



**UNIVERSITI PUTRA MALAYSIA**

***SPIRITUALITY AS MEDIATOR FOR RELATIONSHIPS BETWEEN  
NATURE EXPOSURE, CONNECTEDNESS TO NATURE AND  
PSYCHOLOGICAL WELL-BEING OF SCHOOL STUDENTS  
IN JOHOR BAHRU, MALAYSIA***

**SITI NABIHAH BINTI MD SAHAK**

**FPP 2018 19**



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By

**SITI NABIHAH BINTI MD SAHAK**

**Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia,  
in Fulfillment of the Requirements for the Degree of Master of Science**

**August 2018**

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## **DEDICATION**

### **I dedicate this thesis to:**

My mother, Rosminah binti Salim  
My father, Md Sahak bin Ja'afar  
My big sister, Adibah Aishah binti Md Sahak  
My little sister, Siti Nur Haziqah binti Md Sahak

Thank you very much for always being there for me when I needed you. I dedicate this masterpiece to all of you.



Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment of the requirement for the degree of Master of Science

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**August 2018**

**Chairman : Professor Samsilah Roslan, PhD**  
**Faculty : Educational Studies**

Psychological well-being (PWB) of school students in Malaysia has scarcely been discussed. Excellence in academic achievement is deemed more important compared to their inner needs, which include their PWB. Engagement with nature, through sensory exposure and a sense of connectedness to nature, has found to have a positive effect on PWB. The purpose of this study is to explore the outcomes of nature engagement on the PWB of school students, and the role of spirituality in mediating these variables. A total of 293 Form Four school students in standard secondary school in the Johor Bahru district. The 16-year-olds respondents involved in the study comprised of 178 females, and 115 males. The descriptive and inferential data was analysed by using SPSS 23.0. The respondents completed the survey including 1) Nature Exposure Scale, 2) Connectedness to Nature Scale, 3) Spiritual Values Scale, and 4) PWB Scale. For mediation test, data was analysed by employing Structural Equation Modeling (SEM) in AMOS version 23.0, and the results show that nature exposure can only significantly predict PWB through the mediation of spirituality. Whereas, connectedness to nature was found to have significant direct and indirect influence on PWB (through the mediation of spirituality). The model complies with the required model of fit standard (GFI= .903, AGFI= .880, CFI= .947, IFI= .948, NFI= .858, TLI= .940, RMSEA= .041). This study verified that to improve PWB among school students, exposing them to nature without the existence of spirituality is not sufficient to affect PWB. Whereas having a connectedness to nature can influence PWB with or without the presence of spirituality. This study recommends the implementation of the outdoor classroom, which involves teaching and learning in the setting of nature while inculcating spirituality might help students to not only excel in academics but also improve their PWB.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Master Sains

**SPIRITUALITI SEBAGAI PERANTARA BAGI HUBUNGAN ANTARA  
PENDEDAHAN KEPADA ALAM SEMULA JADI, PERHUBUNGAN  
DENGAN ALAM SEMULA JADI DAN KESEJAHTERAAN PSIKOLOGI  
DALAM KALANGAN PELAJAR SEKOLAH  
DI JOHOR BAHRU, MALAYSIA**

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**Fakulti : Pengajian Pendidikan**

