# Contents

**Opening Remarks**
Haruki OZAKI

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**Presentations: Trends and Issues on ESD**
Michel RICARD (Europe)

---

Charles HOPKINS (North America)

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Fumiko NOGUCHI (Oceania and Asia)

---

Shigeki KADOYA (Japan)

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**Panel Discussion: The Past, Present, and Future of ESD**

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**Appendix**

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Opening Remarks

Haruki Ozaki *
Director General, NIER

N.B.
• The * mark indicates that the original language of the speech was Japanese and that the transcript is a tentative translation based on the simultaneous interpretation provided during the symposium.
• The transcripts include changes made after the symposium for purpose of publication.
• The affiliations and professional titles of the speakers are as of December 18, 2012.
Opening Remarks

Upon the opening of this year’s International Symposium on Education Reform, I welcome you all. Ladies and gentlemen, thank you very much for kindly attending despite your busy schedules. This International Symposium on Education Reform is an annual event to which we invite experts from abroad who are active in the front line of education reform. This is a forum intended to learn from other countries’ experiences and to make use of them in the practice of education reform in Japan. This has taken place since 2001.

This year, the topic is international trends in ESD. As you already know, ESD stands for education for sustainable development. From the environmental perspective, the economic perspective, and the socio-cultural perspective, this is an educational activity that tries to come up with new senses of values and behaviors. In 1987, the United Nations (UN) issued a report by the World Commission on Environment and Development. In this Brundtland report, the concept of development that fulfills the needs of future generations as well as the needs of the present generation was introduced. This was the introduction of the concept of sustainable development. Within the implementation plan conducted in international areas, the importance of education for sustainable development—which is ESD—and the guidelines were included. Today ESD is being promoted around the world. In 2002, at the 57th UN General Assembly, Japan presented a proposal that the 10 years from 2005 should be designated as the UN Decade of ESD, and this proposal was adopted. As a result, ESD is being promoted in a large number of countries around the world, but approaches vary from country to country. In some cases ESD is taught as moral lessons or under a whole-school approach, and in other cases it is taught in relation to DeSeCo planning (Definition and Selection of Competencies project), environmental education, or democracy education.

In Japan, in relation to the policies for the UN Decade, ministries and agencies of Japan have collaborated deeply in order to comprehensively and effectively promote the program. In March 2006, the Japan Council on the UN Decade of ESD (ESD-J) was established. The implementation plan was drawn up, and relevant ministries and agencies, academic experts, education professionals, non-profit organizations (NPOs) and companies joined in a roundtable network. Capacity building, human resources development, and a variety of research and program development have taken place. So activities are still ongoing. In relation to the Ministry of Education, Culture, Sports, Science and Technology (MEXT), since 2011, the new Course of Study—the new national curriculum—has been
implemented. From the perspective of sustainable development, instructions are to be provided. Some examples are as follows: In home economics at elementary school, it is education to cultivate the behavior of proactive and autonomous consumers. In lower secondary school science, scientific observation on nature conservation and the use of science and technology are taught. There is cultivation of awareness about the importance of creating sustainable societies. Depending on the nature of the subject, these practices of ESD are expected.

At NIER, research is ongoing in order to enable schools to understand ESD and in order to promote the teaching profession to be able to develop ESD curricula. Within that framework, the conceptual components of sustainable development building or the abilities and attitudes that have to be emphasized in learning instruction based on the ESD perspective have been identified. You can access the reports on our institute’s website. Please find an opportunity to visit our site and view the reports.

In this way, different types of ESD are taking place depending on the country and region. During today’s symposium, in order to learn about the status and challenges of ESD in different places, there are two eminent guest speakers from overseas; Prof. Michel Ricard and Dr. Charles Hopkins. Prof. Ricard is Professor of the University of Bordeaux in France and the UNESCO Chair “Education, training and research for sustainable development” at the same time. He is a member of the International Steering Group for the UNESCO World Conference on Education for Sustainable Development and the leader of ESD in France. Dr. Hopkins is UNESCO Chair at York University in Canada. As well as lecturing in the graduate program, he coordinates an international network of teacher education institutions from over 70 countries. Our two guest speakers have kindly accepted our invitation and have travelled all the way here to this symposium. Prof. Michel Ricard will talk about Europe and Dr. Charles Hopkins will talk about the North American status and challenges. As for Japanese circumstances, our speaker is Dr. Shigeki Kadoya, the Director of the Department for Curriculum Research in the Curriculum Research Center.

Originally, regarding Oceania and Asia, Prof. John Fien was scheduled to be the speaker. Unfortunately, due to unforeseen circumstances, he was not able to come to Japan. Prof. Fien has extensive knowledge and insight about education for sustainability. He was deeply involved in the ESD plan drafting. Many of you might have been looking forward to seeing him, but please be understanding about this change. With regard to Oceania and Asia, Ms. Fumiko Noguchi will make a presentation. She is the Programme Coordinator for ESD-J, the Japan Council on the UN Decade of ESD. At the same time, since 2011, she has been researching as a doctoral candidate at the Royal Melbourne Institute of Technology in Australia under the supervision of Prof. Fien, who was originally in the program, and Dr. Roberto Guevara. She is conducting research on ESD within the context of sustainable community building. The final conference of the Decade of ESD shall be organized in Japan in 2014. Today’s event was organized with a view to that 2014 meeting and we hope that as many educators as possible will take an interest in ESD activities Japan and around the world. May I conclude my brief remarks by expressing our hope that today’s symposium will be another contribution to the promotion of ESD? Once again, thank you very much.
Presentations:
Trends and Issues on ESD

Prof. Michel Ricard
Professor, University Michel de Montaigne Bordeaux 3/UNESCO Chair

Dr. Charles Hopkins
UNESCO Chair, York University

Ms. Fumiko Noguchi *
International Programme Coordinator, Japan Council on the UN Decade of Education for Sustainable Development

Dr. Shigeki Kadoya *
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Europe

Trends and Issues of ESD in Europe

Michel Ricard
Professor, University Michel de Montaigne Bordeaux 3
UNESCO Chair "Education, training and research for sustainable development"

Monsieur le directeur, Mesdames et Messieurs, I will not speak in French. I will speak in English. First of all, I would like to thank Mr. Ozaki and NIER, for the invitation and for giving me the opportunity to talk about the trends and issues of ESD in Europe. During the following minutes, I would like to present these main trends. First, the European policy for sustainable development and its application related to the UN Decade of ESD. Then, some consideration about the different national policies, and finally some general prospects for discussion and reflection.

When considering ESD trends and issues in Europe, it is important to consider first the socioeconomic background that strongly evolved during the second half of the last century. Fifty years ago, the European Community for Steel and Coal was forming the first core of the present European Union (EU). It was mainly based on coal, steel and agriculture. That was what constituted the three pillars of a prosperous economy in Europe from 1945 to 1975. This period was called the 30 Glorious Years due to a strong industrial development and a permanent state of full employment, but suffered from the strong pollution of our environment as well. The 1973 oil crisis related to the Kippur War contributed to ending this period, when steel and coal more or less disappeared as structuring European pillars, and the disappearance caused important socioeconomic and cultural damage.

Despite this alarming background in Europe and elsewhere, few voices were emphasizing the scarcity of the planet’s resources, with the exception of the report of the Club of Rome published in 1972. We had to wait for the Brundtland report in 1987 to see the real awareness of the need to change our behavior and the real will of some European countries to appear as active craftsmen to implement a sustainable development policy. Europe was deeply affected by this crisis, which may explain that many or most of the citizens and governments became aware of the need to implement environmental and sustainable principles as widely as possible. This implementation was made easier by some quite similar ideas and closely corresponding situations reflecting values shared by most of the European countries. In reference to these shared values, several EU countries early on developed actions to educate, train and inform their populations, particularly when Europe decided to implement the 2000 Lisbon strategy and supplemented it with several other important strategies, such as the European Strategy for Sustainable Development in 2006. All these initiatives came naturally to stand as a support for the UN Decade given that in Europe there was already broad consensus on the key role of education and training to facilitate the emergence of a more sustainable society.

The analysis of the implementation of the UN Decade in Europe might seem more obvious than it actually is,
because of the existence of two more or less parallel processes resulting from a two-tier system. First, the European Union was founded in 1951 by six European countries under the treaty establishing the European Coal and Steel Community and evolved into the present European Union with 27 members. On the other hand, you have the UN Economic Commission for Europe (UNECE), established in 1946 with 56 member states, with four of them (Canada, Israel, Turkey and the United States of America) not belonging to the geographical frame of Europe.

This situation has resulted in the existence of two parallel processes: A science and education process developed at the EU level from 2000 constituted the background of the European strategy for sustainable development and involved 27 countries with close political, economic and socio-cultural features favoring common approaches. Alongside it was a broader process referring to UNECE and known as the Vilnius strategy, which was launched in 2005 and involves 56 countries, with half of them not belonging to the EU, and often sharing very different economic and socio-cultural features.

If we now focus on the EU and on school education, which constitutes the major component of the UN Decade, several broad trends can be determined. From 2000 to 2006, the EU set up its strategy for sustainable development and education for sustainable development through several stages—the Lisbon Agenda in 2000, the Göteborg Strategy in 2001, the European Strategy for Sustainable Development in 2006, and so on. But because each member state has the prime responsibility for education of its citizens, the European Commission’s main purpose was giving both help and momentum to member states through four main initiatives: First, to afford the same global framework to all member states; then, to support member states for the achievement of the objectives and goals of the UN Decade; to better address sustainable development in specific European programs for education of the young and adults such as the Comenius, Grundtvig and Tempus programs; and also to include the whole range of ESD activities carried out in national and international debates.

When considering today’s results, we can highlight some very positive advances. First, innovation in content was the most recurrent element in the practices at the EU global level, including topics and issues linked not only to globalization (for instance, human rights and North-South relations) but also to healthier lifestyles and to energy consumption. We can also underline innovation in the delivery method that was illustrated by different multi-stakeholder approaches, leading to the creation of new partnerships and educational networks at European levels, including business communities and experts.

And finally, we can say that Europe has been successful in developing good practice cases. This is the main asset. However, these practice cases need to be shared in order to mainstream the good practice into existing systems from primary education to university.

Despite these encouraging results, it is clear that Europe must make enhanced efforts related to the equity gap, while early school dropouts, upper secondary attainments, and key competencies continue to be problems in large parts of Europe. Data show that in the EU, too many people aged from 18 to 24 still leave school with no more than lower secondary education and do not participate in any education or training after this. Furthermore, Europe needs to develop competencies within the education sector to define the role and profile of teachers whilst forging new partnerships between the worlds of education, business and civil society. Improving this situation requires targeting support for teacher training, boosting their skills and building the capacity of decision makers and practitioners at regional, national and local levels; but also making better use of skills and knowledge to ensure a better guidance for Europe. As long as basic obstacles linked to these challenges are not overcome, Europe will not fully succeed in implementing ESD broadly.

If we now turn to the EU members’ national policies,
the first point is that each member state has more or less clearly embedded environmental education issues in its curriculum framework in accordance with the recommendations of the UN Decade. Given that each member state has developed its own scheme due to its political and administrative specific construction, it is not possible to give an overview of all the processes developed in each member state in the field of education, training and research, and we will be confined to describing the main outlines.

Considering school education, the European education system is extremely diverse and complex, and it is not possible to describe a single standard model, but a wide variety of school systems can be grouped into three main categories. The first one is centralized school systems under the direct supervision of the Ministry of National Education. This construction greatly contributes to a quick introduction of sustainable development in new syllabi, as in France, for instance, where the “common core of knowledge and competencies on ESD” was implemented as early as September 2006. This system also facilitates the coordination between the educational programs and the assessment of results. The second model is a regional pattern where responsibility is assumed by a regional authority that decides its own educational policy, whereas the central government plays a minor role. This is the case, for instance, in Germany with what we call Länder, in Spain with provinces, in Switzerland with Kantons, and so on. And finally, the third model is what we could call “free” schools, such as “freedom of education” in the Netherlands, where ESD is not always structurally embedded in the school plan since there are few ministerial recommendations on this issue.

The first two models are the most common, whereas the third one has been essentially adopted in countries characterized both by strong action of associations and developed social learning in the attainment of sustainable development. This last model favors networking and cooperation between all the actors, especially associations and non-governmental organizations (NGOs), but often implies a lack of an overview and also a lack of competency to support institutional reforms as they tend to remain focused on messages related to green issues.

Aside from these formal frameworks, several networks have developed in EU and beyond in the field of ESD. First, the Environment and School Initiatives (ENSI), which was founded in 1986 under the auspices of the Organisation for Economic Co-operation and Development (OECD). It is an international network supporting educational developments, environmental understanding and active approaches to sustainable development teaching and learning. The second consists of the Regional Centres for Expertise (RCEs), which were created for the promotion of expertise on ESD and are very active in Europe. They have been acknowledged in the 2009 Bonn Declaration. The third is the Eastern Europe, Caucasus and Central Asia (EECCA) network, which is a block of countries supported by OECD since the 1990s and carrying out important work despite a lack of adequate instruction materials, a shortage of skilled educators and insufficient awareness raising. Remarks about school education also apply to higher education. In Europe, there is no single standard model for higher education institutions. They oscillate between entirely autonomous universities and state universities subject to state control. In spite of all the calls for policy shifts to embrace sustainability, the integration of sustainability into education often remains problematic. Among the many hindrances to infusing sustainability is the fact that in spite of government interest in ESD, specific roadmaps are often lacking to further infuse ESD in the higher education sector. Moreover, there are still difficulties in going beyond the academic frame to really implement sustainability development in curricula even if ESD is part of in-service training in most EU member states, with a tendency to go beyond the environmental dialogue.

Besides these various processes at national or European levels, various initiatives aside or complementary to the Lisbon and Vilnius strategies have occurred, such as the Baltic Universities network, the “Euromed” network of virtual schools, and the “Copernicus Alliance,” the
European network on higher education for sustainable development.

If we refer to progress toward education for sustainable development, it is necessary to assess its implementation with the help of appropriate indicators. The question of indicators for education arose in 2000, when the OECD started the first PISA Survey of 15-year-old students in the industrialized countries. Later, the development of indicators for ESD was discussed in many national and international forums, but mainly focusing on school and too often neglecting higher education and vocational training. Most of the indicators brought out uneven results.

The development of ESD indicators increased during the last years in relation with the UN Decade and aside from national or institutional initiatives, emphasis should be put on the group of experts of the UNECE steering committee who elaborated on the set of indicators as early as 2006. UNECE indicators refer to large activities ranging from quantitative to qualitative and include sub-indicators. UNECE indicators and reporting mechanisms are not developed to compare countries but to bring information to each country to help develop its own policy.

In conclusion, we can say that education processes developed in Europe have contributed significantly to the implementation of the UN Decade and to the transition between a society of consumption and a society more respectful of our planet. When analyzing the implementation of ESD in the EU and UNECE regions, I would like to highlight some significant points. Harmonization of the action in all European countries is difficult and sometimes hinders the progression of processes, in particular when considering countries with pending economic development. ESD implementation in the EU might appear out of sync among some UNECE countries due to different levels of development or different views on sustainable development. Although EU member states have established education systems with professional educators, ensured access to basic education and granted equal rights to education for all, there are still important inequities in this respect if we refer to UNECE. Countries less developed industrially are favoring initial education, whereas developed countries are also taking into account the education of adults.

Referring to this conclusion, we can consider some generic prospects for discussion and reflection with a view to a future ESD strategy beyond 2014. The EU and UNECE need to develop new strategies intended to overcome the main obstacles by implementing new pilot approaches and key actions. A common definition of sustainable development and its related educational action have to be adopted, just like the definition and the application of a real strategy in the field of ESD, to bring all the European countries to a comparable level of sustainable development. Enhanced efforts are needed to develop any form of education on ESD to adapt citizens to a changing world and these rely on a larger use of Web 3.0 technology to harness the collective intelligence to win this challenge. Competencies in ESD must be improved to address the interdisciplinary and holistic nature of ESD and to adapt institutional, legislative and policy frameworks to the needs of ESD.

Finally, sustainable development and related action in the field of education, training and information cannot exclusively rely on public action and all the actors should be involved to propose new ideas and to take action.

Thank you.
European socio-economic context

- 65 years ago, the European Community for Steel and Coal was forming the first core of the present EU. It was mainly based on "coal, steel & agriculture" that was what constituted the three pillars of a prosperous European economy from 1965 to 1975 and called "the Thirty Glorious Years" due to a strong industrial development period and a permanent stage of full-employment but also with a strong pollution of our environment.
- The 1973’s oil crisis contributed to ending this period when steel and coal more or less disappeared as a structuring European pillar and that disappearance caused important socio-economic and cultural damages.
- Europe was deeply affected by this crisis which may explain that governments and citizens became aware of the need to implementing environment and sustainable principles as widely as possible. This implementation was made easier by some quite similar ideas and closely corresponding situations, reflecting values shared by all European countries.

Two parallel ESD strategies in Europe

- A “Science and Education” process developed at EU level as from 2000 and constituting the background of the European Strategy for SD and involving 27 countries with close political, economical and socio-cultural features favouring common approaches.
- An enlarged process referring to UNECE and known as the Vilnius strategy launched in 2005 and involving 66 countries, half of them not belonging to the EU and sharing often different economical and socio-cultural features.

