

# A CROSS-CULTURAL COMPARISON OF THE PERMA MODEL OF WELL-BEING

## A Cross-Cultural Comparison of the PERMA Model of Well-being

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### Abstract

Seligman's (2011) PERMA theory of well-being describes a multi-dimensional approach in order to define what it means to flourish in life. The PERMA constructs include Positive emotion (P), Engagement (E), Relationships (R), Meaning (M), and Accomplishment (A). Butler and Kern (2014) developed the PERMA-Profiler, a brief measure of PERMA. In this study, we extend the PERMA-Profiler to a Malaysian sample, in order to examine how well the measure works in another culture. Participants ( $N = 322$ ) completed the PERMA-profiler, and subset of participants ( $n = 268$ ) also answered two qualitative questions about their perspectives on well-being. We compared the sample means to data previously collected from participants in the United States ( $N = 5,456$ ). The Malaysian sample was significantly lower than the US sample on all of the PERMA domains. Next, we used factor analysis to examine the proposed five-factor structure. A three-factor model (positive emotion/ relationships, meaning/accomplishment, and engagement) fit the data better than the proposed five factors. We then coded and examined the qualitative questions on perceptions of well-being. While the PERMA constructs were generally represented, there were also other constructs that went beyond the PERMA model, such as religion,

health, and security. Examining the PERMA-Profilers in Malaysia provides the opportunity to understand well-being more comprehensively in different cultures and evaluate how individuals in specific cultures flourish.

## **Flourishing in Malaysia:**

### **A Cross-Cultural Comparison of the PERMA Model of Well-being**

The field of positive psychology has grown in leaps and bounds over the past two decades, and not without reason. Evidence shows that subjective well-being and associated constructs such as life satisfaction, happiness, and optimism have numerous positive effects on health, success, education, and other important life outcomes (Diener & Chan, 2011; Diener & Tay, 2012; Lyubomirsky, King, & Diener, 2005; Pressman & Cohen, 2005). A key focus for the field is defining, understanding, and supporting human flourishing.

There are multiple definitions and theories surrounding human flourishing, but it can generally be defined as feeling good and functioning well in life (Huppert & So, 2013). Subjective well-being is an important prerequisite for flourishing. Seligman's (2011) PERMA theory suggests that flourishing arises from five well-being constructs: Positive Emotion, Engagement, Relationships, Meaning, and Accomplishment. In order to measure Seligman's theory of well-being, Butler and Kern (2014) developed the PERMA-Profilers measure. Although this multidimensional instrument has demonstrated good reliability, cross-time stability, and convergence with other measures, there is a need to test the measure and the PERMA theory across different cultures. Cross-cultural studies are crucial in developing valid measures of psychological constructs in order to take into account variations in culture, response styles, and judgment biases that may be country specific (Oishi & Schimmack, 2010).

In this article, we extend the PERMA-Profilers to a sample from Malaysia – a diverse, multi-ethnic and multi-cultural country in Southeast Asia. We combine quantitative and qualitative methods to examine cross-cultural applications of the measure and the concept of well-being as a whole within the Malaysian culture.

## **Why Well-being?**

Well-being is important for human flourishing. People supported by close friendships, family, and support groups have higher well-being, and are found to be less vulnerable to sickness and premature death, while loneliness has been found to be an important risk factor for poor health outcomes and functional decline (Hawkey & Cacioppo, 2010; Perissinotto, Cenzler, & Covinsky, 2012). Positive affect has been shown to

engender successful outcomes, as well as behaviors that parallel success (Lyubomirsky, King, & Diener, 2005). Furthermore, studies have also shown an association between positive affect and health outcomes, including lower incidence of morbidity and decreased reported symptoms and pain (Howell, Kern, & Lyubomirsky, 2007; Pressman & Cohen, 2005).

Traditionally, national well-being has been defined through the lens of economic prosperity, often in terms of Gross National Product (GNP) or Gross Domestic Product (GDP) (Boarini, Johansson, & d'Ercole, 2006). However, extensive research shows that GDP and GNP measures do not capture the full extent of well-being (e.g., Helliwell & Barrington-Leigh, 2010; Kahneman & Krueger, 2006). As a result, subjective well-being (SWB) measures have recently emerged as a valid alternative to traditional measures of national well-being.

Ed Diener (1984) suggests that SWB measures have three hallmarks. First, the measure is subjective, residing with the experience of the individual. Second, it includes positive measures. Third, it includes a global assessment of all aspects of a person's life. SWB measures can provide invaluable information in the measurement of consumer preferences and social welfare, provided that the measures are reliable and valid (Kahneman & Krueger, 2006). In recent years, governments worldwide have shown increasing interest in using measures of SWB in public policy and also in measuring national well-being (Dolan & Metcalfe, 2012). For example, since 1971, Bhutan has adjusted its national policy to focus on Gross National Happiness (GNH) instead of GDP. Instead of the traditional marker of prosperity, material growth, Bhutan's new approach to development measures prosperity through the principles of GNH, including the spiritual, physical, social, and environmental health of its citizens and the natural environment (Thimphu, 2012; United Nations, 2013).

In order to increase the clarity of the role of SWB in public policy, Dolan, Layard, and Metcalfe (2011) distinguished three broad types of SWB measures: (1) Evaluation – global assessments; (2) Experience – feelings over short periods of time; and (3) Eudaimonic – reports of purpose and meaning. These different types of SWB measures correspond to different policy purposes, and could serve as a valuable tool in informing the design of public policy in a particular country. For example, evidence shows that life satisfaction measured with SWB measures is correlated with income, employment status, marital status, health, personal characteristics, and major life events (Dolan et al., 2011).

Easterlin (2003) builds his theory of well-being on his observation that mainstream economic theory overwhelmingly focuses on fiscal conditions and overlooks non-monetary rewards. However, according to evidence, both monetary and non-monetary factors affect well-being. Lyubomirsky et al. (2005) suggest

that in fact, positive affect engenders success, and happiness precedes successful outcomes. They argue that positive affect may be the cause of many of the desirable characteristics and successes correlated with happiness.

