

Approach to Advance Teacher Training Based on Education for Sustainable Development

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ABSTRACT

In November 2014, Global Action Programme on Education for Sustainable Development (ESD) was endorsed by United Nations Educational, Scientific and Cultural Organization as a follow-up to the Decade of Education for Sustainable Development International Implementation Scheme. In Japan the government has been promoting measures for a sustainable society and encouraging elementary to secondary school teachers to practice ESD in their lessons since the Course of Study (educational guideline in Japan) was revised in 2008.

Under these circumstances, our university has been developing further advanced ESD-based teacher training programs for pre-service teachers (college students) and in-service teachers (incumbent teachers). For pre-service teachers, we are setting up three teacher training programs: *start-up program*, *practice program*, and *global program*. For in-service teachers, we are preparing a 3-step certification system for conducting ESD-based lessons as follows: *ESD teacher*, *ESD master*, and *ESD specialist*.

By establishing an ESD-centered teacher training system for both pre-service and in-service teachers, we would like to produce as many teachers skillful in ESD as possible. We firmly believe that our teacher training project will lead to the realization of a sustainable society.

Keyword: Teacher Education, Education for Sustainable Development, Teacher Training System reform

1. Introduction

The current environment surrounding Japan is rapidly changing, and the overall social structure is also required to change. Our country is faced with such rapid social changes as declining birthrate, increasing elderly population, widening regional disparities, increasing sophisticated use of information, etc. We will be required to reform social systems, including an educational system. Now, Education for Sustainable Development (ESD) is gaining attention from teachers and researchers in the world. Many educational organizations are working on practicing and disseminating ESD. ESD requires the changes of an educational system from the conventional one. As an educational institute for producing future teachers, in order to produce teachers who can practice ESD, we should reform our teacher training system. In this paper, we would like to introduce ESD and explain its necessity in the current situation, and suggest an ESD-centered teacher training system at Nara University of Education.

2. Appearance of ESD

2.1 ESD for Future Generations

United Nations Educational, Scientific and Cultural Organization (UNESCO) promotes Education for Sustainable Development (ESD) and aims to foster individuals who design a sustainable society. The United Nations established in 2005 the United Nations Decade of Education for Sustainable Development (DESD) International Implementation Scheme (UNESCO, 2005), which clarifies four basic values ESD should foster as follows (p. 16):

- Respect for the dignity and human rights of all people throughout the world and a commitment to social and economic justice for all,
- Respect for the human rights of future generations and a commitment to intergenerational responsibility,
- Respect and care for the greater community of life in all its diversity which involves the protection and restoration of the Earth's ecosystems,
- Respect for cultural diversity and a commitment to build locally and globally a culture of tolerance, non-violence and peace.

This shows that ESD fosters values to respect the environment, human rights, and culture between generations and within each generation. The values above well correspond with the definition of sustainable development proposed in the Brundtland Commission (World Commission on Environment and Development, 1987, p. 8-9) as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” This also implies equity between generations and within each generation.

2.2 Promotion of ESD in Japan

In such global movements for designing a sustainable society, ESD has been reflected in one of the important principles of education in Japan. The Course of Study (educational guideline in Japan) was revised to provide specific measures to instill in children *ikiru chikara* (zest for life) (MEXT, 2010, p. 7). *Ikiru chikara* consists of three elements: solid academic prowess, rich humanity, and health and fitness. Solid academic prowess is “to acquire the basics and fundamentals; to cultivate introspection, the desire to learn & think, independent decision-making and action, as well as the talent and ability for problem-solving.” Rich humanity means “to cultivate self-discipline in balance with consideration for others and a sense for inspiration, in harmony with the spirit of cooperation”, and health and fitness is “health and fitness for living a vigorous life.” The National Institute for Educational Policy Research in Japan (2012) claims that *ikiru chikara* have almost the same system as the key competencies identified by the Organization for Economic Co-operation and Development (OECD) (OECD, 2005). In addition, Nakazawa and Tabuchi (2014) propose that the key competencies of OECD correspond to values and competencies ESD fosters. Therefore, fostering *ikiru chikara* in students results in nurturing the values ESD aims to foster.