EU Policy for ESD

Because each MS has the prime responsibility for education of its citizens, the European Commission main purpose was both giving help and momentum to Member States through several initiatives:
- to afford the same global framework to all Member States;
- to support Member States for the achievement of the objectives and goals of the UN Decade,
- to better address SD in specific European programmes for education of young and adults such as the Comenius, Grundtvig and Tempus programmes;
- to include the whole range of ESD activities carried out in national and international debates.
ESD in European Member States: School education

Aside from formal frames, several networks have developed in EU and beyond in the fields of ESD:

- ENSI: founded in 1986 under the auspices of OECO, is an international network supporting educational developments, environmental understanding and active approaches to SD teaching and learning;
- RCEs: regional networks created for the promotion and expertise of ESD and very active in Europe; they have been acknowledged in the 2009 Bonn Declaration;
- EECA: a block of countries carrying out an important work despite a lack of instruction material, a shortage of skilled educators & insufficient awareness-raising.

ESD in European Member States: Higher education

There is no single standard model for Higher education institutions: they oscillate between entirely autonomous universities and state universities subject to state control.

In spite of all the calls for policy shifts to embrace sustainability, the integration of sustainability education in higher education sector remains often problematic.……

Besides these various processes at national or European levels, have occurred various initiatives aside or complementary of the Lisbon and Vilnius strategies such as:
- the Baltic Universities network;
- the European network of Virtual schools building up bridges between European and Mediterranean countries;
- the Copernicus Alliance, the European networks for the promotion of ESD on higher education in partnership with society.

Assessment and indicators for ESD

From 2000, with the first PISA Survey of 15-year-olds students in the industrialised countries. Later, the development of indicators for ESD was discussed in many national and international forums, but mainly focussing on school and too often neglecting higher education and vocational training. Most of the indicators brought out uneven results.

The development of ESD indicators increased during the last years in relation with the Decade. Aside national or institutional initiatives, emphasis should be put on the group of experts of the UNECE steering committee who elaborated a set of indicators as early as 2006.

UNESCO indicators refer to a large type of activities and range from quantitative to qualitative and include sub-indicators. UNESCO indicators and reporting mechanisms are not developed to compare countries between each other but to bring information to every country as help for developing its own policy.

ESD and ICTs

There is a need to develop the use of digital resources within the few next years with the emergence of web 3.0 technologies that will facilitate access to knowledge via mobile devices (tablets and smartphones) and contribute to innovation in teaching.

In Europe, increasingly numerous initiatives have been developing for the production of multimedia content and tool for promoting the use of ICTs as a tool for enabling ESD. Within the following years, EU should enhance funding earmarked in the development of an European digital strategy, as well as a number of Member States.

ESD in Europe: some final considerations

- Harmonisation of action is hard and sometimes prejudicial to the progression of processes, in particular when considering countries with a pending economic development.
- ESD Implementation in EU might appear more or less in rupture with some UNECE countries due to either a different level of development or to a different view on SD.
- EU MS have established education systems with professional educators, ensured access to basic education and granted equal rights to education for all, while there are still important inequities in this respect if we refer to UNECE.
- Countries less developed industrially are favouring initial education whereas developed countries are also taking into account the education of adults.

ESD in Europe: some perspectives

- EU and UNECE need to develop new strategies intended to overcome main obstacles by implementing new pilot approaches and key actions.
- A common definition of SD and its related educational actions have to be adopted just like the definition and the application of a real strategy in the field of ESD to bring all the European countries to a comparable level of SD.
- Enhanced efforts are needed to develop any form of education on ESD to adapt citizens to a changing world and this rely on a larger use of Web 3.0 technologies to harness the collective intelligence to win this challenge.
- Competences in ESD must be improved to address the interdisciplinary and holistic nature of ESD and to adapt institutional, legislative and policy frameworks to the needs of ESD.
- SD and related actions in the field of education, training, and information cannot exclusively rely on public action and all the actors should be involved to propose new ideas and to take actions.
North America

The Past, Present, and Future of ESD in Canada and the USA

Charles Hopkins
UNESCO Chair, York University

Thank you very very much. It is wonderful to be back here in Japan. I think this is my fourth trip this year and I really appreciate coming here and learning along with you. Japan is a real hotbed of ESD, and for those of us who are called upon to facilitate professional development, it is important for us to have access and to discuss these kinds of things with people who are also extremely interested. So thank you very much for this opportunity. Director General Ozaki and fellow speakers, honored guests, ladies and gentlemen, it is a pleasure, as I say, to be here.

I am going to be talking about the United States and Canada, as opposed to North America, but even in that, both the United States and Canada have no central ministry of education. You have 50 states and in Canada 10 provinces and 3 territories, so there are 63 different independent bodies. Within them there are several thousand school districts, each with a great deal of autonomy, and a large number of private schools in the United States. So it is very difficult to try and give you the picture. It is almost the same as Prof. Ricard trying to cover Europe. But I will talk about some trends that are there.

First of all, let me comment on the global emergence of ESD. Normally when we think of either a new product, a new business or a new idea coming forward, we hope that the innovation will quickly be accepted and replace the current products or ideas. Let us deal with education for sustainable development, or ESD, for example. In 1992, we recognized that the world’s education, public awareness and training systems would be valuable tools in implementing sustainable development. We thought that rather than using our education systems for traditional development that was proving to be unsustainable, we needed to shift to education for sustainable development. Instead of just gross national product (GDP) as the goal of national education programs, we hoped to look at the broader aspects of sustainable human development, including social justice and environmental sustainability. However, a swift conversion and adaptation to ESD was not the case. For the first 4 years, we limped along and almost no one with the authority to make the necessary changes even heard of ESD, let alone embraced the change. And then slowly, it started to move. In 1996, the United Nations itself identified ESD as one of the four really crucial aspects of bringing in sustainable development. Of the 40 topics in Agenda 21, four were identified as crucial, and “education, public awareness and training” was identified as one of the four key ones. But no ministry of education was told that or engaged, and the slow evolution of ESD continued almost below the radar of formal education.

Eight years later, in 2000, we started the international network of faculties of education, which now has spread
to 74 countries, and some of your higher education institutions are members of that international network. Miyagi University is one of the leaders in this Japanese group. In 2002, with the World Summit on Sustainable Development and the announcement of the UN Decade, suddenly ministries of education heard of ESD and more became involved. Then in 2009, halfway through the decade, in Bonn, Germany, a UNESCO World Conference on ESD was held. We had 50 ministers of education, many from the leading PISA-scoring countries around the world, and suddenly ministries of education caught on. Now we are concerned about what will happen at the end of the decade. Will we continue? Or like so many businesses that have a launch, slow evolution and then hit a critical phase where resources are desperately needed for training and retooling, will ESD also drop off? To date all countries as well as the UN agencies are pledging to continue after 2014. We will see what happens.

The acceptance in our two countries of sustainable development varies quite differently. As you know, in the United States, there is a huge suspicion of government, even to begin with, and there is even larger suspicion of the United Nations. The public does not want any kind of international imposition upon them, and so largely in the United States they did not want sustainable development, right from 1992 on. They did not like the social aspect, so the environment and economic growth were fine, but no social. And so they identified smart growth as sort of similar to sustainable development. This was at the federal level. As well, they did not want to call it then “education for sustainable development,” and in the United States, largely, it is called “education for sustainability.”

The opposite was true in Canada. Oftentimes people think of Canada and the United States as the same. We are largely, except that Canada is sort of a decaffeinated version of the United States—a much calmer kind of thing. So in Canada, we played a very large role in the development of the concept of sustainable development. It was a Canadian, Maurice Strong, who chaired the whole thing. We chaired the writing of the Brundtland Commission and so on. The Canadian government even created an auditor of sustainable development where every government agency had to file their sustainable development plan, and so we went ahead and called it education for sustainable development.

In the early years from 1992 to 2002, the first ten, it was largely seen as part of the Ministry of the Environment, because Rio itself was largely given to ministries of environment around the world to be the shepherd. Oftentimes though, ministries of the environment are the weakest of ministries in many governments, and ministries of education largely around the world were not really involved.

No one really knew and understood what education for sustainable development was, so they put it in a context that made sense to them, just adding it as another one of what we call “adjectival educations.” Whenever we have an issue in society, we create an education program around it, be it peace education, global education, etc. For instance, there is a list of a hundred of these adjectival educations. I used to be a superintendent of curriculum for the Toronto Board of Education and every week someone would come to me with a binder and say, “Would you just put this in the curriculum?” When society gets a cold, the poor education system gets pneumonia. We have to react to it. But in the early days, not understanding, we created something called sustainability education, or we put it in as part of environmental education or part of outdoor education, etc. In the early days also in Canada, by 1991, we created a large NGO across Canada called Learning for a Sustainable Future, and this was sort of Canada getting off to a fairly early start in ESD, whereas in the United States, ESD was largely carried as a little subset of environmental education. I think it was something similar here in Japan, where in the early years it was largely seen as a part of environmental education.

These adjectival educations, whether it was global education or environmental education, contributed a great deal and we are extremely thankful for that,
because in those first 10 years if it had not been for the environmental education groups, etc., ESD would have died. But it was global education and peace education that kept the notion there. Under their help, curriculum development went on in service of teachers and research into ESD began in the environmental education journals and the development education journals, and so the thought was there and moved forward. But now it is being driven a bit more. In the beginning, in the first four or five years, we tried to engage—because I was one of the writers of Agenda 21, I have been involved in this from 1987 on—but in the beginning, we tried to change school systems, saying, “The United Nations wants you to change.” Of course, that did nothing.

So then we moved a bit further and we said, “Look at the world we are going to leave our children.” Morally, if we know we are going to leave them a world where they are going to have to look after roughly 50% more people due to population growth, using less land, less water, less ocean products, quadrupling the energy without carbon—morally, we need to prepare them for that. That moved a number of education systems, but now we are moving beyond that—and again, I will bring that up in a minute. It was popular in schools, but we were also seeing the collapse of fisheries of Canada and the United States. We saw in the high Arctic the effects of climate change, the rapid shrinking of the ice caps and so on. There was some funding for ESD—not very much, but some—and in Canada, as opposed to the United States, there was tremendous interest in indigenous knowledge and wisdom, and that is seen as part of ESD.

Now what is happening after the beginning of the UN Decade is that we are seeing the involvement not just of the NGOs and groups but of ministries of education. That is linked to the core; it is linked to history, geography, science, biology, physics, and so on. Higher education is now moving, because higher education does not see itself linked just to environmental education. What we are seeing is professional development. For instance, my university, York, is ranked no. 1 in the world for MBAs and sustainable development. It is the only university in the whole of Canada that has been ranked no. 1 in the world for anything, so it is interesting that it is there for MBAs and sustainable development.

Now what we are seeing is that a lot of professions—the engineering professions, the heating, ventilating and cooling professions, purchasing professions—are now looking into what they can do to try and address the issues in sustainable development. We are now seeing ESD emerge as we originally thought of it in the late 1980s and up until 1992 when we were writing Agenda 21. So what is education as we originally thought? We did not see it as mainly content. We saw it as the purpose of education. If the world had to switch from a goal of development to one of sustainable development, instead of bigger, better, faster, cheaper—you know, increase the gross domestic product (GDP)—into more well-being for all, then what was the role of education in trying to do it? ESD, as we saw, was the contribution that the world’s formal education system could make, the role that the world’s public awareness systems, media and so on could play, and the role of training—all of the various training programs that are around the world—what could they contribute to our trying to find a way forward?

We said there are four big areas of ESD. The first one of these is access and retention—addressing school dropouts and so on—in quality education. What is quality education for the world our children are going to inherit? Is it simply excellence in mathematics and language? Or are these simply tools? It is the purpose. Why are we educating people and for what purpose? I will come back to that in a moment. The second big area, though, was the whole idea that it is our most educated countries that are often leaving the deepest ecological footprints and creating the greatest sustainability issues on the planet. So the idea is, how can we as education leaders reorient our education systems to address the social, environmental, and economic issues that are coming? The third area is public awareness and understanding. We are not going
to bring about the profound change that is needed to move from development to sustainable development unless we have a knowledgeable voting citizenry who will support it. We often look to governments saying that governments should change, but you know the first goal of any government is not good governance. The first goal of pretty well any political party—certainly in Canada, maybe not here in Japan—is holding on to power, so governments are not going to bring in legislation or do things that will threaten their hold on power, so we need that public awareness and understanding. Lastly, the training programs that I mentioned in the various professions—training in service, lifelong learning, and so on.

There are seven ways. I know many of you are in formal education, so I would like to just draw this general trend that you can find throughout Canada and the United States. There are seven big stages of ESD in our schools. The first one is that it is ignored. Many schools simply ignore it and say “I'm sorry, we are working on our PISA scores” or no one really has heard of it, no one really knows and understands and accepts it. The second level up is where you form a club or you start a project, you are raising funds for school in another country or you are going to recycle paper in a certain room—that sort of thing. The third is an eco-school or green school, etc. where a whole school begins to sort of work its way up to where sustainable development is taught within geography or science, etc. The next level up is where the principal and all the teachers get together to form the whole-school approach: they start to teach for a more sustainable community where they are. But you know the schools do not have any real control over the curriculum, that is, what gets taught. That is done at a higher level, at the ministry level. Schools do not have much say in the kind of building that will go up, the purchasing policies, heating and cooling, and those kinds of things. So that is where we need a whole-school system approach and that is the next level. Finally, there is the whole community level, because school systems are not owned by the school leaders. Schools are community institutions, so the regional centers of expertise are at that top level where the whole community, the schools, preschools, universities and so on are all working together in a concerted way.

That level is now emerging. Earlier, I asked what the purpose of education is. Now probably the leading example in Canada and the United States would be the Province of Manitoba. Prof. Ricard talked about UNECE, and the working group there on ESD is now chaired by the Deputy Minister of Education for Manitoba. In Manitoba, this is the goal for the education system. Yes, they are working on excellence in mathematics and language and so on as tools, but the goal of ESD is to produce people who will actually live a sustainable life. It is a very amazing trend. Finland is now moving in that direction and so are Bolivia and other countries.

Presently, we still have the moral obligation, which much of ESD is based on, but what we are now finding with the school systems that moved early because of the moral obligation and that have been really implementing ESD for the last five or six years, is that the quality of their education is showing to be superior. It is being improved. So, now we are coming back and talking to the school systems that we can link to, not just because the United Nations says so and because morally it is right, but also because it will actually improve the quality of the education system. So that is a major factor.

Teacher education is moving. We are now coming up with even master’s programs in ESD. Across Canada, there is broad teacher education in many of the faculties of education. The United States just started it two years ago and now has a small network of faculties developing indicators, competencies and so on.

Probably the biggest change that we are making and that may be unique to Canada is that we have started a training program for senior education leaders—people in ministries of education, people in faculties of education, and the superintendents and directors of our large school systems. In Manitoba, for instance, in order to bring about that change of creating people
who will actually live in a sustainable manner, we bring the senior leaders into residential programs for three to five days, where they are trained on how to reorient their entire school system, from transportation and purchasing, to buildings and so on. We are working on this and developing indicators around these five big areas: governance, changing policy and so on; curriculum; human capacity building; facilities and operations; and community partnerships. This has proven to be a major change agent, because if the senior education leaders do not understand what they are talking about, the change just will not happen.

Now we have an awful lot going on in non-formal education, including corporate social responsibility in both countries. It is very large, except in small to medium-sized enterprises. Public awareness is growing and so is the demand for it. This non-formal education is especially moving at the municipal level, rather than at the federal level. In both the United States and Canada, the federal governments are reluctant; they both pulled out of the Kyoto protocol and other agreements, but at the city, state and provincial levels, things are changing greatly, with much more awareness of things like carbon and greenhouse gas emissions.

Now I would like to close at this point because I will have a chance again in the discussion to talk about the future, but basically let me say that I think the future for ESD in both Canada and the United States looks quite bright. I think that it will continue to grow; but sadly that is largely because our sustainability issues are growing and are not going away. As long as things continue to get worse in our societies, there will be a greater and greater need, and my hope is that our education systems will have the capacity to deal with those problems.

Thank you very much for this opportunity to begin our discussion and I look forward to the question and discussion period later on. Thank you so much, everyone.
The Past, Present, and Future of ESD in Canada and the USA

Tokyo, December, 18, 2012

Charles Hopkins, UNESCO Chair, York University, Toronto

Acceptance of SD and ESD

USA
- Reluctance of SD
- Smart Growth
- Education for Sustainability (EFS)

Canada
- Acceptance of SD
- Govt. SD Auditor
- Education for Sustainable development (ESD)

ESD – Early Years (1992-2002)

- Ministry of Environment *
- Another Adjectival Ed. i.e.
  - Sustainability Education
  - Environmental Education
  - Outdoor Education
  - Development Education
  - Largely env. sustainability
  Sometimes Global Ed. or
  Global Citizenship Ed.

Curricula Space Challenge


ESD Early Emergence

Canada (1991)
- National Roundtable on the Environment and Economy
- Learning for a Sustainable Future

USA (1993)
- Presidents Council on Sustainable Development
- North American Association for Env. Ed.
Contributions of the Adjectival Educations

- Kept ESD idea alive
- Curriculum development
- In-service of teachers
- Built momentum
- Pressured UNCSOD
- Pressured UNESCO
- Research began in EE and Development Ed.

