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**THE SCHOOL LEADERS ENVIRONMENTAL RESPONSIVE BEHAVIOUR  
IN MALAYSIA AND THE MEDIATING EFFECT OF ENVIRONMENTAL  
INTENTION**



**Thesis Submitted to  
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**Pusat Pengajian Pengurusan Perniagaan**  
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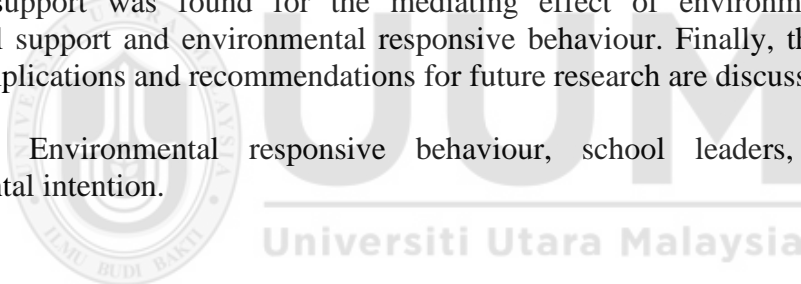
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## ABSTRACT

The Malaysian school leaders' environmental responsive behaviour is still not impressive in its fullest potential to mitigate their behaviour to overcome the negative consequences caused by the environmental degradation and overconsumption of natural resources. Hence, there is a need to determine the factors that contribute to environmental responsive behaviour among school leaders in Malaysia. Therefore, this study was undertaken to investigate the possible variables that could better explain the school leaders' environmental responsive behaviour by investigating the relationship between emotional affinity toward nature, environmental attitude, environmental subjective norm, environmental perceived behavioural control, and institutional support on environmental responsive behaviour. Additionally, environmental intention was examined as a mediator. The triangulation theory approach, which integrates the Theory of Planned Behaviour (TPB), the Attention Restoration Theory, and the Social Capital Theory were used to explain the relationships between the variables. A total of 503 school leaders, representing 70.23 percent, participated in this study. The data was collected via an online survey, and PLS-SEM was used to analyze it and test the hypotheses. The statistical results indicated that emotional affinity toward nature, environmental attitude, and environmental perceived behavioural control are positively related to environmental intention. Conversely, environmental subjective norm and institutional support are not related to environmental intention. Environmental intention was found to be positively related to environmental responsive behaviour. Moreover, the results revealed that no empirical support was found for the mediating effect of environmental subjective norm, institutional support and environmental responsive behaviour. Finally, theoretical contributions, practical implications and recommendations for future research are discussed.

**Keywords:** Environmental responsive behaviour, school leaders, institutional support, environmental intention.



## ABSTRAK

Tingkah laku sikap bertanggungjawab terhadap alam sekitar dalam kalangan pemimpin sekolah di Malaysia masih belum memanfaatkan potensi sepenuhnya untuk mengubah perlakuan mereka bagi mengatasi kesan negatif terhadap kemerosotan alam sekitar dan mengurangkan kadar penggunaan sumber semula jadi. Oleh itu, terdapat keperluan untuk menentukan faktor-faktor yang menyumbang kepada perlakuan tanggungjawab terhadap alam sekitar dalam kalangan pemimpin sekolah di Malaysia. Oleh demikian, kajian ini dilakukan untuk menyelidik kemungkinan pemboleh ubah yang dapat menjelaskan perlakuan tanggungjawab terhadap alam sekitar dalam kalangan pemimpin sekolah dengan menyiasat hubungan di antara pertalian emosi terhadap alam semulajadi, sikap terhadap alam sekitar, norma subjektif terhadap alam sekitar, kawalan gelagat ditanggap terhadap alam sekitar, dan sokongan institusi terhadap perlakuan tanggungjawab terhadap alam persekitaran. Selain itu, niat terhadap alam sekitar dikaji sebagai pengantara. Pendekatan teori triangulasi, yang mengintegrasikan Teori Tingkah Laku Terancang (TPB), Teori Pemulihan Perhatian, dan Teori Modal Sosial digunakan untuk menjelaskan hubungan di antara pemboleh ubah dalam penyelidikan ini. Seramai 503 pemimpin sekolah, mewakili kadar maklum balas sebanyak 70.23 peratus mengambil bahagian dalam kajian ini. Data dikumpulkan melalui tinjauan dalam talian, dan PLS-SEM digunakan untuk menganalisis data serta menguji hipotesis. Keputusan secara statistik menunjukkan bahawa pertalian emosi terhadap alam semulajadi, sikap terhadap alam sekitar, dan kawalan gelagat ditanggap terhadap alam sekitar mempunyai hubungan positif dengan niat terhadap alam sekitar. Sebaliknya, norma subjektif terhadap alam sekitar dan sokongan institusi tidak berkaitan dengan niat terhadap alam sekitar. Tambahan pula, kesan pengantaraan di antara norma subjektif terhadap alam sekitar dan sokongan institusi dengan perlakuan tanggungjawab terhadap alam sekitar tidak disokong secara empirik. Akhir sekali, sumbangan teori, implikasi secara praktik dan cadangan untuk penyelidikan masa hadapan dibincangkan.

