lanjut berdasarkan hal-hal berikut: 1) Meneliti pengukuran pada topik ini dengan responden yang lebih besar yang memiliki varian yang sama antar kelompok; 2) Mempertimbangkan jenis kelamin, tingkat pendidikan, dan usia dalam studi penormaan skala ini; 3) Validasi dengan pengukuran lain untuk menambah informasi validitas, khususnya validitas diskriminan.

Kata kunci: kedamaian, kepercayaan diri, ketenangan, skala

Introduction

Peace of heart is an inner spiritual experience that generates an emotional feeling of harmony (Dewi & Hamzah, 2019; Cuello & Oros, 2014). Peace of heart is an important condition to free the mind's suffering and to go through many obstacles. Peace of heart leads a person to gain self-actualization, happiness, well-being, and physical health (Yahya et al., 2020; Walker, 2015). Spiritual experience is one of important aspects that drives psychological state into peace of heart (Wnuk, 2021; Demirel & Sahib, 2015). Therefore, spiritual practices are a key to generate individual peace of heart. The Peace of Mind Scale compatible for Asian-Chinese community has been developed for Asian-Chinese. Unfortunately, no such scale has been adequately developed to measure peace of heart for Muslim community. This condition is contrary to the clear and specific teaching in Quran that spiritual practice (*dhikr*) leads to the peace of heart (*taṭmainn al-qulūb*) (Quran: 13:28). Given the fact that there was no measurement of Islamic theo-spiritualistic peace of heart underdevelopment, it is necessary to create a scale to measure peace of heart for Muslim community, since this is an urgent variable that serves as an appropriate measurement to capture the uniqueness, specific aspect, and distinctive principals of peace for Muslim community (Nursita & Sahide, 2019; Nurbaeti et al., 2018; Anjum et al., 2017).

Various measurements of peacefulness were developed to measure peacefulness: including peacefulness on environmental perspective (Marafa et al., 2018); nonviolence approach (Mayton, 2014); emphasis on chronic illness (Gittzus et al., 2019); emphasis on anxiety (Wolfradt et al., 2014); emphasis on educational dimension (Arnout, 2019); character strengths and well-being (Soysa et al., 2021; Demirci & Ekşi, 2018); emphasis on children stress (Cuello & Oros, 2014); and construction for Asian-Chinese culture (Lee et al., 2013).

All in all, these scales were not constructed by spiritual approach, and thus peace of heart (*taṭmainn al-qulūb*) is an essential aspect applicable for Muslim community for the treatment of psychological problems of the modern era attributed to the absence of peace (Irawan, 2019). Various researches on psychology have addressed spirituality (Rathakrishnan et al., 2022; Božek et al., 2020; Kumar, 2018), nevertheless many psychological problems remain widely unsolved (Austin et al., 2018). This problem requires the implementation of systematic research with accurate development of the scale as one of its important stages in order to clearly capture the psychological state of Muslim community.

Previously, several studies had developed peace of heart scale inadequately (Rusdi, 2016) because the psychometric properties of this scale only depended on internal consistency (Vaske et al., 2017; Tang et al., 2014), and all items were reversed in wording, which led to a problem in the factor structure (Zhang et al., 2016). Redevelopment of this scale is thus an appropriate way because this scale was used by another researcher (Kumala et al., 2017) despite some weaknesses and lacks of validity. The redevelopment and validation of *Taṭmainn al-Qulūb* Scale (TQS) is an important way to ensure the satisfying result of the scale since they are examined with the standard method and work properly (Carpenter, 2018). Another scale is required to examine whether the scale has an appropriate construct (Boateng et al., 2018). All of these methods can improve the quality of Islamic psychological research, especially a study on scale development.

Methods

This research was conducted in five stages: 1) Constructing test by operationalizing the theoretical indicators into items; 2) Validating content by involving subject matter experts; 3) Identifying scale structure factors with EFA; 4) Examining the item difficulty with the Rasch model; 5) validating the scale with other criteria.

Test Construct & Content Validity

Test Construction

The first essential stage of scale development was defining a construct to give the targeted construct a clear and specific. Based on this definition and specification, item wording was generated (Boateng et al., 2018). A previous review on some *tafsir* found six indicators of peace of heart (*tatmainn al-qulūb*): 1) Calmness, quietness (Ibn Manzūr, 1996), a situation opposed to noisy, stability (*tasta'nis*) (al-Ṭabarī, 2014; al-Qushairī, 2007), relaxedness (*istarauḥat*), or comfort (*istabsharat*) (al-Qushairī, 2007) when someone practicing *dhikr*. Based on these indicators, the following items were generated: “*I feel peaceful when remembering Allah*”; 2) Acceptance (*riḍā*) (al-Samarqandī, 2010). Based on this indicator, the following items were generated: “*I accept whatever has been determined by Allah*” and “*I feel more peaceful when I surrender to Allah*”; 3) Closeness (al-Zamakhsharī, 2009) and love for Allah (Ibn al-Jauzī, 2002), the following items were generated which generated the following items: “*I can feel Allah's love and grace*”; 4) Believe and confidence (al-Samarqandī, 2010; Ibn al-Jauzī, 2002). Based on this indicator, the following items were generated: “*My life is far from doubt*”; 5) Knowing the way of life, understanding it, and having a meaningful life (Ibn Manzūr, 1996). Based on this indicator, two items were generated: “*My life is far from futility*” and “*My life is meaningful*”. All the items described an inner peace connected to Allah (al-Tastarī, 2004). This scale used the 1-6 rating scale, and each point was described as follows: 1= Strongly disagree; 2= Disagree; 3= Slightly disagree; 4= Slightly agree; 5= Agree; 6= Strongly agree. All of the items were sum up to compute the total score.