3. ESD-centered teacher training system at Nara University of Education

In November 2014, Global Action Programme on ESD was announced by UNESCO as a follow-up to the Decade of ESD International Implementation Scheme. This new proposal claims the necessity of supports for educators who conduct ESD (UNESCO, 2013). In Japan, as we showed above, the Course of Study was revised and reflected on the concepts of ESD, and teachers are required to conduct ESD in primary to secondary schools. Under these circumstances, we, Nara University of Education, have worked on the advancement of a teacher training system based on ESD as a core in order to provide supports for teachers who want to practice or are practicing ESD. We aim to produce teachers who can put ESD into practice in schools.

In 2007 Nara University of Education was registered as the first Japanese university belonging to the UNESCO Associated Schools Project Network (ASP net), and since then has been promoting researches on ESD and on how to incorporate it into teacher training. In 2011 our university set up a research institute, *Centre for Education and Research of Sustainable Development and Cultural Properties*, and started three research departments: historical assets, cultural diversity and civil human rights. In 2012, we conducted a project for *Fostering Students' Pleasure in Learning and Sustainable Will to Develop*. The next year we further developed a project for innovating our teacher education in closer cooperation with local communities. As a member of UNESCO

Associated Schools Project University Network (ASPUnivNet), we have been fostering regional cooperation between local educational institutions and UNESCO associated schools.

This year, 2015, we have worked on a 3-year project named *Advancement of Teacher Training based on ESD as a Core* in order to produce more teachers who can put ESD in practice in schools. For this project, we have already worked on two projects: examination of the skills and attitudes of teachers who can plan and practice an ESD-based teaching (Project 1) and design of a teacher training program, referring to the skills and attitudes examined (Project 2). We would like to introduce the two projects.

3.1 Project 1: examination of the skills and attitudes of teachers who can plan and practice an ESD-based teaching

First we examined what is needed to become a teacher who properly conduct educational ESD practices. We formed a project team and inquired into faculties and attitudes of teachers skillful in ESD, by investigating educational practices based on ESD, interviewing dedicated school teachers, and consulting researchers on ESD in Japan. The result showed that the basic skills and knowledge in subject teaching, student guidance, class management etc., are required for ESD as well as for the conventional education. We concluded that the significant traits of teachers skillful in ESD are attributed to the following three things (Figure 1). First of all, ESD experts have knowledge on education concerning disaster reduction and prevention, environmental issues, cultural and natural heritages, international understanding, human rights and welfare. Secondly, teachers skillful in ESD connect each different subject in order to make learning a more interesting and effective experience for children. Thirdly, connecting materials found nearby with various educational areas, teachers develop their teaching schemes and put them into practice. We can assume that the teachers' dedication to education enables their students to deepen understanding of their hometowns and to consider local and global issues in relation to their lives.