**Kata Kunci:** perlakuan tanggungjawab terhadap alam sekitar, pemimpin sekolah, sokongan institusi, niat terhadap alam sekitar

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## LIST OF ABBREVIATIONS

ISO	International Organization Standardization
NGO	Non-Government Organizations
3R	Reduce, Reuse and Recycle
UK	United Kingdom
SLAAS	Sekolah Lestari: Anugerah Alam Sekitar
GNI	Gross National Income
EPI	Environmental Performance Index
NPE	National Policy on the Environment
SMART	Special Malaysia Disaster Assistance and Rescue Team
API	Air Pollution Index
SOP	Standard Operating Procedures
MOE	Ministry of Education
IAB	Institute Aminudin Baki
NQEL	National Qualification for Educational Leaders
TPB	Theory of Planned Behaviour
U.S	United States
UNCED	United Nations Conference on Environment and Development
UNESCO	United Nations Educational, Scientific and Cultural Organization
R&D	Research and Development
GHG	Greenhouse Gas
API	Air Pollutant Index
FELCRA	Federal Land Consolidation and Rehabilitation Authority
CSR	Corporate Social Responsibility
GST	Goods and Services Tax
SAVE	Sustainability Achieved via Energy Efficiency
CES	Compendium of Environmental Statistics
WWF	World Wild Fund
EE	Environmental Education
DoE	Department of Environment
LESTARI	Institute for Environment and Development
IMELC	Iskandar Malaysia Ecolife Challenge
LEED	Leadership in Energy and Environmental Design
IAB	Institute Aminuddin Baki
DefED	Decade of Education for Environmental Sustainable Development
WHO	World Health Organization
AEMs	Agri- Environmental Measures
CO <sub>2</sub>	Carbon dioxide
ESD	Education for Sustainable development
HEV	Hybrid Electric Vehicle
EMP	Environmental Management Practice
EAN	Emotional Affinity toward Nature
SME	Small and Medium Enterprises
EU	European Union
TPB	Theory of Planned Behaviour
TRA	Theory of Reasoned Action
PBC	Perceived Behavioural Control



EPRD	Education Planning and Research Development
SPSS	Statistical Package for Social Science
PLS-SEM	Partial Least Squares Structural Equation Modeling
SEM	Structured Equation Modelling
CB-SEM	Covariance Based Structural Equation Modeling
AVE	Average Variance-Extracted
HTMT	Heterotrait-Monotrait Ratio of Correlations
R <sup>2</sup>	Squared Correlation
Q <sup>2</sup>	Predictive relevance of the model
eRAS	Education Research Application System
ATT	Attitude
SN	Subjective Norm
EAN	Emotional Affinity Toward Nature
INT	Intention
ERB	Environmental Responsive Behaviour
D2	Mahalanobis



## CHAPTER 1: INTRODUCTION

### 1.1 Background of Study

Growing numbers of the population become a significant constraint of the world economic development. The current world population were 7.8 billion and expected to increase by 9.9 billion by 2050 (*2019 World Population Data Sheet With a Special Focus on Human Needs and Sustainable Resources*, 2019). From the total population, 4.7 billion people from Asia and Asia Pacific countries (UNFPA, 2019). Malaysia recorded 32 million people, with 25% of them aged between 10 to 24 years (*Department of Statistics Malaysia*, 2018a). In regards to this, world energy consumption increases parallel with the increasing world population trend. Global energy consumption increases by 25 percentage among the developing economies in Asia and South America. Specifically, China, India, South Korea, Brazil, Argentina, and Mexico identified as large users of energy (Enger & Smith, 2015).

In line with that, Malaysia as a commodity giant in the Asia Pacific urge for energy demand. Local demand for all energy sources expected to grow 3 percentage from 2004 to 2020 (Economic Planning Unit, 2020). Undoubtedly, with the advent of a growing demand for energy resources, Malaysia will face unique environmental challenges. In general, emerging global environmental challenges threatens human health, physical security, material needs and social cohesion. The environmental degradations have proven by increasingly intense and frequent storms, rising sea levels, extensive flooding, drought, acid rain, deforestation, increase of the carbon dioxide and greenhouse gases, land degradation, and overconsumption of energy (Alberti, 2015; Enger & Smith, 2015). Besides, ecological impacts in Malaysia alarming for implementation of sustainable development policies, procedures and guidelines.

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## Appendix A



### **The relationship between school leader's environmental predictors and environmental responsive behaviour in Malaysia**

Dear respondent,

I am a PhD student and currently pursuing a doctoral degree at Universiti Utara Malaysia (UUM) under the School of Business Management (SBM), College of Business (COB). I am conducting a doctoral research study on **“THE RELATIONSHIP BETWEEN SCHOOL LEADER'S ENVIRONMENTAL PREDICTORS AND ENVIRONMENTAL RESPONSIVE BEHAVIOUR IN MALAYSIA”**. The ultimate purpose of this study to explore the influencing factors of environment responsive behaviour among school leaders in Malaysia.

I have identified your school as having the characteristics necessary to participate in this research study. I would very much appreciate your contribution and cooperation to complete the enclosed questionnaires within your valuable time. Your answers are very important to ensure accuracy to this research. All information obtained would be treated **STRICTLY CONFIDENTIAL** and use for **ACADEMIC PURPOSES ONLY**.

If you have any questions about the survey, I shall be contacted at 012-4506109. A summary report will be provided to the participants upon request.

