

A cross-cultural adaptation and psychometric validation of SISRI-24 among Malaysian teachers

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ABSTRACT

The paper is aimed at validating the psychometric properties of SISRI-24 for effective performance among teachers in Malaysia. Through a list-based simple random sampling of 373 teachers, SISRI-24 was translated, adapted and validated. Using TCA procedure, experts validated the translated instrument from both linguistic structure and semantic point of view. Its internal consistency was validated with Cronbach's Alpha and CFA. EFA varimax normalized rotation extracted four components. Measure of internal consistency had Cronbach's Alpha value of 0.911. CFA validated SISRI-19my with χ^2 / df ratio $(354.512 / 141) = 2.514$, RMSEA (0.077) and CFI (0.921) as reasonable spiritual intelligence fit model for Malaysian teachers. The adequacy of this paper's findings is promising, suggesting that the Malaysian version of spiritual Intelligence self-Assessment Inventory scale would provide a valid instrument to measure spiritual intelligence among teachers. Practically, it would stimulate teaching interest irrespective of exigencies. Socially, it models spirited leaders whose role revolves on grooming younger generations towards nation building. Psychologically, it acts as catalyst towards improved wellness. Theoretically, it contributes to body of knowledge on spirituality and organizational behaviour. Apart from the study being cross-sectional, it was limited only to private secondary school teachers. Future study may include other strata of teachers to improve SISRI-19my version. The study offers the first to empirically translate, adapt and validate a Malaysian version of SISRI-24.

Keywords: Spiritual intelligence (SQ), Spiritual assessment inventory, Psychometric questionnaire validation, Task performance, Teachers, Malaysia.

INTRODUCTION

Teaching profession is highly charged with responsibilities directed towards not just the students, colleagues or parents, but also towards organizational values, mission and ideas (Letendre & Wiseman, 2015; Zembylas, 2003). In most countries, teachers are the backbone of a successful learning environment (Amzat et al, 2017; Marghzar & Marzban, 2018). By implication, teaching is a profession which is seemingly responsible for the future of a society or nation (Kumari & Chahal, 2017). Hence, teachers deserve unparalleled attention with regards to this role.

Given this pivotal role, couple with the challenges of teaching 21st century young generations, teachers needed to develop the quality of both head and heart (Palmer, 2003; Yocum et al., 2016). A possible recommendation proposed by researchers (e.g., Antunes et al., 2017; Bhatti et al., 2016; Khaliq & Oguniola, 2011; Osman-Gani, Hashim, & Ismail, 2013) is to encourage employees' spirituality. Extended research in the field of psychology has shown that spirituality tends to promote adaptability, task commitment, wellness, profitability and personal fulfilment (Fontaine, 2018). Consequentially, spirited teachers would be represented as a "whole person" at work (Milliman & Bradley-geist, 2017), bringing about a balance between their well-being, perceived responsibilities and achievement of organizational values (Mahmood et al., 2018).

As a result of the "intimate and proven interplay" that exist between spirituality and intelligence Emmons (2000a p. 3), teachers would expectedly be provided with the skills, abilities and behaviours required to solve adaptive problems and attain goals (e.g., search for the ultimate and personal true values) in everyday lives (King, 2008) or imbued with the "strength and self-confidence to face adversities in life" (Bhatti et al., 2016 p.408). Given these benefits, this paper saw it relevant to validate a Malaysia version of the original SISRI-24 for teachers' improved performance and personal wellness.

LITERATURE REVIEW

Teachers

There is the increased awareness towards understanding how spirituality will benefit teachers and improve their organizational performance (Yocum et al., 2016). Supposedly, teachers are saddled with multiple roles ranging from being a mentor, colleague, friend, or supervisor. Kulshrestha & Singhal (2017) assents that teachers' role includes integration and application of knowledge. Expectedly, such role requires them to be imbued with requisite skills or capability to perform optimally (Letendre & Wiseman, 2015). And by extension, to help them keep a balance between their personal and organizational values during service interaction (Anwar et al., 2017).

Studies on human intelligence indicated that spiritual intelligence (SQ) provides a positive link between performance, job satisfaction and commitment (Upadhyay, 2017). More recent findings revealed that people perceived to be high in spiritual intelligence (SQ) are usually able to give symbolic meaning to job activities (Rani & Chahal, 2017). In other words, they modify a situation in order to reduce or alter its psychological and physiological impact (Gross, 1998). Hence, spiritual intelligence (SQ) might be that requisite skills needed by teachers for optimal performance. Perhaps, they may be able to control their emotions and render selfless service.

Some studies argued that as nation's builders, teachers needed to be nourished (e.g., spiritually) in order to impart quality education, love, sympathy, trust-worthiness, kindness or other kinds of humane (moral) virtues in their subjects (Antunes et al., 2017; Klerk-luttig, 2008; Letendre & Wiseman, 2015). With spiritual nourishment, it is presumed that teachers will be able to inspire younger generation (i.e., future leaders) with true values necessary for integration, tolerance, nobility and so forth (see Fontaine et al., 2017; Khaliq, 2018; Ogunsola, 2018).

It is worth noting that the deficiency of these humane virtues amongst leaders may provide justifications why organizations across the globe still experience corporate crimes. Omar, Said and Johari (2016 p.258) described corporate crimes "as crimes committed either by corporation or individuals acting on behalf of a corporation." The study of Kaite et al., (2012), found that religious belief is associated with lower level of *white-collar* crimes. Researchers (Fry et al., 2016; Sarif, 2014) argued that the 21st century leaders need the components of spirituality to revamp the failing society.

To this end, the teaming youths are better trained and educated by teachers instilled with spiritual qualities or capability (e.g., spiritual intelligence) in order to salvage the future from total collapse (Bone, 2007). Omar-Dev's (2018) study revealed that youths (e.g., students) who are trained with spiritual virtues and practices are less likely to engage in anti-social behaviours. So, aside from teachers' search for meaning and purpose at work through spiritual intelligence, they equally doubled as role model in fostering harmony, progress and development of any nation.

Spiritual intelligence

In the theory of multiple intelligences, Gardner (1983) proposed eight form of intelligences. But, later argued for "*existential intelligence* as the domain of human intelligence" responsible for solving problems with spiritual instincts. Existential intelligence being the ninth form of intelligence is presumed to be an autonomous intelligence based on human inclination to ponder the most fundamental questions of existence (Gardner, 2000; King, 2008; Vaughan, 2002). In other words, existential intelligence relates the set of skills involving the use of collective values and intuition to understand others and the world around them (Nasel, 2004; Noble, 2000). This form of intelligence is perhaps more needed within the current educational system in nurturing new generation of leaders.

Given this backdrop, spiritual intelligence becomes increasingly being studied among management researchers (Munawar & Tariq, 2017; Wigglesworth, 2006). Spiritual intelligence is used to denote intelligence capacity that integrates the functions of IQ (logical and rational reasoning) (Upadhyay, 2017) and EQ (interaction) (Anwar et al., 2017) to achieve superior functions such as maintaining inner balance with life realities (Mamman & Zakaria, 2016; Ramachandaran et al., 2017; Zohar & Marshall, 2000). This suggests that spiritual intelligence "is the central and most fundamental of all intelligences, because it becomes the source of guidance for the others" (Covey, 2004 p. 53).