Content Validation

This stage was conducted to examine the appropriateness (Carpenter, 2018), relevance (Boateng et al., 2018; Lawshe, 1975), and representativity (Yusoff, 2019; Matondang, 2016) of the scale. Seven qualified experts with a qualification as a lecturer of participated on this stage qualification of experts was a lecturer of Department of Psychology. Experts judged the relevance of all items to the indicator by choosing two options, “relevant” or “irrelevant”. The critical value to pass the item based on formula was $=\text{CRITBINOM}(7;1/2;1-.05)$, and therefore the minimum CVR (content validity ratio) of each item was $\geq .67$ (Ayre & Scally, 2014; Wilson et al., 2012). $\text{CVR} \geq .67$ was equal to $\text{CVI} \geq .83$ (Shi et al., 2012).

Sample and Data Analysis: EFA, Reliability Test, and Rasch Model

Respondents of this stage were 154 students from many universities in Yogyakarta and 97 from one senior high school in Yogyakarta. This stage consisted of five analyses: 1) Exploratory Factor Analysis (EFA); 2) Reliability test; 3) Exploring the item difficulty analysis with Rasch model; 4) *rating analysis* with Rasch; 5) Differential Item Functioning (DIF) Rasch to explore gender and educational background bias potential.

Criterion Validity

Another stage was conducted to support this validation. 293 university students (220 females and 73 males) participated in this stage to examine criterion-related validity with *Islamic Positive Religious Coping* (IPRC), *Zikr Quality Scale* (ZQS), *Perceived Stress Scale 4* (PSS-4), and biopsychological sensitivity (Sensirec). 138 university students (40 males and 98 females) participated on this stage to examine criterion-related validity with Spirituality Scale. 62 university students (aged 19 to 23 years old ($M=20,90$); 25 males and 37 females) participated on this stage to examine convergence validity with *The Brief Serenity Scale* (TBS) and criterion-related validity with *State-Trait Anxiety Inventory* (STAI).

Islamic Positive Religious Coping (IPRC) (Raiya, 2008) is a part of Psychological Measures of Islamic Religiousness (PMIR), which was developed and validated in the context of Muslim religiousness (Ahmad et al., 2015; Abu-Raiya & Hill, 2014; Raiya, 2008). Religious coping is represented with faith and trust in God, prayer (*salāh* and *du'ā*), recitation of the Quran, remembrance of God (*dhikr*), patience (*sabr*), forgiveness, and positive thinking (Achour et al., 2015). Some of these strategies are proven to

correlate with peacefulness, such as prayer (*du'ā*) (Demirel & Sahib, 2015) and recitation of the Quran (Saged et al., 2020). Prayer is an activity that helps individuals to increase peace and contributes to better problem solving skill, which has become the most common positive religious coping style (Heo & Koeske, 2013). This study is expected to reveal the positive correlation between TQS and IPRC.

Zikr Quality Scale (ZQS) comprises three dimensions: intensity-quantity ($\alpha = .795$), duration and solemnity ($\alpha = .777$), and connectivity ($\alpha = .832$) with an average loading factor of 0.671 (Rusdi, 2018). In this study, the purpose of this scale was to examine criterion-related validity. Previous studies revealed the influence of, *dhikr* on the peace of heart (Kumala et al., 2017) as a way to find the positive correlation between TQS and ZQS.

The Perceived Stress Scale (PSS-4) was an established measurement that was validated in many studies (Vallejo et al., 2018; Lee et al., 2015; Warttig et al., 2013). The purpose of this scale in this study was to examine criterion-related validity. The previous study highlighted that harmony and peacefulness might reduce stress (Arnout, 2019). Another previous study found that serenity and stress had a negative correlation (Lee et al., 2013; Kreitzer et al., 2009). This study was expected to find the positive correlation between TQS and ZQS.

Sensirec is a device to detect biopsychological sensitivity through electro-dermal activity (Balzer & Stueck, 2013). Electro-dermal activity (EDA) is an approach for detecting biopsychological information. This approach was widely used by many researchers (Nath & Thapliyal, 2021; Toussaint et al., 2021; Dindar et al., 2020; Geršak & Drnovšek, 2020; Pop-Jordanova & Pop-Jordanov, 2020; Schneider et al., 2020; Posada-Quintero et al., 2018; Madhuri et al., 2017; Mendoza-Denton et al., 2017; Panju et al., 2015; Ichihashi et al., 2012). The higher score of Sensirec indicates the hypersensitivity (high arousal), the lower score of Sensirec indicates the hyposensitive, and the middle score of Sensirec indicates the normosensitivity. The purpose of this scale in this study was to examine criterion-related validity. Sensibility is a biopsychological ability to regulate anxiety and fatigue, which resulted in the regulation of peacefulness (Eakman et al., 2017).

The Spirituality scale was established by Edwards (2012) with five factors and 23 items ($\alpha = .86$). Previous research showed that spirituality had a positive correlation with serenity or peacefulness (Kreitzer et al., 2009). TQS also emphasizes the spiritual dimension because it was built by involving the concept of Islamic spirituality. Therefore, the spirituality scale is used as a criterion to show its relationship with TQS.

