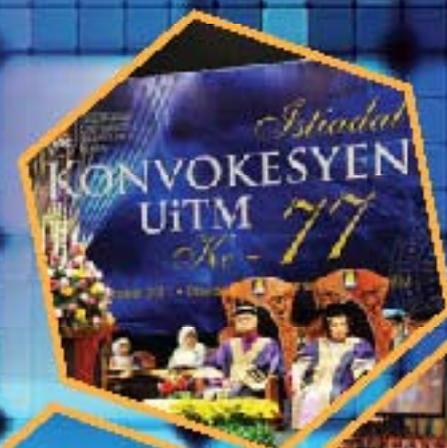
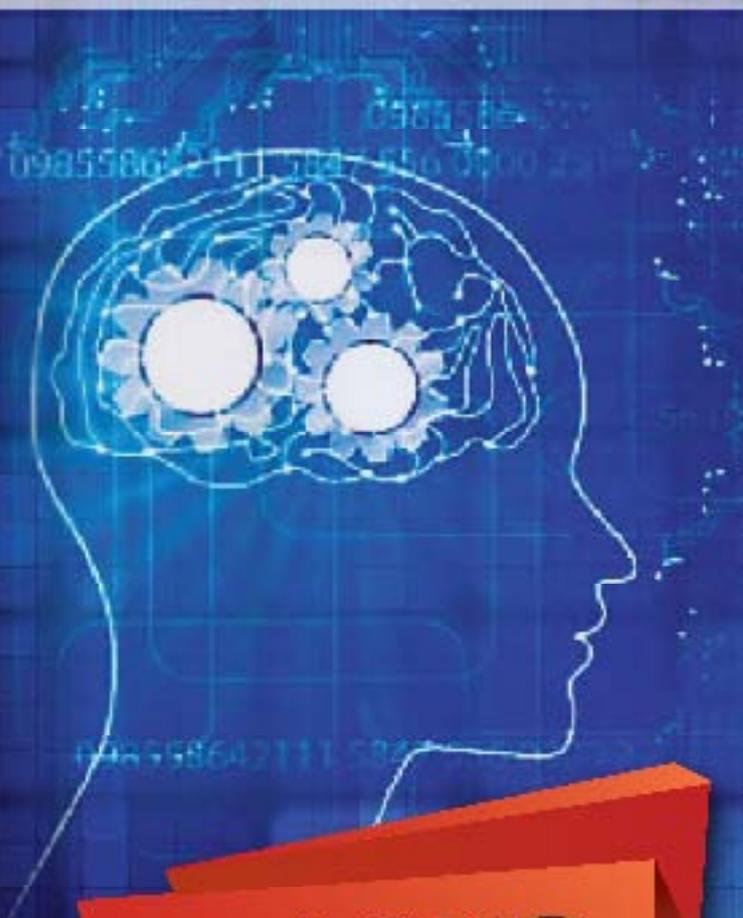


THE DOCTORAL RESEARCH

ABSTRACTS

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Title : The Development of Hadhari Environmental Attitude Test Instrument for Malaysian University Students

Faculty : Education

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Environmental crisis and ecological problems produced a global call to involve all residents of the Earth. Global warming, climate change, rise of the 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 $0.03logits$ and $-0.02logits$ after the course; a difference of $-0.01logits$ 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.