Thank you for your assistance and cooperation. I hope this study will provide a significant contribution for the betterment of schools and society in Malaysia.

Yours sincerely,

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Supervisor  
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**Hubungan antara kemungkinan pemboleh ubah yang dapat menjelaskan perlakuan tanggungjawab terhadap alam sekitar di kalangan pemimpin sekolah di Malaysia**

Responden yang dihormati,

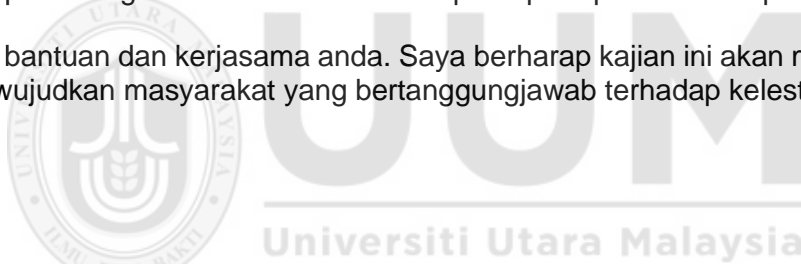
Saya sedang menjalankan kajian penyelidikan mengenai "**HUBUNGAN ANTARA KEMUNGKINAN PEMBOLEH UBAH YANG DAPAT MENJELASKAN PERLAKUAN TANGGUNGJAWAB TERHADAP ALAM SEKITAR DI KALANGAN PEMIMPIN SEKOLAH DI MALAYSIA**". Tujuan utama kajian ini untuk meneroka factor-faktor yang mempengaruhi perlakuan tanggungjawab terhadap alam persekitaran di kalangan pemimpin sekolah yang merupakan rujukan utama generasi muda sekarang dan akan datang.

Saya telah mengenal pasti sekolah anda sebagai sampel kajian kerana ia mempunyai ciri-ciri yang diperlukan untuk menyertai kajian penyelidikan ini. Saya amat menghargai sumbangan dan kerjasama anda untuk menyiapkan soal selidik yang disertakan dalam masa yang anda hargai. Jawapan anda adalah sangat penting untuk memastikan ketepatan penyelidikan ini. Semua maklumat yang diperolehi akan dianggap **SULIT** dan hanya akan digunakan untuk **TUJUAN AKADEMIK SAHAJA**.

Sekiranya anda mempunyai sebarang soalan mengenai soal selidik ini, saya boleh dihubungi melalui 012- 4506109 . Laporan ringkasan akan diberikan kepada para peserta atas permintaan.

Terima kasih atas bantuan dan kerjasama anda. Saya berharap kajian ini akan memberi sumbangan penting untuk mewujudkan masyarakat yang bertanggungjawab terhadap kelestarian alam sekitar.

Yang ikhlas,



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Calon Phd  
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Prof. Madya Dr. Fais bin Ahmad & Dr. Hazlinda Hassan  
Penyelia  
Pusat Pengajian Pengurusan Perniagaan  
Universiti Utara Malaysia

## SECTION A / SEKSYEN A

Following are some personal questions and statement related to your school background. Please complete and mark (X) the relevant information.

Soalan-soalan berikut meminta maklumat mengenai diri anda dan latar belakang sekolah anda. Sila jawab setiap soalan dengan menandakan kotak yang sesuai dan isi maklumat yang diperlukan.

Please tick (/) in the appropriate box/ Sila tandakan (/) dalam kotak yang sesuai.

1. **Gender / Jantina**

Male/Lelaki

Female/Perempuan

2. **Age / Umur**

Below 30/Bawah 30

41-50

61 and above/ 61 dan atas

31- 40

51-60

3. **Ethnic / Etnik**

Malay/Melayu

Indian / India

Chinese/Cina

Others, please specify \_\_\_\_\_

4. **State total number of years of experience as a school leader at this school;**

\_\_\_\_\_ years

**Nyatakan jumlah tahun pengalaman sebagai seorang guru besar di sekolah sekarang:**

\_\_\_\_\_ tahun

Years/ Tahun	Mark X/ Sila tanda X
1	
2	
3	
4	
5	
6	
7	
8	

5. **Highest education level (could mark more than one) : Mark and state  
Nyatakan kelulusan akademik dan Ikhtisas ( Boleh tanda lebih daripada  
satu ): Tanda dan Nyatakan**

<b>Mark X/ Sila tanda X</b>	<b>Education Level/Kelulusan</b>
	Diploma of Education / Diploama Pendidikan
	Bachelor's degree / Ijazah Sarjana Muda
	Masters Degree / Ijazah Sarjana
	Ph.D degree / Ijazah Ph.D

9. **Throughout your career as a teacher, please state the job training and development  
pertaining environmental sustainability development have you participate.  
Sepanjang kerjaya tuan/puan sebagai guru, sila nyatakan program latihan dalam  
perkhidmatan berbentuk formal (yang berkaitan pembangunan kelestarian alam  
sekitar) yang pernah tuan/puan ikuti .**

No	Training program / Program latihan
1	
2	
3	
4	
5	

## SECTION B

Here are some statements related to your schools. Please tick (X) in the appropriate place and state the information where necessary about your schools.