ESD Drivers 2002 - 2005

- Moral issue
- Popularity in schools
- Social issues joining environmental issues
- Collapse of fisheries
- Useful to the adj. eds
- Funding for ESD
- Interest in Indigenous (CA)

UNDES&D Beyond

- Linked to formal ed.
- UNESCO leadership
- Ministries of Education
- Climate Change etc.
- Higher Ed not linked to EE
- Professions involved
- Seen as originally envisioned by 1992 drafting team

What is Education FOR Sustainable Development?

ESD is the contribution of the world’s:
- education systems,
- public awareness systems,
- and training systems

to enable us to learn our way towards a more sustainable future

4 Thrusts of ESD

1. Access and retention in Quality education
2. Reorienting existing ed. from a goal of development to sustainable development
3. Public awareness and understanding
4. Training and in-service

Seven stages of ESD in Schools

- 1 – SD ignored
- 2 – club or project
- 3 - Eco-or Green School
- 4 - SD taught in core E (About) SD
- 5 - Whole school E (For) SD
- 6 - Whole school system
- 7 - Whole Community - RCE
Presently – becoming more central

**Goal of Ed System**

- “To ensure education in Manitoba supports students experiencing and learning about what it means to live in a sustainable manner.”
- Ministry of Ed – Manitoba, Canada

ESD Presently

- Still a moral obligation
- Links emerging to quality education
- Teacher education
- Training of leaders
- ESD indicators
- ESD competencies
- Embedded across disciplines in IHEs

Training School Leaders (Canada)

**Sustainability and Education Academy (SEDA)**

- **Governance**: policy, goals, mission
- **Curriculum**, teaching and learning
- **Human Capacity**: professional development
- **Facilities & Operations**, procurement
- **Community Partnerships**

ESD Presently in Non-formal Ed.

- CSR except SME
- Public awareness expanding quickly due to climate change and health issues
- More municipal programs
- NGOs
- Media – TV, Movies
- More Carbon and GHG awareness in Canada

Future of ESD in USA and Canada

- **Looks bright**
  - 86 nations at UNESCO
  - UN, Rio+20
  - The Future We Want
  - ESD more understood
  - Faculties of Ed Networks
  - Ministries of ED
  - Higher ED involved
  - Whole institution/system
  - UNECE leadership - TVET

Future of ESD in Canada and the USA

- Stronger links to social and economic NGOs and government agencies
- Green Economy needs
- Science, Technology, Engineering, Math (STEM)
- Social sciences – “Change”
- Indigenous and Traditional peoples
- Seen as integral to quality
Oceania and Asia

Australian ESD
its policy and trends
particularly in formal education sector

Fumiko Noguchi
International Programme Coordinator, Japan Council on the UN Decade of Education for Sustainable Development

Good afternoon, ladies and gentlemen. Thank you for the introduction. I am Fumiko Noguchi, International Programme Coordinator for the Japan Council on the UN Decade of ESD. Since July of last year, I have been in Melbourne in Australia at the Royal Melbourne Institute of Technology as a PhD candidate. One week ago, I received a phone call from Dr. Goto at NIER in the middle of the night telling me that it was not possible for Prof. John Fien to travel and asking me to make up for his absence since it so happens that I authored a couple of papers in this area last year. I was concerned about whether I could be informative for senior experts such as Dr. Charles Hopkins and the audience here. However, even with my small experience I thought there might be something I could do for Prof. John Fien, whom I deeply respect, and I decided that I must fill this gap. So I am going to talk about ESD and the education sector trend in Australia to the best of my knowledge.

Australia is a vast land known for koalas, kangaroos and football, but this is the oldest continent on Earth. Due to this fact, as well as the harsh environment, there is erosion of the land and lack of nutrition in the soil, and droughts, floods and forest fires were frequent even before the visible changes due to climate change. Because of this environment, a unique ecology has been developing, and is known for marsupials including koalas and kangaroos and for eucalyptus. The area is 21 times larger than Japan and only 21 million people, equivalent to 15% of the population of Japan, live there. There are eight states and territories. The capital is Canberra. Just like Canada, as Dr. Charles Hopkins has referred to, Australia is one of the two countries of the world whose constitution stipulates multiculturalism. There are policies for the Aboriginals and the Torres Islanders, and immigrants from more than 200 different backgrounds are proactively accepted into this vast land.

In Australia, the issues related to sustainability are common to those faced in most developed countries, such as unemployment, the rich-poor gap, rapid urbanization, and environmental destruction due to intensive agriculture, industries and lifestyles or competitive society. These issues are probably observed in Japan as well. But in addition to that, there is a very different climate and cultural background that makes the sustainability challenge in Australia unique. The issues include how people can live without destroying the environment, how to maintain the fragile ecosystem, how to have diverse cultures coexist, how to live together with increasing immigrants and refugees, and how to re-establish the relationship with indigenous Australians.

In the 1960s, with a view to overcoming environmental issues, the debates on development and the environment started. Out of that, the debate related to sustainable
development expanded. By moving together with that, the role of education was discussed, which led to ESD as we know it today. Along with this international debate, domestic discussions on development, environment and sustainability and the role of education were held in Australia, like the case of Canada, as Dr. Charles Hopkins mentioned. These domestic discussions in turn were reflected in international debates. Thanks to the efforts of environmental educators, ESD and related policy proposals were consistently presented since the 1970s, from the perspective of environmental education. As a result, from the second half of the 1990s, domestic policies were established. The Australian Association for Environmental Education (AAEE) took the leadership role. ESD is not the term used in Australia. The mainstream terminology is called EFS (education for sustainability). I asked Dr. Hopkins whether there is any other country that uses the term EFS, and he said that the United States does. There is nothing wrong with ESD, but there are some reasons for not using the term. First of all, within the debate on sustainability, the concept of Ecological Sustainable Development was established in the 1990s in Australia. That ESD, if you take the abbreviation, was already used in policy documents. In order to avoid confusion, ESD was not adopted as the terminology.

The second reason is that the EFS debate took a very long time and the term ESD came afterwards. EFS was extensively used during the long debate and people were more familiar with EFS than ESD. Another reason is that, just like the US case, the word “development” is sometimes not accepted and therefore EFS is mainstream in Australia, but whichever you use—ESD or EFS—the meaning is almost the same in Australia. The term ESD in Australia would be used in the international context where UNESCO has to be kept in mind.

Of the EFS debate and research, 80% targets school education. The outcomes of the discussions I have been talking about have been reflected in EFS policies particularly focusing on schooling, and the promotion of EFS has become more structured since the second half of the 1990s. As you can see on Slide 5, this is a list of major policy paper declarations from the 1990s up to this time. Please look at the items written in orange, these had a direct impact on the national promotion.

Based on the national plan of 2000, three organizations to promote EFS were established. The first organization is the National Council on Education for Sustainability (NCEFS), formerly known as NEEC (National Environmental Education Council), which was established in 2000. In 2009, under the new action plan, the name was changed. Related to environmental education and EFS, this is made up of businesses, industries, local community, schools, vocational colleges, universities and NGOs. The Council holds two meetings each year, where the national program and the teaching resources are reviewed, the priority issues for national action and research are identified, and working groups are formed. The members composing the working groups include the members of external regions and NGOs. These members can get a letter approved by the minister in order to participate and therefore people working in universities and schools would have official permission to take leave to attend these working groups. The findings of the working groups are shared by all the members of this council to be approved as the opinion of the council. That is the procedure.

The second organization is the National Education for Sustainability Network (NEFSN). Based on the action plan in 2000, it was first established in 2001 as the National Environmental Education Network (NEEN). NEEN was renamed NEFSN in 2009. This is an inter-governmental network consisting of people in a supervisory position with a background in environment and education at the federal, state, and territory levels. The aim of this network is to improve coordination between the ministry of education and ministry of sustainability, between federal and state governments, and between state and inter-state organizations. They exchange paper-based and online-based information, and share some teaching materials, support the development of government programs and
materials, and establish the theoretical foundations for environmental education and EFS. Also, this network is providing management support for registration and implementation of the AuSSI school program.

The third organization is the Australian Research Institute in Education for Sustainability (ARIES). This organization was established in 2003 under the auspices of Macquarie University in Sydney. I checked the website the other day and found that the terminology EFS has been eliminated from the name, and it is now the Australian Research Institute for Environment and Sustainability. The acronym is the same, but the name seems to have been changed. I was not able to investigate why they changed the name and also I do not know specifically when they did it, but it was probably after 2009 or 2010. ARIES was initially established as a national institute and was receiving government funding up until 2009. It has been conducting pilot programs recommended by the Federal Government and carrying out analyses of factors that promote and hinder EFS, evaluation of the existing national educational programs and methods, as well as development of teaching materials. The research findings were integrated into implementation of the programs led by the Federal Government and formulation of the plans at the federal, state, and territory levels. ARIES has been an independent research institute since 2010 and I suspect that is the time when they changed the name slightly. However, in regard to EFS, they are focusing on programs recommended by the Federal Government.

What is interesting is that these three organizations are closely intertwined. The NCEFS picks up the issues on the ground, in the schools, universities and businesses, and reports to the Federal Government. ARIES analyzes issues and conducts pilot studies on issues put forward by the NCEFS. The results are reported back to the Federal Government and the policy papers and priorities are reviewed, and then the NEISN will review such policy papers and propose priorities and communicate with the Federal Government, state government and others, and coordinate with them. These three organizations are collaborating, which means that research and actual implementation are closely linked.

Now, I would like to briefly overview the education system in Australia. In Australia, the Federal Government develops education policy and adopts guidelines. On the other hand, the state and territory governments have the right to make decisions on education and develop specific curriculum frameworks and teaching guidelines. The first step is kindergarten and preschool, and then grades 1 through 6, or 7 in Queensland, are covered in primary education. Then, from grades 7 or 8 to 10 are junior secondary, and grades 11 and 12 are senior secondary. Grades 1 through 10 are compulsory education.

With regard to the subjects, eight key learning areas (KLAs) are defined: English; mathematics; science; studies of society and the environment; the arts; personal development, health and physical education; languages; and technology. Besides these, since the 1980s and 1990s, some comprehensive or integrated studies have been introduced in each state. That actually is very similar to the Japanese type of integrated study.

There has to be some link among the different subjects in order to find out the meaning of learning such subjects. For example, the capacity for actively acquiring knowledge and skills is nurtured through inquiry-based learning in these classes. Inquiry learning is an approach in which students identify the issues, investigate them in detail, summarize information, bring out conclusions and solutions, take action, and review their conclusions and solutions. So teachers are not actually lecturing, but are expected to serve as facilitators solely to instigate and promote discussion among the students.

In such initiatives of preparing all the documents, policies and systems as I mentioned earlier, what is started by the Federal Government is the Australian Sustainability School Initiative (AuSSI). The basic
conceptual framework of the program is the national action plan issued in 2000 and it is based on goals set out in the statement called Educating for a Sustainable Future in 2005.

In the state of New South Wales, where Sydney is located, and in the state of Victoria, where Melbourne is located, an 18 month pilot study was conducted, followed by the full-fledged start of the program in 2005. The whole-school approach mentioned by Dr. Hopkins is the emphasis in this plan. It is not just the curriculum or subjects that are emphasized, but also how to operate schools in a more sustainable way, including how to run a school cafeteria, how to strengthen the links to local communities, and how to design the schoolyard. Sustainable development is considered in all aspects regarding schools.

There are about 9,600 schools in Australia, including private schools and public schools, and about 30%, which is about 3,000 schools, are registered with the AuSSI school program. Schools are not expected to come up with a new program on their own for EFS, but to refer to the existing environmental learning programs to promote EFS. They are also encouraged to be engaged in the Learning-Through-Action Cycle.

Although the UNESCO school program is internationally spread in promoting ESD, the number of UNESCO schools is very small in Australia. The reason is that the AuSSI school program was started earlier and it seems that Australia is not really keen to promote the UNESCO school initiative for ESD promotion. In fact, the AuSSI school program is more active.

There are four steps in the Learning-Through-Action Cycle I explained earlier: audit and collect baseline data; develop goals and action plans; implement, monitor and evaluate the action plans; and then critically reflect on progress and improve the action plans. Through such a cycle, all the stakeholders of the school will be expected to make a whole-school commitment to becoming more sustainable.

A structure to support the AuSSI scheme has also been established. A working group within the NEFSN is supporting the registered AuSSI schools. The Federal Government is allocating a budget to the states to employ the facilitator for supporting AuSSI schools. These facilitators are professional promoters of EFS based in NGOs or consulting and other companies. They are employed by the state governments for enhancing understanding of EFS and contributing to system and program development of schools.

We have collected examples of AuSSI programs. This is the AuSSI school case study, if you search for AuSSI on the Internet, you will come up with a variety of examples. Please take a look later.

Now, let me present some of the achievements of the AuSSI schools. Quantitative outcomes include savings in water, energy and waste—and that actually reduced the cost of schools as well. On the other hand, there are also immeasurable benefits, such that all students start to feel proud about the school and refrain from vandalism and stealing. Also, there is a cooperative atmosphere within the schools, and parents and communities are now more proactively involved. Numeracy and literacy skills improved, and the level of leadership increased among boys. Moreover, attendance rates have increased and the atmosphere of schools has changed drastically.

On the other hand, there are some challenges as well. Overall, there are not enough teachers or facilitators with a full understanding of EFS. There are also other academic subject barriers and obstacles to taking an interdisciplinary approach, and information and skills are still lacking in comprehensively promoting EFS. Moreover, sustainability as a concept itself is not well understood at schools. There are differences between states in terms of understanding, passion, and policies regarding EFS. In order to overcome such obstacles, there are some initiatives as well. For example, the ARIES program is now providing a pilot program for training school teachers so that they can acquire skills to promote EFS, and five universities in Queensland State developed such programs in 2006. Based on the
results of the programs and other studies conducted in some universities, analysis has been conducted to address challenges in proceeding with EFS on a whole-school basis. Based on such results, “Sustainability Curriculum Framework: A guide for curriculum developers and policy makers” has been published.

I would like to briefly talk about the out of formal education. The action plan for the Federal Government revised in 2009 specifies the enforcement and promotion of EFS in all sectors, including non-school entities. Of course there is a variety of sectors involved, but from the EFS point of view, educational effects of these activities have not yet been analyzed in a sufficient manner. Efforts are made in businesses, national parks, and natural reserve areas. There are also initiatives by municipalities for the local community. For example in New South Wales State, there is a program dedicated to multiethnic communities. In addition, environmental education centers in states and environmental and community development NGOs are providing several programs. We may need a little bit more time, however, to label these diversified initiatives as EFS and to finish our analysis on the impact of such activities.

Lastly, I would like to share with you some major news that I have heard recently. Our current education minister, and former environment minister, Peter Garrett, who used to be a rock star, is quite active in EFS as well as in environmental education. In such a context, it has been decided that sustainability, Asia and Indigenous peoples have to be three major pillars in education in Australia. Toward 2015, the education program is now being reorganized along with these three pillars.

If you have any questions or perhaps some points that you hoped to hear but I have not included, please write such points in the question form so I can talk about them later. Thank you very much.
Australian ESD
its policy and trends
particularly in formal education sector

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/ ESD-U International Programme Coordinator

Sustainability issues in Australia

Common issues that most developed countries face
Unemployment, rich-poor gap, drastic urbanisation, environmental destruction by intensive agriculture, industries and human lives, competitive society...

+ Australian unique climate and cultural background

Sustainability issues in Australia
• harsh but unique natural environment
• very fragile ecosystem
• multi-culture co-existence
• Aboriginal and Torres Strait Islanders

EIS Background

1960s-
Debates on “Environment”, “Development” and “Role of Education” developed by interacting with the international debates on these

1970s-
Policy proposals => EE and EIS policy, institutional development
- Australian Association for Environmental Education (AAEE) plays the central role

Major Policy Paper and Declarations

<table>
<thead>
<tr>
<th>Year</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>The Adelaide Declaration on National Goals for Schooling in the Twenty-First Century</td>
</tr>
<tr>
<td>2005</td>
<td>Educating for a Sustainable Future: A National Environmental Education Statement for Australian Schools</td>
</tr>
<tr>
<td>2008</td>
<td>The Melbourne Declaration on Educational Goals for Young Australians</td>
</tr>
<tr>
<td>2010</td>
<td>Sustainability Curriculum Framework: A guide for curriculum developers and policy makers</td>
</tr>
</tbody>
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National Council on Education for Sustainability (NCEIS)

• National council on EE and EIS
• Members: business, industries, local community, NGOs, schools, vocational colleges, universities
• Two meetings per year
  – Overview of national EE programs and teaching resources
  – Identifying priority EE issues for national action and research needs
  – Setting working groups – inviting the multistakeholders from various fields => the outcomes are shared to all the members of NCEIS for the approval
Network Improves

- Network for environmental managers from Federal, State and Territory environment and education agencies.
- Improves inter-governmental coordination of the delivery of environmental education - between Ministry of Education and Ministry of Sustainability, between Federal and State/ Territory Governments, Inter States/Territory
  - Exchanging information through electronically
  - Sharing resources
  - Supporting the development of government program and materials
  - Theoretical foundation for EE and EIS
  - AuSSI school management and support

Established in Macquarie University in Sydney

- Renamed to Australia Research Institute for Environment and Sustainability
- Received the budget until 2009 from the national government
- Conducting researches and pilot projects identified and prioritised by NCEIS and NEFSN
  - Analyzing EIS promotion and obstacle factors
  - Evaluation of existing programs and approaches
  - Development of educational materials and programs
- Research outcomes are integrated into the national and states’ initiatives and program implementation.
- Became independent research institute in 2010

Three organisations

Just like an action research at the national level!