TBS was developed by Kreitzer et al. (2009) and consisted of 22 items ($\alpha = .95$). This scale comprised six aspects: acceptance, perspective, benevolence, present centered, inner haven, and trust. TBS was used to show convergence validity because TQS and TBS are considered to have very similar constructs. Thus, it is expected that they were positively related. *State-Trait Anxiety Inventory* (STAI) was developed by Spielberger et al. (2010). This scale aims to measure two different concepts of anxiety, state anxiety ($\alpha = .83$ to $.95$) and trait anxiety ($\alpha = .67$ to $.95$). S-Anxiety consists of 20 items and T-Anxiety consists of 20 items. This measurement was chosen to show criterion-related validity because peacefulness is the opposite spectrum of anxiety (Marafa et al., 2018), and thus TQS and STAI were expected to be negatively related.

Results and Discussion

Content Validity

The content validity based on the six experts can be seen in the table below. Experts were asked to judge seven items, Ne (rater who judged “essential or relevant”) delineated the number of experts who responded to items with “relevant” answers. The followings answers were provided by the experts.

Table 1. Tabulation of Content Validity

Item	Experts						Ne	N	CVR	CVI
	1	2	3	4	5	6				
1	1	1	1	1	0	1	5	6	.67	.83
2	1	1	1	1	0	1	5	6	.67	.83
3	1	1	1	1	1	1	6	6	1.00	1.00
4	1	1	1	1	0	1	5	6	.67	.83
5	1	1	1	1	0	1	5	6	.67	.83
6	1	1	1	1	0	1	5	6	.67	.83
7	1	1	1	1	0	1	5	6	.67	.83

Description: 1= Relevant; 2= Irrelevant; Ne= Total number of relevant answer; N= Total experts; CVR= Content validity ratio; CVI= Content validity index.

Source: Personal Data

The content validation found that almost all items had a CVR coefficient of .67, which means that all items were valid (Ayre & Scally, 2014; Wilson et al., 2012). Based on the CVI, all items were .83 (Wilson et al., 2012), and thus, all items were valid because CVI was $> .8$ (Shi et al., 2012). Thus, the seven items would be used for the next stage.

EFA and Reliability

This stage conducted a factor analysis and found two factors of TQS with good reliability. EFA and reliability tests showed consistent results when the university student group and high school student group were separated.

Table 2. EFA and Reliability Test

	Group 1			Group 2			Overall		
Number of Respondents	154			97			251		
Respondents Characteristic	College Students			High School Students			-		
KMO	.835**			.716**			.845**		
Initial Eigenvalues-Cumulative (%)	70.231			61.171			68.937		
Item	1	2	I-T	1	2	I-T	1	2	I-T
...peaceful when remembering Allah	.894	-	.796	.764	-	.564	.837	-	.658
...peaceful when I surrender to Allah	.867	-	.786	.836	-	.628	.884	-	.757
I can feel Allah's love and grace	.794	-	.713	.741	-	.598	.788	-	.710
I accept whatever...by Allah	.703	-	.579	.700	-	.525	.687	-	.607
My life is far from futility	-	.869	.568	-	.838	.525	-	.857	.578
My life is far from doubt	-	.754	.564	-	.696	.418	-	.760	.545
My life is meaningful	-	.664	.538	-	.758	.500	-	.710	.646
Cronbach's Alpha	.860	.731	.844	.774	.666	.730	.848	.739	.836

Description:

I-T=

Item

total

correlation.

Source: Personal Data

Based on the table, there are two factors of TQS and these two factors showed consistent results in three tests. The lowest loading factor in all tests was .664 (item number seven) and the highest was .894 (item number one). The total correlation of the lowest item was .418 (item number six), and the highest was .796 (item number 1). The highest Cronbach's Alpha on an overall scale was .844. It seems that the result tended to produce high coefficients on the instrument. Overall, the factor analysis and internal consistency test showed satisfactory results. Furthermore, this stage would examine the difficulties of items. Before turning to the difficulties of items, the two factors should be named.

The first factor expressed something that is calming, feeling loved, and positive feelings. Some *mufassir* referred to this situation as *al-sukūn* (calmness). Al-Tastarī (2004) explained that the feeling of peace connected to Allah is known as *al-sukūn*. The items in the second factor indicated a state of belief, confidence, and meaningfulness. Some *mufassir* referred to this situation as *al-yaqīn* (confidence) (al-Zamakhsharī, 2009; Ibn al-Jauzī, 2002).

al-yaqīn and *al-sukūn* are the two components of TQS highlighted in this stage. Peacefulness is inseparable from two basic components, that is: 1) Something enjoyable (enjoyment), happiness (hedonia), and positive feelings (feeling good/positive affection); 2) Something objective (eudynamic), such as a good life, self-actualization, practice of virtue, and a virtuous living (Walker, 2015). This stage found that both were in accordance with the results of factor analysis. The items in the *al-sukūn* component seem very thick with theocentric spirituality, while the component of *al-yaqīn* seems to be highly correlated with anthropocentric spirituality.

Rasch Model

The item difficulty level was tested using the Rasch Model, which resulted in the following variable map.