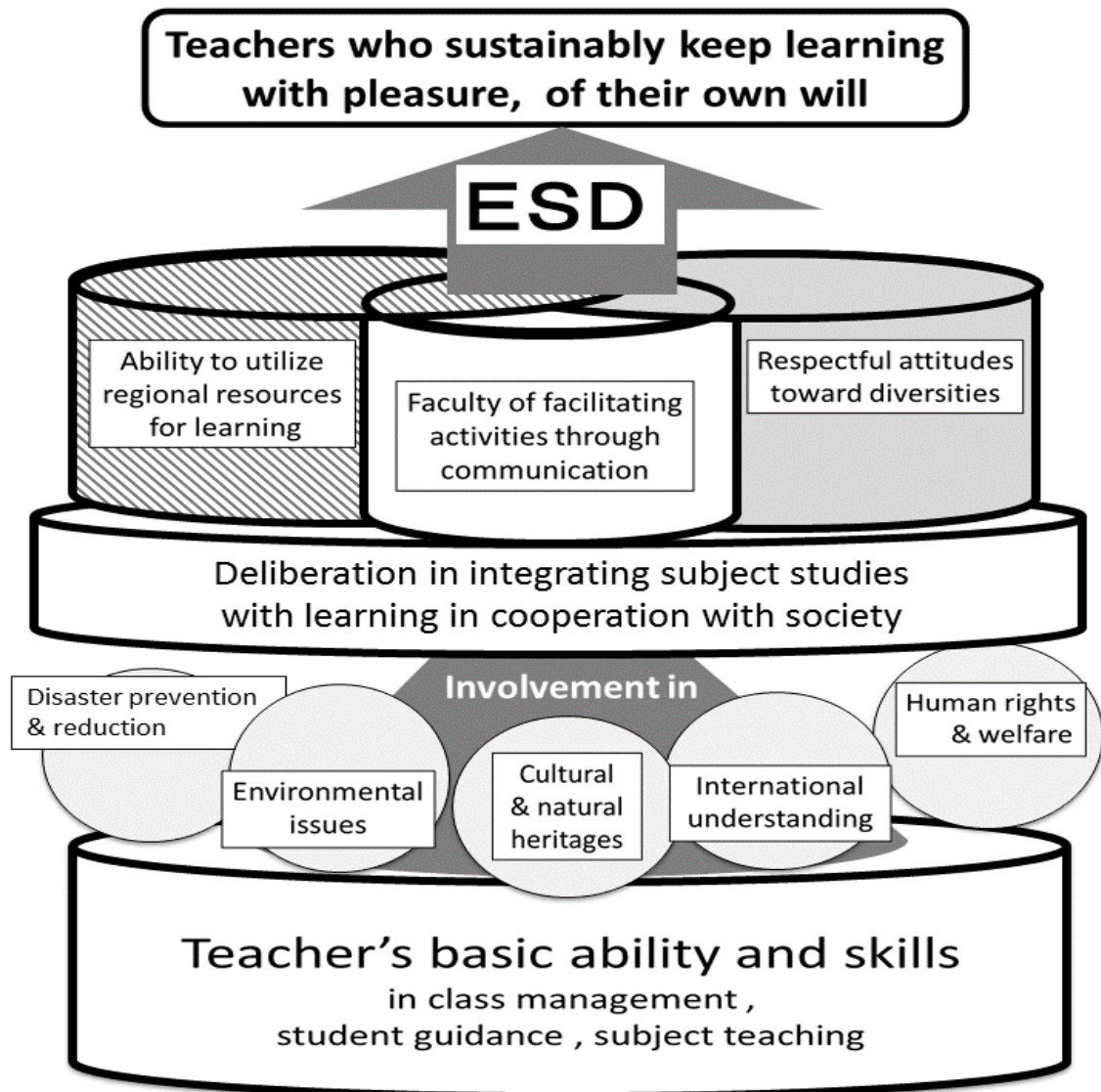


Figure 1

Ability and attitude needed for teachers eligible to conduct education procedures on ESD

3.2 Project 2: design of a teacher training program, referring to the skills and attitudes examined

Taking the skills and attitudes of teachers examined in Project 1 into consideration, it is crucial for our university to advance our teacher training program for pre-service and in-service training to practice ESD. The goal of this project is to produce educators who work on solving global issues by involving themselves in community situations. In addition to that, we should train pre-service and in-service teachers so that they acquire abilities to utilize regional resources in their teaching, to facilitate learning activities through communication and to respect diversities. The following three certificates are

being planned: *ESD teacher program*, *ESD master program*, and *ESD specialist program*.

ESD teacher program

We are now preparing the framework of ESD teacher program and organizing an educational curriculum with lectures and seminars featured on ESD for pre-service teachers. For *start-up program*, ESD basic, the Course of Study and ESD, Environmental Education and ESD, World Heritage and ESD, ESD teaching practice are to be listed. For *practice program*, lectures on facilitation guidance, disaster reduction and prevention, ICT utilization are to be prepared. In addition, hand-on activities such as ESD camping, ESD monthly seminar, a series of ESD lectures, and activities at UNESCO associated schools are to be optional subjects. These programs foster students' abilities to elaborate their teaching plans and materials based on ESD. We are designing a program for international and hands-on learning in *global program*. Through the three training steps, pre-service teachers will be provided with certifications as *ESD teacher*.

For in-service teachers, we have held teacher training sessions called *ESD monthly seminar* since 2012. This seminar is open for school teachers to learn about the theories and practices of ESD and improve their practical skills in ESD teaching. About 20 participants attend regularly after school or on weekends. After attending the programs, they will be certified as ESD teachers.

ESD master program

In addition to ESD monthly seminar, we have held *a series of ESD public lectures* for four years. This teacher training seminar has been held for in-service teachers to learn about ESD and to have opportunities to attend lectures on practical topics of school education such as classroom management, student guidance and understanding, etc. We are planning to provide in-service teachers with *ESD master* certificates after they attend the sessions, elaborate their teaching plans, develop their knowledge and skills on ESD, and complete the course.

ESD specialist program

ESD masters are supposed to put their learning about ESD into practice and submit required reports about their teaching outcomes. After presenting the results of their researches at symposiums, an *ESD specialist* certificate will be granted. ESD specialists can hold ESD seminars as official ESD lecturers. The procedures are summarized in Figure 2.

