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Environmental education (EE): current situational and the challenges among trainee teachers at teachers training institute in Malaysia

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Abstract

Environmental Education (EE) increasingly promoted as a tool in environmental management. The importance of EE was highlighted in the National Policy on the Environment 2002-Green Strategies on "Education & Awareness". Basically EE in Malaysia was taught in a type of formal and non-formal education. It was introduced in schools as Environmental Education Program (EEP), across curriculum at primary and secondary level. Related to that, EE was found as an important subject which must be known by the teachers prior to teach that subject indirectly in the classroom. Problems occurred while implementing EEP in schools such as; less knowledge about EE among teachers, thinking EEP as an extra burden for them to teach and etc. At Teachers Training Institute (TTI), EE is a compulsory subject due to complete their studies and it was fully monitored by Teacher Education Division (TED) which is apart of Ministry of Education. Both qualitative and quantitative methods were used to gather data and information. This article examines current situational; how the environmental education was conducted at TTI and the respond of lecturers about these particular subject. Part of that, challenges faced by lecturers were gathered too by an interview. At the same time, 100 respondent among Post-Graduate Teachers Training Course were surveyed to understand the level of EE knowledge among them. Set of questionnaires was distributed to particular respondents from Teacher Training Institute in Penang State, Malaysia. As a result, a few ideas and suggestions were identified for a better implementation towards a sustainable Institute.

Keywords: Education; awareness; environmental education programme; formal education; non-formal education.

1. Introduction

Environmental issues become a critical stage since facing globalization and modernization in a global level, for example, environment disaster such as Tsunami, landslide, issue of the ozone layer, acid rain, global warming and pollution. As technology takes place, pupils slowly neglect the importance of the environment that should be conserved and preserved.

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Environmental Education (EE) started from the Stockholm Conference, held in 1972. Tbilisi Convention 1977, defined EE "as a process aimed at developing a world population that is aware of and concerned about the total environment and its associated problems, and which has knowledge, attitudes, motivations, commitments and skills to work individually and collectively towards solutions of current problems and the prevention of new ones". Teacher Education Division (TED), 1997 EE is a process of learning to understand the interaction of human and the environment and how human need to manage the environment as smart as with full responsible towards a harmony and peaceful life. The concept of EE is education about environment, for environment and through environment.

EE had been carried forward in a formal way by governmental organizations such as Ministry of Education (MOE) with collaboration of other government agencies such as Department of Environment (DOE), Ministry Of Higher Education (MOHE). The non-governmental organization (NGOs) such as Environmental Protection Society of Malaysia, the Environmental Management and Research Association of Malaysia, the Malaysian Nature Society and Worldwide Fund for Nature Malaysia plays an important role too in promoting the important of awareness of the environmental. They had carried out in non-formal ways, for example by raising public awareness through campaigns and published materials as a references to citizen. Apart from distributing information all about the environment, they intend to be more action oriented to raise environmental issues which has been increasing year by year (Habibah Lateh, et.al., 2009)

2. Role of Teacher Education Division(TED)

Insufficient of teacher training has been identified as a major cause of curriculum failure (Sara Pe'er, et. al., 2007). Therefore, EE has become major challenge to be strengthen among Teacher Training Institute (TTI). In that case, Teacher Education Division (TED) is a basic foundation which monitor fully on TTI. They had mandated full responsible to formulate and prepare the programmes, curriculum, modules and syllabus to run the courses offered by TTI. TED often conducting seminars, courses and training for lecturers to make sure they are on right track and aware of any changes of syllabus, modules, etc.

The schedule itself clearly showed that TED was really playing an integral part to boost environmental awareness among trainee teachers, in order to prepare themselves mentally and physically due to teach in schools in future. TED was playing an important role in providing environmental learning climate among the trainees during their studies at TTI. At the same time, producing teachers who aware of environmental issues, by applying the concept of learning about environment, for environment and through environment.

3. EE in the Teacher Training Institute (TTI)

Environmental Education is offered as a subject at TTI which carries 1 credit with 15 hours teaching period. It was a compulsory subject for Post-Graduate Teachers Training Course. At the same time Bachelor Degree Programmes in Education (PPISMP) students have to take physical and human environmental education which provides 4 credits with 60 hours teaching period. In additional they have to complete a local study subject which carries 1 credit with 15 hours teaching period. It was clear that TTI have the responsible to teach, guide and expose the trainees about environmental education and the importance of the subject. In extend they are prepared to teach EEP at school level without any excuses in future.

EE syllabus was formulated by the panel of TED and distributed to all 27 TTI in Malaysia. Semester Lesson Plan prepared by lecturers before conducting classes. The format of preparation must follow the International Standard Organization (MS ISO) procedure. The EE syllabus was shown in Table 1.