Kesejahteraan psikologi dalam kalangan pelajar sekolah di Malaysia jarang dibincangkan secara mendalam. Cemerlang dalam akademik dilihat lebih penting berbanding keperluan dalaman mereka, iaitu kesejahteraan psikologi. Pendedahan terhadap alam semula jadi, melalui pendedahan deria secara langsung dan rasa keterhubungan, terbukti mempunyai kesan positif terhadap kesejahteraan psikologi. Tujuan utama kajian ini adalah untuk meneroka kesan penglibatan alam sekitar terhadap kesejahteraan psikologi dalam kalangan pelajar sekolah, dan peranan kerohanian sebagai perantara bagi kedua-dua pembolehubah ini. Seramai 293 pelajar tingkatan empat di sekolah menengah biasa di daerah Johor Bahru, yang terdiri daripada pelajar berumur 16 tahun (178 perempuan dan 115 lelaki) dipilih secara rawak berperingkat dalam kajian ini. Data deskriptif dianalisis dengan menggunakan versi SPSS 23.0. Responden menjawab instrumen yang terdiri daripada 1) Skala Pendedahan terhadap Alam, 2) Skala Perhubungan dengan Alam, 3) Skala Nilai Spiritual, dan 4) Skala Kesejahteraan Psikologi. Data dianalisis dengan menggunakan Pemodelan Persamaan Struktur (SEM) dalam perisian AMOS 23.0 dan dapatan menunjukkan pendedahan kepada alam hanya dapat meramalkan kesejahteraan psikologi secara signifikan melalui spiritualiti sebagai perantara. Manakala hubungan dengan alam semula jadi didapati mempunyai pengaruh langsung dan tidak langsung yang signifikan terhadap kesejahteraan psikologi (melalui spiritualiti sebagai perantara). Model ini mematuhi piawaian (padanan model) yang ditetapkan ( $GFI = .903$ ,  $AGFI = .880$ ,  $CFI = .947$ ,  $IFI = .948$ ,  $NFI = .858$ ,  $TLI = .940$ ,  $RMSEA = .041$ ). Kajian ini membuktikan bahawa mendedahkan pelajar kepada alam semula jadi tanpa kewujudan spiritualiti adalah tidak mencukupi untuk meningkatkan kesejahteraan psikologi mereka. Namun begitu, adanya hubungan

dengan alam semulajadi dapat memberikan kesan terhadap kesejahteraan psikologi sama ada dengan kewujudan spiritualiti atau tidak. Kajian ini mencadangkan pelaksanaan bilik darjah di luar (*outdoor classroom*), iaitu pengajaran dan pembelajaran dilaksanakan di persekitaran semula jadi. Pada masa yang sama, pendekatan ini memupuk kerohanian para pelajar dan mungkin dapat membantu mereka bukan sahaja untuk cemerlang dalam bidang akademik tetapi juga untuk meningkatkan kesejahteraan psikologi mereka.



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This thesis was submitted to the Senate of the Universiti Putra Malaysia and has been accepted as fulfilment of the requirement for the degree of Master of Science. The members of the Supervisory Committee were as follows:

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## TABLE OF CONTENTS

	Page
<b>ABSTRACT</b>	i
<b>ABSTRAK</b>	ii
<b>ACKNOWLEDGEMENTS</b>	iv
<b>APPROVAL</b>	v
<b>DECLARATION</b>	vii
<b>LIST OF TABLES</b>	xii
<b>LIST OF FIGURES</b>	xiv
<b>LIST OF ABBREVIATIONS</b>	xv
 <b>CHAPTER</b>	
 <b>1 INTRODUCTION</b>	 1
1.1 Overview	1
1.2 Research Background	1
1.3 Problem Statement	4
1.4 Research Objectives	5
1.5 Research Questions	6
1.6 Research Hypotheses	6
1.7 Significance of The Study	6
1.7.1 Theoretical contributions	6
1.7.2 Practical contributions	7
1.8 Research Scope and Limitation	8
1.9 Definition	8
1.9.1 Nature Exposure	8
1.9.2 Connectedness to Nature	9
1.9.3 Spirituality	9
1.9.4 Psychological Well-Being (PWB)	10
1.9.5 School students	10
1.10 Summary	10
 <b>2 LITERATURE REVIEW</b>	 11
2.1 Overview	11
2.2 Concept of Psychological Well-Being (PWB)	11
2.2.1 Six Dimension of PWB	11
2.3 Concept of nature	12
2.3.1 Ecopsychology Theory	13
2.4 Concept of spirituality	14
2.4.1 Spiritual Well-Being	14
2.5 Theoretical Framework	16
2.6 Previous studies	18