Rego and Cunha (2008 p. 55) note that it is necessary to avoid "obsession with definition and work from guiding definitions". In the current study, the operational definition for spiritual intelligence

“is a set of mental capability which contribute to the awareness, integration, and adaptive application of one’s existence, leading to such outcomes as deep existential reflection, enhancement of meaning, recognition of a transcendent self, and mastery of spiritual states (King & DeCicco, 2009 p. 69). Smith (2014 p. 19) says that King and DeCicco’s *Spiritual Intelligence and Self-Report Instrument (SISRI-24)* “is the most closely tied to the intelligence criteria of Gardner”. King and DeCicco’s definition satisfy three criteria:

1. A set of characteristic mental abilities that are distinct from preferred behaviours.
2. The facilitation of adaption and problem solving.
3. Development over a lifespan.

Components of Spiritual Intelligence

Regardless of employees’ spiritual perspective, researchers have found ways to measure spiritual intelligence by advancing some components (Amram & Dryer, 2007; Emmons, 2000b; Hacker & Washington, 2017; Wigglesworth, 2006; Zohar & Marshall, 2000). Chan and Siu (2016) posit that King and DeCicco’s SISRI-24 components establish one of the most ecumenical (universal) concepts believed to be valid and worthy to assess spiritual intelligence. The components are core abilities presumably valued across cultures (Emmons, 2000a). Burrow (2005 p. 78) remarks that they “shift individuals from a state of acting from lower motivations (e.g. greed, anger, fear and self-assertion), to one of an acting, from higher motivations (e.g. cooperation, higher service and exploration)”. Hence, the components are expected to be transformative in nature.

King and DeCicco (2009) spiritual intelligence components are as follows:

1. Critical Existential Thinking (CET)

It is the “capacity to critically contemplate meaning, purpose, and existential or metaphysical issues” (King & DeCicco, 2009 p. 70). The component predisposes employees to ponder on existential issues such death, life, or the universe. Within this thinking process, they are able to use intuition to understand people or the world around them by viewing issues from different perspectives.

2. Personal Meaning Production (PMP)

It is the “ability to construct personal meaning and purpose in all physical and mental experiences, including the capacity to create and master a life purpose” (King & DeCicco, 2009 p. 70). Sisk (2015) argues that an experience of personal meaning often leads to sense of belongingness and fulfilment at the workplace. That is, employees are able to give symbolic meaning to events and circumstances (Zohar & Marshall, 2000). Ability to give symbolic meaning to issues bring wholeness, direction, and wellness.

3. Transcendental Awareness

King and DeCicco (2009 p. 71) refer to transcendental awareness as the act of “integrating individual goals with larger ones, such as the well-being of family, the community, humanity or the planet”. Research indicates that transcendental awareness can deepens love, compassion, and

wisdom for community work (Amram, 2009; Milliman & Bradley-geist, 2017). Hence, it a spiritual path that recognizes the values of others as well as that of the self.

4. Conscious State Expansion (CSE)

It is “the ability to enter spiritual states of consciousness at one’s own discretion” King and DeCicco (2009 p. 71). Researchers note that the component is presumed to be the hyper consciousness stage (Mahmood et al., 2018; Ramachandaran et al., 2017). Hence, employees tend to transform from self-centeredness to God-centredness or others- centeredness (Hacker & Washington, 2017). Wigglesworth (2006) notes that employees become less-ego driven and are more interested in being of service to others. Humility is a natural outcome of this process, so is courage, patience, and perseverance.

In this connection, studies are showing prominent interest on developing teachers’ spiritual intelligence. Marghzar and Marzban (2018) found a positive relationship between teachers’ efficacy and spiritual intelligence. Ghosh's (2018) study revealed that spiritual intelligence provides active, unity and meaningful centre for soul to help teachers think and solve both existential and daily problems. Wright et al., (1997) found out that more can be achieved through spirituality in improving education system. Rachel and Salini (2013) explained that academic achievements and effectiveness of teachers relates proportionally to their perceived level of spiritual intelligence. Bansal (2012) summed it that spiritual intelligence equips teachers with skills and ability to live with an open heart, hence are able to express innate spiritual qualities (e.g., love, peace or purity) through attitudes, behaviours and thoughts (Awais et al., 2015).

With the foregoing discussion, it may be important to consider same for Malaysian teachers. This will further kindle the continued effort by Ministry of Education towards improving the education sector. According to the Ministry’s guidelines (Amzat et al., 2017 p. 80), “teachers are expected to have good personality, possess knowledge and skills, foster an improvement in learning and contribute to the nation’s development.” So, validating a Malaysian version of *Spiritual Intelligence Scale* may augment the attainment of these set guidelines.

METHOD

Measure (instrument)

The research instrument used was King and DeCicco (2009) original version of Spiritual Intelligence Self-Report Inventory (*SISRI-24*). *SISRI-24* comes with 24 items on a five-point Likert-type scale of (0 = ‘not at all true of me’ and 4 = ‘completely true of me’) to measure various behaviours, thought processes and mental characteristics of individuals. *SISRI-24* is divided into four sub-scales; Critical Existential Thinking (CET – 7 items), Personal Meaning Production (PMP – 5 items), Transcendental Awareness (TA – 7 items) and Conscious State Expansion (CSE – 5 items). All sub-scale items were coded positively except for item SQ14 “*It is difficult for me to sense anything other than the physical and material*” on Transcendental Awareness (TA) which needed to be reversed prior to summing the scores.

The Original SISRI-24 total scores ranged from 0 – 96, with higher scores representing higher levels of spiritual intelligence and/or each capacity. Using a Varimax Normalized rotation, King and DeCicco (2009 p.76) reported a four-factor solution for SISRI-24, Cronbach’s Alpha ($\alpha = 0.92$) suggesting a good scale reliability, internal consistency and excellent psychometric properties. Its confirmatory factor analysis (CFA) revealed χ^2 / df ratio ($464.68 / 246$) = 1.86 ($p < .0001$), CFI (0.934), GFI (0.886) and RMSEA (0.055), indicating a saturated and good fit model.

PROCEDURE

To translate, adapt and validate a psychometrically sound Malaysian *SISRI-24* version for teachers, the authors followed Wild et al., (2005) Translation and Cultural Adaptation (TCA) guidelines. The validation process provided by Tsang et al., (2017) was equally helpful (see Figure 1).