Education system in Australia

- State/Territory Government: has right to make decision on education, development and implement the curriculum framework and teaching guidelines
  - Kindy or Prep
  - Primary school: Grade 1-6 (or 7)
  - Junior Secondary or Middle school: Grade 7 (or 8) to 10
  - Senior Secondary: Grade 11 to 12
    ⇒ Compulsory education: Grade 1 to 10

Study subjects

- 8 Key Learning Areas (KLA)
  - English, Mathematics, Science, Society and the Environment, the Arts, Personal Development and Health and Physical Education, Languages, and Technology
- Integrated Study
  - Introduced in 1980-1990s in each State/Territory
  - Relate different subjects in order to improve the teaching and learning
  - Based on “Inquiry Learning” to develop the leaning capacity for knowledge and skill

Integrated Study

- 6 steps
- Teacher acts as a facilitator
**Supporting AuSSI**

- NEfSN working group: support AuSSI schools
- Facilitators from NGOs and business: employed by States and Territories in order to provide support for raising understanding of EFS, management, and program development
- Facilitators: employed by States and Territories

**Good Practices**

- QLD
  - Prep – 7 yr old and care takers
  - Environmental management activities: Cleaning around school and community, study about native species, water and energy savings

- VIC
  - Grade 1-6: Environmental management policy development, water and energy saving, CO2 emission, tree-planting with the city council, farming

- NT
  - Tree-planting with local business and NGOs. Maintain the plant garden to learn the indigenous people’s foods and life. Became the opportunities for the indigenous children to be connected to the indigenous knowledge

**Achievements**

- Measurable outcomes
  - Water and energy savings, waste reduction => school cost savings
- Immeasurable benefits
  - Obtained the proud about the school culture
  - Reduced the vandalism
  - Developed the cooperative atmosphere amongst the school stakeholders
  - Parents and community involvement
  - Improved numeracy and literacy
  - Improved the leadership capacity, in particular of the boy students
  - Improved the students’ attendance to the school
  - Improved the school atmosphere, etc.

**Difficulties**

- Lack of teachers and facilitators who understand EFS
- Subject barriers
- Lack of information and skill for inter-disciplinary approach
- Lack of understanding of sustainability at school
- Difference in understanding, passion and policy on EFS, between States/Territories
### Going beyond the Borders

- **ARIES:** Pilot program for pre-service training for the skill development for whole school approach at 5 universities in QLD (2006)
  - Queensland University of Technology, Australian Catholic University, James Cook University, University of Southern Queensland, University of the Sunshine Coast
- **ARIES:** Analysis of factors and challenges for promoting the pre-service training programs (2010)

### For the Future

- **Curriculum reform:** Three pillars of Australian Education – Sustainability, Asia, Australian Aboriginal and Torres Strait Islanders
- **To be implemented from 2015**

### Post and in-formal EfS

- **Business sector**
  - EfS program (Westpac, Toyota Oceania, Holden)
  - Eco-tourism
  - Green loan and investment (MCU)
  - Corporate sustainability report
- **National parks and Natural reserve areas**
- **Local community**
  - Multi ethnic EfS program (NSW)
- **NGO**
  - Environmental education centres in States/Territories, Environmental and community development NGOs
Japan

What is Education for Sustainable Development (ESD)?

Shigeki Kadoya

Director, Department for Curriculum Research, Curriculum Research Center, NIER

Good afternoon. What I am going to discuss now is the essence of a thick pad of reports and a smaller report that our institute published, plus a pamphlet that was printed this year. The context would be slightly different from what has been discussed so far by the three speakers.

In terms of why our institute has published those reports, as Mr. Ozaki mentioned, there were inquiries from schools about how exactly classrooms can be taught with ESD included in the national curriculum or the Course of Study. Therefore, we had to propose how to teach ESD in classrooms. We started by raising questions about what components constitute ESD and about how to apply them in the classroom.

I will talk about basically four points. First of all, why ESD now? Why is ESD an important issue? Second, what exactly are the objectives of ESD? Third, what is an ESD class or a lesson? If there is no difference between an ESD class and a non-ESD class, it would mean that ESD is not provided. Therefore, we consider three factors: (1) the conceptual components, (2) abilities and attitudes or behavior, and (3) special considerations required in classes. On top of that, based on these three factors, the fourth point to be discussed is the learning guidance process specifically for ESD through questioning how to implement it in classrooms.

First of all, why ESD now? A liaison committee amongst relevant ministries agreed in 2006 that ‘all people must enjoy the benefits of a high quality education; that principles, values, and actions required for sustainable development are included in all educational and learning processes; and that transformation of behaviors is provided so that a sustainable future will be realized in environmental, economic and social aspects.’ In order to realize this, in different disciplines and subjects, how could ESD be practiced? Or in order to form a sustainable society, and in order to solve the problems, what has to be taught? Against this background, we are asking why ESD now?

Once the question had been set out, since the focus of our institute is primarily on school education, the next issue was how to practice ESD in the school setting. We collected actual examples of learning instructions conducted in the name of ESD. A variety of topics has been taught, but those related to environmental education accounted for a large part. We also found classes related to energy, natural disasters, disaster reduction, and disaster preparedness amongst many others, such as human rights, peace education, international cooperation, and international understanding. However, if practice is related to environmental education, is this really ESD? If practice and topics are related to disaster prevention and disaster preparedness, is this ESD? Or, if international
understanding is a topic in the class, does that constitute ESD?

Earlier, Dr. Hopkins talked about many adjectival educations and introduced a long list. In Japan, the situation is the same in primary schools, in which there are more than 30 different adjectival educations, including, for example, monetary education. In this case, the problem, however, is not what you call it, but that there is no explanation about what has to be taught in monetary education. In a similar way, we were wondering whether education about energy really constituted ESD, or whether education on natural disasters and disaster preparedness was really ESD. This was where we focused. We have to define how each of the themes should be handled in order to label the education as ESD. That would clarify the elements or components required to constitute ESD.

This was the thought process, and then we had to define the objectives of ESD. We collected and analyzed documents, and eventually we came across an idea that the aim would be defined as follows: To nurture capacity and values appropriate for builders of a sustainable society by discovering issues of sustainable society building and acquiring abilities and attitudes necessary to solve the issues. We established such a core aim as it was impossible for us to make progress until we had defined the aim of ESD.

What is the most important keyword? We thought that the most important component that defined ESD was sustainable society. We emphasized sustainable society as a key.

We attempted to clarify the elements required for ESD, particularly in the context of the ministry’s official instruction process. We aimed to clarify firstly the concepts to be acquired by the learners, secondly, the abilities and attitudes to be emphasized, and finally, points to be considered—points of emphasis after identifying those important points.

First of all, we considered the concepts that need to be acquired by the learners. By surveying various references describing the aims of ESD, we extracted and identified six common concepts: diversity, mutuality, limitation, fairness, cooperation and responsibility. This is not exhaustive, but it is a fairly comprehensive aggregation. This classifies the environmental aspect and the human decision and behavior aspect, in other words, objects which children are actively influencing, and internal thoughts and behaviors of the children, from the perspectives of components, interactions and changes. Then we labeled each component diversity, mutuality, limitation, fairness, cooperation or responsibility: these were the key concepts. This is the gist of the conceptual component, but teachers found it difficult to understand, so researchers and teachers got together to translate them into easier-to-understand Japanese.

The next question is then: What is the foundation of this thought process? At the liaison committee, eight concepts were listed as a basis for sustainability, and five of them are to be acquired by learners. We listed concepts that appeared in a British document published in 2005 (Department for Education and Skills), and classified them in terms of similarities and differences.

We applied similar procedures for the abilities and the attitudes. First of all, based on the aim of ESD, the abilities and attitudes that have to be emphasized in instruction were identified. There are seven items: (1) critical thinking—maybe this is not exactly the best term, but it means to think in a critical way; (2) the ability to predict the future and to make a plan; (3) the ability to think in a multifaceted and comprehensive way; (4) the ability to communicate; (5) the ability to cooperate with other people; (6) the ability to respect connections and links; and (7) the attitude to proactively participate. The grounds for these abilities and attitudes are found in the British document. What are the important points that have to be kept in mind in designing a curriculum? One of the important tools is teaching materials, which include the learning tasks and contents that have to be linked in terms of content, space and time. It is important to link learners to each
other, to other people of various generations, and to the local community. It is also important to translate abilities and attitudes that have been acquired into action. So the keyword is “link.” Therefore the points to be considered are how to link contents, space, time, people, actions and behaviors together. Links are what are required.

How exactly can teachers plan a class? How does an ESD class differ from traditional classes or a non-ESD class? While different teachers may have different ways of referring to the material components they teach in ESD classes, the names of the unit or the themes in which these components are categorized would not differ much. However, we would have to clarify the viewpoint of ESD in terms of component concepts or abilities and attitudes to be acquired. Those component concepts should be incorporated into a class, or in a particular unit, in order to make an ESD class. Based on these viewpoints, teachers are expected to prepare teaching plans for each unit or theme and to teach according to the plans.

In this way, we recommend that teachers apply the framework our institute has developed, and there are actually educational practices based on the framework, as Dr. Goto will talk about later. This probably means that the framework is valid. Having said that, it is not perfect and therefore we have to revise and improve it.

Thank you very much for your kind attention.
What is Education for Sustainable Development (ESD)

Shigeki KADOYA
(National Institute for Educational Policy Research of Japan)

1 Why ESD Now?

Japan’s Action Plan for the United Nations Decade of Education (Liaison Committee among Ministries and Agencies, 2006)

All people enjoy the benefits of a high quality education, and principles, values and actions, which are required for sustainable development, are taken into all educational and learning processes, and transformation of actions is provided so that a sustainable future will be realized in environmental, economic and social aspects

ESD practice in the discipline based lesson. Problem-solving related with the establishment of a sustainable society

2 What is ESD?

“by discovering issues on “sustainable society-building,” and acquiring abilities and attitudes necessary to solve the issues,”

quality and values appropriate for builders of a sustainable society are fostered.

3 How is ESD established?

(1) Concepts
(2) Abilities and attitudes
(3) Points to be considered

4 Establishment of the Learning guidance process for ESD

1 WHY ESD NOW?

PRACTICE OF ESD IN SCHOOL EDUCATION

Examples of Learning Instruction for ESD
1) Practice in Environmental education
2) Practice related with energy
3) Practice in International understanding
4) Practice in Natural Disaster
5) Practice in Natural Disaster risk reduction, etc.

It has been unclear what kind of learning instruction is ESD and how each theme can be dealt as ESD

Necessity for clarifying the elements required for ESD
3 FOR ESTABLISHING ESD
Clarifying the elements for establishing ESD at school

↓ Learning Instruction Process

(1) Clarify the concepts to be acquired by learners:
Conceptual components

(2) Clarify the abilities and attitudes emphasized

(3) Clarify the points to be considered for learning instruction

3 For Establishing ESD

(1) Concepts to be acquired by learners

Conceptual Components

- Diversity
- Fairness
- Cooperation
- Responsibility

3 For Establishing ESD

While implementing learning activities by subjects, etc.,
by discovering issues on "sustainable society-building,
and acquiring abilities and attitudes necessary to solve the issues,"
qualities and values appropriate for builders of a sustainable society
are fostered.

(1) CONCEPTS TO BE ACQUIRED BY LEARNERS; CONCEPTUAL COMPONENTS

① Japan’s Action Plan for the United Nations Decade of Education/Liaison Committee among Ministries and Agencies, 2006
~Base for Sustainability~

① Fairness among the generations,
② Fairness among regions
③ Equality between men and women
④ Social tolerance
⑤ Reduction of poverty
⑥ Conservation and recovery of the environment
⑦ Conservation of natural resources
⑧ Fair and peaceful society

② Japan Council on the UN Decade of Education for Sustainable Development ESD-J (ESD-J, 2006)
~Sense of Value~

① Human dignity
② Socially and economically fair society
③ Responsibility for next generations
④ Humans are a part of nature
⑤ Respect for cultural diversity
(1) CONCEPTS TO BE ACQUIRED BY LEARNERS: CONCEPTUAL COMPONENTS

3 For Establishing ESD

(2) Abilities and attitudes emphasized

While implementing learning activities by subjects, etc., "by discovering issues on "sustainable society-building, and acquiring abilities and attitudes necessary to solve the issues," quality and values appropriate for builders of a sustainable society are fostered.

【Abilities and attitudes to be emphasized for learning instruction】(examples)

① Critical thinking ability
② Ability to predict future image for making plan
③ Ability to think in multifaceted and comprehensive ways
④ Ability to communicate
⑤ Ability to cooperate with other people
⑥ Attitude to respect for connections
⑦ Attitude to participate willingly, etc.

(2) ABILITIES AND ATTITUDES EMPHASIZED

① Japan’s Action Plan for the United Nations Decade of Education (Liaison Committee among Ministries and Agencies, 2006) Multifaceted and comprehensive perspectives, systems thinking, ability to communicate, critical and alternative thinking, etc.

② Japan Council on the UN DESD (ESD-J, 2006) Ability to think by oneself, ability to see the essence of problems, critical thinking ability, ability to express feelings, ability to accept and respect various values, etc.

③ Education for Sustainable Development Toolkit (Rosalin McKown, 2002) Systems thinking, ability to critically think about valuable problems, ability to act by cooperating with others, etc.


(3) POINTS TO BE CONSIDERED

For developing the learning instruction based on ESD viewpoints

① link the teaching materials (learning task, learning contents) in terms of content, time and space
② link learners with each other, learners with persons in other situations and generations, and learners with region and society
③ link abilities and attitudes with concrete action and practice
4 Exemplifying the learning instruction process for ESD

(1) Unit name (theme name)

(2) Clarification of viewpoints of ESD

(3) Objective of unit (theme)

(4) Plan of unit (theme)

(5) Development of the lesson

(3) Points to be considered

Japan’s Action Plan for the United Nations Decade of Education (Liaison Committee among Ministries and Agencies, 2006)

- Learning method and teaching method-

1. To promote concrete actions through the development of interest, understanding, attitude and ability to solve problems
2. To have a participatory approach which emphasizes experiences, common sense, inquiry and practice
3. To induce voluntary actions of learners during activities

Japan Council on the UN DESD (ESD-J, 2006)

- Learning method thought highly for ESD-

1. hands-on method
2. practical approach to real issues
3. continuous process of learning
4. learning with people in various positions and generations
5. respect for independence of learners
6. maximum use of possibilities of people and regions
7. learning with each other
8. not preparing single answer in advance
Panel Discussion
The Past, Present, and Future of ESD

Panelists

Prof. Michel Ricard
Professor, University Michel de Montaigne Bordeaux 3/UNESCO Chair

Dr. Charles Hopkins
UNESCO Chair, York University

Ms. Fumiko Noguchi *
International Programme Coordinator, Japan Council on the UN Decade of Education for Sustainable Development

Dr. Shigeki Kadoya *
Director, Department for Curriculum Research, Curriculum Research Center, NIER

Coordinator

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N.B.
• The * mark indicates that the original language of the speech was Japanese and that the transcript is a tentative translation based on the simultaneous interpretation provided during the symposium.
• The transcripts include changes made after the symposium for purpose of publication.
• The affiliations and professional titles of the speakers are as of December 18, 2012.
Dr. Goto: Good afternoon. We have 90 minutes to discuss the global trends of ESD. This is a busy time at the end of the year, so thank you very much for taking the time to be here. We shall try to make this panel discussion as meaningful as possible.

We have four panelists. First of all, thank you very much for your wonderful speeches. In this panel discussion, I would like you to answer questions that have been submitted in writing first. Then I will open the floor to further questions and answers. ESD is not only about school education or formal education, but also about informal and non-formal education, NPOs and NGOs. Within the time limit of 90 minutes, however, we need to focus on a particular area. Therefore, this time the focus will be school education. There are, of course, non-school settings, including museums and NPOs, but just for these 90 minutes please do keep in mind that we will focus on the school environment and school education.

Questions have been submitted, and I will select some questions for specific speakers. First of all, Prof. Ricard, there are some questions for you, and I will pick two of them. Actually this question also goes to Dr. Hopkins. In terms of the analysis of the attitudes and the abilities Dr. Kadoya presented, do you have similar processes for making classes in the EU and in the United States? If you know of similar cases in Europe, how many classes are provided?

The next question for Prof. Ricard relates to the EU common policy on ESD. What is the departmental organization of the EU that looks after ESD? What is enforced upon the member states? What are the obligations of the member states regarding ESD?

These are the first two questions.

Prof. Ricard: I will try to answer the second question first, as it seems to be the most complicated. What you must understand, in order for me to clearly explain the functioning of the European
community, is that the EU is, in fact, a government. You have two levels: firstly, there is a political level with the representatives of each of the 27 countries, who are political representatives giving political strategies, directions and goals. They meet and they constitute the European Council. Aside from that, you have people who are in charge of applying these directives, or the political direction.

