

Japanese Trends on Implementation and Theorization of “Pedagogy” and “Program Development” in Environmental Education

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ABSTRACT

This manuscript aims to deepen the international discussions about the viewpoints instructors and educators should have toward the content and methods of procedures for environmental education in school education, adult and community education, and life-long learning. In Japan, different implementations have been unfolding to this day. There are categories such as (1) pollution education, (2) nature conservation and outdoor education, (3) environmental education through school curriculum, (4) environmental education for life (environmental friendly civic activities: recycling, human rights, critical consuming etc.) (5) environmental education for the earth (global issue education: development education, peace education, etc.) Each category deals with environmental issues in their unique field of interest and target, building original methods and contents. This manuscript shows three points for future investigation including the trends of “Pedagogy” and “Program Development”, amassing of outcome, and positioning according to today’s principles of environmental education.

Key words: pedagogy, program development, andragogy, learning through investigating local issues, experiential learning, workshop, facilitation, participatory learning, education for sustainable development, action promoting political policy

Introduction

Pedagogy or Pedagogics is derived from a Greek word “Paidagogike” referring to “the art and science of teaching children”. The historical origin of the research on this technique can be traced back before the formation of the science of education. (Ichimura et.al. 2000) More attention is now being paid to the process of self-directed inquiry through individual learners learning about internal interests in the field of adult and community education/life-long learning. Since the 1970’s, andragogy, “the art and science of helping adults learn”, compared to pedagogy, has been evolving with America playing the central role. (Akao 2004) On the other hand, program/curriculum development for environmental education has been discussing the actual contents and process of implementation. Though pedagogy and program development are primarily discussed individually, this manuscript aims to deepen the international discussions about the viewpoints instructors and educators should have toward contents and methods of procedures for environmental education in school education, adult and community education, and life-long learning. It also looks from the standpoint connecting the implementation and theorization on Environmental Education.

“Pedagogy” and “Program Development” Developed in Several Categories of Environmental Education in Japan

In Japan, there are several categories of environmental education. One sphere evolved from “pollution education” considering social justice, and another evolved from “nature conservation education”. Since around the time of the Rio Summit, there has been a trend aiming to place these categories in a global viewpoint. Today there are different implementations unfolding such as (1) pollution education, (2) nature conservation and outdoor education, (3) education through school curriculum, (4) environmental education for life (environmental friendly civic activities: recycling, human rights, critical consuming etc.) (5) environmental education for the earth (global issue education: development education, peace education etc.) Each category deals with environmental issues in their unique field of interest and target, building original methods and contents such as the following:

Pollution Education

Pollution education seeks to join with people in communities to study pollution problems and to recognize the importance of the teacher’s role from the standpoint of ‘Education as a human right’ (Asaoka 2005) During pollution education toward a movement against petrol complexes in Mishima and Numazu cities, a teacher and students of Numazu City High School for Industry inspected the report by a government inquiry committee as well as held discussions among the local residents. The teacher and students pointed out the insufficiency of the report and collected accurate, detailed data by weather observation and investigating the air streams. (Fukushima 1993) “Learning through investigating local issues” is a method where “citizens investigate local issues and confirm the information by themselves”. A women’s class in the Tobata area of Kita-kyushu City studied and then demanded to create air pollution regulations. It is evolving to allow communities to plan development projects restoring polluted areas.

Nature Conservation and Outdoor Education

Nature conservation education is focused on leading people to become aware of and to understand ecology and the conservation of biodiversity, and leading them to take action. Words like “communing with nature”, “know about nature”, “protect nature” show that focus, and techniques like nature observation and nature interpretation have been adopted as methodology. In outdoor education, “zest for living” is especially focused in response to the issues among children as they have become more serious since the late 1990s. Experiential activities like “experience in nature” or “experience in actual life” were introduced in school curriculums and youth education. The theory of experiential learning substantiated the experiential activities. Experiential learning is a theory that the learners reflects their own learning process in the nature, and by improving the process, it aims to lead people to take action on a daily basis. (Hoshino 2001) Instead of a teacher leading the learner in a one-way pattern, it lets the educator and learner inspire and learn from each other. It not only altered the method of teaching by introducing “critique” and “sharing”, but it also enabled teachers to be aware of some learning processes that had not been considered so far. Packaged programs such as Sharing Nature, Project Wild, and Project Adventure have been introduced since the 1980s.

Education through School Curriculum

The Ministry of Education has established the principles of environmental education in school curriculums through the publication of “The Courses of Study” in 1989, “The Environmental Education Guideline for Secondary Schools” in 1991, “The Environmental Education Guideline for Primary Schools” in 1992, and “Case Studies” in 1995. Furthermore, “The Periods for Integrated Study” was added to “The Courses of Study” in 2002 as a new field. It aims to “foster the ability to find a theme, learn, think, judge, and solve a problem on their own”. And also “nurture in

students the ability to build up their own way of learning and thinking, to foster an attitude to challenge problem-solving and to identify topics with creativity and autonomy, to think about their present and future life deeply". With these objectives, each school has the freedom to decide on the details. It is a new effort and case reports include international understanding, information, welfare and environment as subjects to learn about. Diverse learning methods like experiential learning, problem-solving, and group learning are used. Schools are getting the local residents to cooperate, and are initiating using local materials to teach.

Environmental Education for life (environmental friendly civic activities: recycling, human rights, critical consuming etc.)

The Basic Environment Law established in 1993 has a provision such as "Education and Learning on Environmental Conservation" (Article 25). Recycling, human rights, education for critical consuming, etc., have been evolving since the establishment of the Law to Promote Specified Nonprofit Activities in 1998. How to promote citizen participation, and how to reach a general consensus, are things which were considered most important. "Workshops", which is "a style of learning and creating in which participants initiate joining and experience learning something in a cooperative way, not like a lecture which is a one-way transmission of knowledge" (Nakano 2001), and "Facilitation", which is a technique to create the atmosphere for participatory learning, are evolving in various places.