2.6.1	Nature Exposure and PWB	18
2.6.2	Connectedness to Nature and PWB	19
2.6.3	Nature Exposure and Spirituality	22
2.6.4	Connectedness to Nature and Spirituality	22
2.6.5	Spirituality and PWB	23
2.6.6	Mediator of Relationship Between Nature Exposure, Connectedness to Nature and PWB Among School Students	24
2.7	Summary	25
<b>3</b>	<b>METHODOLOGY</b>	26
3.1	Overview	26
3.2	Research design	26
3.3	Sampling design	27
3.3.1	Population of the study	27
3.3.2	Determination of sample size	28
3.3.3	Sample	29
3.4	Location of study	31
3.5	Instruments	32
3.5.1	Nature Exposure	32
3.5.2	Connectedness to Nature	32
3.5.3	Psychological Well-Being (PWB)	32
3.5.4	Spiritual Values Scale	34
3.5.5	Summary of instruments	34
3.6	Validity and reliability	34
3.6.1	Validity	34
3.6.2	Confirmatory Factor Analysis (CFA)	35
3.6.3	Reliability	43
3.7	Pilot study	44
3.8	Data collection method	45
3.9	Statistical Analysis of Data	45
3.10	Statistical data analysis	46
3.11	Preparation of the data	46
3.11.1	Assessment of normality	47
3.11.2	Outliers	47
3.11.3	Multicollinearity	47
3.12	Data analysis	48
3.12.1	Descriptive analysis	48
3.12.2	Correlational analysis	48
3.12.3	Analysis of Structural Equation Modelling (SEM)	48
3.13	The Hypothesized Model Input	52
3.14	Summary of the data analysis	52
3.15	Chapter summary	54

<b>4</b>	<b>RESULTS AND DISCUSSIONS</b>	<b>55</b>
4.1	Overview	55
4.2	Demographic Profile of Respondents	55
4.3	Descriptive Analysis	56
4.3.1	Level of Nature Exposure	57
4.3.2	Level of Connectedness to Nature	57
4.3.3	Level of Spirituality	58
4.3.4	Level of PWB	59
4.4	Correlational Analysis	59
4.4.1	The relationship between nature exposure and PWB	59
4.4.2	The relationship between connectedness to nature and PWB	61
4.4.3	The relationship between nature exposure and spirituality	62
4.4.4	The relationship between connectedness to nature and spirituality	63
4.5	The relationship between spirituality and PWB	64
4.6	Structural Equation Modelling (SEM) Analysis	65
4.6.1	The mediation effect of nature exposure, connectedness to nature, spirituality and PWB	69
4.7	The Measurement Model	71
4.8	The Final Model	72
4.9	Summary	73
<b>5</b>	<b>SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS</b>	<b>74</b>
5.1	Overview	74
5.2	Summary of the study	74
5.3	Conclusion of the study	76
5.4	Implication of the study	78
5.4.1	Theoretical implications	78
5.4.2	Practical implications	79
5.5	Recommendations for the future study	79
	<b>REFERENCES</b>	<b>81</b>
	<b>APPENDICES</b>	<b>95</b>
	<b>BIODATA OF STUDENT</b>	<b>121</b>

## LIST OF TABLES

Table	Page
2.1 Model of Spiritual Well-Being	16
3.1 The characteristics of explanatory research	27
3.2 Tabulation of questionnaire distributed	30
3.3 The explanation of dimension	33
3.4 Summary of Instruments	34
3.5 The Goodness-of-fit Indices	36
3.6 Tabulation of instruments' reliability	44
3.7 The reliability of instruments for pilot test	45
3.8 Determination of statistical selection for analysis	46
3.9 Correlation matrix	48
3.10 The three categories of model fit and their level of acceptable range	50
3.11 Summary of data analysis	53
4.1 Respondents' demographic characteristics	56
4.2 The level of nature exposure	57
4.3 The level of Connectedness to Nature	58
4.4 The level of spirituality	58
4.5 The level of PWB	59
4.6 The relationship between nature exposure and PWB	60
4.7 The relationship between connectedness to nature and PWB	61
4.8 The relationship between nature exposure and spirituality	63
4.9 The relationship between connectedness to nature and spirituality	64
4.10 Result for the relationship between spirituality and PWB	65
4.11 Goodness of fit Indices of Structural Model	67

4.12	Path of the structural model	68
4.13	Result for mediation test for nature exposure and PWB	69
4.14	Result for mediation test for connectedness to nature and PWB	70
5.1	Summary of the findings based on research hypotheses	76