It is a problem in Europe and I think in numerous countries that we have general directions for environment, education, research, energy and so on. After the general directions have been received on how to work and what direction to go, the difficulty is to have a transversal application of these decisions. The situation is the same in sustainable development when you consider it discipline-by-discipline, and afterwards you have to work transversally to build bridges between all the disciplines. So in fact we have several stages with treaties and they can be used as processes to put forward sustainable development and ESD. I mentioned in my presentation that the European strategy for sustainable development, issued from the Lisbon agenda, considers education as the best way to really implement sustainable development in Europe. It is also important to note that you cannot have the same directives at the European level and at the national level, because there are sometimes some notable differences from one European country to another, which shows that you can observe two complementary and sometimes overlapping schemes: a scheme of implementation by the EU and a scheme of implementation by every state. I also mentioned what is occurring when you have EU and the UNECE side by side, which is a bit difficult. In fact it is not easy, but I would say since the Lisbon agenda in 2000, we have made progress. But I hope that the next step from 2015 will be something clearer also for Europe, because very often people say at the government level that it seems there are two strategies running side by side, one implemented by UNESCO and one implemented by UNECE.

Concerning the first question, I will take the example of France. We implemented ESD—in fact it was Education for Environment towards Sustainable Development—in 2005. At that moment it was just the beginning of the implementation of ESD and we had to formalize this preliminary approach. We worked through three stages. First, a document signed by the Ministry of Education saying that the Education for Environment towards Sustainable Development became compulsory in two school programs. The second step was how to change the approach inside schools to move from teaching discipline-by-discipline towards a global approach of sustainable development through every discipline. We started in 2005, 2006, and 2007 what we call a common approach for knowledge and practices. This was implemented before 2009. In 2009 and 2010 all the school programs were modified in order to take into account sustainable development. It was more or less well explained, but normally even sustainable development was not clearly mentioned, all teachers were asked to take into account the global approach. So now in France we are at the end of the evolution, and the problem now is to assess the results all along the school program and to try to overcome the gap between the school system and the higher education system that seem to operate independently of one another. In fact, my position is to have a continuum for education from primary and secondary schools to higher education, and also to take into account a global approach to education for all and lifelong education. Thank you.

**Dr. Goto:** Thank you very much. The next question will go to Dr. Hopkins. I will ask three questions. First of all, what is high-quality education in terms of ESD?

The next question is, where people are concerned, is the provision of ESD compatible with a higher score or a higher level of compatibility in terms of examination passes or higher scores? Is it concomitant with higher scores or higher achievement?

Third, you mentioned that there is a bright future in terms of North America. Can you elaborate on that? What are the good prospects? Thank you.
Dr. Hopkins: Yes, there are two aspects to the quality that we are finding. One of the aspects is for instance in west Beijing, the school system had really deeply moved in this direction about six years ago, and now their graduates coming out of high school are getting into the very top universities that they were never able to get into before. In China some of the universities take the top 1% of marks. So they are finding that by moving in this direction, their students seem to be scoring better. The same is true in Mongolia, that the very top secondary and elementary schools are ones that have moved in this direction a number of years ago and are really focusing on it. Anecdotally, when we talk to school principals in some countries, in Canada, Finland, the Netherlands, Ireland and so on, they are saying that student intellectual engagement has gone up, school attendance has gone up, school spirit has gone up, there is much less in the way of school violence between groups, and so on. So that is not necessarily academic achievement in math and language scores, but it is an overall improvement in what we think of as the quality of the education for all students within the school, instead of it just appealing to a few of the brighter students. So the quality factor is back and forth.

The other question, why am I saying that things look bright? It is because in Canada in particular our ministers of education for the 10 provinces and three territories have all agreed that just as you are struggling here with coming up with a national framework, we too need to come up with that and we have been working for the last two years on building a framework. It is not going away, it is something that students are demanding as well and parents are demanding. So as I say, our biggest problem is going to be having our institutions, our senior leaders, able to rise to the occasion, because in most of our faculties of education the professors themselves need an awful lot of help in trying to change how they are preparing new teachers, etc. So thank you, I will stop at that point.

Dr. Goto: Thank you very much for giving us examples of where ESD is playing a role in raising students' academic performances. Thank you very much.

The next question goes to Ms. Noguchi. There are two questions. In the integrated studies courses in Australia, what exactly are the teaching materials used that constitute ESD classes? In Japan, in order to realize that type of ESD, what improvements do you think will be required if best practices could be introduced from Australia?

The next question: you mentioned the boundaries of subjects. If ESD is a pipe that goes through all disciplines, the boundaries between disciplines or subjects would not be an issue. So what exactly is the challenge or the boundary of subjects that hinders the spread of ESD?

Ms. Noguchi: Thank you very much for the questions. First of all, about the integrated study, I would like to give an example. I would like to answer to the best of my knowledge. In Australia, as I mentioned in my presentation, immigration and multicultural coexistence have been a major issue in society. Personally speaking, my children go to an Australian school and are taking an intensive English course. While they are taking regular classes they also have to attend the English courses. At this school alone, there are 30 refugees in the English courses, but there is only a similar number of refugees to Japan each year. So the number of refugees to the whole country of Japan is the same as the number of refugees now located in a single school in Australia. Using the integrated study sessions, and on these core stage classes they are sharing some experiences. For
example, in the lower grades they are singing songs or doing a play on stage, and those are the common aspects across the grades. In each grade we pick up some country of the origin of the immigrants and then we learn about the countries and present what we learned in the form of songs or plays. Those are the initiatives conducted in the school and that is a whole-school approach.

There are integrated study sessions specifically designed for those refugee children who are participating in the intensive English course as well. There is a variety of workarounds for refugees. Some are coming to Australia via airplane but some are taking a boat to get to the coast of Australia, so the children have many backgrounds, and we do have to listen to their experience and understand each other.

At the same time we have to understand the horrific experience that refugee children have been through, the trauma they are undergoing, and the turnaround they have to make in their lives. We use the classes for such opportunities. In integrated study, they are not just learning about the environment but also doing more activities with regard to the multicultural aspects. Self-esteem of the refugee children has to be fostered more in the classes.

Now, regarding the second question, how are we going to overcome the boundaries of the academic subjects? In a whole-school approach, there are some outcomes and challenges being analyzed by the federal government of Australia. In such initiatives, EIS needs to be in the mainstream.

There are five focus points. The first focus was to change the curriculum. For that, all the correlations among the relevant parties have to be made. We also have to nurture the culture of continuous study. EIS aspects have to be provided in a continuous way, so we have to provide time and space for that. Also, we have to provide more experience-based learning. So in one subject, all these factors have to be linked. But we also have to provide an overall environment that allows the classes to be organized in that way. A relevant topic is in regard to the relationship between the schools and the local community, and the research group at RMIT University consisting of Professor John Fien and others is making a very important announcement. I would like to elaborate on several points. Linked with the regional communities, schools have to proceed in that direction; hence, schools’ attitudes and cultures have to be changed accordingly. Also, schools have to gain the reputation of being active ESD promoters, which my lead to increased understanding about the school. The implementation of ESD or EIS is a little difficult if a school is too large, so smaller schools actually find it easier to link to the local community. A local network of schools should be created to engage in EIS. Local governments have to participate. Flexibility and the sense of distance is very important—in particular walking distance is perhaps very important—, and all these factors are addressed.

**Dr. Goto:** Thank you very much for the comprehensive explanation. Now, the framework of NIER’s was introduced by Dr. Kadoya, so these questions go to Dr. Kadoya. In the Japanese educational setting I do not think ESD has taken root. What is your observation?

A similar question: in schools, in terms of social education and lifelong learning, what is the level of prevalence of ESD? Are schools widely accepting? If it is not spreading enough in schools, what might be the inhibitors? What might be the reasons? How serious is the government about promoting ESD in the school environment?

**Dr. Kadoya:** Thank you for the three good questions. There was a common keyword associated with prevalence, spreading or dissemination. Why is it not spreading in an ideal manner? Has it been disseminated or not disseminated? Is it prevalent or not prevalent? The
definition might differ according to different people. In social studies in high school there is explicit language of ESD in the course of study or the curriculum. If it is explicit in the ministry’s curriculum it has to be taught, so in that sense its dissemination is already prevalent. Does it mean that ESD is prevalent or disseminated in all subjects, in all the schools? That is a different question because there are different characteristics across schools. Therefore, it is not realistic to assume that all the schools are teaching ESD in every subject. However, to go in between those two scenarios is to utilize integrated studies or comprehensive studies in order to leverage ESD. That could be one approach, to go in the middle.

**Dr. Goto:** Another question related to the framework. In school, is ESD compulsory or better to be put in place? Do you think ESD should be taught, or should be put in place? The concept is theoretically difficult. There might be opinions on whether it is difficult or easy to understand, but awareness will not be spreading if the concept is difficult. “Link,” as in the Points to be Considered mentioned earlier, is a simple word, but is difficult to practice. So what is the evidence to say that this ESD is spreading in schools? You said that it is successfully spreading in Japanese schools.

**Dr. Kadoya:** The evidence for my statement is that there is a continuum in mathematics from primary to secondary education. Please remember the textbook or the teaching material. In science there is continuity in the teaching materials in textbooks. Therefore in the teaching material, in terms of course study, there is a continuum and there is a link of what ESD is. What is important is to link school education to out-of-school, community education. How can we link those two forms of education? The objectives of school education and community education ought to be different. As long as it is school education, educational value has to be interpreted – in other words, students need to understand the significance of what they learn. If it is out-of-school education, this way of understanding is not the top priority. By taking the example of the environment, if it is out-of-school education it could be environmental-issues education, just teaching about environmental issues and how to resolve them. In the case of school education, there must be an addition of educational value so that students understand why they learn about the environment as opposed to simply learning how to resolve the environmental issues. The presence of educational value is required; otherwise ESD will only end up as a short-term buzzword. The school educators will have to distinguish school education with particular value added, in terms of educational value. Some may find the framework difficult, but we proposed it in terms of abilities, attitudes, and links. Thank you very much.

**Dr. Goto:** Among the audience today, there are some people who have been implementing ESD. I mentioned Wakayama UNESCO school earlier, and I would now like to ask for more details about UNESCO schools in Japan. Among the UNESCO schools, some schools are using the ESD framework proposed by NIER and Dr. Okamoto has written a report. So, I would like to have Dr. Okamoto talk about this point. He has been a member of the program for developing the framework and I would like to know about the feeling or impression of implementing our framework. Dr. Okamoto, please make a statement on behalf of all the other users.

**Dr. Okamoto:** My name is Okamoto from Okayama Science University. I participated in the research project Dr. Kadoya has explained for four years as a guest researcher at NIER. The research was completed at the end of last year. However, we wanted to expand the framework further, so we were asking schools to use this framework more. Of course, I am not actually implementing the framework myself, but we are collecting information regarding experiences of implementing it. At the very end of the material attached in the double-clipped document there are two examples. One of them is the initiative conducted by UNESCO schools. An elementary school in Toyama back in 2009 was designated as a UNESCO school and started to implement ESD. As you know, UNESCO schools have to adopt the annual plan of implementing ESD starting in April and ending in March, so they had
to prepare an annual guidance plan for each academic subject. That is what we call an ESD calendar. This elementary school was also covering issues such as human rights, globalization and environment, and including it in the ESD calendar. The number of classes including ESD activities in the calendars actually fits the six concepts and the seven types of abilities defined in the framework. So they are clarifying the positioning vis-a-vis the framework and trying to enhance their activities. Of course, their initiative is still underway and they need to improve more, but through the school’s efforts, the objectives and goals that need to be achieved academically by each grade are more clarified. Also, the types of abilities children need to gain during the specific grade are now clarified. On top of that, close interdisciplinary activities are also conducted. Of course, this program is still underway, so we need to keep doing the research activities, but the challenge now is that the framework is a quite largely defined scheme, so it can accommodate elementary schools and middle schools as well. Perhaps in the future we may be able to prepare an elementary school version of the framework or even more tailored versions depending on different developmental stages. So involving such specific schools and implementing frameworks, we will probably be able to improve and revise them to specific frameworks from now on.

Dr. Goto: Thank you very much. In Okayama and Aichi practices have been introduced and they will be the real observations. Aichi will host the 2014 World Conference on ESD and, therefore, we would like to know about the many opinions and comments on the framework. The users of the NIER framework in Tokyo are in Setagaya, Tama, Nerima and Edogawa. Outside of Tokyo, Wakayama prefecture from primary to high school is using the framework. Aichi is extensively using the framework. The framework is spreading across Japan and we are considering upgrading it, so your feedback is welcome.

As was discussed earlier, the concept of SD in ESD is too abstract, too difficult to understand. So to fulfill the needs of the future generation as well as today’s generation, as Dr. Kadoya mentioned, how can ESD be implemented in classes? NIER tried to integrate with ESD the aim of the Japanese aim of education: “Zest for living,” in other words, the capability, will and volition to live, as you can see in the pamphlet. That is one strategy at our institute. Another is to integrate key competence under the OECD with ESD, just like the international ability, which should be compatible. As Dr. Charles Hopkins mentioned, with the provision of ESD, not only the academic score but the school atmosphere improved, so the lifestyle of the students was improved. I have taught in schools for 16 years. There are some schools with a nice, calm atmosphere that can provide ESD—already excellent schools. Naturally, the academic score also tends to improve when already-excellent schools add ESD concepts to their teaching.

The difficult thing is how to explain ESD to teachers in the classroom, to the ordinary people—how to make it understandable. Ms. Noguchi briefly mentioned that in Australia a framework and guidelines already exist. If it was possible to introduce them in Australia, what might be different there?

Dr. Hopkins, you touched on a national framework, so if you have some observations or assessment or comment regarding the NIER framework, that would be helpful.

Prof. Ricard, from the European perspective, NC also has nice reference materials, so from your European experience, let us hear any easy-to-understand advice or comments you may have about the NIER framework?

Let’s start with Ms. Noguchi.

Ms. Noguchi: As far as Australia is concerned, we have a document, called Sustainability Curriculum Framework, and it is a guideline for curriculum developers and policymakers. That was published in 2010. In this framework, in an effort to help students learn deeper according to their ages and stages of school education, the schools are divided into three groups: from preschool to the second grade; from the third grade to the sixth grade; and the seventh grade
to the tenth grade. What needs to be achieved during the course of the years? The three-part framework is composed of a sustainability-action process, knowledge of ecosystems and human systems, and repertoires of practice. Themes include life cycles, local environments, or evolution of life, and these are metrics. As a whole, the environmental aspect is highlighted. The center of EFS discussions in Australia seems to be talking about various aspects, but when it comes to the implementation of EFS they tend to focus on the natural and environmental issues, as well as on school education. So these are what I believe are the focuses.

When we compare the Australian framework with the NIER’s, although it is limited to school education as well, NIER’s framework has a wider perspective, and is not biased toward environmental issues, so various fields, such as human resources, poverty and so forth, for example, can be covered, and it has a good potential for further development in various fields.

Dr. Goto: Thank you very much. When we make a framework according to the stages of education in Japan, which Dr. Okamoto described as a challenge earlier, I think that Australia can be a good example. In the NIER framework, the six components shown earlier are divided into two categories: the ones related to environmental nature and the others related to humanity. In terms of those areas, I think we have a quality framework in Japan.

Dr. Hopkins, please.

Dr. Hopkins: For every country, trying to develop a framework is extremely difficult because it is hard to explain that really you are talking about the purpose of education and not trying to bring in additional content or change the content. So that is one of the big issues—teachers are just not used to that kind of discussion, and often our school leaders really do not understand that either. It is quite difficult.

I would suggest that within the framework—you just mentioned the idea—what we are finding is that in the junior grades, the students are way more interested in the environmental aspect. Then when you get into the middle school years it is more about the social aspect, and that is where the big issues of relationships and being able to relate to one another are. Then in the senior secondary years, perhaps more of an emphasis is on the economics, because that is when they are really into purchasing, acquiring, and thinking of jobs, of social enterprise, those kinds of issues. These aspects are all interrelated, so I am not saying that you should do only one and then the other.

But I find that within the framework, it is important also to look at that first aspect, the first thrust of the four that I put up, and that is access to and retention to quality education. That is a discussion that every school should have. The schools that seem to be the best performing in the world are ones where the local staff and the local school have a fair bit of say in what gets taught. They know what the real issues are facing their community and their students. The ones that do the poorest are the ones that are highly centralized and have an awful lot of testing involved, like the United States, which is ranked way down in the OECD countries. They are caught in that testing trap where students are forced to be looking at their weaknesses and very little time is given to the individual strengths of the student, and what happens is that you drive young boys in particular out of schooling and out of education. So every leader, every teacher is interested in a quality education for their students, and especially if they have some sort of say in what should be taught, then the question is, what do they really need and how can we boost them? The answer is ESD. But most people still think that it is just about recycling or energy conservation. So remember those seven steps and try to work as far up that list as you can. Thank you.

Dr. Goto: Thank you very much. If you have any additional comments about the Japanese framework later, we would be grateful. Prof. Ricard.