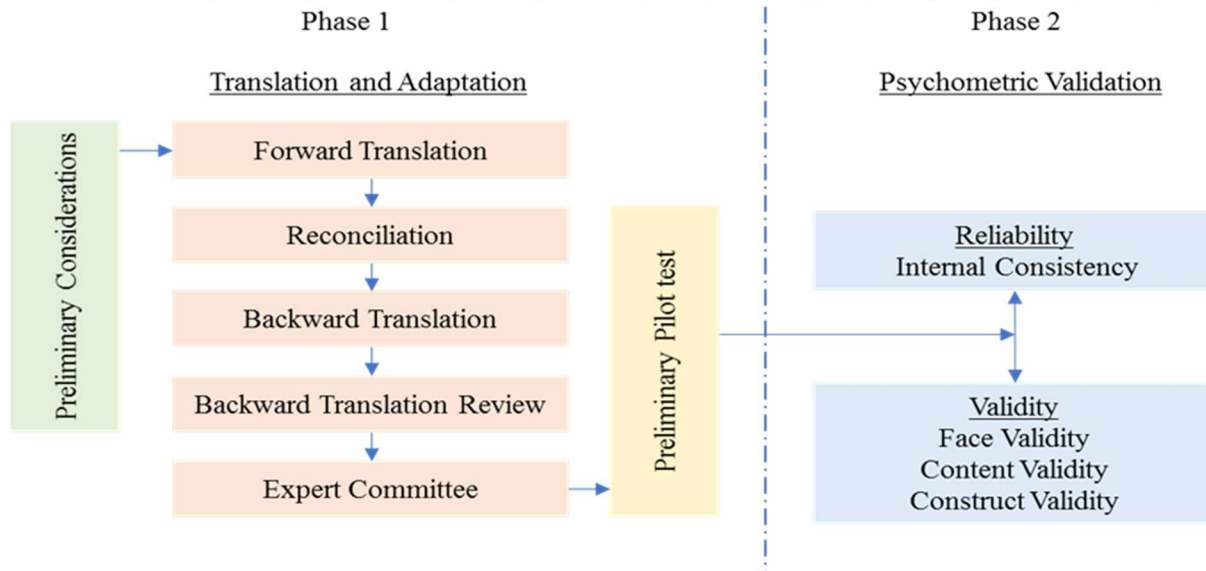


Figure 1: Graphic Representation of Translation, Cross-Cultural Adaptation and Validation (TCAV) Guidelines

The excellency of TCA guidelines has been well demonstrated and proven in existing literatures; e.g., English-Arabic (Siddiqui et al., 2017), English-Danish (Hertel-Joergensen et al., 2018), English-Chinese (Chan & Siu, 2016; Chen et al., 2012), English-Korean (Ko et al., 1997). Hence, adopting the TCA guidelines may deepen understanding on the uniqueness of Malaysian spiritual world. TCA guidelines come in two phases:

Phase 1: Translation and Adaption

Preliminary Considerations: Before the translation progress began, relevant information on each item in the questionnaire was conceptualized through an experienced in-country consultant who is fluent in English and Bahasa Melayu.

Forward Translation: Two bilingual translators were requested to independently carry out the initial forward translation from source (English) to target (Bahasa Melayu) language. Both are

native speakers of Bahasa Melayu. One of the forward translators is an expert and a specialist in English language and Bahasa Melayu. The other, is though, naïve of the concept being examined, but, an experienced translator with master's degree in Linguistic. Their task was to ensure that the translated version has a degree of similarity with the source (original) questionnaire. Hence, two independent colloquial translations that would be easily understood by the respondents are produced.

Reconciliation: Researchers (Guillemin et al., 1993; Siddiqui et al., 2017) proposed having a reconciliation panel to resolve discrepancies between the forward translators. The few identified discrepancies were reconciled to avoid biased or one-person's own personal style of writing (Beaton et al., 2007). More importantly, to ensure that the nuances in Bahasa Melayu were adequately captured. After reconciliation, an agreed translated version was produced, ready to be back-translated.

Backward Translation: Accordingly, back-translator(s) should be professionals, native speakers of the source language and fluent in the target language (Al-Sayah et al, 2013; Brislin et al., 1973). Preferably, they should have no prior knowledge of the original instrument (Althof et al., 2018; Guillemin et al., 1993), or any other language version of the instrument to avoid bias (Ortiz-Gutiérrez & Cruz-Avelar, 2018). In view of this, a naïve bilingual native English speaker was recruited to produce a blind back-translation into English. The outcome of this reversed process indicated that a substantial agreement with the original instrument.

Backward Translation Review: This review was done in conjunction with the in-country person (expert). It was aimed at ensuring that no mistranslation or omission exists, which may jeopardize or may remain permanent in the Malaysian SISRI-24 version.

Expert Committee: The expert committee ensured that the semantic, idiomatic, experiential and conceptual equivalence between the source and target (translated) questionnaire were achieved. To further lend credence to the translated questionnaire, a 12-year-old (roughly a Grade 6 level) pupil was recruited in order to assess these equivalences and the understandability of the translated questionnaire. This pre-test is a "general recommendation for newly developed questionnaires" (Beaton et al., 2000 p.3189). The committee reviewed all discrepancies, reached consensus and produced the pre-final version of the translated questionnaire for pilot testing.

Preliminary Pilot Testing: Based on recommendations (Hassan, 2006; Perneger et al., 2015), a 'probe technique' (Guillemin et al., 1993 p. 1424) was adopted to pilot test the pre-final translated questionnaire on 35 participants in order to ascertain its face and content validity. The outcome produced Cronbach's Alpha ($\alpha = 0.901$). This gave the assurance that a reasonable and effective translation have been conducted. Hence, the original SISRI-24 was adapted and renamed SISRI-24my as the Malaysian version.

Phase 2: Psychometric Validation of SISRI-24my Version

To establish the reliability and construct validity of SISRI-24my, it was administered to the main population.

Main Study Participants

Participants were teachers working around peninsular Malaysia. Through a list-based simple random sampling technique, 30 schools were randomly selected using *research randomizer* software. Apart from the initial covering letter, the researchers personally met with the school heads to brief them about the purpose of the study and the procedures for the survey.

Sample Size

15 teachers were randomly selected from each of the schools. Hence, 450 teachers were expected to respond to the survey questionnaire. This sample is adequate given the minimum threshold of five per item (Frost et al., 2007; Hair et al., 2010; Tsang et al., 2017).

Data Collection

To ensure confidentiality, data were collected electronically through Google forms. Antunes et al., (2017) argued that such means “guaranteed informed consent and data confidentiality” (p.5). It also offers the opportunity to respond to the questionnaire at convenience. Moreover, “more reliable data are likely to result since the respondents can go back and forth, and easily change a response” (Sekaran 2003, p. 250). The data were collected between May and August 2019.

Statistical Analysis

IBM SPSS 24.0 software was used for demography frequencies and EFA. AMOS 24.0 software was used for CFA data validation.

RESULTS

Response Rate

From 450 expected responses, 35 respondents participated in the pilot study instrument adaptation stage. Main study had 415 participants, out of which 389 responses were received, giving a response rate of 93.74%. 16 responses were invalidated with respect to Ron et al., (2015) recommendations. As a result, only a total valid 373 usable responses were finally analysed, giving a usable response rate of 89.88%. The high response rate was due to several follow-up measures (e.g., phone calls, emails, visitations). Besides, prior to beginning the survey, consultations were made with the heads of each school to pre-inform them on the intent of the survey. The convenience of the responding to an electronic questionnaire also contributed to the high response rate.

Social - Demographic Characteristics Report (Main Study)

Respondents are mostly aged between 30 and 45 years ($M= 2.35$; $SD = 1.02$). With respects of male (Table not shown), 52 (14.0%) and 167 (44.8%) females have master’s and bachelor’s degree respectively, 122 (32.7%) female have spent over 10 years in the teaching profession, while 176 (47.2%) were married.