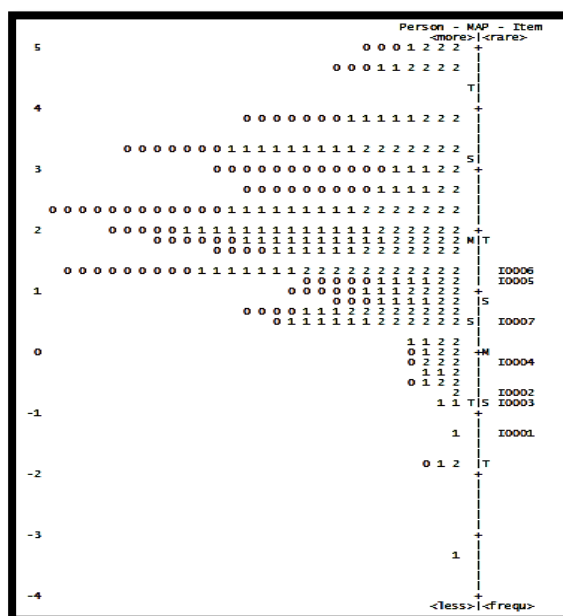


Figure 1. Variable Map
Source: Personal Data

The above map indicated that the items were appropriately distributed, but most respondents easily responded to this instrument with answers of high score. This can be seen from the position of the items, which were mostly below the average ability of the respondents. That is, this item is quite easy for the respondents. The detailed results are presented in the following table.

Table 3. Item Difficulty Level

Item	Log	Outfit		PT Mean Corr
		MNSQ	ZSTD	
...peaceful when remembering Allah	-1.28	1.05*	.43*	.62*
...peaceful when I surrender to Allah	-.67	.98*	-.08*	.67*
I can feel Allah's love and grace	-.78	.71*	-2.88	.71*
I accept whatever...by Allah	-.1	.99*	-.05*	.68*
My life is far from futility	1.1	1.26*	3.02	.65*
My life is far from doubt	1.29	1.10*	1.31*	.71*
My life is meaningful	.44	.83*	-1.99*	.74*

Source: Personal Data

Based on the map, even though this instrument is deemed as easy for respondents, this instrument shows an acceptable quality. The outfit mean square (MNSQ) indicated that all items were still acceptable because the acceptance criteria were $.5 < \text{MNSQ} < 1.5$. Meanwhile, based on the value of the Z-Standard outfit (ZSTD), the items numbered 5 ($Z=3.02 > 2.0$) and 3 ($Z=-2.88 < -2.0$) were not accepted because the criteria were $-2.0 < \text{ZSTD} < 2.0$. Based on the measurement of correlation value (Pt Mean Corr), all items were accepted because the criteria were $.4 < \text{Corr} < .85$. Based on these criteria (Sumintono & Widhiarso, 2014), these items can still be maintained. A summary of instrument quality can be seen in the following table.

Table 4. Rasch Model Summarize

Test	Information	Criteria	Summary
Reliability	Item = .99 Person = .78	< .67 = Poor .67- .80 = Sufficient .81 - .90 = Good .91 – .94 = Very Good > .94 = Excellent	The reliability coefficient of the instrument was excellent, and the respondent's reliability coefficient was sufficient.
Separation	Item = 11.25 Person = 1.86	The higher the points, the better the ability to discriminate	The items were good to discriminate but the respondents were only divided into two group levels.
Raw variance explained by measures	60.3%	Minimum = 40% 40% - 60% = Good >60% = Excellent	The measurement can explain the variance well.
Unexplained Variance	12.9%	Minimum = 15%	Only a small amount of variance cannot be explained by the measurement.
Rating Scale (Andrich Threshold)	Option 1= None Option 2= -2.26 Option 3= -1.33 Option 4= .12 Option 5= 1.04 Option 6= 2.44	Sequential values from the smallest to the largest	Six ratings on the scale were correct.

The above table shows that the quality of the instrument in this research can still be generally accepted due to the fulfillment of several criteria (Sumintono & Widhiarso, 2014). The most satisfactory quality appears in the item reliability of .99 and the instrument separation ability up to 11 separations. The instrument's ability to explain the variance is also very good (60.3%) with the correct number of ratings.

The difficulty level of the items on this scale seems to be fairly good, indicated by the fulfillment of several criteria even though a small number of criteria have not been met. This scale is able to separate the items into 11 categories and shows very high instrument reliability (.99). However, a few problems were experienced by some respondents of this study whose personal reliability was .78 and resulted in the separation of two groups. This means that this instrument may discriminate 11 levels of respondents, but unfortunately the existing respondents were not varied. It is likely that this instrument can improve the quality of its item distribution to respondents by increasing the variety and number of respondents. Another option to be done is to add items that are more difficult than the existing items. Another thing that can show the quality of the scale is to check the accuracy of using the rating scale. Rasch rating model aims to determine the appropriateness of the number of ratings used. The following are the results of the rating analysis.

Table 5. Rasch Rating Model

Rating	Logit	Andrcih Threshold
1	-1.29	None
2	- .37	-2.26
3	.01	-1.33
4	.98	.12
5	1.95	1.04
6	3.17	2.44

This result pinpointed that the rating used in this study was appropriate and well understood by the respondents. This can be seen in the composition of the levels of difficulty (Logit) and the Andrich Threshold value that had been arranged sequentially from option one with the smallest score up to option six with the largest score. This point is well depicted in the graph below.