Prof. Ricard: Okay, I will give some remarks following on from what Charles said. Concerning the quality
of education, in fact what is important and what we try to do in France is to leave an abstract model of education. I referred before to what common goals, knowledge and competencies were implemented several years ago, but even there we are talking about competencies; it is still an academic form of teaching. In fact we developed another program which is an applied program with three levels. It means that we are considering first the school with the students in order to follow the recommendation of the school program. After that, we are considering the institution as a whole, in other words, all the actors inside the school, including not only teachers, but also staff and people from the outside. The third level, we consider the inscriptions of the school, of the institution in its territory. It means the relationship between the school and the whole surrounding society, and with the local government, with all the people working with the school, with the association NGO, in order to have a three-level but complementary approach. We developed the same system for universities through the green campus, but we are also always considering the problem of the relationship between the institution and its environment, in broad terms. When considering sustainable development, we have to take into account all the academic disciplines to understand the functioning of the different mechanisms and components, but also to make a link between what has been taught at school and real life or real society. I think this is very important.

Dr. Goto: Thank you very much. Aichi will organize global conferences in 2014, so they are trying to hold many international ESD conferences in Aichi before then. So Aichi is seeing some key issues and also key outcomes on ESD. I would like to know about the results and the problems. Mr. Kushida is spreading ESD ideas across Aichi, from an educational center, so I would like to hear from him about the challenges and the outcomes of Aichi’s initiative for ESD.

Ms. Hara, from Okayama, who is not directly involved in school education but is trying to support it, is participating today. She is in a position to support ESD from outside the school. I would like to hear her opinions also.

When NIER prepared the framework, we decided to focus on school education only. But the ministry of environment also has the initiative of the ESD promotion office. Using the NIER framework the environmental ministry is also doing activities as well.

I would like to invite Mr. Kushida from Aichi to elaborate on his initiatives.

Mr. Kushida, Aichi Prefectural Education Center: I am Kushida from Aichi Prefectural Education Center. As Dr. Goto has explained, in 2014 Aichi is going to host the World Conference of ESD, and we need to make as much progress with ESD as possible. Governor Omura is also supporting our initiative. Our education is trying to support ESD.

First, I explained the concept of ESD and so forth, but the question was how we could actually implement such activities in classes. Our center has been investing in and researching such possibilities of ESD, but as Dr. Kadoya explained earlier, perhaps we could use the integrated study classes effectively for ESD so that we can further introduce ESD activities in classes. We started to investigate and we brought two panels to the exhibition. But when we try to implement ESD in classes, I like to use the NIER framework; it is quite useful. Aichi prefecture is using it as follows.

We can find some points missing in implementing ESD by referring to the framework of NIER for the integrated study class. Looking at the framework, we tried to improve it, or fill in the gaps. We use ESD in that way. Many students are asking us how they can implement ESD in the classes, and I show them the framework pamphlet. Then we recommend reviewing the integrated study classes, referring to this framework. So from that point of view, initially we thought that our own center would have had to prepare our version of the framework on our own. However, before we started the initiative, NIER had started preparation of the
framework, so I am very grateful for that.

In Aichi, over 50 schools are either certified or in the process of being certified as UNESCO schools. The governor is taking a top-down initiative, and we also utilize the NIER framework on a top-down basis. If I may make one comment about the pamphlet, it is made quite well, but there is only a download version and it is very hard to make a lot of copies. This is just a very small point, but there is room for improvement.

Dr. Goto: Thank you very much. I am aware that there are 1,600 schools in Aichi. Going forward, by 2014, I wonder how many schools can implement ESD. Thank you very much.

Ms. Hara from Okayama, please be very straightforward. Ms. Hara, if you can talk about the achievements and difficulties so far.

Ms. Hara, Okayama: Thank you. I am preparing for the 2014 World Conference in Okayama city. In Okayama since 2005 ESD activities have been carried out not by the board of education but by the department of environment in the city office. We expected and asked schools, particularly those engaged in environmental education, to promote ESD, but most schools that showed interest were in communities struggling to sustain themselves due to depopulation triggered by rapid urbanization and were facing a threat of closure. So they probably thought it as sustainable schools for themselves. Small schools ended up starting ESD because they were facing their own extinction.

In the case of Okayama, the advantage was that it was the department of environment, rather than the board of education, that started ESD. The department of environment has multiple stakeholders working to protect environmental conservation. They presented numerous cases in which reasons or rationales in human society were conflicting with ecology and the natural system. Therefore, from a sustainability approach for the entire ecology, there was collaboration between schools. We started with communities that at last reached the seventh level or step to ESD in schools that Dr. Hopkins discussed.

In the city of Okayama, every school district has a local community learning center. The community learning centers took leadership in linking multiple stakeholders and schools together in order to promote ESD. An advantage of this was that local people were involved from the beginning. It was the strength of our activities that community learning centers and schools were jointly trying to cultivate human resources who can think about the community. On the other hand, there were some challenges. In order to carry out this kind of activity, we needed to find a person who could act as a coordinator, which is difficult. In the case of Okayama, community learning centers are expected to play that role. We are asking ourselves how we can contribute to resolving local challenges through listening to the people about their needs and thoughts, and if we are addressing important community issues. Another challenge is that children should acquire not only knowledge but also problem solving capability by participating in their local community, but the curriculum has not reached that level yet. We are trying to enhance the participatory nature of the program, so that the pupils and students can participate in problemsolving and really feel that they are actually helping the community. Thank you.

Dr. Goto: Thank you, Ms. Hara, that was wonderful. That was a nice case of having external parties engaged to support open schools, which is what the country is looking for at the moment. It may not have been easy for you but that was a big endeavor.

The major issue to be addressed is what to do about coordinators or facilitators. We need coordinators who can link parties inside and outside schools. How could zest for living, or the ESD capability to enquire or pursue, be cultivated in human resources like facilitators or coordinators? This is a fundamental aspect.

I would like to invite Mr. Miyazawa of the environmental
ministry to discuss six components and seven abilities and attributes originally developed by focusing on school education but from the perspective of lifelong learning. This will lead to cooperation between the education ministry and environmental ministry.

Mr. Miyazawa, Director, Environmental Education Promotion Office, Ministry of the Environment, Japan: Thank you very much for the introduction. I am Miyazawa, from the Environmental Education Promotion Office. This slide shown on the screen is also included in your handout.

Let me elaborate on the circumstances around us. The Ministry of the Environment is one of the four ministries together with the Cabinet Office, the Ministry of Foreign Affairs and Ministry of Education, Culture, Sports, Science and Technology (MEXT) that promotes ESD, covering a wide range of issues related to environment education, environment protection, and human rights issues. There are various areas covered by ESD, but our jurisdiction is environment education and environment protection. Ministries are always criticized for their sectionalist attitudes, but in regard to this issue, I think that the Ministry of the Environment is getting along with MEXT quite well. Across Japan, many environmental protection activities, such as forestation, biotech and wild animal protection, and environment beautifying activities such as picking up garbage and recycling are widely conducted. Such activities are also linked with environmental education supported by NGOs and other environmental councilors or often organized as integrated studies or guest teachers lecturing in classes. The issue is that, while the whole country has to now promote ESD, the environmental education aligned with ESD or environmental education activities acknowledging the fact that they are part of ESD are not extended. Good environmental education or protection activities are conducted across Japan, but do they all include the ESD perspective? The answer is no. So that is something that we need to reflect upon. The necessity of ESD and information about knowhow pertaining to ESD are not really conveyed to the people working in the education area.

From that point of view, the Ministry of the Environment is attempting to transform environmental education or protection activities to fit the framework of ESD. As Dr. Kadoya explained earlier, the six components and seven attributes seem to be a very effective tool, and we call them the 6+7. We made a check sheet together with MEXT and ESD-J, which I distributed in your handout, so that NPOs themselves can review their own activities. We are recommending to them that they use this check sheet so that they can consider introducing ESD. We are also asking them to introduce ESD.

Dr. Kadoya already explained the six components and seven attributes so I would rather not repeat them. However, if we ask volunteers and professionals in NGOs to develop programs that include all these 6+7 aspects, it would be too difficult for them. We are therefore recommending that they include at least one of those 6+7 aspects in their activities. So as long as at least one of the 6+7 aspects is included then they are upgraded to ESD. We are not asking them to achieve full marks; we just want them to achieve a pass mark first. That is a realistic target and we are asking them to make some efforts.

Having said that, perhaps some NGOs are now thinking of implementing ESD, for example picking up garbage alongside a river. That activity itself is fantastic, but if people end up feeling satisfied with the cleaned up riverside, there is no learning or ESD perspective. If they start discussing who would deal with such garbage or what we could do to prevent the garbage from ending up at the river, that actually starts some learning and thinking. It is not just cleaning activities that we are undertaking; we are trying to connect them to ESD activities. We give such examples to people and try to influence the NGOs and environmental councilors.

Now, we need to check all these programs and activities, such as environmental protection curriculums and programs, and also manuals released for the environment protection activities once more so that we can change all the activities into ESD. That is actually easier than starting from scratch. It’s like adding some
spice to a recipe for better flavor without having to buy or source all the ingredients from scratch.

The Ministry of the Environment can tie up with MEXT from now on and utilize the 6+7 of NIER and try to change all available activities into ESD. Also, we approach guest teachers and encourage them to gain an understanding of ESD so that they can be good guest speakers in integrated studies. If the teachers understand ESD and NGOs still do not understand it, then none of these people can have a meaningful dialogue.

Last but not least, in January we will hold an ESD training seminar, inviting the school teachers and staff as well as NGO leaders. So both lectures and hands-on training will be conducted at the Ministry of the Environment together with MEXT, and we expect to hold that session. We have a webpage for that as well so please participate in our initiative. Thank you very much.

**Dr. Goto:** Thank you very much. In a society that is divided vertically, because of ESD there is more collaboration between the Ministry of the Environment and MEXT, plus teacher education for ESD training is promoted. There is a lot more that could be discussed, but thank you very much. We hope that MEXT can collaborate.

As we can see, frameworks are being implemented. There may be imperfections, but they are spreading nonetheless. In Japan, ESD was promoted by the Japanese National Commission for UNESCO (JNCU). JNCU designated schools as UNESCO schools to promote ESD. UNESCO schools were mentioned earlier. In Australia there are less than 20 schools. Dr. Hopkins, how many UNESCO schools in Canada and the United States?

**Dr. Hopkins:** About 35.

**Dr. Goto:** And Prof. Ricard, in France?

**Prof. Ricard:** Around 135.

**Dr. Goto:** I thought France had more UNESCO schools since the headquarters of UNESCO is in Paris. In Japan, as far as I know there were something like 20 UNESCO schools seven or eight years ago, but now the number has increased; there are more than 500 UNESCO schools in Japan. The JNCU encouraged UNESCO schools to spread ESD by developing best practices. Could Mr. Iwamoto, a senior analyst at MEXT, please let us share the challenges and the difficulties experienced by JNCU?

**Mr. Iwamoto, JNCU:** Thank you. I am Iwamoto, and I am based in JNCU. In order to promote ESD in Japan, UNESCO schools were leveraged as a center for promotion. UNESCO-associated schools were introduced in the 1950s as a system in which schools that shared the philosophy of UNESCO would be certified by UNESCO. Since the early 1950s, Japanese schools have been participating, but as Dr. Goto mentioned, there were very few of such schools at the beginning – five or six years ago it was 24 schools. The JNCU hoped to utilize the accreditation of UNESCO schools as a center to promote ESD, and as a result there are now 519 schools. Of the 47 prefectures in Japan, there are six or seven prefectures that have no UNESCO school. We hope that all prefectures will have UNESCO schools. That is all thanks to the efforts of principals, staff, and teachers in the schools that applied to be associated schools.

On the other hand, what may happen when those teachers leave is a concern. There are lots of schools, but what about quality, not only quantity? That may be a valid question. Therefore, at JNCU last summer, guidelines were made in order to ensure the quality of UNESCO schools. I will try not to be too long, but the philosophy of UNESCO schools emphasizes networking. Therefore UNESCO schools inside and outside Japan must be networking and understanding and respecting each other. The social education institutions and NPOs must be connected in an open network. In the policy of school management, there must be an explicit statement
that they would follow the philosophy of UNESCO, there must be continuous and consistent activities that are conducive to UNESCO activity. In particular, as a center for the promotion of ESD, the important aspect is that issues should be identified and problem-solving education process must be emphasized. All the school curriculum planning should follow this philosophy of ESD. These are the points to be kept.

The guideline is not to exclude under-performing schools. This is a guideline to encourage all schools to improve. With the provision of the guidelines, some local governments have said that all primary and secondary schools would like to become UNESCO schools in some of the prefectures. Going back to what was discussed earlier, the topics to be covered by ESD are not anything new; however, to take a new perspective of ESD will involve a common aspect of creating a sustainable community and there will be a clearer direction in terms of ESD. We therefore hope that teachers will not think that this is just an additional burden imposed by MEXT.

At the same time, how the NIER framework can be incorporated into the school curriculum will be another important, theoretical challenge.

This is my personal view, but rather than only enhancing academic achievement, what are required in a global community are capabilities to understand people from different backgrounds in terms of religion, ethnicity and race. Or maybe it is not easy to find a job, but at least human resources will need problem-solving capabilities. Therefore the position of JNCU on the current framework is that it is not quantity that is important; it is not necessary for all schools to become UNESCO associated schools. However, since the Course of Study and the Basic Plan for the Promotion of Education include the philosophy of ESD, hopefully all the schools will try to incorporate at least the spirit of ESD. Then again, this is not only limited to licensed teachers; there are other actors as well. There could be liaison with community teaching institutions. That is our viewpoint. Thank you.

Dr. Goto: Thank you very much. You are actually very much a front runner in all types of initiatives. Basically, issues such as how we can develop networks and nurture teachers’ abilities to utilize such networks will be very fundamental and we need to address them from now on.

Now, we have been sharing the issues and challenges in applying ESD in Japan. In Europe, North America and Australia, how are you nurturing teachers who are capable of implementing ESD in classes? Can you nurture them at the undergraduate level or would the master’s level be good enough? Or in the case of Japan, when I look at the teachers implementing ESD, it is in-service training that they are receiving a lot. After becoming a teacher they are attending many lectures and training sessions, and earning the ability to implement ESD. Many of them are quite productive and well-spirited. By implementing ESD, students’ academic outcomes are also improving. In order for them to be able to implement ESD, what type of teacher education and teacher training is being implemented in Europe? Please elaborate. Also, please elaborate on any issues you can identify in Europe, North America and Australia regarding teacher training and challenges for networking using the local resources to implement ESD. Please make comments for two or three minutes each on these two points.

Prof. Ricard: Perhaps I would like to very quickly come back to what was said by Director Miyazawa about Eco schools. You mentioned the good attitude of picking up garbage at the beach. In the south of France we have a sandy beach that is 250 km long, and some associations are picking up garbage every year. And every year the quantity of garbage was increasing. We said that the problem is not that you collect a larger amount of garbage each year, but the fact that the quantity of garbage is increasing. In fact, there is a need for education for the young and for the population. We developed synergy between the eco school, the local association and the pupils.

Teacher training is a major problem in France, because
we changed our system of training. Previously, new teachers were recruited after the first year of a master’s degree program, then they had to follow one-year training performed in the class room under the tutorial of a senior teacher; today, it has been decided that future teachers had to get a two-year master’s degree before being recruited as a teacher in order to offer better opportunities for those not recruited as a teacher at the end of the training. In this case, the tutorial year was abandoned and new teachers had to enter a classroom without any training. The results of this reform were so bad that we are progressively coming back to the former situation. In relation with this change, we also started a new program on pedagogic research in several specialized institutions called “École Normale Supérieure – ENS” to provide teachers with the best pedagogical tools.

**Dr. Goto:** Thank you very much. Dr. Hopkins, if you could please try not to be too long, thank you very much.

**Dr. Hopkins:** What we have focused on in trying to make a quick start is what we call the “strengths model.” The strengths model is simply this: no single discipline owns all of ESD; no one can do it all. But every discipline, every teacher, every person can contribute something. So we are not asking, for instance, people interested in environmental education to switch and become ESD; we are not asking those who are in the arts, who teach drama, to switch and become ESD. But what we are saying is that we need to find some way of building on the strengths that beginner teachers already have, and getting them to understand the big picture. But what does this do? How does this contribute towards sustainable development, and what are the issues? So practically, we are taking our student teachers out into the communities, where they are identifying and working with the students. They never use the phrase “sustainable development” but they ask students what issues they are facing, what they are worried about, and what they are working on. The student teachers then try to look at how schools can solve those kinds of problems for the students. The big issue is whether our senior leaders, school leaders, principals, and vice principals can see how to put these different things together in a concerted way that will actually serve the students. Thank you.

**Mr. Noguchi:** Well, I have heard that there is a mentoring program for in-service training of the teachers, meaning once a teacher becomes a teacher there is a system to go through. But in addition to the in-service training, links between the schools and community will further improve the quality of teachers’ abilities. So by acknowledging that, the link between the schools and community is being investigated at this point.

**Dr. Goto:** Thank you very much.

Now, because of the time constraints, I would like to make a brief summary regarding the topics that we have covered, and at the end we would like to have another short comment from each of the speakers.

