

IEBMC 2017
**8th International Economics and Business Management
Conference**

ORANG ASLI WELL-BEING INDEX: PILOT STUDY ANALYSIS

Mohd Nur Ruzainy Alwi (a)*, Siti Sarah Baharuddin (a), Shahrul Nizam Salahudin (b), &
Mohamad Ishak Mohamad Ibrahim (a)

*Corresponding author

(a) College of Business Management & Accounting, Universiti Tenaga Nasional, Sultan Haji Ahmad Shah Campus,
Pahang, Malaysia ruzainy@uniten.edu.my

(b) Universiti Islam Sultan Sharif Ali, Jalan Pasar Baharu, Gadong BE 1310, Brunei

Abstract

The paper aims to test validity and reliability of a new measurement constructed to measure Orang Asli well-being. The instrument has gone through several stages of analysis. It is based on the conceptual framework which focus on four determinants; socioeconomics, health, interpersonal relationship and environment. Socioeconomics focus on the financial satisfaction and other economic and social status. Meanwhile, health related to the state of physical, mental, emotional and spiritual health. In term of interpersonal relationship, the study concentrate on the satisfaction and support they received from their family and society. Lastly, environment focuses on the effects and satisfaction they received from their surrounding settlements. These conceptual frameworks has been tested and confirmed through qualitative analysis from semi-structured interview conducted before. Based on the analysis, sets of indicators found formulated into items in the instrument. In this study, sample of pilot test consisted of 30 respondents from Orang Asli community. The survey completed through self-administered questionnaire and structured interview, in the case of illiteracy. The result found that the reliability and validity of the instrument are acceptable. All comments given by the expert and respondents from pilot study will take into consideration and any required amendment will be made before full survey.

© 2018 Published by Future Academy www.FutureAcademy.org.UK

Keywords: Well-being, orang asli, aborigines



1. Introduction

The well-being of a nation often assessed using overall output of economy or societal indicators. In recent years, many countries rely on more subjective evaluation of citizens' life in assessing nation's policy impact despite many disagreements among philosophers in the theory and concept of well-being (Diener & Seligman, 2004). In addition, developing a measurement for well-being faces a challenge in defining well-being (Van der Deijl, 2017). The definition often differ by discipline, and are frequently confused with related topics such as health-related quality of life, happiness and wellness (Linton, Dieppe, & Medina-Lara, 2016). In general, well-being is the quality and state of individual life (Maggino, 2015). As it is focus on the state of life, well-being subjected to complexity and required multicomponent framework. The multifaceted construct of well-being that based on the life domains allow possibility of measurement despite conceptual uncertainty and no consensus in its definition (Veenhoven, 2010). Thus, this study focused on four components of well-being to measure the level of well-being. In formulating the measurement, concept explored both from the field of well-being and aborigines' study.

In the context of aborigines, holistic conceptualization of well-being in constructing indigenous specific assessment tool is a focus in overcoming the problem of conceptual uncertainty as suggested by (Alexandrova, 2017). The conceptual framework was based on aboriginal worldview and focused in the identity as well as the culture of aborigines in Malaysia, Orang Asli. It valued the individual functioning and interconnection to the land, spirituality, family and community (Kelly, Dudgeon, Gee, & Glaskin, 2009). Hence, the determinants of well-being in the conceptual framework consisted of socioeconomic, health, interpersonal relationship and environment. The four determinants were found to be consistently used in measuring aboriginal well-being (Salahudin, Baharuddin, & Alwi, 2017). It also has been established through interview conducted with participants from Orang Asli community before questions constructed for survey.

The four determinants well-being of Orang Asli is socioeconomic, health, interpersonal relationship and environment. Socioeconomic in this study is focusing on the measurement of economic and social status (Baker, 2014) included combination of financial satisfaction, income, expenses, education, number of dependants, and financial assistance (Letourneau, Duffett-Leger, Levac, Watson, & Young-Morris, 2013). The influence of socioeconomic and on well-being is varied according to the studied society. Previous study of socioeconomic influences on Orang Asli life satisfaction found that wealth is positively correlated with happiness, consistent with study in other poor society (Howell, Howell, & Schwabe, 2006). Secondly, health according to World Health Organization (WHO) is the absence of disease and the complete state of physical, mental and social well-being (WHO, 1998). However, the aboriginal concept of well-being is more holistic and require balance in four components; physical, mental, emotional and spiritual (Arabestani & Edo, 2011; Kazanowski & Sheldon, 2014). As health sometimes used to describe well-being, it is undeniable that health is highly correlated to well-being.

