

A Feasible Exploration into the Need of a Study in Connecting the Aspirations of the National Philosophy of Education in Malaysia to Environmental Awareness: A Philosophical Perspective

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Abstract

This article comprises of sections that explore relevant information heading towards conducting a study on environmental awareness (EA) in the sight of National Philosophy of Education (NPE) in Malaysia. Discussion has been widely held to debate the importance of EA in Schools. However, little attention has been given to tackle those thoughts that do not connect any new educational implementation to the sight of EA. A study on this score is relevant especially when looking in schools where pupils/teachers do not appreciate the environment. Unpleasant smells and visible rubbish can be detected around the school. Because of this, a research should be conducted on this to connect NPE to Environmental Awareness in Malaysia. All in all, a philosophical perspective is considered in discussing a feasible research pertaining to this issue in looking it in a deeper meaning.

1. Introduction

As our education strives to prepare our students to face the real world, we cannot escape the issues of environmental awareness within the school system. The National Philosophy of Education mentions the responsibility of all educators to develop students into holistic individuals as they will be the future leaders of the nation. The question is; is there a link between environmental awareness and the aspiration of the National Philosophy of Education to produce wholesome individuals as future custodians of the country?

This article attempts to answer this question. The researchers of this article believe that there is a link between environmental awareness and the National Philosophy of Education. This is because, as future leaders of the country, they cannot leave out environmental issues out of issues pertaining to the development of the country. Also, with the inclusion of the effort in instilling environmental awareness amongst students, we will also take a look at how this idea can be taken advantage of by infusing activities relating to the environment which develops the students spiritually, physically and also emotionally rather than just intellectually.

Furthermore, there has been less attention being put on the research of environmental awareness amongst students, despite the fact that environmental issues have sparked numerous debates on a global scale. At the end of this article, the researchers suggest the type of research that can be done on environmental awareness within the members of the school.

2. The philosophical approach in looking at this issue

Throughout the writing, the issue is actually discussed from the perspective of metaphysics (looking at objective, reality and unseen part of the said problem), epistemology (any relation to

knowledge), and axiology (values, moral, ethics), embedded in each section of this writing. These elements of philosophy are important as they form the foundation of looking at this problem deeper so that the arguments are meaningful.

In the metaphysical context, the environment is related to the belief that it is a gift from God (Hassan et. al., 2010). Since one of the Malaysian Principles or the *Rukun Negara* is the Belief in God, the environment should be seen as being related to the philosophy of the country. Epistemology is the field of philosophy to ask about how much is known about the knowledge, how true is the knowledge and the possibility of fully knowing the knowledge (Ratcliff, 2013). This is required in the field of environment, because we are faced with issues and concerns of how to conserve the environment, especially at the current time. Thus, it is important to cover all grounds of the knowledge related to the environment.

Axiology studies how values are important with the study of science (Echeverr 'a, 2003). Values are important to the practices of any field. It concerns justice and complimenting justice with kindness and benefaction (Keshavarz, 2012). Currently, the focus should be towards creating a sustainable society (Ueda et. al., 2009). This is important especially in school because it affects how students act based on their justice and moral values towards a sustainable environment.

In a nutshell, it is important to study the belief of the people involved towards the environment, the overall concepts and understanding of environmental issues, and the values that the environment brings to us as humans, extrinsically or intrinsically. Thus, a study that covers some or all of these areas should be conducted in order to understand the environment in depth.

3. Background of the Issue

It is an urgency to focus on environmental issues at present. This is because it is important to determine the reason as to why the society needs to focus on the environmental issues; especially at the present moment. We will look at the emergence of the awareness the society have nowadays and how the society is being affected. It is also important to see generally what caused our environment to be in such turmoil at the moment and how is it going to affect us in the future.

First of all, environmental issues are not new. In fact, since the 1990s, they have already become very prominent on the scale (Madruga and Batalha da Silveira, 2003). Societies are being affected by major environmental problems as globalization continues. If the current rate of destruction to the environment goes on, its problems may continuously grow and cause harm all living species including humans (Gore, 2008).

Secondly, there are major reasons as to why the environment is in a disastrous state at the moment. The combination of huge population and rapid economic growths have exacerbated the condition of the declining environment which consequently affected our world, causing serious pollution of the air in residential areas, water in rivers, lakes and oceans, increasing the sizes of toxic and solid wastes volumes, declining the quality of land and water habitats by misplacing acid wastes, decreasing water supplies, as well as irresponsible harvesting and consumption of fish and endangered animals alleged for food and traditional medicine (Harris, 2006). In other words, it is the action of humans who caused the disastrous condition to happen to the environment due to their irresponsible activities on a very large scale.