About the implementation of ESD, we learn vertically the disciplines of the subjects in university education, but what is required is a more horizontal approach, for example, for ESD and integrated studies. That cannot be learned and covered completely within the four years of the teachers’ university courses. In each discipline and subject the teachers have to be able to teach both vertically and horizontally. Facilitators and coordinators of a course have to be well developed to promote ESD. That is a great challenge. In NIER, ESD may be easier to implement in integrated study, the NIER framework aims to show what could be done in introducing ESD in each individual subject such as science and social studies.

I worked as a teacher for 15 years. Let us take science for example. When I taught Mendel’s genetic theory in a class, I also talked about the personal character of Mendel or the societal background that led up to
that research of the genetic theory. There was no ESD perspective when I taught in schools, but I just wanted to let children be interested in classes. We can use these factors for ESD as well. By doing so, we can enhance the sustainable development studies. ESD could be implemented in usual academic subjects. Of course, regional communities have to be used more for the subject of learning. This is a museum being used as a local resource. These are volcanic eruption model experiments for local volcanoes. There are so many examples of such things, but we had a massive earthquake disaster back in March 2011, and we did some demonstrations of a volcano. Educational material has to be shared so that every teacher can share and use such materials.

Such education should not just be conducted at school, but by collaborating with other external bodies, for example in regard to the material development, and also participation of local communities. We have to use outside sources as well. We should put Ms. Hara’s position in the center for the network in this slide and that could be developed as well. Ms. Hara’s point of view should be considered as well.

Now, what is often referred to is that of course teaching from textbooks is something that teachers have to do, but what about the relationships among people and communities? Some students are very good at getting a good score in tests, but not good at having relationships with other people or society. However, connections from person to person, from person to the community and person to the world have to be established using our classes. Also, places where you played quite a lot are areas that people are highly interested in, so you can find some seeds for studies there, and by doing so you can further nurture the learning capability of the children. Unfortunately we could not cover very much, but when you refer to children’s hometown you can nurture affection and pride toward their home countries and areas as well.

Across Japan, we are trying to implement integrated study to enhance the power to lead life, so to speak, “zest for living.” Teachers together with the local community and experts in the region, by including students, can develop and provide some material for teaching. By doing so, the teachers will develop a network and can structure the lessons and class education together with the local people as well.

Since I have become a researcher, I now look back at the value of education I referred to. I think this is not for exams. The education is to create the cultures of the local communities and cultures of your own. I think that the passing on of culture used to be the purpose of education before; however, now what is required at the school is to be able to create new culture. For that purpose, teachers will have to be learning all the time; novice teachers understand the structure of a subject and teach the contents of the subject for the first year, and over a five year or 10 year term, they will have to go through more training to learn anew about all these subject areas and be trained systematically. If that is possible, then the teachers will be able to create their own materials and training methods as well and fully utilize external sources, such as coordinators, and they will also be able to do some research activities and teachers themselves will acquire some ability to serve as coordinators.

But such education is not actually a new thing at all. I would like to give you one example. I usually get asked who the prominent people for ESD are. I always introduce Kenji Miyazawa as a prominent person for ESD. He used to be a geologist, but he dedicated himself to the farmers. He studied the soil and genetic improvement of rice. So, his studies developed from geoscience to biology. On an occasion he took some students to the Kitakami River, caught some fish, and cooked it on the riverside. You could call it Home Economics class. If he had the students write poems, it would be Japanese class. If he had them paint pictures, it would be Art class. So this type of education has been implemented in the past. There have been such great teachers as him all over Japan, and such education practices would ultimately lead up to religions and other areas as well. But it is not just being based on the
local community; by learning the local community, your knowledge and capability will be developed to connect to local and global communities. So such education is, perhaps, local study and potentially developing and cheering up local communities. That type of education may be possible in schools, and that actually contains imagination and creativity to change and develop the local community. So power to take action is required at this point.

For that purpose, after aiming to become a teacher and then becoming a researcher, I believe that human resource cultivation is important. I studied physics at university and then I was able to teach from a textbook on physics. However, if I were asked, “What is this stone?”, then I would not have the knowledge to answer. Therefore, as was discussed in the Central Education Council, there must be a policy to raise the comprehensive quality of teachers throughout their teaching life. Teachers must share the joy of learning together with their pupils and students. This is related to human resource cultivation, but universities, boards of education, and museums will have to collaborate so that quality educators and teachers shall be trained.

As part of that education, ESD, I believe, can be utilized. What Japanese education requires, including the zest for living and key competencies, is linked to ESD. The focus should not only be on the school, and within school education, formal, informal and non-formal education should be kept in mind so that children can continue to learn. This is my opinion and comment as I have practiced ESD.

I am aware that time is running out. Today, the topic was to think about the education of the future through ESD. So I have finally given you my personal opinion and comment about future education. So could each panelist give us your concluding remarks about future education through ESD, starting with Prof. Ricard?

Prof. Ricard: The present is difficult and I do not know about the future. What could I say if we are thinking about the future? The first decade was mainly focusing on school education. We realized that it is not able to answer the expectations of our society. So it is necessary to increase the development of permanent and multi-form educational approaches, from a long-term perspective. A lot of scientists say that it will take two generations to evolve towards a sustainable society. I think that is not a good thing to say, because when you say two generations, we will think that we have enough time to consider the next generation within the following 20 years. It is important to realize this because it is not often said that changes in behavior cannot simply be legislated for. This is the first thing.

The second thing is that it cannot be instantly absorbed. So it is necessary to inscribe our action in a progressive and multi-form education. I think this is very important.

It is important also to realize that we have done the best part, because of course we have focused on school education and school education is, I would say, easy, especially in a country like France when you have ministers who decide what you have to apply and you apply what is told from the top down more or less. It is easy. But in fact, after the initial phase of the process, especially if we consider education for production and consumption, I think that we have a huge amount of work to do, especially to educate some components of our society. I am thinking of media. Media for instance have a prominent role mainly through advertising. Actually there is no possibility to really educate all these people working in the field of advertising because we are still taking an approach of over-consumption and profits from over-consumption are greater than those from any approach related to sustainable development and the protection of renewable and non-renewable resources.

Next year should start with a new program on sustainable production and consumption implemented by the United Nations Environment Programme (UNEP). It is very important for this programme to have a better link with the new decade on ESD than it did during the previous one, the Marrakech process. That was not really connected to the UN Decade, but both decades
focus on changing the behavior of our societies.

My last remark referred to digital resources. If we want initial training and continuous training of teachers, if we speak only for teachers, it could be done simply through the use of digital tools or digital resources and self evaluation and self training. This is very important. Also because all the young people in school or outside school are using new tools, mobile tools, and they are not looking for what we call traditional information and communications technology, but they are going on the web and there are sometimes contradictory approaches between information on the web and information at school. It is necessary to have a really coordinated approach through, for instance, this web information.

Dr. Goto: Thank you very much. Prof. Ricard has a digital university in France; he is the president. He actually practices continuous learning. Thank you very much for your final comments, Prof. Ricard.

Again, final remarks about the future education of ESD, Dr. Hopkins.

Dr. Hopkins: In 1992, when we were inventing ESD, the question was, what can the world’s education systems contribute towards building a more sustainable future? I think now we may reverse that, and think, what can the search for a more sustainable future do to contribute to education? To revitalize education and bring purpose and meaning to students who often do not even want to be there. I think that is an important thing to pursue in the future. How can we explore the big issues that will be facing young people in a concerted way? Now we have for instance education and the Ministry of the Environment together, but for the big issues we need other ministries as well, ministries with their own particular skills. I think for instance health. Right now, one of the big issues is climate change. We are putting millions and millions of dollars into understanding the physical and natural science behind climate, and almost nothing into the social sciences, into how to bring about the behavioral change that is needed to address that. The experts in that are the ministries of health.

But there is no one who brings these various things together. We need concerted leadership, and I think that is going to be the future of ESD—that it is going to continue to rise, that it will be extremely important for the future of humanity. Thank you.

Dr. Goto: Thank you very much. In order to create a sustainable future, the concerting roles of coordinators and leaders are very important. I hope ESD will contribute to the advancement of education.

Now, Ms. Noguchi.

Ms. Noguchi: In many countries, including Australia, oftentimes ESD has been narrowly defined as education on the environment. But ESD in fact captures a wide range of scope. Sometimes political and systematic changes may be required. ESD may require children to participate in such changes, as it is not just about the regional communities but various problems of poverty and global issues that children have to face, and as Dr. Hopkins has just explained, how education will tackle such issues is questioned. Now we are putting the schools in the center of our perspective, but there are many people in the regional communities, who are involved in informal education or the formats that never carry the terminology education, and they are proceeding with initiatives on regional development while emphasizing human development. So the task of ESD in the context of school education is to explore how we face formal and informal education, and how we design education in order to enrich the depth of education in a wide range of areas.

Dr. Goto: Thank you very much. Lastly, we would like to have Director Kadoya summarize future education and ESD.

Dr. Kadoya: One point is that perhaps education is expected to serve ESD. In fact, the ultimate objective is to foster talents and richness in children’s lives by providing ESD. That needs to be remembered all the time. The rich development as a human being is the purpose of having ESD. Giving some guidance to
children by using ESD—I think we need to revisit our approach from that perspective once again. When you think about it this way, nurturing and training teachers, and lifelong learning have to go through the program to enrich the lives of human beings. That is the point that I needed to add at the end.

**Dr. Goto:** Director Kadoya, thank you very much. Now, once again thank you all very much for your enthusiastic discussion. Lastly, I would like to express my deep appreciation once again. Please give a round of applause for the panelists as well as those hosting and supporting organizations who are attending this session. I would like to express thanks to them all. The secretariat has been working so hard to make this conference a success. Lastly, thank you very much to the audience and participants for your participation. Prof. Ricard, Dr. Hopkins, as you said, you are the ones to initiate these activities, and there are many people from schools and lifelong learning institutions here. Let’s look beyond 2014, to implementing ESD while providing high-quality education, particularly that pertaining to growing the ability to lead a better life in Japan. With this note I would like to close the session. Once again, thank you very much to all the speakers.
資料 Appendix

パネル展示
ＥＳＤの学習指導過程を構想し展開するために必要な枠組み
「ＥＳＤの学習指導過程を構想し展開するために必要な枠組み」を活用した教育実践
「＋ＥＳＤプロジェクトに是非ご協力をお願いします!!」
プログラム
登壇者プロフィール
パネル展示
持続可能な発展のための教育（ESD）を
学校教育でどう進めるか？！

ESDの学習指導過程を
構想し展開するために
必要な枠組み

国立教育政策研究所 教育課程研究センター

地球の写真 ©NASA
持続可能な発展のための教育（ESD）の学習指導過程を構想し展開するために必要な枠組み

ESDの視点に立った学習指導の目標

教科等の学習活動を進める中で、

「持続可能な社会づくりに関わる課題を見いだし、それらを解決するために必要な能力や態度を身に付ける」

を通して、持続可能な社会の形成者としてふさわしい資質や価値観を養う。

持続可能な社会づくりの構成概念（例）

I 多様性
II 相互性
III 有限性
IV 公平性
V 連携性
VI 責任性

ESDの視点に立った学習指導で重視する能力・態度（例）

1. 批判的に考える力
2. 未来像を予測して計画を立てる力
3. 多面的、総合的に考える力
4. コミュニケーションを行う力
5. 他者と協力する態度
6. つながりを尊重する態度
7. 進んで参加する態度

このリーフレットでは、ESDを学校教育で進める上で、各教科等の授業の中でESDの視点に立った学習を展開することを前提としたため、その目標を必要最小限に絞り、「持続可能な社会づくりに関わる課題を見いだし、それらを解決するために必要な能力や態度を身に付ける」と設定しました。つまり、ESDの視点に立った学習を、持続可能な社会づくりに関する問題解決学習と捉えています。そして、各教科等の学習活動を進める中で、この目標の達成をねらいながら授業設計や授業改善を行うことが、持続可能な社会の形成者としてふさわしい資質や価値観を養うことに資すると考えました。このような考えに基づき、ESDの学習指導過程を構想し展開するために必要な枠組みとして提案したものが、上の図です。

【参考】ESDの目標
「環境、経済、社会の面において持続可能な将来が実現できるような行動の変革をもたらすこと」
（「国連持続可能な開発のための教育の10年」関係者会議、2006）
ESDの視点に立った学習指導を進める上での留意事項

ESDの視点に立った学習指導を進める上では、教材（学習課題、学習内容）を内容的・空間的・時間的につなげること、学習者同士、学習者と他の立場・世代の人々、学習者と地域・社会などをつなげること、身につけた能力・態度を具体的な行動に移し、実践につなげることが大切です。

そして、具体的な課題の発見・探究・解決の過程で、児童生徒自らが持続可能な社会づくりに関する価値観を身に付け、自らの意思を決定し、行動を変革していくことができるよう配慮することが大切です。

教材の「つながり」

ESDでは、持続可能な社会づくりに関わる課題に対して多面的、総合的に探究していくことが求められます。

そのため、ある教科等で取り上げる教材（事務、現象、題材、課題など）、他の教科等や他の学年・学年学校種で扱われる教材をつながっていることや、実生活・実社会ともつながっていることに気付き、それらについて関心や認識をもつこと、さらにはこれらを相互に関連付けて見たり考えたりすることが大切です。

つまり、教材や各教科等の内容的な「つながり」、教室・学校と地域・社会・日本の世界との空間的な「つながり」、過去・現在・未来といった時間的な「つながり」などを図りながら学習を進めることが必要です。

3つの「つながり」

ESDでは、児童生徒同士の「つながり」を取り入れた参加体験型の学習を展開したり、地域（身近な地域だけでなく、国内や海外、とりわけ発展途上国も含めて）との「つながり」を図りながら、多様な立場や世代の人々との「つながり」が体験できる場を用意したり、さらには、発達の段階に応じて、将来世代や過去世代との「つながり」を想像させたりするなどの工夫をすることが必要です。

能力・態度の「つながり」

ESDでは、関心を高めたり、認識を深めたりするだけでなく、身につけた能力・態度を行動に移していくことや、実生活・実社会における実践につなげていくことが大切です。

そのためには、各学校・地域の実情や児童生徒の実態に応じた課題を取り上げて、教科等における学習と活動との「つながり」や学校と地域社会との「つながり」を図りながら、継続的・実践的な「つながり」をもった指導を推進したり、現実的な問題解決との「つながり」になるように取り組んだりするなどの工夫をすることが必要です。

児童生徒自らの意思決定へ！

人の「つながり」
持続可能な社会づくりの構成概念（例）

ESDの視点に立った学習指導の目標にある「持続可能な社会づくりに関わる課題」を見いだすためには、「持続可能な社会づくり」を捉える要素（構成概念）を明確にすることが必要です。このリーフレットでは、「持続可能な社会づくり」に関連する概念を、上位概念として、[1]人を取り巻く環境（自然・文化・社会・経済など）に関する概念と、[2]人（集団・地域・社会・国など）の意思や行動に関する概念の2つに大別しました。そして、多くの要素が複雑に絡み合った「持続可能な社会づくり」をシステム（①多種多様な要素からなり、②それらが互いに作用し合い、③ある方向へ変化しながら、全体として一定の機能を果たすもの）として捉え、上位概念を更にそれぞれ3つの下位概念から構成しました。

Ⅰ 多様性
いろいろある
自然・文化・社会・経済は、起源・性質・状態などが異なる多種多様な事物（ものごと）から成り立ち、それらの中では多種多様な現象（出来事）が起きていること

Ⅱ 相互性
関わり合っている
自然・文化・社会・経済は、互いに働き掛け合い、それらの中では物質やエネルギーが移動・循環したり、情報が伝達・流通したりしていること

Ⅲ 有限性
限りがある
自然・文化・社会・経済は、有限の環境要因や資源（物質やエネルギー）に支えられながら、不可逆的に変化していること

Ⅳ 公平性
一人一人大切に
持続可能な社会は、基本的な権利の保障や自然等からの恩恵の享受などが、地域や世代を渡って公平・公正・平等であることを基盤にしていること

Ⅴ 連携性
力を合わせて
持続可能な社会は、多様な主体が状況や相互関係などに応じて順応・調和し、互いに連携・協力することにより構築されること

Ⅵ 責任性
責任をもって
持続可能な社会は、多様な主体が将来像に対する責任あるビジョンをもち、それに向けって変容・変革することにより構築されること

【注】赤字で示したキーワードは、それぞれの構成概念のイメージを喚起するために表現したもので、また、「持続可能な社会づくり」の構成概念は、これら6つの概念に限定されるものではない。必要であれば新しい概念を加えることも考えられます。
構成概念の説明と関連した学習内容の例

Ⅰ 多様性
自然・文化・社会・経済は、それぞれの形成過程で様々な様相を見せ、多種多様な事物・現象が存在しています。そうした生態学的・文化的・社会的・経済的な多様性を尊重するとともに、自然・文化・社会・経済に関わる事象を多面的に見たり考えたりすることが大切です。
例）◆生物学は、色、形、大きさなどに違いがあること
◆それぞれの地域には、地形や気象などに特色があること
◆体に必要な栄養素には、いろいろな種類があること

Ⅱ 相互性
自然・文化・社会・経済は、それぞれが互いに働き掛け合うシステムであり、それらの中で物質やエネルギー等が移動・消費されたり循環したりしています。人は、そうしたシステムとのつながりをもち、さらにその中で人と人との間に関わり合っていることを認識することが大切です。
例）◆生物は、その周辺の環境と関って生きていていること
◆電気は、光、音、熱などに変えることができること
◆食料の中には外国から輸入しているものがあること