Meanwhile, interpersonal relationship can be defined as a relationship people have with friends, family, significant other, and work colleagues through a system of selective communication with other people (Berdibayeva et al., 2016; Hogg & Vaughan, 2011). Through interpersonal relationship, one can satisfy the needs to engage with other people and gain various kinds of support and benefits. These supports in interpersonal relationship able to help people cope with uncertainty and improving well-being (Joinson,

McKenna, Postmes, & Reips, 2012; Kilduff & Brass, 2010). For Orang Asli, familial and societal relationship is very important as well-being is seen as collective whole rather than individually (Dumont, 2005). Finally, environment in this study is the surrounding elements of Orang Asli settlements included physical, biological and cultural elements (Kaushik & Kaushik, 2007). Based on the aboriginal worldview, human and environment are interdependent in ensuring integrated whole well-being in which human is regarded as purposeful being that keep this balance in check (Coates, 2004; Dumont, 2005). The importance of environment on Orang Asli well-being also can be viewed from the perspectives of psychological attachment, environmental quality and their action towards the environment (Salahudin, Baharuddin & Alwi, 2017).

This study fulfil the concept proposed by Alatartseva and Barysheva (2015) which stated that well-being required fulfilment of four concept; well-being accordance to human nature and essence, the consciousness, opportunity and intention of good life, prospect to realize their potential, and belong to the society that provide opportunities of well-being as mentioned by previous three concept. These concepts impart human culture and identity as well as society states and nations policy into account, combining the objective and subjective aspects of well-being. The subjective aspect reflected in the first and second concept is the internal subjective experience of individual while the objective aspects reflected in the third and fourth concept focus on the wealth and quality of life (Alatartseva & Barysheva, 2015). The objective aspects in this study indicates by socio-economic and environment components which relates to the state of the society and life conditions. Meanwhile, the subjective aspects fulfilled by the subjectivity of all items as it is based on the people's evaluation of their life especially on their health and interpersonal relationship.

All components proposed have been confirmed through qualitative analysis conducted previously. Based on the result of qualitative study, indicators of each determined has been constructed and included as the items in the questionnaire. The next stage required analysis on the validity and reliability of the measurement to ensure the measurement able to measure Orang Asli well-being as it intended. Thus, this study aims to analyse validity and reliability of the measurement.

2. Problem Statement

Other than conceptual uncertainty, there are some issues arise in the validity and reliability of measurement of well-being. It is argued that the measurement of well-being is too person-relative and unreliable to be generalized to the whole population (Hausman, 2015). The generalization to the whole population assumes that the construct of well-being and its determinants applicable to all. However, based on the limitation of knowledge in this field, some philosophers accept measurement based on sense of well-being that depended on modest generalization (Alexandrova, 2017). In this study, the generalization to Orang Asli community applied through conceptual framework that based on aboriginal worldview theory. The theory describes the concept of well-being and importance of various matters in aboriginal life. The use of specific context is required to allow for generalization and controlling heterogeneity of indicators integration. Thus, in order to assess the usefulness of measurement in measuring intended construct, empirical test need to be done (Diener & Ryan, 2008).

In Malaysia, health status of Orang Asli continues to fall behind general population while there is lack of study in their well-being. One of the prominent problems related to their health is socio-economic

status which to some extent hinders them to get proper health services and flourish environment to live. Until 2010, approximately 31.15 per cents of Orang Asli lived below the poverty level compared to the national average of 3.8 per cents (Department of Orang Asli Development, 2011). Those in employment rely heavily on jobs that require physical labour, manual skills and forest resources while employment among youth of Orang Asli reflected their low level of educational attainment (Choy, Ariffin, & Pereira, 2010; Khor & Zalilah, 2008). Many of students from Orang Asli community drop-out from secondary schools or refuse to enrol for secondary school and choose to work to help their family. This situation leads to vicious socio-economic cycle of low education and poverty which effected their health and well-being (Khor & Zalilah, 2008).

