

A study of suitable environmental education process for Thai schools context

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Abstract

This is a qualitative research aimed 1) to study the environmental context of schools according to curriculum, policy and action plan; 2) to study strategies and procedures in providing environmental education activities; 3) to study problems and suggestions in practice of environmental education; and 4) to suggest the guidelines for suitable environmental education process for Thai schools context. Focus group interview was used in this study for a sample of 20 schools from elementary, expanded opportunity, and secondary schools of Khon Kaen, Maharakarm, Roi-Ed, and Kalasin provinces. Key informants were 100 teachers and 140 students. Instruments used in this study were interview checklist and digital camera. Content analysis was used to analyze data. The findings showed that 1) environmental issues were not directly addressed in school-based curriculum but were indicated in some subjects; 2) most of environmental projects and activities were environmental projects and were initiated by the teachers; 3) a lack of environmental knowledge, awareness, and collaboration were major problems in providing projects for the environment apart from lacking of money allocation and necessary equipments. In addition, 7 guidelines for the suitable environmental education process for Thai schools context were 1) environmental issues should be addressed in a vision of school-based curriculum, 2) environmental education should be indicated in school policy and action plan, 3) student-centered and integration instruction using community resource should be used in providing learning activities, 4) enhancement of self-directed improvement of teachers' awareness toward environmental activities by providing a workshop and promotion of cooperation among stakeholders in school, 5) providing activities to develop the desired characteristics of the students and empowerment the students to launch the environmental projects by themselves, 6) physical environment of school should be decorated to be learning resource, and 7) a school superintendent should allocate personnel, time, money, and continuous support for environmental projects.

Keywords: Environmental education, environmental process, environmental context, suitable process, Thai schools context

Introduction

Our natural resources are being depleted and environmental degradation is increasing because of our unsustainable patterns of production and consumption, uncontrolled population growth, and inequality of social and economic (UNESCO-UNEP, 1994). These problems will cause more and more strain on the earth's natural resources and habitats (Asano, 1991).

In solving environmental problems, it is imperative that every person develops an informed awareness of the limits of our natural resources and understand the interrelationship among living and nonliving elements in the cosmos or the whole environment. Human should conserve and protect nature not only for human benefit but also for nonhuman nature (Schulze, 1996). If we do not do so, we will destroy ourselves and our society (Huckle, 1991; Fien & Trainer, 1993). At present, everyone knows and acknowledges environmental problems but comparatively few people truly understand and are aware of an importance of the environment. It is difficult and time consuming to persuade other people to appreciate the value and worth of the environment. To achieve this, new attitudes, skills, knowledge, awareness and behaviors towards the environments are needed. Hence, environmental education for every level of education may be an appropriate way to help us face our environmental problems (Fien & Trainer, 1993; UNESCO-UNEP, 1994; Viravaidaya, 1994). Environmental ethic should be enhanced and install in the learners' mind. Education in, about, and for the environment are three categorical approaches of environmental education. Education in and about the environment are intended to develop knowledge, awareness, attitude, and skills. Education for the environment is intended to enhance values, ethics, problem-solving skills, and action (Spork, 1992). It is education for the environment that seems to have the potential contributing most to the general well being of environment (Fien, 1988; Sonneborn, 1994). Teaching and learning on environmental education is necessary. It is needed to teach students to act for the environment. In Thailand, there is no an environmental education subject at the basic education level. Environmental education is taught only in science subject but environmental education is related to all subjects. According to the Ministry of Education, there are 5 guidelines in providing environmental learning activities in schools. These are 1) environment and school context; 2) personnel relationship; 3) activity campaigns about environmental conservation; 4) environmental management in school; and 5) environmental collaboration between school and community (Sri-ootta, 1998; Krapeedang, 2000; Sook-kasem, 2001). There are quite a few studies reported information about environmental education process for Thai schools context. In addition, Thathong (2005) said that it is about time for all Faculties of Education should improve their curriculum and learning activities for all prospective student teachers to have correct knowledge and understanding about environmental education to have sustainable value concerning the environment as well as develop these students' capability in providing learning activities on environmental education for the better education. Therefore, the researchers conduct this research in order to gain the information for further development of an appropriate approach of environmental education.