The social-demographic table revealed unequal representation of gender as teachers. It can be inferred that there are more female teachers than their male counterpart. This outcome is not confounding given Ministry of Education (2018 p. 26) report which revealed that there are more females than males in the Malaysian education system generally.

Questionnaire Characteristics Report

The descriptive statistics of SISRI-24my (Table 1) revealed that average response on a scale of ‘0’ and ‘4’ was highest for item TA ($M = 3.22$, $SD = 0.81$). The lowest response was on CET ($M = 2.99$, $SD = 0.90$).

Table 1. Average Mean, Standard Deviations and Reliability

Constructs	Alpha	Items	Mean	SD
	0.929			
CET		7	2.99	0.90
PMP		5	3.13	0.85
TA		7	3.22	0.81
CSE		5	2.84	0.93
Aggregate Average Score		24	3.05	0.87

Nonetheless, aggregate average mean score for SISRI-24my ($M = 3.05$, $SD = 0.87$) reflects that the use spiritual intelligence is very true for majority of teachers. Careful observation of its skewness and kurtosis (not shown) indicated that they fell within acceptable z score range (± 1.96 ; $p = 0.05$). Supporting that data are normally distributed (Hair et al., 2010; Pallant, 2007).

Psychometric validation report:

Two validation processes: EFA and CFA: were performed.

Exploratory Factor Analysis (EFA)

EFA was performed to (re)confirm the factorial structure of SISRI-24my. All translated questionnaire items were subjected to principal component analysis (PCA) using orthogonal - varimax rotation technique. Prior to performing PCA, the suitability of data for factor analysis was assessed. Inspection of correlation matrix (not displayed here due to space) revealed the presence of coefficients $r \geq 0.3$ (Pallant, 2007), correlation matrix determinant value (R -matrix > 0.00001) (Hair et al., 2010), KMO was 0.890, exceeding the recommended value 0.6 (Kaiser, 1974), and Bartlett’s Test of Sphericity (App. $\chi^2 = 2682.111$; $df = 190$; $p < 0.05$) reached statistical significance (Bartlett, 1954; Tabachnick & Fidell, 2007), supporting the factorability of the correlation matrix. The adequacy of the data was equally proven with items having communalities values above recommended 0.3 threshold (Antunes et al., 2017; Pallant, 2007).

In Table 2, factors were retained based on Kaiser’s criterion, Scree plot and “predetermined number of factors based on research objectives and /or prior research” (Hair et al., 2006, p. 122). Factor loading during extraction was pegged at 0.5 to reveal the practical significance of each

variable. Hair et al., (2006) posit that “values greater than ± 0.50 are generally considered necessary for practical significance” (p. 219).

Table 2. Rotated Component Matrix^a

Items	Components				Communality
	1 CET	2 PMP	3 TA	4 CSE	
SQ6	0.825				0.723
SQ4	0.727				0.603
SQ5	0.714				0.566
SQ7	0.654				0.668
SQ3	0.648				0.596
SQ2	0.506				0.526
SQ9		0.859			0.755
SQ11		0.787			0.735
SQ10		0.753			0.609
SQ8		0.622			0.437
SQ12		0.614			0.600
SQ18			0.786		0.777
SQ19			0.757		0.752
SQ15			0.694		0.685
SQ17			0.576		0.469
SQ13			0.520		0.562
SQ20				0.812	0.670
SQ21				0.655	0.608
SQ23				0.614	0.652
SQ22				0.568	0.612
Sum of Squares	3.616	3.307	3.429	2.273	12.625
Percentage of trace	18.08	16.54	17.15	11.36	63.13
Cronbach's Alpha	0.843	0.830	0.837	0.785	
Determinant Value 0.0001 at (<i>R-matrix</i> > 0.00001)					
Total % Variance explained 63.13%					
Kaiser-Mayer-Olkin Measure (KMO) 0.890					
Bartlett's test of Sphericity 0.000 at (<i>p</i> < 0.05)					

Four items (SQ1, SQ14, SQ16, SQ24) did not load on any of the factored components. So, a re-run of PCA produced a four-components solution with 20 items. Both Kaiser's criteria and Screeplot (not displayed here due to space) equally supported the four-factor solution. To confirm this, varimax normalized rotation was performed. The rotated component matrix also produced

four components with a number of strong loading and all variables loading substantially on each component extracted (Table 2). The naming of the four components was based on existing literature (Antunes et al., 2017; Fontaine, 2018; King & DeCicco, 2009; Osman-Gani & Hassan, 2018).

The reliability of the new factored solution was re-examined, Cronbach’s alpha revealed 0.816, 0.816, 0.856 and 0.741 for CET, PMP, TA and CSE respectively. The overall scale reliability for SISRI-20my is 0.911 (see Table 3).

Table 3. Reliability Statistics for SISRI-20my

Spiritual Intelligence Self-Report Inventory	No of items	Cronbach’s Alpha (α)	
		Original	Translated
Critical Existential Thinking (CET)	6	0.78	0.843
Personal Meaning Production (PMP)	5	0.78	0.830
Transcendental Awareness (TA)	5	0.87	0.837
Conscious State Expansion (CSE)	4	0.91	0.785
Overall Reliability Value for Main Study	20		0.911

Only CSE was slightly low when compared to the original (source) questionnaire, researchers explained that sometimes “it is not always the case” that the translated questionnaire version has sound construct validity and reliability as the source questionnaire (Beaton et al, 2000 p. 3189). Perhaps, due to cultural differences (Bjorner et al., 1998) or the uniqueness of a particular population sample (Wilkinson, 1999) which often renders specific item(s) in the source (original) questionnaire difficult to translate. Hence, researchers may experience changes in statistical or psychometric properties of an instrument. Nonetheless, Nunnally (1978) assents that an 0.70 value indicate good scale internal consistency. So, in the overall, the translated questionnaire demonstrated good properties to engage in further statistical test (Cronbach, 1951; Hair et al., 2010).

Confirmatory Factor Analysis (CFA):

CFA was carried out to test how well the factored solution represents the sampled population. Maximum Likelihood method was adopted using AMOS 24 software to determine fit indices. Results are as displayed in Table 4.

Table 4. CFA Result for Spiritual Intelligence Self Report Inventory

Goodness-of-Fit Statistics	Default Model	Modified Model	Threshold
	SISRI-20my	SISRI-19my	
Chi-Square (χ^2) / <i>df</i>	529.840 / 164	354.521 / 141	Sensitive to size
Absolute Fit Measures			
P-value	0.000	0.000	
Normed Chi-square (CMIN/DF)	3.231	2.514	2 > χ^2 < 5*
Root Mean Sq. Error of Appr. (RMSEA)	0.094	0.077	< 0.08**
Goodness of Fit Index (GFI)	0.827	0.874	> 0.90 ***
Incremental Fit Indices			
Comparative Fit Index (CFI)	0.870	0.921	> 0.90 ***
Tucker-Lewis Index (TLI)	0.849	0.904	> 0.90 ***
Incremental Fit Index (IFI)	0.871	0.922	> 0.90 ***

*Ratios as low or as high as 5 indicate a reasonable fit (Marsh & Hocevar, 1985)

**Values of about 0.08 or less would indicate a reasonable fit (Browne & Cudeck, 1993)

**Values closer to 1 indicate a very good fit (Bentler, 1983; Zainudin, 2014)

During CFA, item SQ8 was further deleted because it fell below expected loading values. This further reduced the translated scale to 19 items (i.e., SISRI-19my). A four-components 19 items solution provided reasonable fit for a Malaysian version of spiritual intelligence scale with χ^2 / df ratio (354.512 / 141) = 2.514, RMSEA (0.077) and CFI (0.921). All values are within the stipulated ranges for good model fit. Therefore, SISRI-19my is ideally suitable for Malaysian teachers.