In order to help Orang Asli, many programmes has been introduced by the government under the administration of Department of Orang Asli Development (JAKOA) and three main development programmes are structured settlements development programme, economic development and social development. The resettlement required Orang Asli to move from their traditional land and taken new economic sources as planned by the government. However, recent studies on effect of resettlement shown cases of malnutrition, poor health, and environmental destruction (Ab Hadi, Raddin, Razzaq, Mustafa & Baser, 2013; Geok & Zahirah, 2015). This is due to the lack of economic activities or unsuitable soil for survival, further increasing poverty (Abdullah, Sayuti, Arshad, & Embong, 2016). Detachment from their traditional land and economic destruction due to resource extraction and land development causing them to struggle more in maintaining their life as well as their culture and identity (Nicholas, 2000).

Based on the argument above, it is necessary to measure the level of well-being of Orang Asli as well as its determinant. Through determinants, the government and JAKOA will be able to determine important aspects of Orang Asli life that need to be implored and improved. Furthermore, level of well-being can be used as overall assessment of Orang Asli life that may reflected their struggles in life. Well-being scale that tailored to Orang Asli culture and identity is necessary as indigenou-assessment tool must acknowledge their culture, histories and contemporary condition (Mcconnochie, Ranzijn, Hodgson, Nolan, & Samson, 2012). Therefore, it is necessary to develop instrument that based on Orang Asli worldview as well as culture and validate the instrument to ensure it measures Orang Asli well-being accordingly.

3. Research Questions

There are two main questions to be answered in this study:

- Does the measurement achieve validity?
- Does the measurement achieve internal reliability?

4. Purpose of the Study

The purpose of this study is to verify validity and reliability of the pilot test. It is important as part of bigger study in developing and validating well-being index of Orang Asli in Malaysia. In order to construct this instrument, we took the following approach:

- A literature review of studies of Orang Asli, aborigines and well-being to develop predetermined construct. Associated instrument studied to get general ideas of developing scale.

- Conducting semi-structured interview with Orang Asli in their respected villages to validate predetermined construct. The semi-structured interview involved 16 respondents and interview results were analysed through method of coding. Based on the interview results, the indicators of each construct used as items in the instruments.
- Conducting survey pilot test to test the internal validity and reliability of the instrument. Results of pilot study will be discussed in this paper.
- Conducting a full survey in Pahang to test for internal and external validity.

5. Research Methods

Pilot study was done as part of trial run, in preparation for the major study (Polit & Beck, 2006). In this research, pilot study aimed to test the questionnaire constructed and to ensure that the respondents able to understand questions asked. The respondents were also asked for feedback in regard to the questions and how it is phrase. Any questions that found to be difficult to understand or ambiguities will be evaluated and rephrase, if necessary. Other than that, analysis was done to make sure that the items measure what it intended to measure and adequate to generate good model for future research.

In determining number of response for the questionnaire, there are few factors that need to be considered of. One of the factors is the cognitive ability of the respondents which in this case Orang Asli. Based on the report of their literacy rate, it is better for the number of response to be limited to only few. Increasing the number of responds will increased task difficulty as well as decreased respondents ability and motivation (Krosnick, 1991). The questions aim to measure respondents' perceptions, Likert-type scale was chosen as it is more appropriate and reliable (Alreck & Settle, 1995). The mid-point scale was used as it encourages respondents to choose their side without forcing them to respond in particular direction thus allowing researcher to make distinction of the responds while minimising measurement error (Krosnick & Fabrigar, 1997). Besides that optimizing and satisficing are important in describing respondents respond thus increasing task difficulty, decreased respondents abilities and motivation. These factors are important to make sure less random errors happen when respondents not using all of the response levels (Alwins, 1992).