## LIST OF FIGURES

Figure	Page
2.1 Dimensions of PWB	12
2.2 Theoretical Framework	17
2.3 Conceptual framework	25
3.1 Flow chart of cluster sampling	31
3.2 CFA for nature exposure	37
3.3 CFA for initial connectedness to nature	38
3.4 CFA for modified connectedness to nature	39
3.5 CFA for initial spirituality	40
3.6 CFA for modified spirituality	41
3.7 CFA for the initial PWB	42
3.8 CFA for the modified PWB	43
3.9 Full mediating effect	51
3.10 Partial mediating effect	51
3.11 The hypothesized model input	52
4.1 The output model	66
4.2 Figure Results of path coefficient for nature exposure, spirituality and PWB	69
4.3 Results of path coefficient for connectedness to nature, spirituality and PWB	70
4.4 The measurement model	72
4.5 Results of path coefficient	73

## LIST OF ABBREVIATIONS

$\chi^2$	Chi-Square
AGFI	Adjusted Goodness of Fit Index
AMOS	Analysis of Moment Structure
CFI	Comparative Fit Index
CN	Connectedness to nature
d	Acceptable margin of error for mean
EPRD	Educational Planning and Research Development
GFI	Goodness of Fit Index
JPN	Jabatan Pendidikan Negeri
KPM	Kementerian Pendidikan Malaysia
$n_o$	Size of sample
NE	Nature exposure
NFI	Normed Fit Index
PPD	Pejabat Pendidikan Daerah
PWB	Psychological Well-Being
RMSEA	Root Mean Square Error of Approximation
s	Estimate of standard deviation
SEM	Structural Equation Modeling
SP	Spirituality
SPSS	Statistical Packages for Social Sciences
t	Value for selected alpha level
TLI	Tucker-Lewis Index

# CHAPTER 1

## INTRODUCTION

### 1.1 Overview

In this chapter, the discussion will cover the topic on the background of the study, problem statement, research objectives, research question, research hypothesis significance of the study, research scope and limitation of the study, operational definition in this context of the study and the summary of this chapter.

### 1.2 Research Background

As the twenty-first century unfolds with its emphasis on global concerns and typified by technology that is outdated before it is out of its packaging, it is needed to reevaluate what we understand by thinking and learning. Such reframing is essential if we are to produce future-ready learners.

In the past, human separated the cognitive realm – thinking and learning – from the physical, emotional and social realities of the learner (Vialle, Walton & Woodcock, 2008). Skill acquisition and knowledge are designed by cognitive system. However, is also affected by moods, emotions, and well-being (Ekman & Friesen, 1982; Hascher, 2010; Pekrun, 2011; Trigwell, Ellis & Han, 2012).

For instance, negative emotions create a negative perceptual attitude. When this occurs, it is automatically draw the learner's attention to task-irrelevant aspects, which then stimulate intrusive thoughts and create a concern for the well-being rather than for learning. On the contrary, short-term learning intentions and activity in the mastery mode were lead by positive perceptual attitude. Hence, by creating a conducive and comfortable learning environment for the students which is the classroom, the emotions, moods, and well-being can be controlled as well.

Mohd Yasin, Toran, Tahar, Bari, Ibrahim and Zaharudin (2013) argue that learning environment or the classroom atmosphere has a major role in shaping effective learning activities. Since school plays a role as a centre of learning, the district and state capabilities should be enhanced to assure that enthusiastic policy credibly and constantly translate into a world-class experience in the classroom and school. Thus, creating a conducive learning environment (Malaysia Education Blueprint, 2013).

The learning environment can be classified as an important factor for students to learn and explore new knowledge. Learning environment according to Amirul, Che Ahmad, Yahya, Abdullah, Adnan and Noh (2013) is a main facet of the process of teaching and learning and it is important to regulate students' learning. It encourages

students' engagement in the learning process and influences their behavior. Besides, it also aids in the development of their skills and cognitive abilities (Amirul et al., 2013). As stated in the National Education Philosophy 1988, a holistic approach should focus more on the entire teaching and learning process in education (Ministry of Education, 2001).

The learning environment plays a big role in order to help students maintain their cognitive, emotional, and psychological well-being (PWB). This study will highlight more on the aspect of PWB to achieve the objectives of the study.