Purposes of the study

- 1) to study the environmental context of schools according to curriculum, policy and action plan;
 - 2) to study strategies and procedures in providing environmental education activities;
 - 3) to study problems and suggestions in practice of environmental education;
- and

4) to suggest the guidelines for suitable environmental education process for Thai schools context

Method

Focus group interview was used in this study for a sample of 20 schools from elementary, expanded opportunity, and secondary schools of Khon Kaen, Mahasarakarm, Roi-Ed, and Kalasin provinces. Key informants were 100 teachers and 140 students. Instruments used in this study were interview checklist and digital camera. Content analysis was used to analyze data

Results

Frequency and percentage of school activities indicated the environmental context about curriculum, policy and action plans of schools were shown in Table 1-Table 4 while Table 5 was suggestions of teachers and students about management of environmental activities in schools.

Table 1. Frequency and percentage of schools activities on environment reported by groups of informants (20 schools)

Item	Schools activities	Groups of informants	
		Teachers	Students
1	School based curriculum (Mainly infuse in science, social sciences, physical education and hygienic education)	100(20)	100(20)
2	Vision of school about environment	30(6)	30(6)
3	Policy of school about environment	75(15)	75(15)
4	Congruency of action plans and environment	70(14)	70(14)
5	Suitable environment for learning	95(19)	85(17)
6	Local learning resources	75(15)	80(16)
7	Lesson plan and instructional media on environment	75(15)	95(19)
8	SWOT Analysis	20(4)	0

Table 2. Percentage of environmental project initiated by groups

Rank	Environmental project	%
1	Initiated by teachers	45
2	Initiated by students	30
3	Initiated by community	25
	Total	100

Table 3. Percentage of environmental activities reported by groups of informants

Category	Activity	Groups of informants	
		Teachers	Students
1	Boys and girls scout	5	20
2	Clubs	10	15
3	Projects	45	30
4	Learning activities	35	25
5	Students' projects	5	10
	Total	100	100

Table 4. Percentage of teachers and students opinions about problems dealing with environmental activities

No.	Problems	Groups of informants	
		Teachers	Students
1	A lack of knowledge on environment	25	5
2	A lack of collaboration	10	25
3	A lack of financial allocation	25	25
4	A lack of instructional materials	10	10
5	A lack of learning resources	0	5
6	A lack of experts	0	5
7	Learning activities	0	10
8	A lack of awareness	10	5
9	A lack of continuity of policy	10	0
10	A lack of support organization	5	0
11	Others	5	10
	Total	100	100

Table 5 Suggestions of teachers and students about management of environmental activities in schools

No.	Issues	Groups of informants	
		Teachers	Students
1	School should provide a subject in environmental education	10	5
2	Learning activities on environmental education should be multidisciplinary integration	15	10
3	School policy should address clearly about environmental education	25	10
4	School should develop suitable environment for learning activities on environment	5	35
5	School should use various media to communicate and announce about environmental education	15	15
6	SWOT analysis should be used on environmental education	5	0
7	School should provide more activities on awareness toward environment	10	25
8	School should allocate money for environmental education	5	0
9	School administrators should pay much attention in management of environmental education	10	0
	Total	100	100

Conclusions

Seven guidelines for the suitable environmental education process for Thai schools context were 1) environmental issues should be addressed in a vision of school-based curriculum, 2) environmental education should be indicated in school policy and action plan, 3) student-centered and integration instruction using community resource should be used in providing learning activities, 4) enhancement of self-directed improvement of teachers' awareness toward environmental activities by providing a workshop and promotion of cooperation among stakeholders in school, 5) providing activities to develop the desired characteristics of the students and empowerment the students to launch the environmental projects by themselves, 6) physical environment of school should be decorated to be learning resource, and 7) a school superintendent should allocate personnel, time, money, and continuous support for environmental projects.

It seems to me that Thai teachers had an appropriate environmental knowledge and awareness towards the environment. So the ways they taught should foster the children a good

behavior towards the environment. However, in a knowledge-based society, a new approach of education system must prepare a learner in a multi-disciplinary ways of thinking to ensure more sound problem-solving based on integration of individual ability to related issues. The university as a high quality human resource is responsible to increase awareness, knowledge, technologies and tools to enhance and instill a more environmentally sustainable future. It should also promote changes in attitude, perspectives and behaviors that might help solving existing environmental problems and to avoid creating a new environmental problem (Farmer, 2000).