With the increasing awareness that positive affect is not just the opposite of negative affect (Cacioppo & Berntson, 1999), various scholars have argued for multiple constructs and dimensions being the foundational building blocks of well-being. For example, Ryff and Keyes (1995) distinguish six core dimensions of well-being: self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth. Kahneman (1999) distinguishes two aspects of well-being: subjective happiness is primarily concerned with how happy the respondents state they are, while objective happiness is derived from tracking and aggregating the instant utility over the relevant periods. Ryan and Deci (2001) characterize well-being as falling into hedonic and eudaimonic domains. The hedonic domain focuses on emotion, whereas the eudaimonic domain emphasizes the good life, with a focus on meaning and related well-being constructs. Keyes (1998) suggests that due to the societal nature of life in general and the challenges that accompany it, well-being includes social dimensions such as coherence, integration, actualization, contribution, and acceptance. More recently, Seligman (2011) defined well-being in terms of five constructs: Positive Emotion, Engagement, Relationships, Meaning, and Accomplishment (summarized by the acronym PERMA). In this article, we focus specifically on Seligman's model.

### **The PERMA Theory of Well-Being**

The PERMA theory has quickly risen in the psychological discourse, although empirical support and measure of the model are still needed (Butler & Kern, 2014; Kern, Waters, Adler, & White, in press; Kern, Waters, White, & Adler, 2014), especially in different cultures. In the PERMA theory, Seligman (2011) argues that each element of well-being must have the following three properties:

1. It contributes to well-being;
2. People pursue it for its own sake, not merely to get any of the other elements;
3. It is defined and measured independently of the other elements (exclusivity).

The five elements are defined, in Seligman's theory and for our purposes here, as follows.

**Positive Emotions.** Positive emotion encompasses hedonic feelings such as happiness, pleasure, and comfort. Positive emotions serve as a marker for flourishing. However, Frederickson (2001) suggested that positive emotions also produce flourishing and are worth cultivating. For example, according to the

broaden-and-build model of positive emotions, positive emotion can broaden an individual's thought-action repertoire, which will in turn build enduring personal resources for the individual (Frederickson, 1998).

**Engagement.** Engagement refers to a deep psychological connection (e.g., being interested, engaged, and absorbed) to a particular activity, organization, or cause. Complete levels of engagement have been defined as a state of flow. Csikszentmihalyi (1990, 1997) defines the flow state as a single-minded immersion, an optimal state of concentration on an intrinsically motivating task. Awareness of time may fade, and positive thought and feeling may be absent during the flow state.

**Relationships.** Relationships include feelings of integration with society or a community, feelings of being cared for by loved ones, and being satisfied with one's social network. Much of our experience as humans revolves around other people. Support from social relationships has been linked to less depression and psychopathology, better physical health, lower mortality, and other positive outcomes (Cohen, 2004; Perissinotto et al., 2012). There is evidence that social relationships are beneficial for health behaviors such as chronic illness self-management and decreased suicidal tendencies (Tay, Diener, & Gonzalez, 2013).

**Meaning.** Meaning refers to having a sense of purpose and direction in life, and feeling connected to something larger than the self. People who claim that they have more meaningful lives often also report being fairly happy and satisfied with their lives as a whole, although the meaningful life is not necessarily the happy one (Baumeister, Vohs, Aaker, & Garbinsky, 2013).

**Accomplishment.** Across many cultures, making progress towards one's goals and achieving superior results can lead to both external recognition and a personal sense of accomplishment. Although accomplishment can be defined in objective terms, it is also subject to personal ambition, drive, and personality differences. For example, a mother who raises a beautiful, compassionate family might see her life as extremely successful, whereas her husband may define success as achieving a promotion at work (Butler & Kern, 2014). Additionally, accomplishment is often pursued for its own sake. For example, research shows that expert bridge players are driven to play to the best of their ability; even if they lose, they feel a sense of accomplishment in the knowledge that they played well (Seligman, 2011).

**Measuring PERMA.** A theory of well-being is only as good as the ability to measure and test it empirically. To comprehensively measure the components of PERMA, Butler and Kern (2014) recently developed and validated the PERMA-Profiler. To capture the specificity of the multiple dimensions, the PERMA-Profiler uses a multidimensional approach that attempts to pinpoint each domain. The

questionnaire includes 15 items that measure PERMA (three items per domain), as well as eight additional items that assess physical health, negative emotion, loneliness, and overall happiness. Our analyses focus primarily on the 15 main PERMA items. The PERMA-Profiler has been shown to successfully measure PERMA as separate but correlated constructs, while maintaining acceptable internal reliability and good overall fit across over 15,000 people worldwide. We expand on the details of the PERMA-Profiler section in the Methods section.

## **The Influence of Culture**

The emergence of cultural psychology has inspired discussions about cross-cultural studies and methods of study. According to Fiske (2002), psychologists should be aware of multiple aspects of culture when characterizing and contrasting cultures, including, subsistence and economic systems, religion, kinship systems, marriage, sex and food, and institutions and practices. For example, Diener (2000) presented several divergent patterns of SWB due to national and cultural differences. There were countries that were unexpectedly high or low in life satisfaction after controlling for income. Mean levels of SWB in Argentina, Brazil, and Chile were higher compared to the level predicted by their wealth. On the other end of the spectrum, Japan was an outlier, with high income and a relatively low SWB. Although the PERMA-Profiler has demonstrated reliability and validity across a large international sample, how the measure functions in specific cultures needs to be studied within individual countries.