PWB of students has begun to receive attention about two decades ago and was seen as an important aspect in the life of individuals whether they are in primary, secondary and even in a higher education institution. Studies in PWB have gained increasing attention in recent years due to the increase in the number of issues and problems, especially among school students. According to Ryff (1989), PWB refers to the extent to which individual feel their lives is under their control, their activity is meaningful and valuable, the good communication with others and optimistic feelings towards themselves and their past life.

PWB plays a big role as one of the core components of mental health because it can affect students' academic achievement at school and their future. According to Boehm and Kubzansky (2012) and Ryff et al. (2006), PWB is a multidimensional concept embracing several unique factors that do not merely reflect the absence of distress but rather to represent the optimistic feelings, strategies, and cognitions of individual who function well in their life and able to evaluate their life favourably. For school students, their PWB can be affected by their surrounding environment, especially in schools and within classrooms.

The spiritual factor is deemed important and taken into account to further explain the state of PWB (Perez, 2012). Bryant (2007) claims that spiritual is a commitment to seek deeper quests in life, the pursuit of an actualized, carefully conceived life purpose, while Underwood (2011) states that it is conceived as the sense of connectedness with a greater being. There were some previous studies which also proved the salient role of spirituality in PWB among numerous groups of people (Ellison & Fan, 2008; Greenfield, Vaillant, & Marks, 2007). In a wide perspective as pointed by Wiliam, Huitt & Robbins (2003), spirituality deals fundamentally with how human approach the unknowns in their life, how they define and relate to the sacred.

Therefore, the learning environment is important to ensure the PWB of students. At the same time, spirituality is also taken into account because of its role as one of the components of PWB as highlighted in this study.

Not only is spirituality important in human's PWB, but it is also important in education as a core value of human development. Al-Ghazali in Mohd Johari (2007) once revealed that the core values of the human development process should be focused more in order to produce a well-educated mankind, which sovereign from the material world and able to accomplish the true happiness in their life. Similarly, Korthagen (2004) indicated that the foundations of man's steadiness through which they maintain a sense of purpose in their life are the core values of mankind, as Stoddard (1991) categorizes this process of educating as "education for greatness", which means, the development of great human beings was aspired by education.

Therefore, to understand people in educational perspectives, firstly we have to understand human's core values – spirituality – because according to Langgulung (1987), spirituality stimulates human behavior and how human responds to their setting. That means, from the holistic self-development perspective, the education system would have developed human being's spirituality dimension as a fundamental before developing the physical and intellectual dimension (Chandler, Holden, & Kolander, 1992; Langgulung, 1987). While Al-Attas (2001) identifies the combining principle of what defines a man: it is not his constantly changing physical aspect, but his spiritual. The spiritual substance itself is the very essence of every man by which it is also referred to as the perfection of a being and it can help improve well-being since it is correlated in a human's inner needs.

There are four domains of spirituality: personal, communal, environmental and transcendental (Fisher, 1998). In this study, only the environmental domain will be discussed further due to the numbers of trends suggesting that many scholars are overlooking this time-tested wisdom, and it is disconnected, both physically and psychologically from a natural environment (Capaldi, Passmore, Nisbet, Zelenski & Dopko (2015).

Back in 1991, Dwyer, Schroede, and Gobster discovered that many city dwellers' personal bonds to urban trees and forests often involves a spiritual involvement; it provides many of the spiritual connections often attributed to nature experiences. In 1993, Kaplan postulated that to promote a maintain healthy cognitive focus and attention, it could be assist by natural environment even just having a window which can view natural scenery. It is found to strongly predict PWB (Kaplan, 1995).

In the 21<sup>st</sup> century, Keniger et al. (2013) reveal that to improve and maintain human well-being, we should understand the benefits of connecting with nature, especially in this rapidly urbanizing world. Exposing people to natural environments carry numerous benefits not only on physical health and cognitive performance, but also PWB. Connection with nature occurs when one is exposed to a degree of natural environments and may occur in many different situations such as working or studying with a view to an urban park, seating and reading in front of the seaside, tracking or running on a forest (Carrus et al., 2013; Hartig et al., 2010).