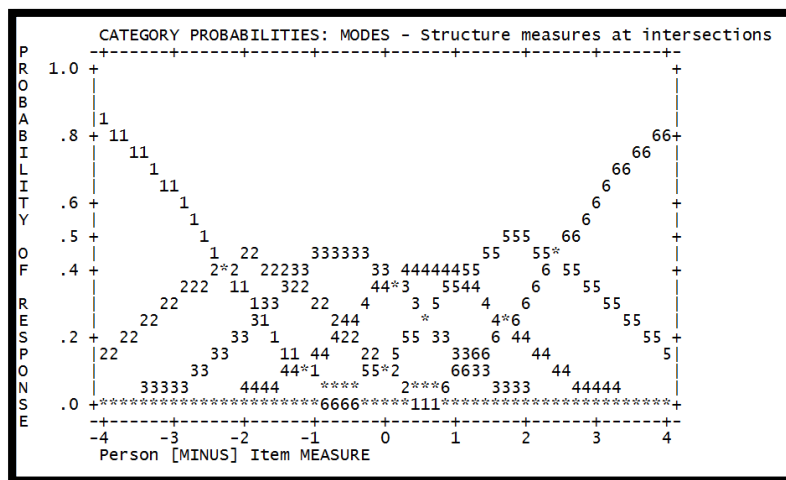


Figure 2. Rasch Rating Model Map

Source: Personal Data

Based on the above map, all the ratings were correct because there were no hidden peaks. That is, all ratings can be understood by respondents as something sequential. Such a good rating will determine the quality of the data (Royal et al., 2010). In addition, ratings accompanied by descriptors will be more easily understood by respondents (Ferrara et al., 2008). Respondents' understanding may be influenced by gender or educational background. Differential Item Functioning (DIF) aims to find out the items that are responded biasedly if the respondents are categorized in certain groups. This stage conducted a bias analysis based on gender group and education level. The results are illustrated below.

Table 6. Analysis of Differential Item Functioning (DIF)

No	Item	Gender					Education Level				
		Average		Logit		p	Average		Logit		p
		Ma	Fe	Ma	Fe		Co	Hi	Co	Hi	
1	...peaceful when remembering Allah	4.51	4.52	-1.70	-1.94	.413	4.56	4.26	-1.51	-1.08	.048
2	...peaceful when I surrender to Allah	4.33	4.29	-1.11	-1.14	.910	4.35	3.86	-.92	-.30	.001
3	I can feel Allah's love and grace	4.13	4.33	-.54	-1.25	.006	4.31	4.16	-.82	-.86	.835
4	I accept whatever....by Allah	3.84	3.83	.14	.03	.646	3.89	3.88	-.01	-.35	.060
5	My life is far from futility	3.24	3.03	1.37	1.66	.176	3.03	3.00	1.24	.98	.091
6	My life is far from doubt	3.22	2.81	1.40	2.08	.001	2.91	2.82	1.40	1.22	.253
7	My life is meaningful	3.59	3.67	.68	.40	.211	3.61	3.31	.44	.55	.506

Description: Ma= Male; Fe= Female; Co= College Students; Hi= High School Students. Source: Personal Data

These results explain that the bias test was conducted twice, particularly related to gender and education level. In the gender-related bias test, there is a possibility of bias in items number three and six. In item number three, males (Ma/Males) tended to generate responses with a lower score than females (Fe/females) ($p = .006$). On the other hand, in item number six, it was easier for men to respond to answers with a higher score than women ($p = .001$). As for the education-related bias test, it was found that items number one and two might indicate a possibility of bias. In item number one, students (Co/college students) found it easier to respond to answers with a higher score than students (Hi/high school students) ($p = .048$). The same also happened to item number two ($p = .001$).

Items one and two have the tendency to lead to bias problems based on education level. College students tended to respond to answers with higher score on item one (-1.51 logit) and item two (-.92 logit) than high school students (item 1 = -1.08 logit; item 2 = -.30 logit). Additional results found that there was a different variance between college students and high school students both in the aspects of *al-sukūn* ($p = .000$), *al-yaqīn* ($p = .034$) and overall TQS ($p = .032$). Significantly, ($p = .015$), college students had a higher *al-sukūn* score ($M = 51.02$) than high school students ($M = 47.54$) and ($p = .030$) college students had a significantly TQS score ($M = 101.37$) than that of high school students ($M = 96.69$), but on the *al-yaqīn* score (students = 50.35; students = 49.14), there was no significant difference ($p = .313$). These results denoted that college students have higher scores than high school students. This result generated the following points to discuss: 1) The variance of the two groups tended to be different, which can affect the accuracy of the data (Gastwirth et al., 2009); 2) The college students and high school students clearly had different situations and conditions (Connolly et al., 2019); 3) These two items had biases and must be considered and followed up through further investigations with equal variance data.

Criterion-Related Validity

The following results support convergent validity (one of criterion-related validity) on the TQS scale with its correlation to The Brief Serenity Scale.