Berikut adalah beberapa pernyataan berkaitan dengan sekolah anda. Sila tandakan (X) di tempat yang sesuai dan nyatakan maklumat yang berkaitan tentang sekolah tuan/puan berkhidmat sekarang

### 1. School location/Lokasi Sekolah:

State/Negeri	Mark X/ Sila tanda X
Perlis	
Kedah	
Pinang	
Perak	
Pahang	
Negeri Sembilan	
Melaka	
Kelantan	
Terengganu	
Kuala Lumpur	
Selangor	
Johor	
Sarawak	
Sabah	
Labuan	

### 2. School area:

(Tick X/Tandakan X)

<input type="checkbox"/>	Urban/Bandar
--------------------------	--------------

(Tick X/Tandakan X)

<input type="checkbox"/>	Rural/Luar Bandar
--------------------------	-------------------



3. **School type/Jenis Sekolah:**

Mark X / Tanda X	School type/ Jenis Sekolah
	National
	National (Chinese)/Kebangsaan (Cina)
	National (Tamil)/Kebangsaan (Tamil)
	Religion/Agama

4. **How many students are enrolled at your school? \_\_\_\_\_ pupils**  
**Berapakah bilangan pelajar sekolah tuan/puan? \_\_\_\_\_ orang**

Numbers of Students / Jumlah Murid	Mark X / Tanda X
less than 100	
101 to 300	
301 to 600	
601 to 900	
901 to 1200	
more than 1200	

5. **State the total number of employee in your schools: \_\_\_\_\_**  
**Nyatakan jumlah kakitangan sekolah tuan/puan: \_\_\_\_\_ orang**

Numbers of Employees / Jumlah Staf Sekolah	Mark X / Tanda X
1 to 20	
21 to 40	
41 to 60	
61 to 80	
81 to 100	
101 to 120	
121 to 140	
141 to 160	
181 to 200	

### SECTION C / SEKSYEN C

Please **CIRCLE** the degree to which you agree with the following statements about **ENVIRONMENTAL ATTITUDE** of **ENVIRONMENTAL RESPONSIVE BEHAVIOUR**.

Sila **BULATKAN** sejauh mana anda bersetuju dengan kenyataan berikut mengenai **SIKAP TERHADAP ALAM SEKITAR** daripada **PERLAKUAN TANGGUNGJAWAB TERHADAP ALAM SEKITAR**.

Strongly Disagree Sangat tidak setuju 1	Disagree Tidak bersetuju 2	Slightly Disagree Agak tidak setuju 3	Slightly Agree Agak Setuju 4	Agree Setuju 5	Strongly Agree Sangat Bersetuju 6
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1	<p>I really like going on trips to the countryside, for example to forests or fields.</p> <p>Saya sangat suka pergi ke luar bandar, contohnya hutan atau ladang.</p>	1	2	3	4	5	6
2	<p>Governments should control the rate of raw materials usage to ensure that they last as long as possible.</p> <p>Kerajaan perlu mengawal kadar penggunaan bahan mentah dengan memastikan ianya bertahan lama.</p>	1	2	3	4	5	6
3	<p>I would like to join and actively participate in an environmentalist group.</p> <p>Saya ingin menyertai secara aktif dalam persatuan pencinta alam sekitar.</p>	1	2	3	4	5	6
4	<p>I would get involved in an environmentalist organization.</p> <p>Saya akan terlibat dalam organisasi pencinta alam sekitar.</p>	1	2	3	4	5	6
5	<p>Protecting the environment is more important than protecting peoples' jobs.</p> <p>Melindungi alam sekitar adalah lebih penting daripada melindungi pekerjaan orang.</p>	1	2	3	4	5	6
6	<p>It makes me sad to see forests cleared for agriculture.</p> <p>Ia menyebabkan saya berasa sedih melihat hutan dibersihkan untuk tujuan pertanian.</p>	1	2	3	4	5	6

7	I am the kind of person who makes efforts to conserve natural resources. Saya merupakan orang yang berusaha untuk melestarikan sumber asli.	1	2	3	4	5	6
8	It's make me sad to see natural environments destroyed. Ia menyebabkan saya berasa sedih melihat kemusnahan alam semula jadi.	1	2	3	4	5	6
9	I do believe that the environment has been severely abused by humans. Saya percaya bahawa alam sekitar telah dipesalahgunakan ke tahap yang membimbangkan oleh manusia.	1	2	3	4	5	6
10	Whenever possible, I try to save natural resources. Jika boleh, saya cuba menjimatkan sumber asli.	1	2	3	4	5	6
11	I think spending time in nature is entertaining. Saya rasa meluangkan masa bersama alam semulajadi adalah menghiburkan.	1	2	3	4	5	6
12	I am support to governments controlling and regulating the way raw materials are used in order to try and make them last longer. Saya menyokong kerajaan yang mengawal dan mengawal selia cara bahan mentah digunakan untuk mencuba dan menjadikannya bertahan lebih lama.	1	2	3	4	5	6

Please **CIRCLE** the degree to which you agree with the following statements about **ENVIRONMENTAL SUBJECTIVE NORM** of **ENVIRONMENT RESPONSIVE BEHAVIOUR**.

Sila **BULATKAN** tahap yang anda bersetuju dengan pernyataan berikut tentang **NORMA SUBJEKTIF TERHADAP ALAM SEKITAR** daripada **PERLAKUAN TANGGUNGJAWAB TERHADAP ALAM PERSEKITARAN**.