SISRI-19my was further subjected to construct validity test, examined through convergent validity, and discriminate validity.

Table 5. Reliability and Validity Assessment Tests

	Values for SISRI-19my	Threshold	Remarks
Construct Reliability (CR)	0.955	CR ≥ 0.70	Supported
Average Variance Extracted (AVE)	0.531	AVE ≥ 0.50	Supported
Cronbach Alpha (α)	0.925	α > 0.60	Supported
Convergent Validity		CR > AVE	Supported

In Table 5, CR is 0.95 and AVE is 0.531. These satisfy the rule of thumb that “average variance extracted (AVE) should equal or exceed 50 percent, with 0.70 as the minimum threshold for construct reliability” (Hair et al., 2006 p. 808). Hence, SISRI-19my demonstrated convergent validity.

Table 6. SISRI-19my Construct Correlation Matric

	CET	PMP	TA	CSE
CET	1	0.14**	0.41**	0.31**
PMP	0.37*	1	0.35**	0.34**
TA	0.64*	0.59*	1	0.45**
CSE	0.56*	0.58*	0.67*	1
Discriminant Validity	MSV < AVE			Supported

*Significance Level: *0.01 (2-tailed)*

***Maximum Shared Variance (MSV)*

Note: Values below the diagonal are correlation estimates among constructs, diagonal elements are constructs variances, and values above the diagonal are squared correlations.

In Table 6, AVE (0.531) is greater than the corresponding inter-construct squared correlation estimates (i.e., maximum shared variance - MSV). Thereby, establishing the discriminant validity for SISRI-19my scale. Correlation revealed that all components relate significantly positively to one another ($p < 0.01$). Taken together, there is support for SISRI-19my construct validity.

DISCUSSION

In this study, SISRI-24 (King & DeCicco, 2009) scale was translated, adapted into Bahasa Melayu and its psychometric properties validated by 373 teachers. This task was carried out in two phases, translation and adaptation phase, and the psychometric validation phase. The translation phase achieved both linguistic and cultural appropriateness (Wild et al., 2005; Beaton et al., 2000) as was demonstrated through the outcome of the pilot study. Therefore, there were no major concerns following TCA guidelines. This study considers TCA guidelines suitable because it meets “the scientific requirements for translation of instrument dealing with latent phenomena” (Hertel-Joergensen et al., 2018 p. 46) such as spiritual intelligence.

Thereafter, the psychometric validation phase employed the aid of different statistical tools to arrive at the most appropriate factorial structure for a Malaysian version of SISRI-24. The outcome revealed that the four components in the original SISRI-24 are equally suitable for a Malaysian version, except for reduction of items in the new scale. This was demonstrated through the use of PCA during EFA. Four factor-solution were extracted consist with the original scale. Though, 20 items were originally extracted as against 24 items proposed by King and DeCicco (2009).

The difference between the original scale (SISRI-24) and the translated scale (SISRI-20) might have arisen due to culture or social demography (Bjorner et al., 1998; Wilkinson, 1999). For instance, the age range for the original scale was between 17 to 59 years ($M = 25.51$; $SD = 5.51$) and participants were undergraduate psychology students (King & DeCicco, 2009 p. 73), whereas, the current study had age range between 25 to 55 ($M = 39$; $SD = 6.77$) with teachers as participants. Working experience as a social-demographic characteristic in current study might also be a contributory factor. This, as against the original scale which had students’ populace as respondents.

As shown in Table 3, all components, except CSE, displayed higher reliability than those of the original scale. The higher reliability may have been influenced by the religious tenets of the

sampled population. A low reliability of CSE component might have been accounted for by teachers' inability to differentiate between goals and idealization. In spite of these differences, extracted factor loading for each sub-scale items were commendable. The highest and lowest EFA values are items SQ6 (0.825) and SQ2 (0.506) on CET sub-scale.

CFA confirmed that SISRI-19 my provides a better goodness-of-fit (GOF). Virtually, all its fit indices are better than the default scale (see, Table 4), suggesting the suitability of the modified measurement model for Malaysian teachers. Both convergent and discriminant validity provided good construct validity, such that, all translated sub-scale components have significant correlation with each other.

Taken together, empirical evidence supports a four-structure 19 items (SISRI-19 my) in order to develop spiritual intelligence of teachers in Malaysia. Apart from improving their wellness, it may further enhance their role functioning in nurturing younger generation towards nation building. Lynton and Thøgersen (2009) argued that spiritual intelligent people often show characteristics which include but not limited the following: ability to recognize and use their spiritual values for effectiveness, perform to standard, express enthusiasm, be diligent and so forth.

CONCLUSION

The current study has successfully translated, adapted and validity the SISRI-19 my for Malaysian teachers. It is a multi-dimensional scale which seeks to improve the welfare and role functioning of teachers. Spiritual intelligence will aid in navigating the storm of life which might present themselves through psychological or physiological activities. Hence, would facilitate an open and honest relationship with all stakeholders (e.g., students, co-workers, parents or school administrators) to build a successful nation.

LIMITATION AND FUTURE AREAS OF STUDY

Besides the study being cross-sectional, it is limited by the sampled population. Only private secondary school teachers participated in the survey. Subsequent study may be carried out to see if the study outcome is generalisable to government (public) schools' teachers or other service workers.

REFERENCES

- Al-Sayah, F., Ishaque, S., Lau, D., & Johnson, J. A. (2013). Health related quality of life measures in Arabic speaking populations: A systematic review on cross-cultural adaptation and measurement properties. *Quality of Life Research*, 22, 213–229. <https://doi.org/10.1007/s11136-012-0129-3>
- Althof, S. E., Rosen, R. C., & Revicki, D. A. (2018). Linguistic and cultural validation of patient-reported outcomes used in clinical trials. *The Journal of Sexual Medicine*, 15(2), 115–117. <https://doi.org/10.1016/j.jsxm.2017.11.017>