Table 7. Correlation between TQS and TBS

Variable	1	2	3	4	5	6	7	8	9	10
1. TQS	1									
2. <i>al-sukūn</i>	.877**	1								
3. <i>al-Yaqīn</i>	.857**	.504**	1							
4. TBS	.612**	.517**	.546**	1						
5. Acceptance	.427**	.371**	.370**	.735**	1					
6. Perspective	.402**	.359**	.338**	.675**	.363**	1				
7. Benevolence	.369**	.382**	.254*	.737**	.530**	.487**	1			
8. Present Centered	.328**	.238*	.334**	.660**	.370**	.247*	.307**	1		
9. Inner Haven	.616**	.523**	.546**	.694**	.346**	.399**	.462**	.336**	1	
10. Trust	.501**	.376**	.498**	.757**	.548**	.398**	.440**	.370**	.503**	1

Source: Personal Data

The results show the correlation between variables. TQS is correlated with TBS ($r = .612$). In addition, TQS is also correlated with acceptance ($r = .427$), perspective ($r = .402$), benevolence ($r = .369$), present centered ($r = .328$), and inner haven ($r = .616$). Then, TBS is correlated with calmness (*al-sukūn*) ($r = .517$) and confidence (*al-yaqīn*) ($r = .546$). Based on this result, it can be concluded that the higher the peace of heart, the higher the serenity of the individual. On the other hand, the lower the peace of heart, the lower the serenity of the individuals. This also explains that TQS has good convergent validity.

The following results support criterion-related validity on the TQS scale with its correlation to the Zikr Quality Scale, Islamic Positive Religious Coping Scale, Perceived Stress Scale-4, and Sensibility. TQS validation is based on the correlation between TQS and *dhikr* quality (ZQS), Islamic positive religious coping (IPRC), perceived stress (PSS-

4), and sensibility (Sensirec). The results are presented below. The predetermined criteria in this stage are expected to show a significant relationship to TQS.

Table 8. Correlation between TQS, ZQS, IPRC, PSS-4, and *Sensibility*

	1	2	3	4	5	6	7	8	9	10
1. TQS	1									
2. Calmness	.871**	1								
3. Confidence	.850**	.482**	1							
4. ZQS	.629**	.553**	.523**	1						
5. Intensity	.378**	.267**	.383**	.787**	1					
6. Solemnity	.532**	.496**	.418**	.779**	.463**	1				
7. Connectivity	.599**	.573**	.455**	.768**	.358**	.434**	1			
8. IPRC	.518**	.565**	.318**	.592**	.444**	.483**	.523**	1		
9. PSS-4	-.453**	-.328**	-.457**	-.347**	-.275**	-.268**	-.246**	-.279**	1	
10. Sensibility	.087	.121*	.025	-.017	-.019	-.053	.003	-.016	-.018	1
11. Sensibility*Time Controlled	.103*	.139**	.036	-.016	-.021	-.035	.015	-.007	-.014	1.000

Source: Personal Data

This finding explained that TQS was negatively related to PSS. The theoretical study explained that stress is in the high arousal-negative affect quadrant as opposed to peacefulness, which is in the low arousal-positive affect quadrant (Riera et al., 2012). Therefore, these criteria indicate the validity of the TQS. Previous findings have found that calmness is inversely related to negative symptoms such as anxiety (Lee et al., 2013). Anxiety is definitely closely related to stress (Bystritsky & Kronemyer, 2014). A person experiencing peacefulness, at the same time experiences a decrease in negative symptoms, such as status anxiety, muscle tension, stress, pain, depression, negative affect, and fatigue. On the other hand, increased peacefulness goes hand in hand with increased freshness, quietness, relaxation, general well-being, happiness, positive energy, and positive affect (Feinstein et al., 2018).

This study also found that TQS was related to sensibility when controlled by the time of filling out the questionnaire. Controlling the time of filling out the questionnaire is essential because skin activity will be higher in the afternoon than in the morning (Hot et al., 1999). This finding is in accordance with the theory that someone who experiences calmness will have biopsychological stability. Peacefulness can be achieved by finding balance and harmony (Pejner, 2015). Peacefulness and relaxation were inversely related to stress symptoms as measured by muscle tension and anxiety status (Feinstein et al., 2018). Respondents who have high TQS scores tend to gather towards normosensitive compared to respondents who have low TQS scores (see **Table 9**). People with high peacefulness are certainly far from depressive symptoms, which drive the effective performance of electro-dermal activity (Sarchiapone et al., 2018). In fact, it is clearly said that the electro-dermal activity sensor can detect a person's calmness (Zangróniz et al., 2017). Electro-dermal activity can indicate various symptoms related to heart rate and so on (Caruelle et al., 2019; Madhuri et al., 2017) which are related to stress (Sgoifo et al., 2015).

Table 9. Comparative Analysis between TQS and Sensibility Level

Factor	Level	Mean	Median	N	P	ηp^2
TQS Level	Low	-141.79	-131.00	29	.288	.020
	High	-96.72	-109.00	29		
<i>al-Sukūn</i> Level	Low	-151.34	-138.00	29	.172	.021
	High	-109.20	-128.00	62		
<i>al-yaqīn</i> Level	Low	-94.13	-114.00	15	.652	.006
	High	-75.35	-84.50	20		

Source: Personal Data

These results indicate that respondents with a low TQS had an average Sensirec score close to hyposensitive (-141.79) and respondents with a high TQS had the mean score close to normosensitive (-

96.72). This study found that TQS was correlated with ZQS. In other words, the higher the quality of *dhikr*, the higher the peace of heart. This criterion shows that the TQS is considered valid based on the criteria, because a classic theory explained that *dhikr* is related to peace of heart. This fact is as described in the Quran (“hearts find peace only in the remembrance of God.”) (al-Ṭabarī, 2014; al-Bayḍāwī, 2010; al-Samarqandī, 2010; al-Zamakhsharī, 2009; al-Tastarī, 2004; Abū al-Ḥasan Muqātil, 2002; Ibn al-Jauzī, 2002; al-Rāzī, 1999). The previous study showed that practicing *dhikr* consistently raises peacefulness which has a positive effect in reducing stress hormones during pandemic (Hasan et al., 2021).