There are various approaches for studying cross-cultural differences. Mixed methods research, in which the researcher combines quantitative and qualitative techniques, is one approach that can be useful within a cultural context. Quantitative and qualitative methods are inextricably intertwined; qualitative studies inform the research questions, measures, and strategies of quantitative studies, and quantitative studies generalize and extend observations and theories that arise through qualitative research. The goal is essentially to examine a given research question from any appropriate relevant angle; maximizing the strengths and minimizing the weaknesses of both the quantitative and qualitative paradigm in order to develop the most useful findings. In this study, we adopt the within-stage mixed-model design (Johnson & Onwuegbuzie, 2004), where our survey incorporates 15 well-being items placed on a 0 to 10 Likert scale (quantitative aspect) and two free-response questions (qualitative aspect).

We specifically examine the PERMA-Profiler within the Malaysian culture. Malaysia is a diverse, multi-ethnic, multicultural and multilingual Southeast Asian country with a population of 29 million people (World Bank, 2013). The main ethnic groups in Malaysia include the Malays, Chinese, Indian communities in West Malaysia, and other ethnic tribes in East Malaysia, including but not limited to, the

Kadazan-dusuns, Muruts, Ibans, Dayaks. Malaysian society is multi-religious. Islam as the official religion, but freedom of religion is enshrined in the Malaysian constitution.

## **The Current Study**

Bringing this together, in this study, we seek to test the PERMA-Profilier in the Malaysian culture to examine how well it functions in a different culture. We compare PERMA-Profilier data from Malaysian participants to data from a large US sample that was previously collected. We examine the factor structure of the 15 PERMA items using the Malaysian data. Finally, in order to better understand the nature of the responses, we analyze subjects' qualitative reports defining well-being and the meaningful life.

## **Method**

### **Participants**

From September 2013 to January 2014, 342 Malaysian residents (105 males, 177 females, 40 unknown/other) completed the PERMA-Profilier and additional questions through an online survey. On average, participants were 26 years old ( $SD = 10.48$ , range = 18-63). Fifty percent of the sample was students, 23% were employed, and the rest were either part-time employees, retired, or unemployed.

In order to participate in the study, subjects had to be at least 18 years old, born in Malaysia, and able to read and understand English. In order to recruit a larger sample of Malaysians, we included participants from universities and organizations in Malaysia, the United Kingdom, United States, Australia, and Hong Kong via email blasts. A brief description of the study was provided, along with the survey link. In addition, participants were encouraged to forward the recruitment email to friends and family, post the survey link on relevant Facebook groups, or retweet the survey link on Twitter. As most of the Malaysians in our sample who were living abroad ( $N = 188$ ) were university students, they grew up in Malaysia, and we believe that they adequately represent Malaysian culture and norms.

### **Measures**

The survey questions were administered online through Qualtrics software. Participants were informed that the survey would take between 10 to 15 minutes to complete. All procedures were approved by the University of Pennsylvania Institutional Review Board.

The online survey consisted of four sections. The first section provided an introduction to the study, a brief background on the PERMA model, contact information, and an opportunity for participants to consent

before taking part in the study. Participants were given a brief background on the PERMA model and the purpose of the study; as is standardly done when the PERMA-Profilier is used in other studies (Butler & Kern, 2014). This was to encourage participants to be honest in their responses.[1]

The second section comprised the 23-item PERMA-Profilier, which includes the 15 main PERMA items (three items per domain), as well as eight filler items that assess overall well-being (1 item), physical health (3 items), negative emotion (3 items), and loneliness (1 item) (Butler & Kern, 2014). To allow for broad range of responses with sufficient variation, each item is placed on a 0 to 10 Likert scale with 0 indicating extremely low levels and 10 indicating extremely high levels, with only the endpoints of the scale labeled. Composite scores for each domain are calculated by taking the mean of the three items. Overall well-being is calculated as the mean of the 15 PERMA items, plus a single item on overall well-being (“Taking all things together, how happy would you say you are?”). For the purposes of this study, we focused on the main 15 PERMA items, as well as overall well-being and negative emotion.

The third section of the survey included two free-response questions: (1) “The questions you just answered are one way of measuring well-being. We now want to know your thoughts on things. What is well-being or happiness to you?” and (2) “What makes life meaningful to you?”

The fourth and final section of the survey consisted of several basic demographic questions, including age, gender, ethnicity, level of education attained, employment, marital status, and number of children. At the end of the survey, we included an additional free-response section for additional comments or feedback. The survey ended by thanking the participants and encouraging them to send the link to the survey on to family and friends.

## Results

### Descriptive and Correlations

The overall descriptive statistics and correlations among the PERMA factors are shown in **Table 1**. Some participants skipped some of the items; rather than exclude their data, we used their partial responses, resulting in different numbers on some factors. Participants scored highest on Engagement ( $M = 7.18$ ) and lowest on Accomplishment ( $M = 6.52$ ). They were above the middle point of the scale (5) on all domains except negative emotion, in which they were slightly below. As was found in the original study (Butler & Kern, 2014), all of the PERMA factors were significantly positively correlated with each other. As a person reported greater Positive Emotion, he or she also tended to report higher levels of Engagement ( $r = .50$ ), Relationships, ( $r = .60$ ), Meaning ( $r = .71$ ), and Accomplishment ( $r = .58$ ).

## Comparison of Malaysia and US Samples

**Table 2** compares the Malaysian sample with a large US sample (M. L. Kern, 2014, personal communication). The Malaysian sample was significantly lower than US participants for all five of the PERMA constructs, with the greatest difference for the Accomplishment construct. Interestingly, the Malaysian sample was also significantly lower than the US sample for Negative emotion ( $t(5,755) = -4.53$ ,  $p = < .001$ ). This implies that while subjects in the US reported experiencing greater well-being, they also reported experiencing higher Negative emotion, whereas the Malaysian sample showed fewer extremes in both the positive or negative direction.