- Amram, Y. (2009). The contribution of emotional and spiritual intelligences to effective business leadership. (Unpublished doctoral dissertation). Institute of Transpersonal Psychology, Palo Alto, CA.
- Amram, Y., & Dryer, C. (2007). The development and preliminary validation of the Integrated Spiritual Intelligence Scale (ISIS). Unpublished manuscript.
- Amzat, I. H., Don, Y., Fauzee, S. O., Hussin, F., & Raman, A. (2017). Determining motivators and hygiene factors among excellent teachers in Malaysia: An experience of confirmatory factor analysis. *International Journal of Educational Management*, 31(2), 78–97. <https://doi.org/10.1108/IJEM-03-2015-0023>
- Antunes, R. R., Silva, A. P., & Oliveira, J. (2017). Spiritual Intelligence Self-Assessment Inventory: Psychometric properties of the Portuguese version of SISRI-24. *Journal of Religion, Spirituality and Aging*, 30(1), 12–24. <https://doi.org/10.1080/15528030.2017.1324350>
- Anwar, M. A., Osman-Gani, A. M., Fontaine, R., & Rahman, M. S. (2017). Assessing organizational citizenship behaviour through constructing emotional intelligence. *Asia-Pacific Journal of Business Administration*, 9(2), 105–117. <https://doi.org/10.1108/APJBA-05-2016-0049>
- Awais, M., Malik, M. S., & Qaisar, A. (2015). A review: The job satisfaction act as mediator between spiritual intelligence and organizational commitment. *International Review of Management and Marketing*, 5(4), 203–210.
- Bansal, P. (2012). *Developing spiritual intelligence: contemporary practices in teacher education*. Panjab University Sponsored National Seminar on Spiritual Intelligence/ Dev Samaj College of Education ,Sec 36, Chandigarh.
- Bartlett, M. S. (1954). A Note on the multiplying factors for various Chi Square approximations. *Journal of the Royal Statistical Society*, 16, 296–298.
- Beaton, D., Bombardier, C., Guillemin, F., & Ferraz, M. B. (2000). Guidelines for the process of cross-cultural adaptation of self-report measures. *Spine*, 25(24), 3186–3191.
- Beaton, D., Bombardier, C., Guillemin, F., & Ferraz, M. B. (2007). Recommendations for the cross-cultural adaptation of the DASH & QuickDASH outcome measures. *Institute for Work & Health*, June, 1–45.
- Bentler, P. M. (1983). Simultaneous equation systems as moment structure models - With an Introduction to Latent Variable Models. *Journal of Econometrics*, 22, 13–42.
- Bhatti, O. K., Alam, M. A., Hassan, A., & Sulaiman, M. (2016). Islamic spirituality and social responsibility in curtailing the workplace deviance. *Humanomics*, 32(4), 405–417. <https://doi.org/10.1108/H-03-2016-0022>
- Bjorner, J. B., Kreiner, S., Ware, J. E., Damsgaard, M. T., & Bech, P. (1998). Differential item functioning in the Danish translation of the SF-36. *Journal of Clinical Epidemiology*, 51(11), 1189–1202.
- Brislin, R. W., Lonner, W. J., & Thorndike, R. M. (1973). *Cross-cultural research methods*. New York: Wiley.

- Browne, M. W., & Cudeck, R. (1993). Alternative ways of accessing model fit. In K. A. Bollen & J. S. Long (Eds.), *Testing structural equation models* (pp. 136–162). Newbury Park, CA: Sage.
- Burrows, L. (2005). SQ: Connecting with our Spiritual Intelligence. *Gifted and Talented International*, 20(2), 78–80. <https://doi.org/10.1080/15332276.2005.11673456>
- Chan, A. W. Y., & Siu, A. F. Y. (2016). Application of the spiritual intelligence self-report inventory (SISRI-24) among Hong Kong university students. *International Journal of Transpersonal Studies*, 1(1), 1–12.
- Chen, Z., Sun, H., Lam, W., Hu, Q., Huo, Y., & Zhong, J. A. (2012). Chinese hotel employees in the smiling masks : roles of job satisfaction , burnout , and supervisory support in relationships between emotional labor and performance. *The International Journal of Human Resource Management*, 23(4), 826–845.
- Covey, S. (2004). *The 8th Habit: From Effectiveness to Greatness*. Simon and Schuster.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3), 297–334.
- Emmons, R. A. (2000a). Is spirituality an intelligence? motivation, cognition, and the psychology of ultimate concern. *International Journal for the Psychology of Religion*, 10(1), 3–26. https://doi.org/10.1207/S15327582IJPR1001_2
- Emmons, R. A. (2000b). Spirituality and intelligence: Problems and prospects. *The International Journal for the Psychology of Religion*, 10(1), 57–64. <https://doi.org/10.1207/S15327582IJPR1001>
- Fontaine, R. (2018). Developing spiritual intelligence: Some new evidence. *International Journal of Islamic Management and Business*, 7(1), 95–107.
- Fontaine, R., Khaliq, A., & Oziev, G. (2017). *Islamic leadership today*. Kuala Lumpur: ICIFE, IIUM.
- Frost, M. H., Reeve, B. B., Liepa, A. M., Stauffer, J. W., Hays, R. D., & Mayo, F. P. M. C. (2007). What is sufficient evidence for the reliability and validity of patient-reported outcome measures? *Value in Health*, 10(Supplement 2), 94–105.
- Fry, L. W., Latham, J. R., Clinebell, S. K., & Krahnke, K. (2016). Spiritual leadership as a model for performance excellence: A study of Baldrige award recipients. *Journal of Management, Spirituality & Religion*, 6086(July), 1–27. <https://doi.org/10.1080/14766086.2016.1202130>
- Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. New York, NY: Basic Books.
- Gardner, H. (2000). A Case against spiritual intelligence. *International Journal for the Psychology of Religion*, 10(1), 27–34.
- Ghosh, S. (2018). Status of workplace spiritual intelligence among secondary school teachers. *International Journal of Science and Research*, 7(8), 77–86. <https://doi.org/10.21275/ART2019264>
- Gross, J. J. (1998). The emerging field of emotion regulation: an integrative review. *Review of General Psychology*, 2(3), 271–299.
- Guillemin, F., Bombardier, C., & Beaton, D. (1993). CROSS-cultural Adaptation of Health-related quality of life measures: Literature review and proposed guidelines. *J Clin Epidemiol*, 46(12), 1417–1432.