Table 1. Environmental Education Syllabus

Num	Title	Sub-title
1.	Introduction to EE	1.1 History of EE, Goal and Objectives EE
2.	Introduction to basic Ecology Concept	2.1 Environmental Component: Natural, Man-made and Socio-culture 2.2 Concept of Biosphere and Ecology 2.3 Ecosystem: Definition of Biotic and Abiotic, Energy of Food Chain, Balancing of Ecosystem, Circle of Nutrien, Carbon, Calcium and Hidrology
3.	Environmental Issues	3.1 Issues: Population, Extinct of Flora and Fauna, Landslide, Depletion of Ozone Layer, Water Crisis etc 3.2 Cause: Increase of Population, Technology, Natural Disaster, Politic and War, Ethnic and Culture 3.3 Impact and Solution: Extinct of Flora and Fauna, Low Quality of Lives
4.	Sustainable Development	4.1 Concept of Sustainable Development 4.2 Important Sustainable Development 4.3 Strategy: 5R, Recycle, Sustainable Economic Development, Environmental Act, Government and Non-Government
5.	Environmental Citizen	5.1 Sustainable life style 5.2 Individual Involvement in Conserve and Preserve Environment
6.	Environmental Education Across Curriculum	6.1 School Approach 6.2 Curriculum Approach 6.3 Integrate EE in teaching learning process 6.4 Co-Curriculum Approach 6.5 Green Audit in Institute 6.6 Greening Program

(Teacher Education Division, 2003)

4. EE in the Schools

Environmental Education was introduced in national system of Education, starting from standard 3 to 6 in primary schools. Later at secondary level, pupil will learn environmental education through Geography subject for another three years. Unfortunately, once they reached SPM and STPM level, the Geography will be an elective subject. Students might neglect EE and it is due to their own interest (Habibah Lateh, et. al., 2009).

It has been almost 10 years after the implementation of EE across curricular at primary level. The development of the school curriculum in Malaysia emphasizes the integrated curriculum on general education concerned with the balanced growth of students through developing basic skills and inculcating healthy life long attitudes and moral values that are fundamental to maintenance of Malaysian society (Thiagarajan Nadeson and Nor Shidawati Abdul Rashid). Malaysia has been very sensitive of global changes towards implementing the EE across the curriculum in primary school. It has been infused since 1998 to all the primary schools in Malaysia. Environmental Education in the primary years incorporated an infusion of many subjects, which deal with the social, cultural and biophysical environment directed towards achieving a balanced and harmonious relationship between not only human beings and nature but also among the various ethnic groups in Malaysia (Sumiani Yusoff, 2003).

5. Challenges faced by lecturers in teaching EE

Interviews and discussions had been with respective lecturers from TTI of Penang, particularly Institute of Teacher Training, Pulau Pinang and Institute of Teacher Training Tuanku Bainun. An interview and discussion have done with respective lecturers from TTI of Penang, particularly Institute of Teacher Training, Pulau Pinang and Institute of Teacher Training Tuanku Bainun. To conduct EE programmes, it will be base on lecturers creativity. They had organize their own out-door activities to boost EE among trainees. However it was not a compulsory activity. Otherwise they will do normal lecturing in the classrooms. They have to teach according the lesson plan which they prepare earlier. Finally, students have to submit an assignment due to what they had studied about for whole semester. EE involves an interaction of human and environment, how human have to manipulate smartly with

the sense of loving and understanding the important of environment (Palmer, J and Neal, P. The Handbook of Environmental Education, 1994: 30).

Research will be carry forward to identify how trainee teachers will infuse EE in their teaching subject at schools. A mix method of survey will be use to analyze how far trainee teachers is implementing, EE in classrooms during their practical.

According to lecturers at TTI, it seems EE was conducted efficiently and smoothly without facing any obstacles. In addition they had a syllabus from TED. So its help themselves to get well prepared before lecturing. In advanced, lecturer must have a own idea and be creative to deliver the knowledge among trainee teachers. When asking about the important of teaching EE he added, EE was an important subject that should be compulsory learnt by all the trainees in order to achieve a sustainable citizen. Due to another lecturer, they have a plenty of time to teach EE because of heavy schedule attending courses, trainings, seminars, etc. He added, teaching EE is a full responsible of lecturer and they have to make sure the syllabus was taught by the year end.

6. Knowledge about EE among Trainee Teacher

The section included 10 multiple choice question pertaining to environmental education. Maximum score was 100. The study was conducted with Post-Graduate Teachers Training Course (KPLI) students intake Jun 2009 from Teacher Training Institute of Penang. 50 respondent from each Institute was selected randomly. Analysis had been done to ensure the percentage of respondent was exposed to environmental education syllabus. Below was the table shown data analysis.

Table 2. Percentage of Correct Environmental Knowledge

Item	Topic	Correct Response (%)
1.	History of EE	70
2.	Definition of EE	90
3.	Concept of Food Chain	70
4.	Environmental Issue	80
5.	Concept of Sustainable Development	60
6.	Concept of Recycle	70
7.	Sustainable life style	50
8.	Conservation and Preservation	40
9.	Greening Program	20
10.	Preparing EE across curriculum in Lesson Plan	0

The environmental knowledge of respondents was evaluated by marking the correct answer to the 10 item of question. The environmental item answered correctly was about definition of environmental education which contribute 90%. The environmental which respondent answered least correct was 20%. These findings shows 0% of respondents was not aware of infuse EE in their lesson plan. Anyhow, according the interview with the related lecturer, he added EE syllabus was not completed. They still have few topics to cover, and regarding lesson plan they will start next semester during their practicum at schools.

7. Conclusion

Malaysia had taken a serious step towards sustainable development. Common environmental problems should not be neglected. An immediate action should be taken by the Government and not forgetting NGOs to make sure Environmental Education be entrenched in our education system, even the curricular are keep on changing. Here, the role of teacher are very important to deliver the EE in classrooms. A part of that, TTI was playing important role in shaping and producing a well trained teacher. By hoping teachers' touch environmental education in future. Finally, we need a great association by all the sectors towards achieving sustainable Institutes.

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