In countries known for their comprehensive education systems such as Finland, Scotland, and Iceland, they provide a classroom which is comfortable and conducive to set the elements of nature in the classroom to ensure that students can enjoy the teaching and learning process, maintain a cheerful environment and reduce stress in the class. Students were also taken out of class to carry out activities and experiments, instead of sitting in class performing activities in a concrete building. Known as outdoor classrooms, the elements of nature are included in their teaching and learning process. On the other hand, in Malaysia, teaching and learning are conducted mainly in the classroom, and several issues may arise. The issues will be further discussed in the next section.

### **1.3 Problem Statement**

In a megacity of the 21<sup>st</sup> century, the mushrooming of development and construction are often too consuming; the inclination of PWB of school students should be of primary concern. This is reflected by the steady increase of cases involving dropouts and suicides (Ahmad, Cheong, Ibrahim & Rosman, 2014; Rasmy, Selvadurai & Sulehan, 2017).

The learning environment can impact physical and social behavior according to previous literatures (Barker, 1968; Moos, 1979). Schools, where the formal education takes place, should always focus on producing well-balanced students, not just merely focusing on their academic achievements (Zenner, Hernnleben-Kurz & Walach, 2014). This is due to the fact that academic achievement, emotional and social competence, and mental and physical health are interconnected (Diamond, 2010). Schools should serve as a place that provides a conducive environment that could foster personal development and well-being, also prevent disorders in students too.

In this regard, the study of existing physical environment and its impact on learning is needed (Chism, 2006). However, in Malaysia context as claimed by Amirul et al. (2013), a study on classroom's learning environment particularly in its physical aspect and features are still at the preliminary stage. According to Sofian, Shaharuddin, Noorazuan, and Yusniza, (2015), classroom conditions in Malaysia are packed with students, creating an inappropriate temperature in classrooms. Higher environmental temperatures, as well as crowded students in classrooms, can cause discomfort and disrupt the learning process, especially in urban schools (Sofian et al., 2015), affecting their PWB.

Studies focusing on young people shows that young people are spending less time outdoors (Hofferth & Sandberg, 2001; Rydberg, 2007). It was found that bringing the students out of the classroom not only make the teaching and learning process becomes more interesting, but it also helps students to become exposed and connected to nature (Christie, Nicol, Beames, Ross, & Higgins, 2014; Ting & Siew, 2014; Tuan Soh & Mohd Meerah, 2013).



Kellert and Wilson (1993) and Wilson (1984) once stated that human would experience numerous positive psychological outcomes when they feel connected to nature, which then being strengthen by number of studies have shown that engagement with natural world contributes to the increase in PWB especially in western countries (Kamitsis & Francis, 2013; Passmore & Howell, 2014; Alvarsson, Wiens & Nilsson, 2010; Korpela, De Bloom, Sianoja, Pasanen & Kinnunen, 2017; Zhang, Howell and Iyer, 2014; Swami, Nordheim & Barron, 2016; Trigwell, Francis & Bagot, 2014; Nisbet, Zelenski & Murphy, 2011; White, Alcock, Wheeler, & Depledge, 2013; Howell, Passmore, & Buro, 2013; Howell, Dopko, Passmore, & Buro, 2011; Leong, Fischer, & McClure, 2014).

Nevertheless, mere engagement to nature is not enough to help improve PWB. It is also interesting to note that spirituality has been consistently found to be positively related to PWB (Kamitsis & Francis, 2013).

The researcher found that there are mounting of empirical data on nature and PWB in other countries but lack on Malaysian context and also evidence on the role of spirituality on PWB among school students especially in Malaysia is low. Therefore, this study intends to explore the extent to which students can overcome their stress by increasing their PWB through exposure and connected to nature. Therefore, this study attempts to find empirical evidence to support the proposed model of using nature as a predictor and spirituality as the mediator for the relationships between nature exposure, connectedness to nature and PWB of school students specifically in Malaysia context.

#### **1.4 Research Objectives**

The overall purpose of this study is to determine the relationships between nature and PWB of school students and investigate the role of spirituality as a mediator.

Specifically, the purposes of this study are:

- i. To identify:
  - The levels of nature exposure among school students;
  - The level of connectedness to nature among school students;
  - The level of spirituality among school students;
  - The level of PWB among school students.
- ii. To determine the relationships between nature exposure and PWB;
- iii. To determine the relationships between connectedness to nature and PWB;
- iv. To determine the relationships between nature exposure and spirituality;
- v. To determine the relationships between connectedness to nature and spirituality;
- vi. To determine the relationships between spirituality and PWB;
- vii. To determine the mediating effect of spirituality on the relationships between nature exposure, connectedness to nature and PWB.