<b>Strongly Disagree</b> Sangat tidak setuju 1	<b>Disagree</b> Tidak bersetuju 2	<b>Slightly Disagree</b> Agak tidak setuju 3	<b>Slightly Agree</b> Agak Setuju 4	<b>Agree</b> Setuju 5	<b>Strongly Agree</b> Sangat Bersetuju 6
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1	Most people who are important to me think I should protect the environment. Kebanyakan orang yang penting kepada saya berfikir saya harus melindungi alam sekitar.	1	2	3	4	5	6
2	Most people who are important to me want me to be environmentally friendly. Kebanyakan orang yang penting kepada saya mahu saya menjadi mesra alam.	1	2	3	4	5	6
3	Most people whose opinion I value think that it is important to reduce waste. Kebanyakan orang yang saya menghargai pedapatnya, menganggap bahawa penting untuk mengurangkan sisa buangan.	1	2	3	4	5	6
4	Most people who I respect and admire engage in environmentally friendly behaviours. Kebanyakan orang yang saya hormati dan kagumi, terlibat dalam perlakuan mesra alam.	1	2	3	4	5	6
5	Most people who are important to me protect the environment. Kebanyakan orang yang penting kepada saya melindungi alam sekitar.	1	2	3	4	5	6
6	It is expected of me to be environmentally friendly. Ia diharapkan saya menjadi seorang yang mesra alam.	1	2	3	4	5	6
7	I feel under social pressure to preserve the environment. Saya merasa tekanan sosial untuk memelihara alam sekitar.	1	2	3	4	5	6
8	Most people who I admire engage in the protection of the environment. Kebanyakan orang yang saya kagumi terlibat dalam perlindungan alam sekitar.	1	2	3	4	5	6

Please **CIRCLE** the degree to which you agree with the following statements about **ENVIRONMENTAL PERCEIVE BEHAVIOURAL CONTROL** of **ENVIRONMENT RESPONSIVE BEHAVIOUR**.

Sila **BULATKAN** sejauh mana anda bersetuju dengan kenyataan berikut mengenai **KAWALAN GELAGAT DITANGGAP TERHADAP ALAM SEKITAR** daripada **PERLAKUAN TANGGUNGJAWAB TERHADAP ALAM PERSEKITARAN**.

Strongly Disagree Sangat tidak setuju 1	Disagree Tidak bersetuju 2	Slightly Disagree Agak tidak setuju 3	Slightly Agree Agak Setuju 4	Agree Setuju 5	Strongly Agree Sangat Bersetuju 6
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1	I find it easy to be friendly with the environment. Saya merasa mudah untuk menjadi mesra dengan alam sekitar.	1	2	3	4	5	6
2	I find it easy to preserve resources and recycle. Saya merasa mudah untuk memelihara sumber dan mengitar semula.	1	2	3	4	5	6
3	I am confident that I can protect the environment. Saya yakin yang saya dapat melindungi alam sekitar.	1	2	3	4	5	6
4	I am fully capable of protecting the environment. Saya mempunyai kemampuan sepenuhnya untuk melindungi alam sekitar.	1	2	3	4	5	6
5	Thanks to my resourcefulness, I always find a way to be friendly with the environment. Terima kasih terhadap pengetahuan saya, saya sentiasa mencari jalan untuk menjadi mesra dengan alam sekitar.	1	2	3	4	5	6
6	I am in full control of my actions to protect the environment. Saya mengawal sepenuhnya tindakan saya untuk melindungi alam sekitar.	1	2	3	4	5	6
7	I am good at leading a green lifestyle. Saya pandai mengetahui gaya hidup hijau.	1	2	3	4	5	6
8	It is easy for me to stick to my sustainability goals and preserve the environment. Bagi saya mudah untuk mengekalkan matlamat kelestarian alam dan memelihara alam sekitar.	1	2	3	4	5	6

9	Being friendly with the environment is in of my hands. Bersikap mesra dengan alam sekitar adalah bergantung kepada saya.	1	2	3	4	5	6
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Please **CIRCLE** the degree to which you agree with the following statements about **EMOTIONAL AFFINITY TOWARD NATURE** of **ENVIRONMENT RESPONSIVE BEHAVIOUR**.

Sila **BULATKAN** sejauh mana anda bersetuju dengan pernyataan berikut tentang **PERTALIAN EMOSI TERHADAP ALAM SEMULAJADI** daripada **PERLAKUAN TANGGUNGJAWAB TERHADAP ALAM PERSEKITARAN**.