Environmental Education for the earth (global issue education: development education, peace education etc.)

With the Earth Summit held in 1992 as a turning point, issues on the environment, development, population, human rights and gender are generally considered global issues. This made a connection between development education and environmental education. Education dealing with global issues tries to let the participants feel that the issues are close to themselves by participatory learning. They strive to develop teaching materials and curriculum to connect the world and each community. A theory entitled "Children's Participation" by Roger Hart was introduced as a learning methodology adopting "participation" to "community development". In this theory, they have eight levels for "the ladder of children's participation", and they let the children find an issue related to lifestyles within one square kilometer of their neighborhood. By letting the children try to solve those problems, they were expected to become adults who can find the solutions to environmental issues. As the actual method for solving problems, a methodology named "Action Research" was introduced. It lets children research the local area, discover and identify the actual problems, investigate them, and make a plan to solve them, and then take action. (Tanaka 2003)

The contents and methods used in each category mentioned above are also aggressively adopted in other fields. Also, I would like to mention that there is an investigation on the "Significant Life Experience" evolving as research on "life history learning" (Furihata et.al. 2006) as a new learning method.

Placement of the "Pedagogy" and "Program Development" within Today's Guideline of Environmental Education

Let us confirm the placement of the "Pedagogy" and "Program Development" in the international guideline of Environmental Education.

United Nation Decade of Education for Sustainable Development

The United Nations Decade of Education for Sustainable Development has established "The International Implementation Scheme (IIS) for the Decade" which states that the overall goal of the

DESD is to "integrate the principles, values, and practices of sustainable development into aspects of education and learning" (A.) It also mentions the importance of "the challenges in all forms of educational provision to adopt practices and approaches which foster the values of Sustainable Development" related to the "pedagogical process". Furthermore, it introduces "educational programs" such as the "ESD Toolkit", which was established for communities to develop their own ESD programs based on their culture, and "Teaching and Learning for a Sustainable Future" (UNESCO 2002). (V.A.5) With the recognition that "simply increasing the volume of education will not construct a sustainable future": IIS claims the direction of existing education needs to be reconsidered with clear goals and values "aiming toward sustainable development".

"Basic Policy for Environmental Education Promotion Act"

On the other hand, the Japanese "Basic Policy for Environmental Education Promotion Act", established in 2004, has stated the following expressions as some methodologies for implementing environmental education. (1) By "fostering the ability to solve problems", encourage people to take "concrete action", and create a flow aiming toward a solution of the problems. (2) In order to connect the knowledge and understanding with action, it is important to let children experience activities in nature and in daily life, having practical experiences, the core of environmental education. Also it is important to have the viewpoint that children learn through playing.

Points to Pay Attention to Regarding the Future Research on "Pedagogy" and "Program Development"

Currently, a movement for the "UN Decade of Education for Sustainable Development" is getting organized in Japan with an aim to shaping it by March, 2006. Up to now, the following five ministries have been controlling the promotion of environmental education: Ministry of Education, Culture, Sports, Science and Technology; Ministry of Environment; Ministry of Land Infrastructure and Transport; Ministry of Agriculture, Forestry and Fisheries; and Ministry of Economy, Trade and Industry. Adding to these five, four more ministries joined to investigate a movement with the whole government involved, with the guidance of the Cabinet. The ministries are: Ministry of Foreign Affairs (ODA, etc.); Ministry of Justice (education on human rights); Ministry of Internal Affairs and Communications (community promotion); Ministry of Health, Labor and Welfare (HIV/AIDS, employment, welfare). While environmental education is entering a new expansion toward "Education for Sustainable Development" (ESD), I would like to clarify the following three points from the viewpoint of "Pedagogy" and "Program Development". The first two points are mainly about the contents, and the third point is about methodology.

First, let us think about the issue which the concept "sustainable" as in "sustainable development" has. There are questions about the vagueness of what to sustain. J. Fien and others, who were involved in establishing IIS, stated the importance of having a holistic or systemic view to see the process of change rather than having two opposite points such as "sustainable economic growth" or "sustainable human development". (Fien et. al. 2002)

Secondly, we need to find out how to include the issues caused by the society and economy. These points were not fully concerned in environmental education as a content theory up to now. Yoshinobu Kanda views the environmental problems as issues of awareness on reformation of the production system and public order. (Kanda 2002) A theory including the system of present-day society and economy which are producing problems, not only focusing on the awareness of such issues, is needed for the development of education.

Thirdly, the goal concept of the current environmental education, "promoting attitudes and values of individuals" is being transformed by the Education for Sustainable Development to a concept such as "change in social, economical, and political structures and in lifestyles". We need to find a way to correspond the methodology to this change. The Education for Sustainable Development in

Japan (ESD-J) has a mission "to play a role as a counterpart to the Japanese government by advocating policy proposals and collaborating in policy implementation aimed to encourage citizens and NGOs to form partnerships with the government, local authorities, international organizations and educational institutions in order to realize substantive ESD in Japan and overseas". ESD-J has been working to promote political policy decisions including the submission of a "Statement on the establishment of a structure to promote DESD" to Prime Minister Junichiro Koizumi. This has never happened with former organizations for environmental education. These actions promoting political policy enable us to be aware of how education is regulated by the structure of the society and lifestyles, and also enables us to directly take action to change the structure of our current society. The educational method organizing and planning, uniting the ongoing learning and policy proposals could be applied in every field. I think this could be considered a new learning methodology called "Action promoting political policy".

Acknowledgements

I would like to thank Sarah Okabe for her generous cooperation in translating this manuscript into English.

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