- Hacker, S. K., & Washington, M. (2017). Spiritual intelligence: going beyond IQ and EQ to develop resilient leaders. *Global Business and Organizational Excellence*, (March/April), 21–28. <https://doi.org/10.1002/joe.21777>
- Hair, J. F. (Jr.), Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). New Jersey: Prentice Hall.
- Hair, J. F. (Jr.), Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis* (6th ed.). New Jersey: Prentice Hall.
- Hassan, Z. (2006). Doing a pilot study: why is it essential? *Malaysian Family Physician*, 1(2 & 3), 70–73.
- Hertel-Joergensen, M., Abrahamsen, C., & Jensen, C. (2018). Translation, adaptation and psychometric validation of the good perioperative nursing care scale (GPNCS) with surgical patients in perioperative care. *International Journal of Orthopaedic and Trauma Nursing*, 29, 41–48. <https://doi.org/10.1016/j.ijotn.2018.03.001>
- Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrika*, 39(1), 31–36.
- Kaite, C. E., Blaine, R., & David, P. (2012). Religion and the Acceptability of White-Collar Crime : A Cross-National Analysis. *Journal for the Scientific Study of Religion*, 51(3), 542–567.
- Khaliq, A. (2018). Organizational leadership and Succession practices for spirited executives. *Malaysian Management Review*, 53(1), 39–54.
- Khaliq, A., & Ogunsola, O. K. (2011). An empirical assessment of Islamic leadership principles. *International Journal of Commerce and Management*, 21(3), 291–318. <https://doi.org/10.1108/10569211111165325>
- King, D. B. (2008). *Rethinking claims of spiritual intelligence: A definition, model and measure*. Unpublished Master's Thesis. Trent University, Peterborough, Ontario, Canada.
- King, D. B., & DeCicco, T. L. (2009). A Viable model and self-report measure of spiritual intelligence. *International Journal of Transpersonal Studies*, 28(1), 68–85.
- Klerk-luttig, J. De. (2008). Spirituality in the workplace: a reality for South African teachers? *South African Journal of Education*, 28, 505–517.
- Ko, J., Price, J. L., & Mueller, C. W. (1997). Assessment of Meyer and Allen's three-component model of organizational commitment in South Korea. *Journal of Applied Psychology*, 82(6), 961–973.
- Kulshrestha, S., & Singhal, T. K. (2017). Impact of spiritual intelligence on performance and job satisfaction: A study on school teachers. *International Journal of Human Resource & Industrial Research*, 4(2), 1–6. <https://doi.org/10.5281/zenodo.343742>
- Kumari, M., & Chahal, D. (2017). Spiritual intelligence of secondary school teachers in relation to their demographic variables. *International Journal of Academic Research and Development*, 2(4), 462–465.
- Letendre, G. K., & Wiseman, A. W. (2015). Introduction: the challenges of teacher effectiveness and quality worldwide. *Promoting and Sustaining a Quality Teacher Workforce*, 27, 1–38.
- Lynton, N., & Thøgersen, K. H. (2009). Spiritual intelligence and leadership in the China laboratory. *Journal of International Business Ethics*, 2(1), 112–118.

- Mahmood, A., Arshad, M. A., Ahmed, A., Akhtar, S., & Khan, S. (2018). Spiritual intelligence research within human resource development: A thematic review. *Management Research Review, 41*(8), 987–1006. <https://doi.org/10.1108/MRR-03-2017-0073>
- Mamman, A., & Zakaria, H. B. (2016). Spirituality and Ubuntu as the foundation for building African institutions, organizations and leaders. *Journal of Management, Spirituality and Religion, 13*(3), 246–265. <https://doi.org/10.1080/14766086.2016.1159976>
- Marghzar, S. H., & Marzban, A. (2018). The relationship between spiritual intelligence and efficacy among Iranian EFL teachers. *Theory and Practice in Language Studies, 8*(1), 67–73.
- Marsh, H. W., & Hocevar, D. (1985). Application of confirmatory factor analysis to the study of self-concept: First- and higher order factor models and their invariance across groups. *Psychological Bulletin, 97*(3), 562–582.
- Milliman, J., & Bradley-geist, J. C. (2017). The implications of workplace spirituality for person – environment fit theory. *Psychology of Religion and Spirituality, 9*(1), 1–12.
- Munawar, K., & Tariq, O. (2017). Exploring relationship between spiritual intelligence, religiosity and life satisfaction among elderly Pakistani Muslims. *Journal of Religion and Health, 57*(3), 781–795. <https://doi.org/10.1007/s10943-017-0360-x>
- Nasel, D. D. (2004). Spiritual orientation in relation to spiritual intelligence: A consideration of traditional Christianity and New Age/individualistic spirituality. Unpublished doctoral dissertation, University of South Australia.
- Noble, K. D. (2000). Spiritual intelligence: A new frame of mind. *Spirituality and Giftedness, 9*, 1–29.
- Nunnally, J. C. (1978). *Psychometric theory*. New York: McGraw-Hill.
- Ogunsola, K. O. (2018). Servant leadership: Developing an Islamic performance appraisal instrument for Muslim managers. *Malaysian Management Review, 53*(1), 55–76.
- Omar, N., Said, R., & Johari, Z. A. (2016). Corporate crimes in Malaysia: A profile analysis. *Journal of Financial Crime, 23*(2), 257–272. <https://doi.org/10.1108/JFC-05-2014-0020>
- Ortiz-Gutiérrez, S., & Cruz-Avelar, A. (2018). Translation and cross-cultural adaptation of health assessment tools. *Actas Dermo-Sifiliográficas (English Edition), 109*(3), 202–206. <https://doi.org/10.1016/j.adengl.2018.02.003>
- Osman-Gani, A. M., Hashim, J., & Ismail, Y. (2013). Establishing linkages between religiosity and spirituality on employee performance. *Employee Relations, 35*(4), 360–376. <https://doi.org/10.1108/ER-04-2012-0030>
- Osman-Gani, A. M., & Hassan, Z. (2018). Impact of spiritual and cultural intelligence on leadership effectiveness: a conceptual analysis. *Journal of Islamic Management Studies, 2*(1), 12–23. <https://doi.org/10.24961/j.tek.ind.pert.2018.28.1.61>
- Pallant, J. (2007). *SPSS survival manual: A step-by-step guide to data analysis using SPSS for Windows (version 15)* (3rd ed.). Australia, Allen & Unwin.
- Palmer, P. J. (2003). Teaching with heart and soul: reflections on spirituality in teacher education. *Journal of Teacher Education, 54*(5), 376–385. <https://doi.org/10.1177/0022487103257359>

- Perneger, T. V., Courvoisier, D. S., Hudelson, P. M., & Gayet-Ageron, A. (2015). Sample size for pre-tests of questionnaires. *Quality of Life Research, 24*(1), 147–151. <https://doi.org/10.1007/s11136-014-0752-2>
- Rachel, G. M., & Salini, V. (2013). Spiritual intelligence, its correlation with teacher effectiveness and academic achievement – A study. *International Journal of Education and Psychological Research, 2*(2), 106–110.
- Ramachandaran, S. D., Krauss, S. E., Hamzah, A., & Idris, K. (2017). Effectiveness of the use of spiritual intelligence in women academic leadership practice. *International Journal of Educational Management, 31*(2). <https://doi.org/http://dx.doi.org/10.1108/MRR-09-2015-0216>
- Rani, F., & Chahal, D. (2017). Teacher effectiveness in relation to spiritual intelligence of governmental and public school teachers. *Scholarly Research Journal for Humanity Science & English Language, 4*(22), 5317–5325.
- Rego, A., & Pina e Cunha, M. (2008). Workplace spirituality and organizational commitment: an empirical study. *Journal of Organizational Change Management, 21*(1), 53–75. <https://doi.org/10.1108/09534810810847039>
- Ron, D. H., Honghu, L., & Arie, K. (2015). Use of internet panels to conduct surveys. *Behav Res, 47*(July), 685–690. <https://doi.org/10.3758/s13428-015-0617-9>
- Sarif, S. M. (2014). Tawhidic paradigm and organizational policy and strategy practices. *South East Asia Journal of Contemporary Business, Economics and Law, 5*(2), 28–35.
- Sekaran, U. (2003). *Research methods for business: a skill building approach* (4th ed.). John Wiley & Sons, Inc.
- Siddiqui, K. S., Abu-Riash, M., & Al-Suliman, A. (2017). Translation and adaptation of English language questionnaire into Arabic for implementation of a large survey on assessing the symptoms of bleeding disorders in Saudi Arabia. *J Appl Hemato, 8*, 156–158. <https://doi.org/10.4103/joah.joah>
- Sisk, D. A. (2015). Spiritual intelligence: developing higher consciousness revisited. *Gifted Education International, 32*(3), 1–15. <https://doi.org/10.1177/0261429415602567>
- Smith, B. (2014). *Spiritual Intelligence: Definitions and Measurements*. Fielding Graduate University. Retrieved from <http://pre-beta.com/clients/zampella/wp-content/uploads/2014/08/Spiritual-IntelligenceBarrySmithPaper.pdf>
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (5th ed.). Boston: Pearson Education.
- Tsang, S., Royse, C. F., & Terkawi, A. S. (2017). Guidelines for developing, translating, and validating a questionnaire in perioperative and pain medicine. *Saudi Journal of Anaesthesia, 11*(1), 1–15. https://doi.org/10.4103/sja.SJA_203_17
- Upadhyay, S. (2017). Can spiritual intelligence influence research performance in higher education? Framework for human resource development in higher education. *Administrative Management Public, 28*, 153–173.
- Vaughan, F. (2002). What is spiritual intelligence? *Journal of Humanistic Psychology, 42*(2), 16–33. <https://doi.org/10.1177/0022167802422003>