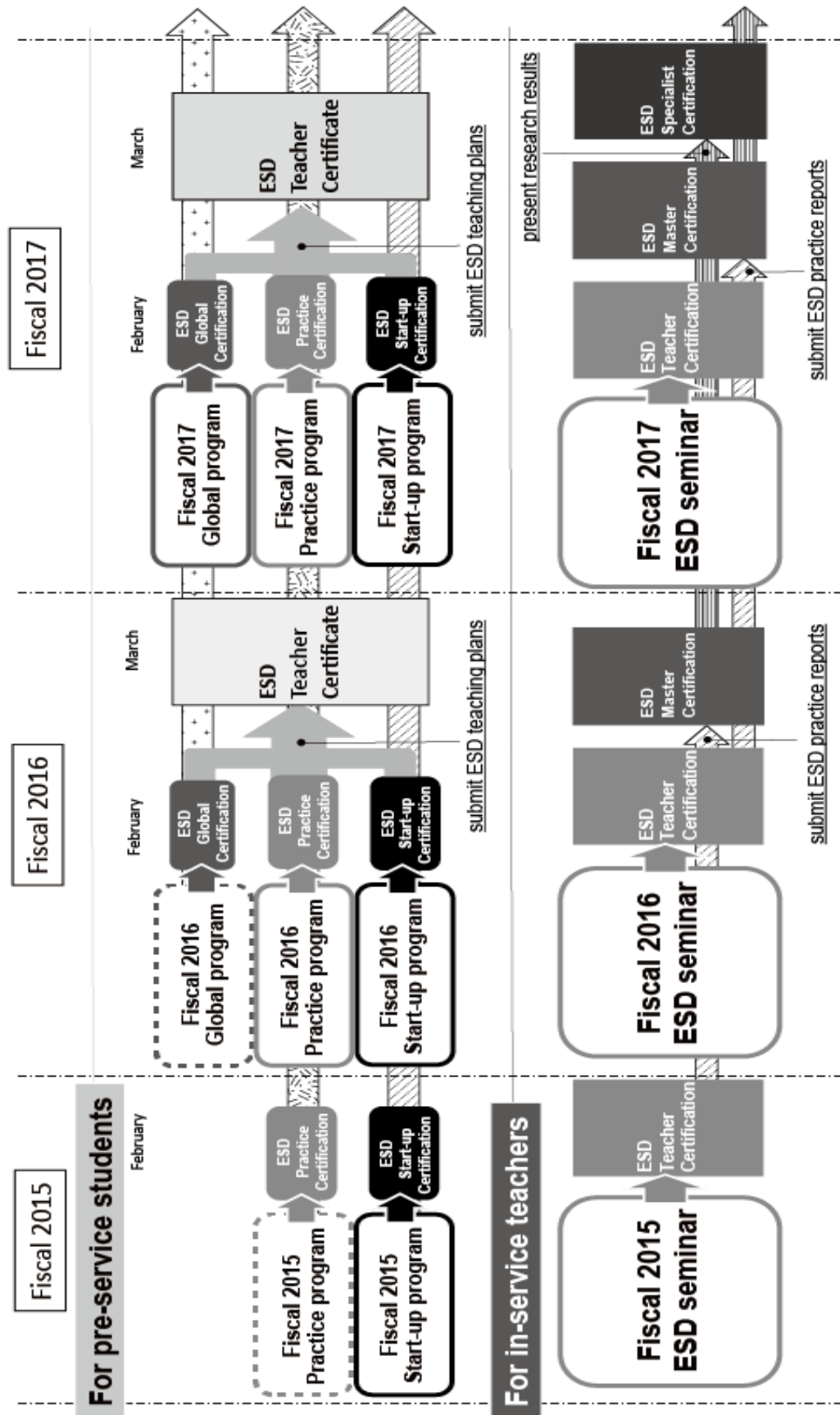


Figure 2
 Outline map of ESD teacher certification program at Nara University of Education

4. Conclusion

Before starting our 3-year project of the advancement of teacher training this year, we had had preceding projects in accordance with the Basic Act on Education revised in December 2006. We can say that all our preceding efforts have converged for the reform of teacher training based on ESD. Focusing on ESD and advancing our teacher training systems mentioned above, we firmly believe that we will be able to accomplish our mission of education: to produce as many teachers skillful in ESD as possible, who will contribute greatly to the realization of a sustainable society.

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