References

- Asano, M. (1991). *Environmentally yours by early times*. Tokyo: Macmillan
- Chabudbuntarik, V. (1992). *Buddhism*. Bangkok: Odean Store. (In Thai).
- Elliott, J. (1991). *Developing community-focused environmental education through action research*. Mimeograph, Centre for Applied Research in Education, School of Education, University of East Anglia, Norwich, UK.
- Elliott, J. (1992). What have we learnt from action research in school-based evaluation? *Educational Action Research*. 1(1): pp. 175-186.
- Farmer, J. (2000). *Green shift: Changing attitudes in architects to the natural world*. Butterworth-Heinemann Publisher.
- Fien, J & Trainer, T. (1993). Education for sustainability. In *Environmental education: A pathway to sustainability*. Edited by Fien, J.(1993). Geelong, Victoria: Deakin University Press.
- Grundy, S. & Kemmis, S. (1981). *Educational action research in Australia: the state of the art (overview)*. Paper presented at the Annual Conference of the Australian Association for Research in Education, Adelaide.
- Huckle, J. (1988). Understanding society and nature in the contemporary world. In *Environmental education and social change: Study guide and reader*. Edited by Fien, J.(1993). Geelong, Victoria: Deakin University Press.
- Huckle, J. (1991). Education for sustainability: Assessing pathways to the future. *Australian Journal of Environmental Education*. 7: pp. 43 - 59.
- Jeans, B. (1997). *Educational research: Problems, processes and methodologies*. Presented at the Faculty of Education, Khon Kaen University, Khon Kaen, Thailand.
- Krapeedang, V.(2000). *A study of present situation, problem and guidelines in providing environmental activities for large size mathayomsuksa school*. Master thesis in educational administration of Khon Kaen University. (In Thai)
- Kemmis, S. & McTaggart, R. (1992). *The action research planner*. Victoria: Deakin University Press.
- Nation. (1991). *Managing the environment*. Special issues. Bangkok, Thailand.
- Nutalai, P. (1993). Opinions about environmental education in secondary education schools levels in Thailand. *Supplementary material for the seminar on Environmental Education for Peace*. Held by the Faculty of Education, Chulalongkorn University, Thailand. (In Thai)
- Schulze, S. (1996). *Foundations of environmental education*. Pretoria:University of South Africa.
- Sinlarat, P. (1993). Environmental education: Theory to practice. *Supplementary material of seminar on Environmental education and earth education*. The Faculty of Education, Chulalongkorn University, Bangkok, Thailand. (In Thai)
- Sonneborn, C. (1994). The green fridge quest - tertiary environmental education for ESD. *Australian Journal of Environmental Education*. 7: pp. 45 - 58.

- Sook-kasem, Th. (2001). *A study of present situation and problems in management of environmental activities in large size mathayomsuksa schools in Bureerum Province*. Master thesis in curriculum and instruction of Khon Kaen University. (In Thai)
- Spork, H. (1992). Environmental education: A mismatch between theory and practice. *Australian Journal of Environmental Education*. 8: pp. 147-166.
- Sri-oottha, P.(1998). *A study of present situation and problems in management of environmental activities in medium size mathayomsuksa schools in Khon Kaen Province*. Master thesis in curriculum and instruction of Khon Kaen University. (In Thai)
- Thathong, K. (2005). Environmental ethic and environmental education. *J. Education*. Faculty of Education, Khon Kaen University (In Thai)
- Trainer, T. (1990). Towards an ecological philosophy of education in *Environmental education and social change: Study guide and reader*. Edited by Fien, J.(1993). Geelong, Victoria: Deakin University Press.
- UNESCO-UNEP.(1994). Population: Working for an equitable, sustainable development in harmony with the environment. *Connect*. 19(4): pp. 1-2.
- UNESCO-UNEP.(1995). Social development: For the people and the environment. *Connect*. 20(1): pp. 1-2.