Other than number of questions, we also focus on the order of questions as it is important in evaluating well-being. In the study of well-being and life satisfaction, evaluating life involved complex cognitive processes for respondents to formulate and report adequate judgements in the very limited of time (Diener, 2000; Schwarz & Strack, 1991). Thus, formatting the questionnaire is very essential to give strong psychological effects on respondents and based on the results of survey experiment by Angelini, Bertoni, and Corazzini (2017), unpacking effect plays an important role in constructing questionnaires. Unpacking effect is created when we provide more details of the evaluation object, in this case, determinants of well-being before the general questions related to happiness and life satisfaction. The order of questions must have a logical flow and able to create a train of thought for respondents to evaluate their life. This method allows respondent to build up a mental image of their life and get clear frame of reference in evaluating their life (McClendon & O'Brien, 1988). By having clear ideas of evaluation purposes, respondents able to generate stronger and detail evaluation thus reducing measurement error, increasing reliability and

correlation between variables (Angelini et al., 2017; McClendon & O'Brien, 1988; Van Boven & Epley, 2003).

Furthermore, items constructed in the questionnaires were based on the results of semi-structured interviews. The interview analysis necessary for unexplored topic and the results can be used to design the questionnaires (Teddle & Tashakkori, 2006). The questionnaires of this research are constructed to 5 sections. Section A consisted of 10 demographic questions. Section B has 14 items attempted to measure socioeconomic level of respondents as perceived by them. Section C comprises of 20 items measuring perceived health condition of respondents focused on physical, emotional, mental and spiritual health. Section D consists of 27 questions attempted to measure interpersonal relationship of respondents with their family, friends and society. Lastly, section E contains 14 items on environmental conditions and quality of respondents as well as their attitudes towards the environment.

In this paper, we focus on the content validity and reliability of the instrument. Validity is the extent of to which the interpretations of the instrument results are warranted and adequate to measure the intended construct (Kimberlin & Winterstein, 2008). Meanwhile, content validity is the extent to which instrument reflects a specific attributes of content (Thatcher, 2010). Content validity is usually based on experts' opinion of the instruments to examine all attributes examined sufficiently (De Von et al., 2007; Greco, Walop & McCarthy, 1987). In order to estimate the content validity of the instrument, we clearly defined the conceptual framework of Orang Asli well-being through thorough literature review and selected experts were asked to review the instrument to ensure it is consistent with the conceptual framework. Furthermore, we also assessed face validity through clarity of wording, likelihood of instrument to be answerable by Orang Asli, as well as the layout of the instrument. The purpose of face validity is to ensure that the instruments appropriate for the study and suitability of its construct (Greco, Walop & McCarthy, 1987). It ensures that the appearance of instrument feasible, readable, and consistent in term of style and formatting (Trochim, 2001; De Von et al., 2007). The results of content and face validity is based on the opinion of appointed experts.

Once the validity processes were completed, the final version of the instrument was examined for reliability. Reliability is related to the consistency, stability and repeatability of results (Twycross & Shields, 2004). Although reliability is important, it is still not sufficient to validate an instrument as reliable instrument may not be valid but unreliable instrument certainly not valid (Pilot & Hunger, 1999; Thatcher, 2010). In this study, we focus on internal consistency using Cronbach's Alpha where the average of all correlations in every combination of split-halves is determined (Heale & Twycross, 2015). The value of an acceptable reliability Cronbach's Alpha score is 0.7 and higher (Shuttleworth, 2015). It is assessed using IBM SPSS software based on responds from 30 respondents. Respondents were randomly selected through convenience random sampling administered using questionnaires or structured interview. Structured interview is needed as some of the respondents illiterate. All respondents from Jakun tribe where 72 per cents respondents were female and 28 per cents were male. Average age of respondent was 25 years old.