## PERMA Factor Structure

So far, we assumed that the five-factor PERMA structure works in the context of the Malaysian sample. To check if the PERMA model is appropriate to the Malaysian sample, we next examined the factor structure of the 15 PERMA items. We conducted two exploratory Principle Component Analyses (PCA). PCA is a type of exploratory factor analysis, which identifies underlying latent variables within a set of items. The procedure reduces a larger set of items (each considered a dimension) into a smaller set of dimensions, based on items that best correlate with one another. You can indicate a specific number of factors to extract, or use several criteria to determine the number of factors that best represent the data. You can also specify that the factors are orthogonal (non-correlated; varimax rotation), or correlated (oblimin rotation). As we expected the factors to be correlated, we used oblimin rotation.

In the first analysis, we specified that five factors should be extracted. The resulting factor loadings are summarized in **Table 3**. The numbers indicate how correlated an item is with each factor. Items are correlated to each of the five factors, but are most associated with a single factor (the primary loading), which we bolded for emphasis. We would expect that the three positive emotion items would load on one dimension, the three engagement items would load on a second dimension, etc. The table shows that the responses from the Malaysian sample differed somewhat from the five-factor PERMA theory. Seven items load on the first component, including items from the Meaning and Positive Emotion constructs, as well as an Accomplishment item. The second, third, and fourth components include items from the Relationship, Engagement, and Accomplishment categories, respectively. The fifth component includes an Engagement item and a Relationship item.

We next explored whether an alternative structure would better fit the data. Rather than specifically extracting five factors, we examined several criteria that have been developed as heuristics for determining the number of factors that should be extracted. First, the Kaiser-Guttman criterion examines the

eigenvalues, using an eigenvalue of 1.00 as a cut-off criterion for meaningful factors. Eigenvalues indicate how much variance is accounted for by each component. High eigenvalues indicate that much of the variance in the data is explained by that component, whereas an eigenvalue of zero would indicate that none of the variance is explained by that dimension. Second, we used a scree test to plot the eigenvalues associated with each factor, versus the factor number. The plot is visually inspected, and the point where the plot levels off indicates the number of factors that should be extracted.

In our data, three components had eigenvalues greater than 1.00, accounting for 59.7% of the total variance. The scree plot suggested retaining two to four components. Based on the eigenvalues and scree plot, we decided to extract three components. As summarized in **Table 4**, this was a much cleaner structure. Accomplishment and Meaning items loaded on the first factor, Positive Emotion and Relationship items loaded on the second factor, and Engagement loaded on the third factor.

### Qualitative Reports of Well-being

To understand the nature of the responses in greater detail, we turned to the subjects' qualitative reports of well-being. In total, 268 participants answered the free-response section of the survey. We went through all responses for both questions, and created a list of categories that seemed to best capture the themes of the responses. Then, we recruited raters (4 raters for Question 1 and 5 raters for Question 2) to rate how often each of these categories appeared in the responses. Raters read each response, and rated a category 1 if the response reflected that category, or 0 if the response did not reflect the category. Each response could receive a 1 in multiple categories (e.g., "Having good health and relationships with family and friends" was rated as both "health" and "positive social relationships"). We then summed up how many times each category received a 1 by any of the raters across all 268 responses. **Table 5** summarizes the 21 categories, listed from the most often mentioned category (top) to the least mentioned category (bottom).

For Question 1 (what is well-being or happiness to you?), the five most common themes were *Positive Emotion* (316 summed ratings, 13%), *Connectedness with Others* (292, 12%), *Positive Social Relationships* (277, 11%), *Satisfaction/Fulfillment* (247, 10%) and *Health and Achievement* (152, 6% and 151, 6%, respectively). For example, raters agreed that the two following responses could be categorized as connectedness with others and positive social relationships, respectively.

- "When the people you love are there for you in desperate times. It makes you feel that you are loved and cared for. You can count on these people when necessary."
- "Being at peace with myself and maintaining positive and healthy relationships with people that I

love.”

For Question 2 (what makes life meaningful to you?), the five most common themes were *Connectedness/Close Relationships* (440, 18%), *Purpose/Goals/Passion* (289, 12%), *Family* (261, 11%), *Helping Others* (254, 10%) and *Accomplishment/Achievement* (187, 8%). For example, the two following responses reflected connectedness/ close relationships and purpose/ goals/ passions, respectively.

- “Having meaningful relationships with people one cares about.”
- “Having a purpose and contributing towards the well-being of your society.”

## Discussion

The aim of this study was to test a new well-being measure, the PERMA-Profiler, in the Malaysian culture. As in the original study (Butler & Kern, 2014), all of the PERMA factors were significantly positively correlated with each other. Malaysians scored lower on all of the PERMA constructs and Negative emotion compared to the US sample. Examining the factor structure of the 15 PERMA items, a three-factor structure fit the data better than the proposed five-factor structure. Finally, to understand the nature of the responses better, we looked at the subjects’ qualitative reports of well-being. Although the PERMA domains were identified, additional categories such as financial security, health, and spirituality were apparent.

## PERMA Comparisons and the Impact of Culture

Seligman’s (2011) PERMA model of flourishing describes a multi-dimensional approach to well-being that includes constructs of Positive emotion, Engagement, Relationships, Meaning, and Accomplishment. As expected, all of the PERMA factors were significantly positively correlated with each other, as expected, as these are all positive constructs that together represent flourishing. Similarly, Kern and colleagues (2014) found that the five PERMA components were positively correlated with one another in a sample of school staff, yet the factors differentially related to physical health, life satisfaction, and job satisfaction outcomes. Thus, although the factors are correlated, there is still value in measuring them separately.

Results from the PERMA-Profiler showed that Malaysians scored significantly lower on all the PERMA constructs and on Negative emotion compared to the US sample. This could indicate that Malaysians have a lower sense of well-being than Americans. Alternatively, with a Likert rating scale, individuals of Asian heritage may prefer the middle response options on a (*moderate response style*) more than Western individuals, who may prefer the highest and lowest response options (*extreme response style*) (Chen, Lee, & Stevenson, 1995). Future research should further examine the extent to which the scales used impact the

reported levels of well-being.