TQS is also associated with the IPRC. The previous theory explains the relationship between peacefulness and worship. Religious practice as a form of coping can increase peace of heart. Previous research has found that religious practices, such as *ṣalāh*, increase peace of heart (Rusdi, 2016). Reading the Quran or listening to the Quran also be a calming coping strategy because reading or listening to the Quran has an effect on many things, such as reducing anxiety in various settings (Ghiasi & Keramat, 2018; Nayef & Wahab, 2018), reducing depression levels in clinical setting (Mashitah & Lenggono, 2020), increasing sleeping quality (Hossini et al., 2019), and treatment for patients with spiritual and psychological issues (Saged et al., 2020). Previous study revealed that alpha waves activity generated from recitation of the Quran was greater than reading book, and thus it significantly affected peace of heart (Mashitah & Lenggono, 2020). Other studies have found that behavioral coping and cognitive coping were associated with calmness (Akanaeme et al., 2021; Rose & Ishak, 2019; Stanislawski, 2019). Peace is generally obtained by combining spiritual bases and worship traditions. Both can be practiced by meditation and prayer (Achour et al., 2015).

Spirituality is one of the factors that influence peace of heart (Mashitah & Lenggono, 2020). Peacefulness in feelings, body, and mind is a spiritual experience that can bring peace of heart (Faletehan, 2019). Other researches explain that religious attitudes, such as worship and submission or trust will bring hope and a positive outlook on life, and provide peace to the human soul in the form of reducing feelings of depression (Wnuk, 2021).

Table 10. Correlation between TQS and Spirituality

Aspects & Variable	1	2	3	4	5	6	7	8	9
1. TQS	1								
2. <i>al-Sukūn</i>	.722**	1							
3. <i>al-Yaqīn</i>	.831**	.215*	1						
4. Spirituality	.641**	.568**	.448**	1					
5. Perennial Spirituality	.618**	.651**	.348**	.802**	1				
6. Respect	.443**	.392**	.310**	.598**	.382**	1			
7. Purpose	.515**	.347**	.449**	.641**	.428**	.415**	1		
8. Harmony	.582**	.421**	.483**	.793**	.679**	.336**	.423**	1	
9. Sacredness	.187*	.239**	.072	.659**	.333**	.267**	.126	.324**	1

Source: Personal Data

The table above shows that TQS is positively related to spirituality ($r = .641$). TQS is also correlated with perennial spirituality ($r = .618$), Respect ($r = .443$), purpose ($r = .515$), harmony ($r = .582$) and sacredness ($r = .187$). Then, spirituality is correlated with calmness (*al-sukūn*) ($r = .568$) and confidence (*al-yaqīn*) ($r = .448$). Based on this result, TQS has a good criterion-related validity. Subsequent findings also support the criterion-related validity on the TQS because it is negatively related to state and trait anxiety. The followings are the results of the analysis of the relationship between TQS and state and trait anxiety.

Table 11. Correlation between TQS and STAI

Variable	1	2	3	4	5
1. TQS	1				
2. <i>al-sukūn</i>	.877**	1			
3. <i>al-Yaqīn</i>	.857**	.504**	1		
4. State	-.447**	-0.17	-.620**	1	
5. Trait	-.415**	-0.21	-.524**	.860**	1

Source: Personal Data

TQS is negatively correlated with State ($r = -.447$) and Trait ($-.415$) anxiety. This is in line with the research conducted by Lee et al. (2013), which found that calmness is negatively related to anxiety. Tranquility will help individuals to manage emotions, and thus, when the heart feels calm, the level of anxiety in the individual will decrease. Individuals who have serenity are able to cope with stress by balancing their potential with the environment. Based on this result, TQS has a good criterion-related validity.

This research was conducted through many stages, each of which having its own purpose. The sequence of studies was carried out based on the process of developing a psychological scale that begins with constructing, testing item content, finding scale-forming factors, testing item quality, and testing items with other scales or parameters.

Table 12. Summarize of the Studies

Analysis	Purpose of Analysis	Main Results
Content validation	To examine the appropriateness, relevance, and representativity of the scale.	TQS has a good and acceptable content validity index and ratio.
EFA and reliability test	1) To find the factors that form the scale; 2) To find the reliability of the scale.	TQS has two factors, namely <i>al-sukūn</i> (calmness) and <i>al-yaqīn</i> (confidence). Both factors have a good reliability.
Rasch model	1) Exploring the item discrimination index with Rasch model; 2) Rating analysis with Rasch; 3) Differential Item Functioning (DIF) Rasch to explore gender and bias potency of educational background	1) The items were good to discriminate; 2) Six ratings on the scale were correct; 3) These two items do have biases.
Convergence validity	To examine convergence validity with The Brief Serenity Scale (TBS).	TQS has a good convergence validity.
Criterion-related validity	To examine criterion-related validity with Islamic Positive Religious Coping (IPRC), Zikr Quality Scale (ZQS), Perceived Stress Scale 4 (PSS-4), Spirituality Scale, State-Trait Anxiety Inventory (STAI).	TQS has a good criterion-related validity.