Strongly Disagree Sangat tidak setuju 1	Disagree Tidak bersetuju 2	Slightly Disagree Agak tidak setuju 3	Slightly Agree Agak Setuju 4	Agree Setuju 5	Strongly Agree Sangat Bersetuju 6
---	----------------------------------	---	------------------------------------	----------------------	---

1	When I spend time in nature, I feel free and easy. Apabila saya menghabiskan masa bersama alam semulajadi, saya berasa bebas dan mudah.	1	2	3	4	5	6
2	I have the feeling I can live my life to the full in nature. Saya mempunyai perasaan yang saya dapat menjalani kehidupan saya dengan sepenuhnya bersama alam semula jadi.	1	2	3	4	5	6
3	When surrounded by nature I get calmer and I feel at home. Apabila dikelilingi oleh alam semula jadi, saya menjadi lebih tenang dan saya merasa seperti berada di rumah.	1	2	3	4	5	6
4	I feel relaxed and have a pleasant feeling of intimacy when spending time in nature. Saya berasa santai dan mempunyai perasaan keintiman apabila menghabiskan masa bersama alam semula jadi.	1	2	3	4	5	6
5	I do feel especially at ease whenever I spend time in nature. Saya berasa sangat selesa apabila saya menghabiskan masa dengan alam semula jadi.	1	2	3	4	5	6

6	Whenever I spend time in nature, I do experience a close connection to it. Setiap kali saya meluangkan masa, saya mengalami hubungan rapat dengannya.	1	2	3	4	5	6
7	By direct contact with nature I feel respect for its uniqueness. Melalui hubungan langsung dengan alam semula jadi, saya merasa hormat terhadap keunikannya.	1	2	3	4	5	6
8	By getting in touch with nature today, I have the feeling of the same origin. Dengan berhubung dengan alam semula jadi pada masa kini, saya mempunyai perasaan keaslian yang sama.	1	2	3	4	5	6
9	Whenever I spend time in nature, I do have experience a close connection to it. Setiap kali saya menghabiskan masa bersama alam semula jadi, saya mempunyai pengalaman yang rapat dengannya.	1	2	3	4	5	6
10	Sometimes when I feel happy, I find solace in nature. Kadang-kadang apabila saya merasa gembira, saya mencari ketenangan dalam alam semula jadi.	1	2	3	4	5	6

Please **CIRCLE** the degree to which you agree with the following statements about about **ENVIRONMENTAL INTENTION** of **ENVIRONMENT RESPONSIVE BEHAVIOUR**.

Sila **BULATKAN** sejauh mana anda bersetuju dengan pernyataan berikut tentang perkara ini **NIAT TERHADAP ALAM SEKITAR** daripada **PERLAKUAN TANGGUNGJAWAB TERHADAP ALAM PERSEKITARAN**.

<b>Strongly Disagree</b> <b>Sangat tidak</b> <b>setuju</b> <b>1</b>	<b>Disagree</b> <b>Tidak</b> <b>bersetuju</b> <b>2</b>	<b>Slightly</b> <b>Disagree</b> <b>Agak tidak</b> <b>setuju</b> <b>3</b>	<b>Slightly</b> <b>Agree</b> <b>Agak</b> <b>Setuju</b> <b>4</b>	<b>Agree</b> <b>Setuju</b> <b>5</b>	<b>Strongly</b> <b>Agree</b> <b>Sangat</b> <b>Bersetuju</b> <b>6</b>
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1	<p>I am willing to adopt environmental actions in daily life to protect the environment (e.g., saving water and electricity, taking low carbon transportation producing a less detrimental effect on the environment).</p> <p><i>Saya bersedia mengamalkan tindakan memelihara alam sekitar dalam kehidupan seharian untuk melindungi alam sekitar (contohnya, menjimatkan air dan elektrik, mengambil pengangkutan karbon rendah yang menghasilkan kesan yang kurang memudaratkan terhadap alam sekitar).</i></p>	1	2	3	4	5	6
2	<p>I am willing to prevent environmental problems through consumption behaviors.</p> <p><i>Saya bersedia untuk mengelakkan masalah alam sekitar melalui pembelian, penolakan, sumbangan, dan perlakuan penggunaan yang lain.</i></p>	1	2	3	4	5	6
3	<p>I am willing to encourage or persuade others to adopt behaviors that prevent or solve environmental problems.</p> <p><i>Saya bersedia untuk menggalakkan atau meyakinkan orang lain untuk mengamalkan tingkah laku yang menghalang atau menyelesaikan masalah alam sekitar.</i></p>	1	2	3	4	5	6
4	<p>I am willing to adopt political or legal citizen actions (e.g., petitions or rallies) to prevent and solve environmental problems.</p> <p><i>Saya bersedia mengamalkan tindakan warga politik atau undang-undang (contohnya, petisyen atau perhimpunan) untuk mencegah dan menyelesaikan masalah berkaitan alam persekitaran.</i></p>						



Please rate the degree to which you agree with the following statements about **INSTITUTIONAL SUPPORT** of **ENVIRONMENT RESPONSIVE BEHAVIOUR**.

Sila **BULATKAN** sejauh mana anda bersetuju dengan pernyataan berikut mengenai **SOKONGAN INSTITUSI** daripada **PERLAKUAN TANGGUNGJAWAB TERHADAP ALAM PERSEKITARAN**.