- Wigglesworth, C. (2006). Why spiritual intelligence is essential to mature leadership. *Integral Leadership Review*, 6(3). Retrieved from <http://integrallleadershipreview.com/5502-feature-article-why-spiritual-intelligence-is-essential-to-mature-leadership/>
- Wild, D., Grove, A., Martin, M., Eremenco, S., Mcelroy, S., Verjee-lorenz, A., & Erikson, P. (2005). Principles of good practice for the translation and cultural adaptation process for patient-reported outcomes (PRO) measures: Report of the ISPOR task force for translation and cultural adaptation. *Value in Health*, 8(2), 94–104.
- Wilkinson, L. (1999). Statistical methods in psychology journals: Guidelines and explanations. *American Psychologist*, 54(8), 594–604.
- Wright, S. P., Horn, S. P., & Sanders, W. L. (1997). Teacher and classroom context effects on student achievement: Implications for Teacher Evaluation. *Journal of Personnel Evaluation in Education*, 11, 57–67.
- Yocum, R. G., Densmore-james, S., Staal, L. A., Pinkie, E. C., & Yocum, D. A. E. (2016). Exploring spiritual needs in the Classroom – Implications for educators. *Forum on Public Policy*. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1126343.pdf>
- Zainudin, A. (2014). *A handbook on SEM for academicians and practitioners. The step by step practical guides for the beginners*. Selangor: MPWS Rich Resources.
- Zembylas, M. (2003). Caring for teachers emotion: Reflections on teacher self-development. *Studies in Philosophy and Education*, 22, 103–125.
- Zohar, D., & Marshall, I. (2000). *SQ-Spiritual Intelligence: The ultimate intelligence*. London: Bloomsbury Publishing.

Appendix A

Spiritual Intelligence Self-Report Inventory (SISRI-24) - Original Version (King & DeCicco, 2009)

Critical Existence Thinking (CET) – 7 items

SQ1	I have often questioned or pondered the nature of reality.
SQ2	I have spent time contemplating the purpose or reason for my existence.
SQ3	I am able to deeply contemplate what happens after death.
SQ4	I have developed my own theories about such things as life, death, reality, and existence.
SQ5	I frequently contemplate the meaning of events in my life.
SQ6	I have often contemplated the relationship between human beings and the rest of the universe.
SQ7	I have deeply contemplated whether or not there is some greater power or force (e.g., god, goddess, divine being, higher energy, etc.).

Personal Meaning Production (PMP) – 5 items

SQ8	My ability to find meaning and purpose in life helps me adapt to stressful situations.
SQ9	I am able to define a purpose or reason for my life.
SQ10	When I experience a failure, I am still able to find meaning in it.
SQ11	I am able to make decisions according to my purpose in life.
SQ12	I am able to find meaning and purpose in my everyday experiences.

Transcendental Awareness (TA) – 7 items

SQ13	I recognize aspects of myself that are deeper than my physical body.
SQ14	It is <i>difficult</i> for me to sense anything other than the physical and material.
SQ15	I am aware of a deeper connection between myself and other people.
SQ16	I define myself by my deeper, non-physical self.
SQ17	I am highly aware of the nonmaterial aspects of life.
SQ18	I recognize qualities in people which are more meaningful than their body, personality or emotions.
SQ19	Recognizing the nonmaterial aspects of life helps me feel centred.

Conscious State Expansion (CSE) – 5 items

SQ20	I am able to enter higher states of consciousness or awareness.
SQ21	I can control when I enter higher states of consciousness or awareness.
SQ22	I am able to move freely between levels of consciousness or awareness.
SQ23	I often see issues and choices more clearly while in higher states of consciousness / awareness.
SQ24	I have developed my own techniques for entering higher states of consciousness or awareness

Appendix B

Spiritual Intelligence Self-Report Inventory (SISRI-19my) – Malay Version

Pemikiran Eksistensi Kritis – 6 items

SQ2	Saya telah mengambil masa untuk berfikir sedalam-dalamnya tujuan hidup saya.
SQ3	Saya boleh memikirkan secara mendalam kehidupan perihal selepas kematian.
SQ4	Saya telah mempunyai kefahaman saya sendiri berkenaan perkara seperti kehidupan, kematian dan realiti.
SQ5	Saya kerap memikirkan makna di sebalik perkara-perkara yang berlaku di dalam kehidupan saya.
SQ6	Saya kerap memikirkan hubungan antara manusia dengan hidupan lain.
SQ7	Saya telah memikirkan secara mendalam tentang kewujudan sebuah kuasa yang lebih tinggi (eg: Tuhan, Dewa, etc.)

Pengeluaran Maksud Peribadi – 4 items

SQ9	Saya boleh memberi maksud tujuan kehidupan saya.
SQ10	Apabila saya gagal dalam sesuatu, saya mampu mencari maksud di sebaliknya.
SQ11	Saya mampu membuat pilihan berdasarkan tujuan hidup saya.
SQ12	Saya mampu mencari makna di sebalik kehidupan seharian saya.

Kesedaran Transendental – 5 items

SQ13	Saya menyedari akan aspek diri sendiri yang lebih mendalam daripada fizikal saya.
SQ15	Saya menyedari bahawa ada hubungan yang lebih mendalam antara saya dengan orang lain.
SQ17	Saya sangat peka akan aspek kehidupan yang bukan bersifat kebendaan.
SQ18	Saya mengenali kualiti dalam diri orang lain yang merangkumi fizikal, emosi dan personaliti mereka.
SQ19	Saya menyedari sifat bukan kebendaan menjadikan hidupan saya lebih terurus.

Pengembangan Negeri Sadar – 4 items

SQ20	Saya mampu memasuki ke dalam keadaan kesedaran yang lebih tinggi.
SQ21	Saya boleh mengawal apabila saya memasuki keadaan kesedaran yang lebih tinggi.
SQ22	Saya mampu bergerak bebas antara tahap keadaan kesedaran
SQ23	Saya sering melihat isu dan pilihan saya dengan lebih jelas apabila berada dalam keadaan kesedaran yang lebih tinggi.