6. Findings

6.1. Validity

Validity is represented through various kinds of methods to measure questionnaires intended measurement. In this study, content validity was tested by consulting few respondents and experts to criticize suitability of the items selected (Sekaran & Bougie, 2013). Content validity aims to determine the adequacy of instrument in covering all domains in the questionnaire and usually checked by experts on the field (De Von et al., 2007; Kirshner & Guyatt, 1985). It is achieved if all domains questioned sufficiently as if it is imbalance, the result may be biased (Greco, Walop, & McCarthy, 1987). In order to test for content validity, experts in the field of Orang Asli well-being were asked to review the drafted questionnaire to ensure its consistency with the conceptual framework.

Draft of the scale was distributed to the experts and they were asked on the feedback on face-to-face interview. The experts are from Department of Orang Asli Development that has been working with the Orang Asli community for more than 15 years as well as three head of villages of Orang Asli. They were asked on the suitability of items in measuring well-being as well as the words used, phrasing and its layout. Based on their feedback, the items in the questionnaire are consistent with conceptual framework and suitable with the questionnaire objectives in determining Orang Asli well-being. However, they raised few issues in term of language and the data collection method due to high illiteracy rate of Orang Asli especially among older generations. There are few items that need to be rephrased as words used are not suitable and ambiguous. After the discussion, some items also removed in order to avoid repetition in measurement. New draft of instrument send for new validation and all experts stated that it is suffice and valid to measure Orang Asli well-being.

6.2. Reliability

In general, reliability is the extent to which a measurement produces the same results on repeated trials (Carmines & Zeller, 1979). The common employed reliability test is the internal consistency reliability (Litwin, 1995) and the most used test of inter-item reliability is Cronbach's alpha coefficient (Sekaran & Bougie, 2013). Cronbach's Alpha is a function of the average inters correlations of items and the number of items in the instrument (Kimberlin & Winterstein, 2008). The value of cronbach's alpha provides an estimate of the reliability of measurement and is based on the assumption that items measuring the same construct should correlate (Nunnally & Bernstein, 1994).

Table 1 showed the results of internal consistency of the instrument. It was found that all construct possess high reliability standard ranging from 0.702 to 0.885 as the coefficient of 0.70 and above illustrated high internal reliability (Hair, Black, Babin, & Anderson, 2010).

Table 01. Reliability test result

Determinant	Cronbach's Alpha
Socioeconomics	0.713
Health	0.798
Interpersonal Relationship	0.885
Environment	0.702

7. Conclusion

Based on the result, the instrument is valid and reliable to measure Orang Asli well-being. However, based on the comments and responds from respondents and expert, there are some questions that need to be deleted or changed. The changes in questions are due to the unsuitable term or construct of the questions that may cause misleading answer. Despite all changes, respondents and expert of the field agreed on determinants used in this study which able to capture overall well-being of Orang Asli. The next stage on this research is full survey of Orang Asli well-being using instrument that has been go through various process of validation and reliability testing.

Limitation in the study in term of language and approach are taken into considerations thus proper strategy will be applied during full survey. As this is the first study attempted to build well-being index specifically of Orang Asli, many stages is required in which Orang Asli identity and responsiveness need to be considered in each stage. The stages of instrument construction involved literature review for building conceptual framework, semi-structured interview to confirm the framework and to formulate indicators, pilot test study for validity and reliability testing and finally full survey. The combination of qualitative and quantitative method in the research is encouraged to get full insight on the complex issues and culture-sensitive context (Botha, 2011; Morse & Niehaus, 2009).

This specific indigenous-assessment tool hopes to be able to reflect the well-being and happiness of Orang Asli. The instrument can be used as regular assessment for government and the communities to keep track of Orang Asli well-being and to observe policy impact. It is important for policy makers to formulate policies based on the need and current conditions of Orang Asli. Furthermore, it can help aboriginal agency in Malaysia, Department of Orang Asli Development (JAKOA) to construct proper strategy in improving the well-being of Orang Asli communities. Finally, this instrument allows direct participation of Orang Asli on deciding and voicing life importance matter that can affect their happiness thus act as a platform in the efforts of improving their life.