Further, in cross-cultural studies such as this, differences across cultures may come from true cultural differences, or from different perceptions of constructs themselves. For example, Suh, Diener, Oishi, and Triandis (1998) found large cultural differences in how people from different countries made life satisfaction judgments. They found that people in individualistic cultures relied more strongly on emotional experiences and their current affect to gauge life satisfaction, whereas in collectivist cultures, cultural norms were the driving force behind life satisfaction judgments. Similarly, in our sample, qualitative responses suggested that well-being from the Malaysian culture extends beyond the PERMA domains.

To be culturally sensitive, rather than simply assuming that the PERMA model is comparable across cultures, we examined the factor structure of the 15 PERMA items. We found that a three-factor structure fit the data better than a five-factor model. Based on the data, these three factors were Positive emotion/ Relationships, Meaning/ Accomplishment, and Engagement. It could be that Malaysians did not interpret the questions in the PERMA-Profiler in the way that was intended, and therefore items grouped together due to a different understanding of the question or construct. Additional cognitive interviews would be needed to determine how people are reading and understanding the questions.

Alternatively, it could be that the PERMA model may not be capturing some of the factors that contribute to well-being that is unique to the particular culture. For example, in the first free-response question, the raters rated Health as the fifth highest factor (152 ratings), but health is not part of Seligman's (2011) five PERMA components. The notion that subjective well-being is related to better self-reported health, longevity, and reduced pain is well known (Cohen & Pressman, 2006; Diener & Chan, 2011; Howell et al., 2007; Pressman & Cohen, 2005). The emphasis on good health in Malaysia transcends ethnicity, age, and other demographics. Each Chinese New Year, people would wish each other "good health", among other more standard wishes such as "good luck" and "good prosperity". Ariff and Beng (2006) report that some rural communities in Malaysia take health very seriously and depend on traditional methods of medicine that involves concepts such as 'Yin Yang', Ayurveda, and notions of 'hot and cold' despite having a modern rural health system. While our results show that Malaysians indicate health as a significant element of well-being, Friedman and Kern (2014) argue that it is the intimate connection between personality, health, and well-being that determines the outcome of health and well-being in an individual. Thus, the missing health factors may be unique to the Malaysian culture, or alternatively may be a missing element of the PERMA model. Future research should consider whether *Health* constructs should be included as a main construct and not simply as additional items.

Another factor that was not captured by the PERMA model that seemed to be a part of well-being for Malaysians was Religion/Spirituality. In the second free-response question, the raters rated Religion/Spirituality as the 6<sup>th</sup> highest factor (167 ratings). This finding is unsurprising, as the Malaysian Department of Statistics (2010) reported that only 0.7% Malaysian citizens identified themselves as having no religion.

Although some aspects were seemingly missing from the PERMA model for the Malaysian culture, the Relationship component was clearly visible in the qualitative responses. Social relationships, connectedness to others, family, and helping others appeared as top categories both in defining well-being, and in defining what makes life meaningful. This suggests that Malaysians consider positive relationships as quite a significant contributor to overall well-being. This finding aligns with other literature that indicates the importance of social relationships in various health outcomes, which in turn affects well-being (Tay et al., 2013; Taylor, 2011). In their study, Perissinotto et al. (2012) demonstrated that loneliness is an identifiable and measurable risk factor for morbidity and mortality. Furthermore, social support and social integration have been found to reduce effects of stressful experiences and to promote positive psychological states (Cohen, 2004). It is possible that relationships are an important part of well-being regardless of culture. Future studies should further explore such possibilities.

## **Limitations**

There are several main limitations to the current research. First, we relied on self-reported measures. The limitations of self-report measures are clear (Lucas & Baird, 2006; Paulhus & Vazire, 2007). Even while PERMA-Profilers displayed acceptable psychometric properties across a large international sample (Butler & Kern, 2014), there may be variance in responses between cultures and also within cultures. Differences in perception of the measure and inherent cultural idiosyncrasies may skew the results.

A second limitation is that the sample of participants was recruited solely through online methods, including, Facebook, Twitter, and email. Many of these participants were students living in Malaysia, as well as abroad in the UK, US, and Australia. This method limited the sample to the urban, educated population, leaving out those in lower income communities who may not have consistent Internet access.

Third, because the survey was administered in English, only participants who were proficient in the English language were able to participate. Malaysia is a country with a rich and diverse population, and spoken languages include Malay, Mandarin Chinese, Tamil, Cantonese, Hokkien, and the Iban language. The diversity in languages reflects a multiethnic and multiracial population that may not have been reflected fully in our study. Further research is needed in order to gain a more comprehensive perspective

of the Malaysian population as a whole.

Finally, in the survey, we included a description of the PERMA model in the introduction to the study. It is possible that with this knowledge, participants may have intentionally adjusted their responses in a biased manner. The qualitative responses may have been influenced by completing the quantitative questions and the description of the model. But in line with the idea of participatory research, we treated participants as collaborators, helping us to understand their experience, rather than treating them as subjects providing an objective metric of flourishing for the country. As the sample is a convenience sample, it is not meant to represent flourishing levels of the country as a whole. Further, due to the popularity of Seligman's (2011) book, many people in the US comparison sample were already aware of the PERMA model before taking the survey, and this information provides a common base of understanding.

In conclusion, with this extension of the PERMA-Profilier in Malaysia, we have shown that in addition to the factors of the PERMA model, Malaysians also take into account health and spirituality as significant components of well-being. The results suggest that the PERMA-Profilier offers a tool for measuring well-being cross-culturally, but culture-based modifications may be necessary. We hope that future iterations of the PERMA-Profilier measures will be able to inform and help people from various cultures to better understand themselves and to better develop their own flourishing.