<b>Strongly Disagree</b> <b>Sangat tidak setuju</b> <b>1</b>	<b>Disagree</b> <b>Tidak bersetuju</b> <b>2</b>	<b>Slightly Disagree</b> <b>Agak tidak setuju</b> <b>3</b>	<b>Slightly Agree</b> <b>Agak Setuju</b> <b>4</b>	<b>Agree</b> <b>Setuju</b> <b>5</b>	<b>Strongly Agree</b> <b>Sangat Bersetuju</b> <b>6</b>
--	---	--	---	---	--

1	The ministry provides guidance in overcoming risks associated with implementation of environmental responsive behaviours in schools. <i>Kementerian menyediakan panduan dalam mengatasi risiko yang berkaitan dengan pelaksanaan perlakuan tanggungjawab terhadap alam sekitar di sekolah.</i>	1	2	3	4	5	6
2	The ministry provides awareness building and education programs for preserving environment. <i>Kementerian menyediakan program pembangunan kesedaran dan pendidikan untuk melindungi alam sekitar.</i>	1	2	3	4	5	6
3	The ministry provides financial assistance to school management for environmental sustainability efforts. <i>Kementerian menyediakan bantuan kewangan kepada sekolah untuk usaha mengekalkan keseimbangan alam sekitar.</i>	1	2	3	4	5	6
4	The ministry provides improvements for national environmental responsive behaviour. <i>Kementerian menyediakan penambahbaikan infrastruktur bagi perlakuan tanggungjawab terhadap alam sekitar.</i>	1	2	3	4	5	6
5	The ministry regulation related to environment favour environmental responsive behaviour.						

	<i>Peraturan kementerian semasa yang berkaitan dengan alam sekitar memihak kepada penerimaan perlakuan tanggungjawab terhadap alam sekitar.</i>						
6	The ministry promote the environmental responsive behaviour among schools. <i>Kementerian menggalakkan penerimaan perlakuan tanggungjawab terhadap alam sekitar di kalangan sekolah.</i>						

Please **CIRCLE** the degree to which you agree with the following statements about of **ENVIRONMENTAL RESPONSIVE BEHAVIOUR**.

Sila **BULATKAN** sejauh mana anda bersetuju dengan kenyataan berikut mengenai **PERLAKUAN TANGGUNGJAWAB TERHADAP ALAM PERSEKITARAN**.

<b>Strongly Disagree</b> Sangat tidak setuju 1	<b>Disagree</b> Tidak bersetuju 2	<b>Slightly Disagree</b> Agak tidak setuju 3	<b>Slightly Agree</b> Agak Setuju 4	<b>Agree</b> Setuju 5	<b>Strongly Agree</b> Sangat Bersetuju 6
--	---	--	---	-----------------------------	--

1	I Recycle. Saya Kitar Semula.	1	2	3	4	5	6
2	I discuss environmental protection issues with friends and relatives. Saya membincangkan isu-isu perlindungan alam sekitar dengan rakan-rakan dan saudara-mara.	1	2	3	4	5	6
3	I bring my own shopping bag to grocery stores. Saya membawa beg membeli-belah saya sendiri ke pasar.	1	2	3	4	5	6
4	I save and reuse plastic shopping bags. Saya simpan dan guna semula beg membeli-belah plastik.	1	2	3	4	5	6
5	I make a monetary donation to an environmental protection cause. Saya membuat sumbangan kewangan untuk tujuan perlindungan alam sekitar.	1	2	3	4	5	6

6	I actively pay attention to environmental protection and information in the media. Saya memberi perhatian secara aktif terhadap perlindungan alam sekitar dan maklumat berkaitannya dalam media.	1	2	3	4	5	6
7	I actively participate in environmental campaigns sponsored by government and workplace. Saya mengambil bahagian secara aktif dalam kempen alam sekitar yang ditaja oleh kerajaan dan tempat kerja.	1	2	3	4	5	6
8	I actively participate in environmental protection activities sponsored by non-governmental environmental organizations. Saya mengambil bahagian secara aktif dalam aktiviti perlindungan alam sekitar yang ditaja oleh pertubuhan alam sekitar bukan kerajaan.	1	2	3	4	5	6
9	I maintain public woods and grasslands with my own money. Saya menjaga perabut awam dan padang rumput dengan wang saya sendiri.	1	2	3	4	5	6
10	I participate in protests and express grievances about environmental problems. Saya mengambil bahagian dalam bantahan dan rungutan tentang masalah alam sekitar.	1	2	3	4	5	6

**THANK YOU VERY MUCH FOR YOUR KIND COOPERATION.  
TERIMA KASIH ATAS KERJASAMA ANDA.**

## Appendix B



KEMENTERIAN PENDIDIKAN MALAYSIA  
BAHAGIAN PERANCANGAN DAN PENYELIDIKAN DASAR PENDIDIKAN  
ARAS 1-4, BLOK E8  
KOMPLEKS KERAJAAN PARCEL E  
PUSAT PENTADBIRAN KERAJAAN PERSEKUTUAN  
62604 PUTRAJAYA

TEL : 0388846591  
FAKS : 0388846579

Ruj. Kami : KPM.600-3/2/3-eras(4130)  
Tarikh : 13 Mei 2019

**LOGESWARI A/P UTHAMA PUTHRAN**  
**NO. KP : 820812025742**

NO 257, JALAN GEMILANG 7, TAMAN GEMILANG  
JITRA 6000 JITRA  
KEDAH

Tuan,

**KELULUSAN UNTUK MENJALANKAN KAJIAN DI SEKOLAH, INSTITUT PENDIDIKAN GURU, JABATAN PENDIDIKAN NEGERI DAN BAHAGIAN DI BAWAH KEMENTERIAN PENDIDIKAN MALAYSIA**

Perkara di atas adalah dirujuk.