Acknowledgments

This research has been funded by the Malaysia Ministry of Higher Education for the fund granted through the Fundamental Research Grant (FRGS). The authors are grateful to Department of Orang Asli Development (JAKOA) for approving requests of conducting research on Orang Asli and full support

References

- Ab.Hadi, M. Y., Roddin, R., Razzaq, A. R. A., Mustafa, M. Z., & Baser, J. A. (2013). Poverty eradication through vocational education (tourism) among indigenous people communities in Malaysia: Pro-poor Tourism Approach (PPT). *Procedia - Social and Behavioral Sciences*, 93, 1840–1844.
- Abdullah, J., Sayuti, N. M., Arshad, A. A. M., & Embong, M. R. (2016). Living Conditions in Orang Asli Resettlement Project (PROSDET) of Pantos, Pahang, Malaysia. *Procedia - Social and Behavioral Sciences*, 222, 143–150. <http://doi.org/10.1016/j.sbspro.2016.05.204>
- Alatartseva, E., & Barysheva, G. (2015). Well-being: Subjective and Objective Aspects. *Procedia - Social and Behavioral Sciences*, 166, 36–42. <http://doi.org/10.1016/j.sbspro.2014.12.479>
- Alexandrova, A. (2017). Is Well-being Measurable after All? *Public Health Ethics*, 10(2), 129–137. <http://doi.org/10.1093/phe/phw015>.
- Alreck, P., & Settle, R. (1995). *The survey research handbook*. Boston: Irwin

- Alwins, D. F. (1992). Information transmission in the survey interview: number of response categories and the reliability of attitude measurement. *Sociological Methodology*, 83-118
- Angelini, V., Bertoni, M., & Corazzini, L. (2017). Unpacking the determinants of life satisfaction: a survey experiment. *Journal of the Royal Statistical Society. Series A: Statistics in Society*, 180(1), 225–246. <http://doi.org/10.1111/rssa.12190>
- Arabestani, M., & Edo, J. (2011). The Semai's response to missionary work: From resistance to compliance. *Anthropological Notebooks*, 17(3), 5–27.
- Baker, E. H. (2014). Socioeconomic Status, Definition. In *The Wiley Blackwell Encyclopedia of Health, Illness, Behavior, and Society* (pp. 2210–2214). Chichester, UK: John Wiley & Sons, Ltd. <http://doi.org/10.1002/9781118410868.wbehibs395>
- Berdibayeva, S., Garber, A., Ivanov, D., Massalimova, A., Kukubayeva, A., & Berdibayev, S. (2016). Psychological Prevention of older Adolescents' Interpersonal Relationships, Who are Prone to Internet Addiction. *Procedia - Social and Behavioral Sciences*, 217, 984–989. <http://doi.org/10.1016/j.sbspro.2016.02.081>
- Botha, L. (2011). Mixing methods as a process towards Indigenous methodologies. *International journal of social research methodology* 14(4), 313-325
- Carmines, E. G., & Zeller, R. A. (1979). Reliability and validity assessment. *Quantitative Applications in the Social Sciences*. <http://doi.org/10.1037/018269>
- Choy, E. A., Ariffin, Z. C. M., & Pereira, J. J. (2010). Sosioekonomi Masyarakat Orang Asli: Kajian Kes di Hutan Simpan Bukit Lagong, Selangor, Malaysia. *Jurnal Melayu*, (5), 295–314.
- Coates, J. (2004). Ecology and social work: Towards a new paradigm. U.S: Fernwood.
- Department of Orang Asli Development. (2011). *Development Strategic Plan 2011–2015*. Kuala Lumpur: Department of Orang Asli Development.
- Diener, E. (2000). Subjective well-being. The science of happiness and a proposal for a national index. *The American Psychologist*, 55(1), 34–43. <http://doi.org/10.1037/0003-066X.55.1.34>
- Diener, E., & Ryan, K. (2008). Subjective well-being: a general overview. *South African Journal of Psychology*, 39(4), 391–406.
- Diener, E., & Seligman, M. E. P. (2004). Beyond Money: Toward an Economy of Well-Being. *Psychological Science in the Public Interest*, 5(1), 1–31. <http://doi.org/10.1111/j.0963-7214.2004.00501001.x>
- Dumont, J. (2005). (RHS) Cultural Framework February 2005 First Nations Regional Longitudinal Health Survey (Rhs).
- Greco, L.D., Walop, W., & McCarthy, R.H. (1987). Questionnaire development: 2. Validity and reliability. *Canadian Medical Association Journal* 136.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). Multivariate Data Analysis. *Vectors*. <http://doi.org/10.1016/j.ijpharm.2011.02.019>
- Hausman, D. M. (2015). *Valuing Health*. Oxford University Press. <http://doi.org/10.1093/acprof:oso/9780190233181.001.0001>
- Heale, R. & Twycross, A. (2015). Validity and reliability in quantitative studies. *Evidence-based Nursing*, 18 (3), 66-67.
- Hogg, M. A., & Vaughan, G. M. (2011). Social Psychology. In *Social Psychology* (p. 339).
- Howell, C. J., Howell, R. T., & Schwabe, K. A. (2006). Does wealth enhance life satisfaction for people who are maternally deprived? Exploring the association among the Orang Asli of Peninsular Malaysia. *Social Indicators Research* 76, 499-524.
- Joinson, A. N., McKenna, K. Y. A., Postmes, T., & Reips, U. D. (2012). *Oxford Handbook of Internet Psychology*. Oxford University Press. <http://doi.org/10.1093/oxfordhb/9780199561803.001.0001>
- Kaushik, A., & Kaushik, C. (2007). *Environmental studies*. India: New Age International
- Kazanowski, M., & Sheldon, L. K. (2014). Working Together: Aboriginal and Torres Strait Islander Mental Health and Wellbeing Principles and Practice. *Clinical journal of oncology nursing* 18. <http://doi.org/10.1188/14.CJON.S1.45-48>
- Kelly, K., Dudgeon, P., Gee, G., & Glaskin, B. (2009). *Living on the edge: Social and emotional wellbeing and risk and protective factors for serious psychological distress among Aboriginal and Torres Straits Islander people*. Darwin: Cooperative Research Centre for Aboriginal Health