Thirdly, there will be even more catastrophic implication to come if certain measures are not rectified. For example, according to Madruga and Batalha da Silveira (2003), evidence suggests that global climate change and the reduction of water resources occurred vastly after the Industrial Revolution which lead to numerous negative circumstances, threatening the economy and environment. We will face further problems in searching for important sources such as water sources in the future.

All in all, environmental issues are getting more and more heard around the world. It is an old issue that has been breeding until today where the awareness is starting to grow. It is caused by having a population that is growing too large coupled by bad management of industry and waste. Lastly, it is very important for people to start acting if we do not want it to get even worse.

4. Environmental Awareness towards Students and its Role towards Solving Environmental Problem

In light of the extensive catastrophes happening to the environment, it is paramount to exercise preventive measures to avoid permanent environmental negative consequences (Harris, 2006). A good example of this is to create awareness on environmental issues among the different levels of society, i.e. students, policy makers, educators and everyone else (Thapa, 1999). However, Thapa (1999) mentions that such understanding regarding environmental attitudes and environmentally responsible behaviours are inadequate. It is important to see if students nowadays have improved in practicing positive attitudes and behaviours when regarding to the environment. There have been a number of studies among students focusing on their levels of environmental awareness and attitudes to practice environmentally responsible behaviours.

Through an analysis of environmental attitude surveys, Thompson and Guestier (1985) found out that students of the Cornell University in 1971 and 1981 would not want to sacrifice material comfort even though it affects the environment negatively. Beginning the 1990s, Gigliotti (1992) and Krause (1993) found out that there is a slight change within students' behaviour where students are willing to exercise more responsibility to the environment, yet would still prefer no sacrifices. Perhaps a more positive analysis came from Shetzer's study (1991) which was conducted among business students at the University of British Columbia, where students were observed to have strong pro-environmental attitudes.

Since the success of overcoming environmental problems heavily depend on the improvement within students' environmental attitudes, it is easily deducible that the school is an important organisation for the agents of change to propel the goal of solving environmental problems. This requires extensive understanding of handling natural resources and practicing greener actions to reduce or even prevent environmental disasters within the administrators, teachers and students. It is commonly agreed that environmental education is important in the aspect of overcoming environmental problems (O'zden, 2008). Because of this, the issues regarding environmental dilemmas should be observed at a more serious level. Sanera (1998) believes that environmental education is complex and should be looked at more deeply from the affective, cognitive, behavioural and metacognitive levels. Jaus (1982) discovered a positive link between environmental education in the classroom and pro-environmental attitudes. Worsley and Skryzypiec (1998) found out in their study among students in South Australia that environmental attitudes are

affected by the place they live, gender and socioeconomic statuses. Male students with lower socioeconomic status are pessimistic but are more supportive to environmental development and scientific solutions compared to the females.

According to Schultz *et al.* (2005), previous studies have observed the relationship between values and attitudes of students towards environmental issues. Finding suggests values of self-transcendence positively affect awareness towards environmental issues but self enhancement works negatively in that. Because of that, educators have been racking their brains to find better methods of sowing pro-environmental values within students.

There are also many studies on the awareness of environmental issues within students. Hasan *et al* (2010) did a study on the perception of sustainable development within secondary school students from urban and suburban areas in Selangor, Malaysia. 340 students from Forms 4 and 5 were involved in the research and findings show that there is a high level of environmental awareness within the students. The researchers also found differences as students from science stream have higher levels of environmental awareness than the arts stream students. Also, it is found in the research that female students have significantly higher awareness compared to the students. The result that female students have significant higher awareness is also supported by a research held in a city named Agri in Turkey (Haşiloğlu *et al*, 2011). However, in Haşiloğlu *et al's* (2011) research, the overall awareness level is “negative”.

5. The National Philosophy of Education (NPE) and its Connection to Combating Environmental Issues

As assets that are a major part in the future contribution of harmony within the country, students are the right target group to fulfil the aspiration of the NPE in personal development (Curriculum Development Center, 1990).

Our schools are institutions in producing human capital for the nation. Therefore, it is very important that we ensure that the future leaders of our nation will be prepared to face and shape the policies of the country in assisting the country to progress even further. In terms of environmental awareness, many school-based environmental programmes have been organised on an annual basis to ensure that every member in the school understands the issues involved.

Our National Philosophy of Education is stated as:

“Education in Malaysia is an on-going effort towards further developing the potential of individuals in a holistic and integrated manner, so as to produce individuals who are intellectually, spiritually, emotionally and physically balanced and harmonious, based on a firm belief in and devotion to God. Such an effort is designed to produce Malaysian citizens who are knowledgeable and competent, who possess high moral standards, and who are well responsible and capable of achieving high level of personal well-being as well as being able to contribute to the harmony and betterment of the family, the society and the nation at large.”

To explain the relationship between the statement above and environmental awareness, we need to explain this looking at different angles.