2. Sukacita dimaklumkan bahawa permohonan tuan untuk menjalankan kajian seperti di bawah telah diluluskan.

**" ENVIRONMENT RESPONSIVE BEHAVIOUR AMONG PRIMARY SCHOOLS LEADERS IN MALAYSIA "**

3. Kelulusan adalah berdasarkan kepada kertas cadangan penyelidikan dan instrumen kajian yang dikemukakan oleh tuan kepada bahagian ini. Walau bagaimanapun kelulusan ini bergantung kepada kebenaran Jabatan Pendidikan Negeri dan Pengetua / Guru Besar yang berkenaan.

4. Surat kelulusan ini sah digunakan bermula dari **13 Mei 2019** hingga **2 Oktober 2019** .

5. Tuan dikehendaki menyerahkan senaskhah laporan akhir kajian dalam bentuk *hardcopy* bersama salinan *softcopy* berformat pdf dalam CD kepada Bahagian ini. Tuan juga diingatkan supaya mendapat kebenaran terlebih dahulu daripada Bahagian ini sekiranya sebahagian atau sepenuhnya dapatan kajian tersebut hendak diterbitkan di mana-mana forum, seminar atau diumumkan kepada media massa.

Sekian untuk makluman dan tindakan tuan selanjutnya. Terima kasih.

**"BERKHIDMAT UNTUK NEGARA"**

Saya yang menjalankan amanah,

Ketua Sektor  
Sektor Penyelidikan dan Penilaian  
b.p. Pengarah  
Bahagian Perancangan dan Penyelidikan Dasar Pendidikan  
Kementerian Pendidikan Malaysia

salinan kepada:-

JABATAN PENDIDIKAN JOHOR  
JABATAN PENDIDIKAN KEDAH  
JABATAN PENDIDIKAN KELANTAN  
JABATAN PENDIDIKAN MELAKA  
JABATAN PENDIDIKAN NEGERI SEMBILAN  
JABATAN PENDIDIKAN PAHANG  
JABATAN PENDIDIKAN PULAU PINANG  
JABATAN PENDIDIKAN PERAK

JABATAN PENDIDIKAN PERLIS  
JABATAN PENDIDIKAN SELANGOR  
JABATAN PENDIDIKAN TERENGGANU  
JABATAN PENDIDIKAN SABAH  
JABATAN PENDIDIKAN SARAWAK  
JABATAN PENDIDIKAN WILAYAH PERSEKUTUAN KUALA LUMPUR  
JABATAN PENDIDIKAN WILAYAH PERSEKUTUAN LABUAN  
JABATAN PENDIDIKAN WILAYAH PERSEKUTUAN PUTRAJAYA

\* SURAT INI DIJANA OLEH KOMPUTER DAN TIADA TANDATANGAN DIPERLUKAN \*



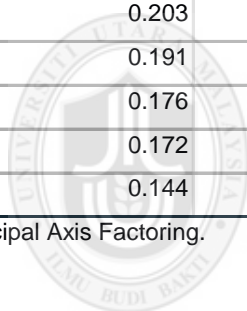
## Appendix C

### Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	20.577	34.295	34.295	20.019	33.364	33.364
2	4.234	7.056	41.351			
3	2.707	4.512	45.863			
4	2.444	4.074	49.937			
5	2.194	3.657	53.593			
6	1.857	3.094	56.688			
7	1.775	2.958	59.646			
8	1.606	2.677	62.323			
9	1.358	2.264	64.587			
10	1.160	1.933	66.520			
11	1.092	1.820	68.340			
12	0.924	1.539	69.879			
13	0.886	1.476	71.356			
14	0.834	1.390	72.746			
15	0.813	1.354	74.100			
16	0.769	1.281	75.381			
17	0.741	1.236	76.617			
18	0.708	1.181	77.797			
19	0.656	1.094	78.891			
20	0.612	1.020	79.911			
21	0.595	0.991	80.902			
22	0.559	0.932	81.834			
23	0.542	0.903	82.736			
24	0.513	0.855	83.591			
25	0.506	0.843	84.434			
26	0.490	0.817	85.251			
27	0.473	0.789	86.040			
28	0.465	0.775	86.815			
29	0.447	0.744	87.559			
30	0.428	0.714	88.273			
31	0.415	0.691	88.964			
32	0.397	0.661	89.625			
33	0.391	0.652	90.277			
34	0.364	0.607	90.884			
35	0.352	0.586	91.470			
36	0.330	0.550	92.020			
37	0.312	0.520	92.540			
38	0.309	0.515	93.055			

39	0.301	0.501	93.556		
40	0.291	0.485	94.042		
41	0.271	0.452	94.493		
42	0.255	0.426	94.919		
43	0.253	0.422	95.341		
44	0.248	0.414	95.756		
45	0.239	0.398	96.154		
46	0.217	0.362	96.515		
47	0.210	0.350	96.865		
48	0.197	0.328	97.193		
49	0.186	0.310	97.502		
50	0.184	0.307	97.809		
51	0.174	0.291	98.100		
52	0.164	0.273	98.373		
53	0.159	0.264	98.638		
54	0.144	0.240	98.878		
55	0.141	0.236	99.113		
56	0.122	0.203	99.317		
57	0.115	0.191	99.508		
58	0.106	0.176	99.684		
59	0.103	0.172	99.856		
60	0.087	0.144	100.000		

Extraction Method: Principal Axis Factoring.



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