- Khor, G. L., & Zalilah, M. S. (2008). The Ecology of Health and Nutrition of “Orang Asli” (Indigenous People) Women and Children in Peninsular Malaysia. *Tribes and Tribals, Special Vo(2)*, 66–77.
- Kilduff, M., & Brass, D. J. (2010). Organizational Social Network Research: Core Ideas and Key Debates. *The Academy of Management Annals*, 4(1), 317–357. <http://doi.org/10.1080/19416520.2010.494827>
- Kimberlin, C. L., & Winterstein, A.G. (2008). Validity and reliability of measurement instruments used in research. *American Journal of Health-System Pharmacists* 65, 2276-2284.
- Kirshner, B., & Guyatt, G. (1985). A methodological framework for assessing health indices. *Journal of Chronic Disease* 38, 27-36.
- Krosnick, J. (1991). Response strategies for coping with the cognitive demands of attitude measures in surveys. *Applied Cognitive Psychology* 5, 213-236.
- Krosnick, J., & Fabrigar, L. (1997). Designing rating scales for effective measurement in surveys. In L. Lyberg, P. Biemer, M. Collins, E. De Leeuw, C. Dippo, N. Schwarz, & D. Trewin, *Survey measurement and process quality*. New York: John Wiley & Sons, Inc.
- Letourneau, N. L., Duffett-Leger, L., Levac, L., Watson, B., & Young-Morris, C. (2013). Socioeconomic Status and Child Development: A Meta-Analysis. *Journal of Emotional and Behavioral Disorders*, 21(3), 211–224. <http://doi.org/10.1177/1063426611421007>
- Linton, M.-J., Dieppe, P., & Medina-Lara, A. (2016). Review of 99 self-report measures for assessing well-being in adults: exploring dimensions of well-being and developments over time. *BMJ open* 2016;6:e010641. <http://dx.doi.org/10.1136/bmjopen-2015-010641>.
- Litwin, M. (1995). *How to measure survey reliability and validity*. Thousand Oaks, California: Sage Publication.
- Maggino, F. (2015). Assessing the subjective well-being of nations. In W. Glatzer, L. Camfield, V. Moller, & M. Rojas, *Global handbook of quality of life* (pp. 803-22). Springer.
- McClendon, M. J., & O'Brien, D. J. (1988). Question-Order Effects on the Determinants of Subjective Well-Being. *The Public Opinion Quarterly*, 52(3), 351–364. <http://doi.org/10.2307/2749077>
- Mcconnochie, K., Ranzijn, R., Hodgson, L., Nolan, W., & Samson, R. (2012). Working in Indigenous Contexts: Self-Reported Experiences of Non-Indigenous Australian Psychologists. *Australian Psychologist*, 47(4), 204–212. <http://doi.org/10.1111/j.1742-9544.2011.00042>.
- Morse, J., & Niehaus, L. (2009). *Mixed method design: principles and procedures*. Walnut Creek, CA: Left Coast Press.
- Nicholas, C., International Work Group for Indigenous Affairs., & Center for Orang Asli Concerns. (2000). *The Orang Asli and the contest for resources : indigenous politics, development, and identity in Peninsular Malaysia. IWGIA document*.
- Nunnally, J.C., Bernstein, I.H. (1994). *Psychometric theory*. New York: McGraw-Hill.
- Pilot, D., & Hunger, B. (1999). *Nursing research: principals and methods*. Philadelphia: Lippincott Williams & Wilkins
- Polit, D. F., & Beck, C. T. (2006). *Essentials of nursing research: methods, appraisal, and utilization*. Philadelphia, Philadelphia.: Lippincott Williams & Wilkins 6. <http://doi.org/10.1017/CBO9781107415324.004>
- Salahudin, S. N., Baharuddin, S., & Alwi, M. N. R. (2017). Conceptual Framework of Determinants Well-Being of Orang Asli in Malaysia. *Advanced Science Letters* 23, 8659-8663.
- Schwarz, N., & Strack, F. (1991). Evaluating one's life: a judgement model of a subjective well-being. In F. Strack, M. Argyle, & N. Schwarz, *Subjective well-being: an interdisciplinary perspective* (pp. 27-47). Oxford: Pergamon.
- Sekaran, U., & Bougie, R. (2013). Research methods for business. In *Research methods for business* (p. 436). <http://doi.org/10.1017/CBO9781107415324.004>.
- Shuttleworth M. (2015). Internal Consistency Reliability. <https://explorable.com/internal-consistency-reliability>.
- Teddle, C., & Tashakkori, A. (2006). A General Typology of Research Designs Featuring Mixed Methods. *Research in the Schools*, 13(1), 12–28.
- Thatcher, R. (2010). Validity and reliability of quantitative electroencephalography (qEEG). *Journal of Neurotherapy* 14, 122-152.

