

UNIVERSITI TEKNOLOGI MARA

**THE DEVELOPMENT OF HADHARI
ENVIRONMENTAL ATTITUDE TEST INSTRUMENT
FOR MALAYSIAN UNIVERSITY STUDENTS**

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Thesis submitted in fulfillment of the requirements
for the degree of
Doctor of Philosophy

Faculty of Education

April 2012

AUTHOR'S DECLARATION

I declare that work in this thesis was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the result of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any other degree or qualification.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

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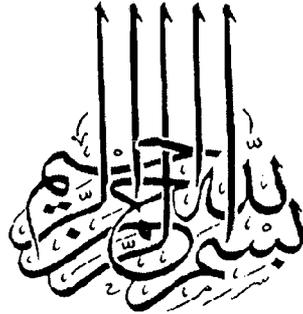
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ABSTRACT

Environmental crisis and ecological problems produced a global call to involve all residents of the Earth. Global warming, climate change, rise of sea level, glacier decrease, food crisis, health hazards, deforestation and others are among the problems, affected by human attitude. For that, environmental attitude development becomes more serious as UNESCO declared that 2005-2014 as 'the decade of education for sustainable development'. Environmental attitude is best measured with affective outcomes; factual knowledge and behavior intention component to meet behavioral component. There is lack of study about the affective impacts of the environmental-related courses especially using a comprehensive instrument of environmental attitude. The objective of this research is to develop a valid and reliable Hadhari Environmental Attitude Test (HEAT) to assess the student's environmental attitude after attending the environmental ethics course. Initial study has been done to support the development of the instrument, validated by the experts in education and environmental studies. HEAT comprises of 60 items on environmental attitude within ten dimensions, with reference to Quranic and prophetic values and in parallel with global and local's concern. It is well tested and validated, with high reliability ($r=0.94$) using Rasch® measurement model. The test is also validated with Cronbach Alpha value of $\alpha=0.82$. This research is also to identify the environmental profile among Malaysian students, who completed the environmental ethics course at the tertiary level. Forty three (43) students of environmental ethics course at university level, which is equivalent to 1537 data sets, are identified and the test session is administered, before and after a semester. There is nearly no correlation between student's environmental knowledge and attitude ($r=0.157$), after the course as the result shows the mean before the course is 0.03_{logits} and -0.02_{logits} after the course; a difference of -0.01_{logits} with low correlation value ($p<0.01$, $r=0.427$). However, the result shows a clear difference of student's performance using this alternative assessment for affective effects, with comparison to the conventional method which is merely on cognitive effects. The research found 23.3% students have excellent grade, 72.1% students have good grade and 4.6% students fail in their examination. However, HEAT found that no student has excellent grade (committed pro-environmental), 55.5% of them have good grade (not committed pro-environmental) and 44.2% of them attained below passing grade (not pro-environmental). In conclusion, this research leads to few recommendations of paradigm shift in designing contents, learning outcomes and assessment method to achieve the objective of affective education for holistic education and sustainable development.

ACKNOWLEDGEMENTS



First of all, I would like to thank Allah for His guide and mercy which has enlightened me with open heart and mind to successfully go through the obligation of seeking knowledge. Indeed, the prophet's tradition which said about hierarchy of man in the side of Allah' eyes which is the highest level of man is being knowledgeable, or knowledge seeker, or knowledge listener, or at least knowledge lover, but not others.

Allah has created us the best *ummah* of the world, as mentioned in the Holy Quran. A part of the attributes of human being is the appointment as caliph or steward of the Earth. This stewardship and caliphacy is closely related to the obligation of *amanah* towards Earth and environment. Man without *amanah* is not considered as a believer, as mentioned by the Prophet SAW. This is the root inspirational motivation for me to study the environmental education, especially to ensure the success of future leaders who bear the *amanah* to God to sustain, conserve and wisely utilize all resources of the Earth, which includes all entities of the environment.

Postgraduate study is very own self-handled journey. Through all hurdles, I felt stronger and stronger every time I fall down. The last testament of my wise dad was "Go and seek knowledge with no end!" and it was buried in my heart forever. I started at once upon a time, with my mom who was always beside me to motivate and inspire me to achieve the highest level of knowledgeable man or *ulama*. In the mid of my stressful journey, I lost my strongest source of inspiration when she went to meet her peaceful destiny. But mom, you are always and forever in my heart as my great advisor, inspirer, motivator and everything that is meaningful in my life. The same goes to my mother-in-law who never stops giving advice and motherly mercy throughout my journey. Thanks moms.

Sincere hearted thanks go to my beloved and lovely wife, Siti Fatahiyah Mahamood who tried her best to be always around every time I needed. My children Anwar, Munir, Ardani and Munawar...thanks for being very understanding and most of the time being very supportive and entertaining to reduce my stress, Being children of a knowledge seeker never promise a luxurious life, but the future life is designed by the power of knowledge which I always share with you; heads on, hands on and with all my heart

A deep and sincere appreciation to my wise helpful supervisor, Prof Dr Fattawi Mokhtar who has enlightened me up with his priceless wisdom, inspiring advices, constructive comments and cool patience to guide me along the journey for years.

I would like to extend my utmost thank you especially to my gurus, Y Bhg Prof Dato' Dr Sidek Baba, the professor of education at the International Islamic University Malaysia and Y Bhg Prof Datuk Dr Ir Zaini Ujang, the Vice Chancellor of the Universiti Teknologi Malaysia for sharing wisdom and priceless time in order to ensure that I stay on the right path of true knowledge.

Thanks and appreciation also go to my sifu in Rasch, Tn Haji Mohd Saidfudin Masodi and his lovely wife, Dr Azrilah Abdul Aziz for sharing their time, expertise, resources and sometimes their life for the sake of motivating me in completing my study. They were my brother and sister, my teachers, my motivators, my editors and even my morning callers if I overslept.

The appreciation and thanks also go to all students involved in this study from the Faculty of Applied Science and the Faculty of Architecture, Planning and Surveying UiTM for their sincere commitment. It is also to all pilot respondents from the staffs of the i-Learn Centre UiTM. My thanks go to all participating lecturers who helped much in making this study successful, Ms Siti Norida Abdul Kadir and Ms Hadbah Idris.

I would like to thank all officials from the Universiti Malaysia Sabah, the Universiti Putra Malaysia, the Universiti Pendidikan Sultan Idris and the Universiti Teknologi Mara as well. Last but not least, my deepest thanks to all supporting and contributing family members, friends, individuals and parties in helping this study successful, especially the Centre for Islamic Thought and Understanding, the i-Learn Centre, the Faculty of Education and the Ministry of Higher Education and all staffs, which sponsored the research for my journey. It is my hope that this study will contribute an innovative and alternative solution for better future education, and it will open more new areas for future research, for the sake of betterment of the Earth and mankind.

Mohd Nor Mamat
April 2012