(i) High Moral Standards

Aside from ensuring that the students learn to be balanced individuals through the education in our country, we should also produce citizens who possess “high moral standards” and are able to contribute to the “harmony and betterment of the family, the society and the nation at large”. This includes having high environmental awareness amongst students so that they will have the capability to mindfully contribute to the nation whilst maintaining preservation of the environment important to the harmony of the nation as a whole.

(ii) Balanced Individuals

Based on the NPE, balanced individuals include being spiritually, emotionally and physically balanced. Thus, it is logical that the educational system produces balanced individuals by infusing environmental education into available lessons and activities in the schools to help students improve their awareness. Needless to say, this involves infusing environmental education into the teaching and learning process which will contribute to shaping the students in to holistic individuals rather than just maintaining focus on the intellectual growth of students. In his research, Hassan and Ismail (2011) conclude that the infusion of environmental education into subjects like chemistry to add value to the lessons in further increasing awareness and attitudes towards the environment.

Hence, it is very important to understand the trend of environmental awareness within the members of schools, regardless of students, teachers or even the administrators and how school-based programmes influence them. Haşiloğlu *et al* (2011) mentions that a having negative behaviours within students can hinder efforts towards environment protection. Thus, a model has to be developed for environmental education awareness to predict the awareness parameter upon development of human capitals in schools.

6. The Context

The purpose of this article is to highlight the environmental education awareness. Ideally, more studies need to be conducted to develop an environmental education awareness model for prediction of the awareness parameter upon development of human capital in schools. They are also to investigate environmental education in the Malaysian school system based on different philosophical branches. In addition, they are to determine the demographic characteristics among members of the school that influence the environmental awareness. Moreover, studies also need to be conducted to see if pro-environment programmes are effective in schools. Furthermore, it is also necessary to investigate attitudes of the school community towards such programmes organised by the authorities involved.

A quantitative study seems appropriate to be conducted, supported by interview data from who will be chosen in the study. This would help researchers understand the extent of environmental education in school in influencing school administrators, teachers, parents and students. The population would encompass school members (including students, teachers and administrators) from schools of several states in Malaysia. It is expected that the schools selected are those located closely to major rivers in Malaysian states. They will be selected after being directly involved in ‘one state one river’ programme initiated and organised by the Department of Irrigation and Drainage Malaysia (DID). The subjects of this study therefore will be chosen by using cluster sampling method. The sample size that can be formed here is therefore 800 to 1500.

The relationship between all the independent and dependent variables will be identified by looking at the constructive sample's statistic in representing the population's parameter for reaching into the conclusion of environmental awareness.

Briefly the specific research objectives are likely to be:

- To determine whether there is any significant difference due to spatial variation on environmental awareness among school members in schools.
- To observe the philosophy behind the environmental education implemented in schools in the perspective of the school administration.
- To develop an environmental education awareness model for prediction of the awareness parameter upon development of human capital in schools
- To investigate possible influence of demographic factors towards environmental awareness levels.
- To determine the success of pro-environment programmes in schools
- To observe attitudes within the school community towards pro-environment programmes organised by respective authorities.

7. Discussion

Looking at the issues that surround the world, environmental awareness within students is urgently needed to ensure that the leaders of tomorrow will be more careful in making decisions and managing resources for the sustainability of the environment. As mentioned by Thapa (1999), it is important to ensure that our future leaders are able to be environmentally responsible. If current situation continues, it will be even worse for the environment and the future generations (Gore, 2008). Since we are responsible for the damage done to the environment (Harris, 2006), we should be responsible in ensuring that something has to be done to solve the problems. In this article, our focus is on the students who are the leaders of tomorrow (Thapa, 1999).

The NPE mentions that it is important for the students in schools to be developed holistically into wholesome individuals. This idea brings forth a few implications. Firstly, students need to be developed to possess higher moral standards. As future leaders, they would need to be aware of issues surrounding them thus making sure that they learn how to deal with matters in morally correct ways. Because of this, it is important to instil high environmental awareness within them as to prepare them to deal with the matters concerning the environment in the future as custodians. Secondly, activities and lessons done in schools, whether it is in or outside of the classroom, should be more balanced rather than stressing only on the intellectual level. By adding parts of environmental awareness or issues in these activities, it adds value to them, thus generating a more wholesome teaching and learning process in the spiritual, emotional and physical sectors.

At the end of the day, more studies need to be conducted on environmental awareness within the school community. Specifically, empirical studies or research that involves a quantitative design is needed because a model on the prediction of the awareness parameter upon development of human capital in schools should be developed to assist in further spreading environmental awareness in schools.