Content validation revealed that all items of TQS have a valid score as indicated by CVR and CVI coefficient which has good implications for the next study. Therefore, this scale has a good quality on appropriateness (Carpenter, 2018), relevance (Boateng et al., 2018; Lawshe, 1975), and representativity (Yusoff, 2019; Matondang, 2016) of the scale. Further studies are expected to involve a larger number of experts to ensure the accuracy of the content of this scale (Morgado et al., 2017; (Ayre & Scally, 2014).

EFA and Rasch model was conducted on two different criteria of the respondents (senior high school students and university students) and four main results of this study. First, TQS has good and consistent reliability and EFA for these two groups. It was revealed that TQS has two factors namely *al-sukūn*, which is related to the calming situation and positive feelings such as the feelings of being loved, and *al-yaqīn*, which shows belief, confidence, and meaningfulness. Thus, these findings support good factorial validity of the scale (Hyland et al., 2017). Second, Rasch Model showed that TQS is an easy instrument with a good quality. It means that TQS has a good difficulty level for each item. Third, Rasch rating model indicated that the rating between 1 and 6 was appropriately used and easily understood by respondents. Last, the result from Differential Item Functioning (DIF) indicated that items number three and six have bias possibility from gender-related bias test. Meanwhile, education-related bias test showed that the bias possibility is in items number one and two. Further studies are expected to use samples other than students. Stable factors across samples show good consistency on the scale, so this scale can confidently be used for the general population (Hyland et al., 2017).

Criterion-related validity was conducted on this study. This stage showed that TQS was correlated with ZQS and revealed that the higher quality of *dhikr*, the higher the peace of heart. TQS was also associated with IPRC, which means that peace of heart can be attained from doing positive religious practices like prayer (*salāh* and *du'ā*), reading or listening Quran, having faith and trust in God, patience (*sabr*), forgiveness, positive thinking, and many more (Saged et al., 2020; Achour et al., 2015; Demirel & Sahib, 2015; Heo & Koeske, 2013). The next finding is TQS was negatively associated with PSS, which indicated that peace of heart is in the opposite condition from stress (Feinstein, Khalsa, Yeh, Al Zoubi, et al., 2018). Another finding also found that TQS was correlated with sensibility. A high TQS score tends to indicate a normosensitive state. This denotes that calmness is related to emotional stability, which is included in the biopsychological dimension (Pandey et al., 2017). TQS is also highly correlated with spirituality. This pinpoints that the theory of peace of heart is related to spirituality is correct, and this supports the principle of peace of heart as a spiritual state (Rathakrishnan et al., 2022). Last, TQS is negatively correlated with state and trait anxiety. It means that the higher the peace of heart, the lowest the anxiety (Marafa et al., 2018). From this result, we can conclude that TQS has a good criterion-related validity. Furthermore, the convergence validity of this scale showed by the correlation between TQS and Brief Serenity Scale. This study found that it is highly correlated with TQS with TBS and the two factors of TQS. So Hence, it is clear that TQS also has a good convergent validity as well.

Conclusion

This study has found that the TQS consists of two components (*al-sukūn* and *al-yaqīn*) with a good loading factor, Cronbach's Alpha, and consistency. All items had a good difficulty level and appropriate rating. Convergence validity on this scale is indicated by its correlation with The Brief Serenity Scale. The criterion-related validity on this scale is indicated by its correlation with *dhikr* quality, Islamic positive religious coping, perceived stress, happiness, and sensibility. The suggestion for next research: 1) Examine this measurement with larger respondents having equal variance; 2) Consider gender, education level, and age in norming study of this scale; 3) Validate with other measurements to add validity information, especially discriminant validity.

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Appendix

Tatmainn al-Qulub Scale (TQS)

English Version Version

Instruction: Circle one of the numbers 1, 2, 3, 4, 5, or 6. The closer you are to 6, the more you strongly agree. The closer to 1, the more shows you strongly disagree.

1. I feel peaceful when remembering Allah
2. I am peaceful when I surrender to Allah
3. I can feel Allah's love and grace
4. I accept whatever has been determined by Allah
5. My life is far from futility
6. My life is far from doubt
7. My life is meaningful

Indonesian Version

Instruksi: Lingkari salah satu angka 1, 2, 3, 4, 5, atau 6. Semakin mendekati angka 6 semakin menunjukkan kesesuaian dengan diri anda. Semakin mendekati angka 1 semakin menunjukkan ketikadesuaian dengan diri anda.

1. Saya merasa lebih damai ketika mengingat Allah
2. Saya merasa lebih tenang ketika berpasrah diri kepada Allah
3. Saya bisa merasakan cinta dan rahmat Allah
4. Saya menerima apapun yang telah ditentukan oleh Allah
5. Kehidupan saya jauh dari kesia-siaan
6. Hidup saya jauh dari rasa bimbang
7. Saya menjadi manusia yang berguna

Scoring Procedure for TQS

There are 6 responses for each item, strongly disagree = 1, disagree = 2, slightly disagree = 3, slightly agree = 4, agree = 5, strongly agree = 6. All responses are added up to get the total score.