## **1.5 Research Questions**

The main question in this study is, does spirituality mediate the relationship between nature exposure and connectedness and PWB of school students?

Sub-research questions:

- i. What are the levels of nature exposure, connectedness to nature, spiritual values and PWB of school students?

## **1.6 Research Hypotheses**

The research hypotheses of this study are as follows:

- Hypothesis 1 There is a significant relationship between nature exposure and PWB of school students;
- Hypothesis 2 There is a significant relationship between connectedness to nature and PWB of school students;
- Hypothesis 3 There is a significant relationship between nature exposure and spirituality of school students;
- Hypothesis 4 There is a significant relationship between connectedness to nature and spirituality of school students;
- Hypothesis 5 There is a significant relationship between spirituality and PWB of school students;
- Hypothesis 6 There is a significant mediating effect of spirituality on the relationship between nature exposure, connectedness to nature and PWB.

## **1.7 Significance of The Study**

### **1.7.1 Theoretical contributions**

This study seeks to contribute to the PWB theory in a number of ways. The basic concept of PWB was introduced by Ryff (1989) which comprises of six dimensions: autonomy, environmental mastery, personal growth, positive relation with others, purpose in life and self-acceptance. All these six dimensions focus on self-development of the students, which could affect their future.

There are numerous interesting findings that show people who are attached to nature have increased PWB. Based on the Ecopsychology Theory by Roszak (1992), there are three important concepts which are (1) intimacy between human and nature, (2) spiritual values, and (3) awareness of nature.



In Spiritual Well-Being by Fisher (1998), four important concepts have been introduced which are 1) personal, (2) communal (3) environmental and finally (4) transcendental. In Ecopsychology Theory, there are spiritual values while in Spiritual Well-Being, there is the environmental concept. The interrelatedness between these two theories is theoretically acceptable in this study as they are concerned with improving PWB.

An additional dimension of PWB will be a theoretical contribution of this study. Based on the findings, the additional dimension that will be added is spirituality, which interestingly as proposed by Dierendonck (2005) it is part of the dimensions of PWB.

### **1.7.2 Practical contributions**

The findings of this study are expected to be useful to several parties involved in education especially for researchers, students, and teachers. This study will help researchers to uncover critical areas in the educational process, through a newly proposed model for improving students' PWB.

The findings of this study can be utilized by school authorities considering that engagement to nature plays an important role in students' PWB. The greater PWB among school students will help them improve their learning and academic achievement. Thus, schools can apply the nature approach using spirituality as the mediator to train students better in managing and coping with their emotions and help them improve their PWB.

As for teachers, this study might help them in the teaching and learning process by understanding the importance of creating a warm and nature-inclusive environment in the classroom. Adding some elements of nature inside the classroom might help students to reduce their stress levels. Hence, students may learn better, and they feel good about being in their own classroom. This is due to the physical environment of a classroom plays a role in the ownership students feel about their school, specifically their classroom (Bucholz & Sheffler, 2009).

Furthermore, this study is also expected to encourage all the teachers to advocate environmental friendly programs, campaigns and outdoor activities where students can be exposed and feel connected to nature. Teachers can help students by bringing them back to nature and ultimately teachers also help students reclaim their PWB. The importance of these activities is not only focused on their PWB but also their level of spirituality; exposing and connecting them to nature can help them reclaim the sense of spirituality.

Finally, the findings of this study are expected to help architects and designers to improve the planning and structure of classroom to be more nature-friendly and eventually, it could benefit students to be exposed and connected to the natural environment around them.

## **1.8 Research Scope and Limitation**

In this study, the researcher only examines the PWB of the students, not their state of mental or physical health. This is driven by the urgency to address the fact that students' PWB is currently in an alarming state due to pressing life stresses.

As this is a correlational study, some limitations of employing a correlational research design need to be emphasized. Cresswell (2012) cited that, the ethical issues are always present when conducting correlational research because the controls are omitted from the analysis. The controls such as age, gender and age need to be considered before conducting the study.