## References

- Ariff, K. M., & Beng, K. S. (2006). Cultural health beliefs in a rural family practice: A Malaysian perspective. *Australian Journal of Rural Health, 14*(1), 2-8. Doi: 10.1111/j.1440-1584.2006.00747.x
- Baumeister, R. F., Vohs, K. D., Aaker, J. L., & Garbinsky, E. N. (2013). Some key differences between a happy life and a meaningful life. *The Journal of Positive Psychology, 8*(6), 505-516. Doi: 10.1080/17439760.2013.830764
- Boarini, R., Johansson, A., & d'Ercole, M. M. (2006). Alternative measures of well-being. *OECD Economics Department Working Papers, No. 476*, , 1-8. Retrieved from: <http://www.oecd.org/std/na/36967254.pdf>
- Butler, J., & Kern, M. L. (2014). *The PERMA-Profilier: A brief multidimensional measure of flourishing*. Unpublished manuscript.
- Cacioppo, J. T., & Bernston, G. G. (1999). The affect system: Architecture and operating

- characteristics. *Current Directions in Psychological Science*, 8(5), 133-137. Doi: 10.1111/1467-8721.00031
- Chen, C., Lee, S., & Stevenson, H. W. (1995). Response style and cross-cultural comparisons of rating scales among East Asians and North American students. *Psychological Science*, 6(3), 170-175. Doi: 10.1111/j.1467-9280.1995.tb00327.x
- Cohen, S. (2004). Social relationships and health. *American Psychologist*, 59(8), 676-684. Doi: 10.1037/0003-066X.59.8.676
- Cohen, S., & Pressman, S. (2006). Positive affect and health. *Current Directions in Psychological Science*, 15(3), 122-125. Doi: 10.1111/j.0963-7214.2006.00420.x
- Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. New York: Harper Collins Publishers, Inc.
- Csikszentmihalyi, M. (1997). *Finding Flow: The psychology of engagement with everyday life*. New York: Basic Books.
- Diener, E. (1984). Subjective well-being. *Psychological Bulletin*, 95(3), 542-575. Doi : 10.1037/0033-2909.95.3.542
- Diener, E. (2000). Subjective well-being: The science of happiness and a proposal for a national index. *American Psychologist*, 55(1), 34-43. Doi: 10.1037/0003-066X.55.1.34
- Diener, E., & Chan, M. Y. (2011). Happy people live longer: Subjective well-being contributes to health and longevity. *Applied Psychology: Health and Well-Being*, 3(1), 1-43.
- Diener, E., & Seligman, M. E. (2002). Very happy people. *Psychological Science*, 13(1), 81-84. Doi: 10.1111/1467-9280.00415
- Diener, E., & Tay, L. (2012). *A scientific review of the remarkable benefits of happiness for successful and healthy living*. Report of the Well-Being Working Group, Royal Government of Bhutan: Report to the United Nations General Assembly, Well-Being and Happiness: A New Development Paradigm. New York: UN General Assembly .
- Dolan, P., Layard, R., & Metcalfe, R. (2011). Measuring subjective wellbeing for public policy: Recommendations on measures. *Centre for Economic Performance, Special Paper No. 23*, 1 – 20.
- Dolan, P., & Metcalfe, R. (2012). Measuring subjective wellbeing: Recommendations on measures for use

- by national governments. *Journal of Social Policy*, 41(2), 409-427. Doi: 10.1017/S0047279411000833
- Easterlin, R. A. (2003). Explaining happiness. *Proceedings of the National Academy of Sciences of the United States of America*, 100(19), 11176-11183. Doi: 10.1073/pnas.1633144100
- Fiske, A. P. (2002). Using individualism and collectivism to compare cultures – A critique of the validity and measurement of the constructs: Comment on Oyserman et al. (2002). *Psychological Bulletin*, 128, 78-88. Doi: 10.1037/0033-2909.128.1.78
- Floyd, F. J., & Widaman, K. F. (1995). Factor analysis in the development and refinement of clinical assessment instruments. *Psychological Assessment*, 7(3), 286-299, Doi: 10.1037/1040-3590.7.3.286
- Frederickson, B. L. (1998). What good are positive emotions? *Review of General Psychology*, 2(3), 300-319. Doi: 10.1037/1089-2680.2.3.300
- Frederickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, 56(3), 218-226. Doi: 10.1037/0003-066X.56.3.218
- Friedman, H. S., & Kern, M. L. (2014). Personality, well-being, and health. *Annual Review of Psychology*, 65, 719-742. Doi: 10.1146/annurev-psych-010213-115123
- Hawkley, L. D., & Cacioppo, J. T. (2010). Loneliness matters: A theoretical and empirical review of consequences and mechanisms. *Annals of Behavioral Medicine*, 40, 218-227.
- Helliwell, J. F., & Barrington-Leigh, C. P. (2010). Viewpoint: Measuring and understanding subjective well-being. *Canadian Journal of Economics*, 43(3), 729-753.
- Howell, R., Kern, M. L. & Lyubomirsky, S. (2007). Health benefits: Meta-analytically determining the impact of well-being on objective health outcomes. *Health Psychology Review*, 1, 83-136. Doi: 10.1080/17437190701492486
- Huppert, F. A., & So, T. C. (2013). Flourishing across Europe: Application of a new conceptual framework for defining well-being. *Social Indicators Research*, 110, 837-861. Doi: 10.1007/s11205-011-9966-7
- Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Researcher*, 33(7), 14-26. Doi: 10.3102/0013189X033007014
- Kahneman, D. (1999). Objective happiness. In D. Kahneman, E. Diener, & N. Schwartz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 3–25). New York: Russell Sage Foundation.