8. Conclusion

In a nutshell, this paper brings out a few matters at hand. Firstly, environmental issues have become more visible in recent years. It is found that through the 70s to the beginning of the 21st century, attitudes were seen to have changed little by little where students have become more aware and responsible towards the environment. Secondly, it is in line with the National Philosophy of Education (NPE) that environmental education is integrated within the educational curriculum in aiding towards building balanced individuals. The importance of this has been justified mainly because students are the future generations who would lead the nation to either progress or further destruction. Thirdly, it is high time that a deeper research in understanding how well pro-environmental programmes work in educating the school community. Therefore, it is important to conduct a research as to understanding the efficiency of such programmes in different perspectives while testing different possible factors that may influence environmental awareness.

Due to the urgency of environmental issues, the importance it brings to the future of the nation, and the potential its study bring towards increasing environmental awareness to new heights, an exploration in this area should not and cannot be ignored. Hence, by all the justifications presented, more studies in linking NPE to environmental awareness are highly needed.

References:

Curriculum Development Centre, Ministry of Education Malaysia (1990). *Modular Training of the Integrated Secondary School Curriculum (ISSC)*. (translated). Kuala Lumpur. Dewan Bahasa dan Pustaka.

Echeverr ´a, J. (2003). *Science, technology, and values: towards an axiological analysis of techno-scientific activity*, *Technology in Society* 25 (2003) 205–215.

Gigliotti, L. M., (1992). *Environmental attitudes: 20 years of change?* *Journal of Environmental Education*, 24(1), 15-26.

Harris, P.G., (2006). *Environmental Perspectives and Behavior in China: Synopsis and Bibliography*, *Environment and Behavior*, 38(1), 5.

Haşiloğlu, M.A., Keleş, P.U, Aydın, S. (2011). *Examining environmental awareness of students from 6th, 7th and 8th classes with respect to several variables: “sample of Agri city”*. *Procedia - Social and Behavioral Sciences* 28 (2011) 1053 – 1060

Hassan, A., Ismail M.Z. (2011). *The infusion of Environmental Education (EE) in chemistry teaching and students’ awareness and attitudes towards environment in Malaysia*. *Procedia Social and Behavioral Sciences* 15 (2011) 3404–3409

Hassan, A., Noordin, T.A., and Sulaiman, S. (2010). *The status on the level of environmental awareness in the concept of sustainable development amongst secondary school students*. *Procedia Social and Behavioral Sciences* 2 (2010) 1276–1280

- Hassan, A., Suhid, A., Zainal Abidin, N., Ismail, H., and Hussin, H. (2010). *The role of Islamic philosophy of education in aspiring holistic learning*, *Procedia Social and Behavioral Sciences* 5 (2010) 2113–2118
- Jaus, H. (1982) *The effect of environmental education instruction on children's attitudes in elementary school students*. *Science Education* 66 (5), 690–692.
- Keshavarz, S. (2012) *Philosophy of education in exceptional children according to Islam*, *Procedia - Social and Behavioral Sciences* 46 (2012) 2917 – 2921.
- Krause, D. (1993) *Environmental consciousness: An empirical study*. *Environment and Behavior*, 25, 126-142.
- Madruga, K., Batalha da Silveira, C.F., (2003) *Can teenagers educate children concerning environmental issues?* *Journal of Cleaner Production*, 11, 519–525.
- O' zden, M., (2008) *Environmental Awareness and Attitudes of Student Teachers: An Empirical Research*, *International Research in Geographical and Environmental Education*, 17(1) 40.
- Ratcliff, R. (2013) *Applying epistemology to system engineering: an illustration*, *Procedia Computer Science* 16 (2013) 393 – 402.
- Sanera, M. (1998) *Environmental education: Promise and performance*. *Canadian Journal of Environmental Education* 3 (3), 9–26.
- Schultz, P.W., Valdiney, V., Gouveia, Linda, D., Cameron, Tankha, G., Schmuck, P., and Franek, M., (2005) *Values and their Relationship to Environmental Concern and Conservation Behavior*, *Journal of Cross-Cultural Psychology*, 36(1), 457.
- Shetzer, L., Stackman, R. W., & Moore, L. F. (1991) *Business environment attitudes and the New Environmental Paradigm*, *Journal of Environmental Education*, 22(4), 14-21.
- Thapa, B., (1999) *Environmentalism: The Relation of Environmental Attitudes and Environmentally Responsible Behaviors among Undergraduate Students*, *Bulletin of Science Technology Society*, 19(5), 426.
- Thompson, J. C., & Gasteiger, E. L. (1985). *Environmental attitude survey of university students: 1971 vs. 1981*. *Journal of Environmental Education*, 17(1), 13-22.
- Ueda, K., Takenaka, T., Vańcza, J., and Monostori, L. (2009). *Value creation and decision-making in sustainable society*, *CIRP Annals - Manufacturing Technology* 58 (2009) 681–700.
- Worsley, A. and Skrzypiec, G. (1998) *Environmental attitudes of senior secondary school students in South Australia*. *Global Environmental Change-Human and Policy Dimensions*, 8 (3), 209–225.