The research conducted and conclusions made from the data gained might have some limitations, even after detail interpretation, inferences, and generalization of the findings have been completed. Initially, it should be noted that the generalizability of this study is limited to the sampling frame used. The respondents which participated in this study are specific in nature: they are all form four secondary school students in Johor Bahru. The findings of this study are therefore confined to the selected form four secondary school students at a public school in Malaysia and may not be generalized to primary school students or college and university students or any other public and private institutions.

## **1.9 Definition**

### **1.9.1 Nature Exposure**

#### **Conceptual definition**

Nature exposure is also known as engaging outdoor (McSweeney, Rainham, Johnson, Sherry & Singleton, 2014). It involves direct sensory and/or physical contact with the natural environment (Mayer et al, 2009). Kamitsis and Francis (2013) firmly believe that nature exposure can help boost the speed at which individual recovers from the stress aspects of attentional, emotional, and physiological.

## **Operational definition**

In this study, nature exposure is defined by the frequency of respondents at outdoor settings and surrounded by nature in their everyday life at home, classroom, and school. Nature exposure is measured by using Nature Exposure Scale (Kamitsis & Francis, 2013).

### **1.9.2 Connectedness to Nature**

#### **Conceptual definition**

Schultz (2002) states that connectedness to nature refers to nature connectedness and is the degree to which individual view themselves as part of nature. There are two types of connectedness: explicit, in which the individual acknowledges the ability of an individual to precise the connection and implicit, which is a non-conscious connection indescribable to others (Schultz & Tabanico, 2007). Connections to nature is also referred to as attachment of nature in the self (Schultz, 2001), nature relatedness (Nisbet et al., 2009), connectivity with nature (Dutcher et al., 2007), emotional affinity towards nature (Kals et al., 1999), love and care for nature (Perkins, 2010) and dispositional empathy with nature (Tam, 2013).

#### **Operational definition**

Connectedness to nature in this study is defined as the relationship between school students with nature in their daily lives and the extent to which school students feel that they are a part of nature in their surrounding environment. In this study, it refers to the scores obtained by respondents using Connectedness to Nature Scale (Mayer and Frantz, 2004).

### **1.9.3 Spirituality**

#### **Conceptual definition**

Conceptually, spirituality is defined as which includes one's mission, values, beliefs, subjectivity, a sense of purpose and direction, awareness, experience, and a kind of striving toward something bigger than oneself (Frame, 2003). It is something related to or affecting the human soul as disparate to material or physical things.

#### **Operational definition**

Operationally, spirituality in this study refers to a sense of association to something greater than humans, and it normally engages a search for meaning in life. Per se, it is a universal human experience; something that touches human, which is being measured using the Spiritual Values Scale (Hatch, 2008).

#### **1.9.4 Psychological Well-Being (PWB)**

##### **Conceptual definition**

PWB has been expressed as the engagement with life's existential challenges (Keyes, Shmotkin, & Ryff, 2002). It is also known as Eudaimonic Well-Being which is defined more roughly in terms of the fully functioning person and has been operationalized either as a set of wellness variables such as self-actualization and vitality (Ryan & Deci, 2001), happiness plus meaningfulness (McGregor & Little, 1998), or also as a six dimensions (Ryff, 1989).

According to Capaldi et al. (2015), constructs of PWB such as meaning, autonomy, vitality, and feelings of transcendence represent additional components of mental health beyond simply feeling good. It has been described as the “functioning well” element of well-being (Keyes & Annas, 2009).

##### **Operational definition**

In this study, PWB is measured using the condition of positive relations with others, environmental mastery, self-acceptance, autonomy, personal growth, and purpose in life of students in their daily lives. In this study, PWB refers to the scores obtained using Ryff PWB Scale (Ryff, 1989).

#### **1.9.5 School students**

##### **Operational definition**

School students in this context of this study refer to all 16-year-old Form 4 standard secondary school students in Johor Bahru's district in 2017.

#### **1.10 Summary**

This chapter covered the background of the study, problem statement, research objectives, research questions, research hypothesis, the significance of the study, research scope and limitation, and the definition of essential terms included in this study.

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