- Kahneman, D., & Krueger, A. B. (2006). Developments in the measurement of subjective well-being. *Journal of Economic Perspectives*, 20(1), 3-24. Doi: 10.1257/089533006776526030
- Kern, M. L., Water, L., Adler, A., & White, M. (2014). Assessing employee wellbeing in schools using a multifaceted approach: Associations with physical health, life satisfaction, and professional thriving. *Psychology*, 5(6), 500-513. Doi: 10.4236/psych.2014.56060
- Kern, M. L., Waters, L., Adler, A., & White, M. (in press). A multifaceted approach to measuring wellbeing in students: Application of the PERMA framework. *The Journal of Positive Psychology*. Doi: 10.1080/17439760.2014.936962
- Keyes, C. L. (1998). Social well-being. *Social Psychology Quarterly*, 61(2), 121-140. Doi: 10.2307/2787065
- Lucas, R. E., & Baird, B. M. (2006). Global self-assessment. In M. Eid & E. Diener (Eds.), *Handbook of multimethod measurement in psychology* (pp. 29–42). Washington, DC: American Psychological Association.
- Lyubomirsky, S., King, L., & Diener, E. (2005). The benefits of frequent positive affect: Does happiness lead to success? *Psychological Bulletin*, 131(6), 803-855. Doi: 10.1037/0033-2909.131.6.803
- Malaysian Department of Statistics. (2010) *Population distribution and basic demographic characteristic report*. Retrieved from [http://www.statistics.gov.my/portal/index.php?option=com\\_content&id=1215](http://www.statistics.gov.my/portal/index.php?option=com_content&id=1215)
- Oishi, S., & Schimmack, U. (2010). Culture and well-being: A new inquiry into the psychological wealth of nations. *Perspectives on Psychological Science*, 5, 463-471. Doi : 10.1177/1745691610375561
- Paulhus, D. L., & Vazire, S. (2007). The self-report method. In R. W. Robins, R. C. Fraley, and R. Krueger (Eds.), *Handbook of Research Methods in Personality Psychology* (pp. 224-239). New York: Guilford Press.
- Perissinotto, C. M., Cenzer, I. S., & Covinsky, K. E. (2012). Loneliness in older persons. *JAMA Internal Medicine*, 172(14), 1078-1084.
- Pressman, S. D., & Cohen, S. (2005). Does positive affect influence health? *Psychological Bulletin*, 131(6), 925-971. Doi: 10.1037/0033-2909.131.6.925
- Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology*, 52, 141-166. Doi:

10.1146/annurev.psych.52.1.141

Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, 69, 719-727. Doi: 10.1037/0022-3514.69.4.719

Seligman, M. E. P. (2011). *Flourish: A visionary new understanding of happiness and well-being*. New York, NY: Free Press.

Suh, E., Diener, E., Oishi, S., & Triandis, H. C. (1998). The shifting basis of life satisfaction judgments across cultures: Emotion versus norms. *Journal of Personality and Social Psychology*, 74(2), 482-493. Doi: 10.1037/0022-3514.74.2.482

Tay, L., Tan, K., Diener, E., & Gonzalez, E. (2013). Social relations, health behaviors, and health outcomes: A survey and synthesis. *Applied Psychology: Health and Well-Being*, 5(1), 28-78.

Taylor, S. E. (2011). Social support: A review. In H. S. Friedman (Ed.), *The Oxford handbook of health psychology* (pp. 189-214). New York: Oxford University Press

Thimphu, A. K. (2012). Gross national happiness in Bhutan: the big idea from a tiny state that could change the world. *The Guardian*. Retrieved from <http://www.theguardian.com/world/2012/dec/01/bhutan-wealth-happiness-counts>

United Nations. (2013). *World Happiness Report 2013*. [http://unsdsn.org/wp-content/uploads/2014/02/WorldHappinessReport2013\\_online.pdf](http://unsdsn.org/wp-content/uploads/2014/02/WorldHappinessReport2013_online.pdf)

World Bank. (2013). *Malaysia*. Retrieved from <http://www.worldbank.org/en/country/malaysia>

## Table 1

*PERMA-Profiler descriptive statistics and correlations among the PERMA factors.*

	N	Mean	SD	Min	Max	1	2	3	4	5	6	7
1. Positive emotion	327	6.78	1.59	1.00	10.00							
2. Engagement	329	7.18	1.38	2.67	10.00	.50**						
3. Relationships	323	6.95	1.65	1.33	10.00	.60**	.39**					
4. Meaning	342	6.92	1.75	1.00	10.00	.71**	.41**	.48**				
5. Accomplishment	335	6.52	1.55	1.33	9.67	.58**	.41**	.39**	.68**			

6. Overall well-being	342	6.87	1.27	2.31	9.50	.87**	.67**	.74**	.85**	.79**		
7. Negative emotion	331	4.58	1.79	0.67	10.00	-.46**	-.14*	-.35**	-.39**	-.39**	-.46**	
8. Physical health	326	6.69	1.97	0.67	10.00	.50**	.25**	.30**	.43**	.39**	.48**	-.30**

Note. Differing Ns are due to missing data, as some participants skipped some items.

\*  $p < .05$ , \*\*  $p < .01$

**Table 2**

*Independent samples t-tests comparing PERMA scores in the Malaysian sample to US respondents*

	Malaysia			US			t	df	p
	N	Mean	SD	N	Mean	SD			
Positive emotion	327	6.78	1.59	5428	7.47	2.01	-7.41	5753	< .001
Engagement	329	7.18	1.38	5456	8.24	1.86	-13.30	5783	< .001
Relationships	323	6.95	1.65	5456	7.64	2.36	-7.11	5777	< .001
Meaning	342	6.92	1.75	5456	7.89	2.42	-9.63	5796	< .001
Accomplishment	335	6.52	1.55	5455	8.03	1.94	-17.03	5788	< .001
Overall well-being	342	6.87	1.27	5456	7.83	1.80	-13.27	5796	< .001
Negative emotion	331	4.58	1.79	5426	5.05	2.07	-4.53	5755	< .001

Note: Comparisons between Malaysian and US respondents are statistically significant at the 1% level.