- Trochim, W.M.K. (2001). *The Research Methods Knowledge Base*. Cincinnati: Atomic Dog.
- Twycross, A. & Shields, L. (2004). Validity and reliability - what's it all about? Part 2 reliability in quantitative studies, *Paediatric Nursing* 16(10), 36.
- Van Boven, L., & Epley, N. (2003). The unpacking effect in evaluative judgments: When the whole is less than the sum of its parts. *Journal of Experimental Social Psychology*, 39(3), 263–269. [http://doi.org/10.1016/S0022-1031\(02\)00516-4](http://doi.org/10.1016/S0022-1031(02)00516-4)
- Van der Deijl, W. (2017). Are Measures of Well-Being Philosophically Adequate? *Philosophy of the Social Sciences*, 47(3), 209–234. <http://doi.org/10.1177/0048393116683249>
- Veenhoven, R. (2010). How Universal Is Happiness? In *International Differences in Well-Being*. <http://doi.org/10.1093/acprof:oso/9780199732739.003.0011>
- WHO. (1998). *Health promotion glossary*. *Health Promotion International*. Retrieved from <http://en.scientificcommons.org/54671111> \ <http://www.ncbi.nlm.nih.gov/pubmed/24948598> \ http://samples.jbpub.com/9780763771157/71157_CH02_019_038.pdf \ http://www.corwin.com/upm-data/13975_Corcoran___Chapter_1.pdf