**Table 3**

*Principle Components Analysis of the 15 PERMA items, extracting five correlated factors*

	Component				
	1	2	3	4	5
To what extent do you lead a purposeful and meaningful life? (M1)	<b>0.90</b>	-0.08	-0.05	-0.01	-0.02
In general, to what extent do you feel that what you do in your life is valuable and worthwhile? (M2)	<b>0.86</b>	-0.02	-0.04	0.08	0.05
How much of the time do you feel you are making progress towards accomplishing your goals? (A1)	<b>0.60</b>	-0.17	0.02	<b>0.53</b>	0.05

To what extent do you generally feel you have a sense of direction in your life? (M3)	<b>0.57</b>	0.16	-0.05	0.31	-0.08
In general, to what extent do you feel contented? (P3)	<b>0.53</b>	0.30	0.20	-0.09	0.02
In general, how often do you feel positive? (P2)	<b>0.51</b>	0.30	-0.03	0.04	-0.40
In general, how often do you feel joyful? (P1)	<b>0.44</b>	0.33	0.16	-0.07	-0.24
How satisfied are you with your personal relationships? (R3)	-0.08	<b>0.89</b>	-0.11	0.13	-0.02
To what extent have you been feeling loved? (R2)	0.03	<b>0.81</b>	0.05	0.05	0.02
How often do you lose track of time while doing something you enjoy? (E3)	-0.11	-0.06	<b>0.92</b>	-0.05	-0.01
How often do you become absorbed in what you are doing? (E1)	0.04	-0.04	<b>0.55</b>	<b>0.50</b>	-0.02
How often are you able to handle your responsibilities? (A3)	-0.08	0.24	-0.01	<b>0.82</b>	-0.04
How often do you achieve the important goals you have set for yourself? (A2)	0.27	0.04	0.01	<b>0.67</b>	-0.02
In general, to what extent do you feel excited and interested in things? (E2)	0.20	0.17	0.36	0.00	<b>-0.65</b>
To what extent do you receive help and support from others when you need it? (R1)	0.28	0.41	0.29	-0.09	<b>0.57</b>

*Note.* Principle components analysis with oblimin rotation (i.e., factors can correlate with one another). The numbers indicate how strongly each item loads on each factor. To aid interpretation, we bolded the factor that each item most strongly loads upon.

#### Table 4.

##### *Principle Components Analysis of the 15 PERMA items, extracting three correlated factors*

	Component		
	1	2	3
How much of the time do you feel you are making progress towards accomplishing your goals? (A1)	<b>0.93</b>	-0.14	0.03
How often do you achieve the important goals you have set for yourself? (A2)	<b>0.81</b>	-0.08	0.06
To what extent do you generally feel you have a sense of direction in your life? (M3)	<b>0.71</b>	0.23	-0.07
In general, to what extent do you feel that what you do in your life is valuable and worthwhile? (M2)	<b>0.69</b>	0.23	-0.13
How often are you able to handle your responsibilities? (A3)	<b>0.68</b>	-0.05	0.10
To what extent do you lead a purposeful and meaningful life? (M1)	<b>0.67</b>	0.21	-0.14
In general, how often do you feel positive? (P2)	<b>0.49</b>	0.45	-0.08

To what extent have you been feeling loved? (R2)	-0.02	<b>0.82</b>	0.01
How satisfied are you with your personal relationships? (R3)	-0.01	<b>0.80</b>	-0.12
To what extent do you receive help and support from others when you need it? (R1)	-0.09	<b>0.58</b>	0.18
In general, to what extent do you feel contented? (P3)	0.26	<b>0.54</b>	0.10
In general, how often do you feel joyful? (P1)	0.29	<b>0.54</b>	0.09
In general, to what extent do you feel excited and interested in things? (E2)	0.29	<b>0.33</b>	<b>0.33</b>
How often do you lose track of time while doing something you enjoy? (E3)	-0.17	0.13	<b>0.86</b>
How often do you become absorbed in what you are doing? (E1)	0.46	-0.06	<b>0.57</b>

*Note.* Principle components analysis with oblimin rotation. The strongest loadings for each item is bolded for emphasis.

## Table 5

*Categories appearing in free response questions, ordered from most often mentioned (top) to least often mentioned (bottom)*

<b>What is well-being or happiness to you?</b>	<b>Share (%)</b>	<b>What makes life meaningful to you?</b>	<b>Share (%)</b>
Positive Emotion	13	Connectedness / Close Relationships	18
Connectedness with Others	12	Purpose / Goals / Passion	12
Positive Social Relationships	11	Family	11
Satisfaction / Fulfillment	10	Helping Others	10
Health	6	Accomplishment / Achievement	8
Accomplishment / Achievement	6	Contributing to Society	7
Acceptance	5	Religion / Spirituality	7
Freedom / Independence	5	Personal Satisfaction / Fulfillment	6
Meaning / Purpose	5	Experiences	4
Hope / Optimism	5	Appreciation of life	3
Security / Comfort	4	Freedom / Independence	3
Religion / Spirituality	3	Health	2

Mastery / Control	3	Optimism / Positive Outlook	2
Mindfulness / Living in the Present	2	Personal Development	2
Lack of Negativity	2	Career	2
Passion	2	Finance / Wealth	2
Balance	2	Nature	1
Career / Finance	2	Universal Perspective	1
Gratitude	1	Comfort / Security	1
Personal Development	1	Balance	1

*Note.* Raters indicated whether a response reflected each category (0 = no, 1 = yes). We summed the number of times a category received a 1 rating, and divided by the total number of ratings, resulting in the percentage of ratings that were allocated to each category. The total number of ratings for Question 1 and Question 2 were 2490 ratings and 2467 ratings respectively.

[1] Specifically, the introduction noted: “Often, people think of well-being in terms of happiness – what makes you feel good? We believe that well-being entails more than simply feeling good. In his book *Flourishing*, Dr. Martin Seligman of the University of Pennsylvania presents the PERMA model – five measurable elements that count towards well-being. Specifically, the PERMA model consists of Positive Emotion, Engagement, Relationships, Meaning and Purpose, Accomplishment. The PERMA model has been researched in the United States. This study seeks to expand the research to Malaysia, a diverse country of 28 million people, and a melting pot of cultures and ethnic groups. We are interested to study the cross-country similarities and differences in well-being measurements from Malaysia and the norms procured in the United States.”