Ⅲ 有限性
自然・文化・社会・経済を成り立たせている環境要因や資源（物質やエネルギー）は有限です。このような有限の物質やエネルギーを将来世代のために有効に使用していくことが求められます。また、有限の資源に支えられている社会の発展には限界があることを認識することも大切です。
例）◆物が水に溶ける量には限度があること
◆土地は、火山の噴火や地震によって変化すること
◆物や金銭の計画的な使い方を考えること

Ⅳ 公平性
持続可能な社会の基盤は、一人一人の良好な生活や健康が保証・維持・増進されることです。そのためには、人権や生命が尊重され、他者を犠牲にすることなく、権利の保障や恩恵の享受が公平であることが必要で、これらは地域や国を超えて、世代を渡って保持されることが大切です。
例）◆健康を保持するような食事・運動・休養・睡眠などが保証されていること
◆自他の権利を大切にすること
◆差別をすることなく、公正・公平に努めること

Ⅴ 連携性
持続可能な社会の構築・維持は、多様な主体の連携・協力がなくては実現しません。意見の異なる場合や利害の対立する場合などにおいても、その状況にしたがって順応したり、寛容な態度で調和を図ったりしながら、互いに協力して問題を解決していくことが大切です。
例）◆地域の人々が協力して、災害の防止に努めていること
◆謙虚な心をもって、自分と異なる意見や立場を大切にすること
◆近隣の人々との関わりを考え、自分の生活を工夫すること

Ⅵ 責任性
持続可能な社会を構築するためには、一人一人がその責任と義務を自覚し、他人任せにするのではなく、自ら進んで行動することが必要です。そのためには、現状を合理的・客観的に把握した上で意思決定し、望ましい将来像に対する責任あるビジョンをもつことが大切です。
例）◆我が国が国際社会の中で重要な役割を果たしてきたこと
◆働くことの大切さを知り、進んでみんなのために働くこと
◆家庭で自分の分担する仕事ができること

学習内容の例は、小学校学習指導要領（文部科学省、2008）による
ESDの視点に立った学習指導で重視する能力・態度（例）

ESDの視点に立った学習指導で重視する能力・態度として、7つの能力・態度を例示します。各教科等の指導において、単元（題材）の目標や授業の目標に、これらに基づいたものを付加したり関連付けたりすることを通じて、ESDの視点に立った学習指導が展開できます。

1. 批判的に考える力
   合理的、客観的な情報や公平な判断に基づいて本質を見抜き、ものごとを肌深く、建設的、協調的、代替的に思考・判断する力

2. 未来像を予測して計画を立てる力
   過去や現在に基づき、ある程度未将来像（ビジョン）を予想・予測・期待し、それを他者と共にあるながら、ものごとを計画する力

3. 多面的、総合的に考える力
   人・もの・こと・社会・自然などのつながり・かかわり・ひろがり（システム）を理解し、それらを多面的、総合的に考える力

4. コミュニケーションを行う力
   自分の気持ちや考えを伝えるとともに、他者の気持ちや考えを尊重し、積極的にコミュニケーションを行う力

5. 他者と協力する態度
   他者の立場に立ち、他者の考えや行動に共感するとともに、他者と協力・協同してものごとを進めようとする態度

6. つながりを尊重する態度
   人・もの・こと・社会・自然などと自分とのつながり・かかわりに関心をもち、それらを尊重し大切にしようとする態度

7. 進んで参加する態度
   集団や社会における自分の発言や行動に責任をもち、自分の役割を理解するとともに、ものごとに主体的に参加しようとする態度

【注】ESDの視点に立った学習指導で重視する能力・態度は、これら7つに限定されるものではありません。必要であれば新しい能力・態度を加えることも考えられます。
能力・態度の具体例

① 批判的に考える力
○ 他者の意見や情報、よく検討・理解して採り入れる
× 得られたデータや考え方を略すだけにする
○ 積極的・発展的に、よりよい解決策を考える
× 消極的・悲観的に考え、すぐに諦めて、答えだけを得ようとする

② 未来像を予測して計画を立てる力
○ 見通しや目的意識をもって計画を立てる
× 無計画にものごとを進めたり、その場の思いをしたりする
○ 他者がどのように受け取るかを想像しながら計画を立てる
× 独りよがりにものごとを進めてしまう

③ 多面的、総合的に考える力
○ 廃棄物も見方によっては資源になることを考えることができる
× 役に立たないものは不要だと考える
○ 様々なものを関連付けて考える
× まとまりがなく、断片的な見方をする

④ コミュニケーションを行う力
○ 自分の考えをまとめて簡潔に伝えることができる
× 他者の意見の何点かを指摘し、自分の考えを言わない
○ 自分の考えに、他者の意見を取り入れる
× 他者の意見を聞こうとしない

⑤ 他者と協力する態度
○ 相手の立場を考えて行動する
× 自分のことしか考えない
○ 仲間を励ましながらチームで活動する
× 身勝手な行動、同調しない態度をとる

⑥ つながりを尊重する態度
○ 自分が様々なものとつながっていることに関心をもつ
× 自分に直接関係のあることしか関心がない
○ いろいろなものとの関連で自分がいることを実感する
× 自分は一人で生きていると思い込む

⑦ 進んで参加する態度
○ 自分の言ったことに責任をもち、約束を守る
× 無責任な行動ばかりで、まりを守らない
○ 進んで他者のために行動する
× 自分が得をすることしかしない

ESDの視点に立った学習指導で重視する能力・態度は、「生きる力」にも通じています。

また、国際標準の学力として注目されているキ－コンピテンシーにも関連付けることができます。

<table>
<thead>
<tr>
<th>キ－コンピテンシー（OECD, 2005）</th>
<th>ESDの視点に立った学習指導で重視する能力・態度</th>
</tr>
</thead>
<tbody>
<tr>
<td>相互作用的に道具を用いる</td>
<td>○言語、シンボル、テクストを相互作用的に用いる</td>
</tr>
<tr>
<td>○知識や情報を相互作用的に用いる</td>
<td></td>
</tr>
<tr>
<td>○技術を相互作用的に用いる</td>
<td>① 批判的に考える力</td>
</tr>
<tr>
<td>② 未来像を予測して計画を立てる力</td>
<td></td>
</tr>
<tr>
<td>③ 多面的、総合的に考える力</td>
<td></td>
</tr>
<tr>
<td>異質な集団で交流する</td>
<td>○他者との関係を造る</td>
</tr>
<tr>
<td>○協力する、チームで働く</td>
<td></td>
</tr>
<tr>
<td>○争いを処理し、解決する</td>
<td>④ コミュニケーションを行う力</td>
</tr>
<tr>
<td>⑤ 他者と協力する態度</td>
<td></td>
</tr>
<tr>
<td>直面的に活動する</td>
<td>○大きな展望の中で活動する</td>
</tr>
<tr>
<td>○人生設計や個人のプロジェクトを設計し実行する</td>
<td></td>
</tr>
<tr>
<td>○自らの権利、利益、限界やニーズを表すする</td>
<td>⑥ つながりを尊重する態度</td>
</tr>
<tr>
<td>⑦ 進んで参加する態度</td>
<td></td>
</tr>
</tbody>
</table>
「持続可能な発展 Sustainable Development: SD」とは、「将来の世代のニーズを満たす能力を損なうことなく、現在の世代のニーズを満たす開発」や「人間を支える生態系が有する能力の範囲内で営みながら、人間の生活の質を向上させること」と定義されています。そのための教育が「Education for Sustainable Development: ESD」です。つまり、ESDとは、環境的視点、経済的視点、社会・文化的視点から、より質の高い生活を次世代を含む全ての人々にもたらすことのできる開発や発展を目指した教育であり、持続可能な未来や社会の構築のために行動できる人の育成を目的としています。

国立教育政策研究所では、平成20年度からの4年間にわたり、学校現場にESDを分かりやすく紹介し、教員がESDのカリキュラム開発や実践を行うことができるようになることを目指して、ESDとしめている要件は何かということを明らかにするために研究を進めてきました。その中で、ESDの枠組みとして、持続可能な社会づくりの概念概念やESDの視点に立った学習指導で重視する能力・態度などを明らかにすることことができました。

このリーフレットは、その研究成果である「学校における持続可能な発展のための教育（ESD）に関する研究[最終報告書]」（国立教育政策研究所 教育課程研究センター、平成24年3月発行）に基づいて作成したものです。報告書とともに、このリーフレットが学校におけるESD推進のための参考資料として広く活用されることを願っています。

「学校における持続可能な発展のための教育（ESD）に関する研究[最終報告書]」

第I部 平成23年度研究
ESD固有の学習指導過程の構想と展開
ESD固有の価値を学習指導過程で構想した展開例
（小学校家庭科・中学校理科・高等学校総合的な学習の時間など）

第II部 平成22年度の成果と課題
平成22年度の仮説の設定
授業実践に基づいた仮説の検証
（小学校社会科・中学校英語科・高等学校英語科など）

第III部 ESDに関する国の研究（国際比較など）

第IV部 教員研修

「学校における持続可能な発展のための教育（ESD）に関する研究[中間報告書]」

第I部 学校におけるESD
第II部 学校におけるESD推進のための実践研究
第III部 ESDに関する国の状況（イギリス、ドイツなど）
第IV部 資料（学習指導要領からESDに関する内容の抜粋など）

★各報告書の詳しい内容についてお知りになりたい方は、以下のURLにアクセスしてください。

問い合わせ先： 国立教育政策研究所 教育課程研究センター
〒100-8951 東京都千代田区霞が関3丁目2番2号
URL http://www.nier.go.jp/index.html
「ESDの学習指導過程を構想し展開するために必要な枠組み」
を活用した教育実践

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福田 修武（和歌山県教育センター学びの丘）

Abstract

国立教育政策研究所が提案した「ESDの学習指導過程を構想し展開するために必要な枠組み」を活用した教育実践の拡大や、その枠組みの有用性の検証を目指して、2種類の実践研究を行った。その一つは、小学校における教育課程全体を通したESDの実践である。年間指導計画としてESDカレンダーを作成し、その中でESD学習の枠組みを取り込むことで実践を進め、ESDの視点に立った教科等の単元の目標や、児童の身に付けてさせたい力を明確化することができた。もう一方の実践は、複数の小・中・高等学校における総合的な学習の時間などでのESDの実践である。各地域の特色・特徴を生かした地域学習の中にESD学習の枠組みを取り入れて実践を進め、地域学習にグローバルな視点を加えることや、多様な学習を「持続可能な社会の構築」に関連付けることができた。これら2種類の実践研究から、「ESDの学習指導過程を構想し展開するために必要な枠組み」の活用が効果的であることが検証されるとともに、その枠組みを教育課程全体に織り込むことや、小・中・高等学校を通して体系的に取り入れることの重要性を指摘することができた。

1．はじめに

現在、環境的視点、経済的視点、社会的視点から、より質の高い生活を次世代も含むすべての人々に共有することのできる開発や発展を目指した「持続可能な発展のための教育（Education for Sustainable Development：以下、ESDと略す）」が、世界的な流れで行われている。

2002年に開催された「持続可能な開発に関する世界首脳会議」、いわゆる「ヨハネスブルグ・サミット」では、我が国により2005年からの10年間を「国連持続可能な開発のための教育の10年」とすることが提案され、同年末の国連総会で採択された。その後、我が国では2006年に、内閣府に設置された関係省庁連絡会議により「学が国における「国連持続可能な開発のための教育の10年」実施計画」が策定されることとなり、2008年に策定された教育振興基本計画では、今後5年間に総合的かつ計画的に取り組むべき施策の一つとして、「持続可能な社会の構築に向けた教育に関する取組の推進」が示された。学校教育に関しては、2008年に公表された中央教育審議会案「幼稚園、小学校、中学校、高等学校及び特別支援学校の学習指導要領等の改訂について」において、社会の変化への対応の観点から教科等を横断して改善すべき事項の中で、持続可能な社会を構築することが重視された。それを受けて、2008年に小・中学校の学習指導要領が、2009年に高等学校の学習指導要領が公表された。これら新しい学習指導要領には、持続可能な社会の構築の観点が随所に盛り込まれ、ESDの視点に立った学習指導の具体化が求められるようになった。

こうした背景から、国立教育政策研究所は、学校におけるESDの定着と充実に向けて、カリキュラムや教材、指導方法や評価方法の在り方などを明らかにし、ESDの指導に資する資料を提供することを目的に、2009年度から「学校における持続可能な発展のための教育（ESD）の研究」を行い、2010年に中間報告書
（国立教育政策研究所、2010）を、2012年に最終報告書（国立教育政策研究所、2012）を刊行した。この研究では、国内外におけるＥＳＤへの取組状況などに基づいて、「ＥＳＤの学習指導過程を構想し展開するために必要な枠組み」（図1、表1・2）を構築・提案するとともに、その枠組みに基づいた多くの実践事例を示すことができた。しかしこ、この研究は2011年度で終了したため、この枠組みの有用性や課題などについて、実践的な研究を更に積み重ねていく必要があることが課題として残された。

そこで、本研究では、国立教育政策研究所が提案した「ＥＳＤの学習指導過程を構想し展開するために必要な枠組み（以下、「ＥＳＤ学習の枠組み」と略す）」に基づいた実践を更に広く進めることを通じて、その枠組みの有用性を検証することを目的とした。

２．研究の方法

上記の研究目的を達成するために、2種類の実践研究を行った。小学校においてＥＳＤ学習の枠組みを取り入れた年間指導計画を立案・展開した実践（実践研究①）と、小・中・高等学校において地域学習にＥＳＤ学習の枠組みを取り入れて展開した実践（実践研究②）である。

実践研究①は、1校での取組ではあるが、教育課程全体に渡った実践であり、実践研究②は、テーマを地域学習に限定した取組ではあるが、複数の学校で展開した実践である。こうした二つのタイプの異なる実践を通して、

【ＥＳＤの視点に立った学習指導の目標】
教科等の学習活動を進める中で、「持続可能な社会づくりに関する課題を見いだし、それらを解決するために必要な能力や態度を身に付ける」ことを通して、持続可能な社会の形成者としてふさわしい資質や価値観を養う。

【持続可能な社会づくりの構成概念】（例）
Ⅰ　多様性
Ⅱ　相互性
Ⅲ　有限性
Ⅳ　公平性
Ⅴ　連携性
Ⅵ　責任性　など

【ＥＳＤの視点に立った学習指導で重視する能力・態度】（例）
① 批判的に考える力
② 未来像を予測して計画を立てる力
③ 多面的・総合的に考える力
④ コミュニケーションを行う力
⑤ 他者と協力する態度
⑥ つながりを尊重する態度
⑦ 進んで参加する態度　など

【ＥＳＤの視点に立った学習指導における上での留意事項】
① 教材のつながり　②　人のつながり　③　能力・態度のつながり

教科等の授業設計・授業改善

図1 ＥＳＤの学習指導過程を構想し展開するために必要な枠組み（国立教育政策研究所、2012）

表1　持続可能な社会づくりの構成概念（国立教育政策研究所、2012）

| Ⅰ　多様性 | 自然・文化・社会・経済は、起源・性質・状態などが異なる多様な事物（ものごと）から成り立ち、それらの中では多様な現象が起きている。
| Ⅱ　相互性 | 自然・文化・社会・経済は、互いに働き掛け合い、それらの中では物質やエネルギーが移動・循環したり、情報が伝達・流通したりしている。
| Ⅲ　有限性 | 自然・文化・社会・経済は、有限の環境要因や資源（物質やエネルギー）に支えられながら、不可逆的に変化している。
| Ⅳ　公平性 | 持続可能な社会は、基本的な権利の保障や自然からの恩恵の享受などが、地域や世代を通じて公平・公正・平等であることを基盤にしている。
| Ⅴ　連携性 | 持続可能な社会は、多様な主体が状況や相互関係などに応じて順応・調和し、互いに連携・協力することにより構築されること。
| Ⅵ　責任性 | 持続可能な社会は、多様な主体が将来像に対する責任あるビジョンを持ち、それに向かって変容・変革することにより構築されること。 |
表2 ＥＳＤの視点に立った学習指導で重視する能力・態度（国立教育政策研究所，2012）

<table>
<thead>
<tr>
<th>要素</th>
<th>内容</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 批判的に考える力</td>
<td>合理的・客観的な情報や公平な判断に基づいて本質を見抜き、ものを思慮深く、建設的・協調的、代替に思考・判断する力</td>
</tr>
<tr>
<td>2. 未来像を予測して計画を立てる力</td>
<td>過去や現在に基づき、あるべき未来像（ビジョン）を予想・予測・期待し、それを他者と共有しながら、ものを計画する力</td>
</tr>
<tr>
<td>3. 多面的・総合的に考える力</td>
<td>人・もの・こと・社会・自然などのつながり・かかわり・ひろがり（システム）を理解し、それを多面的、総合的に考える力</td>
</tr>
<tr>
<td>4. コミュニケーションを行う力</td>
<td>自分の気持ちや考えを伝えるとともに、他者の気持ちや考えを尊重し、積極的にコミュニケーションを行う力</td>
</tr>
<tr>
<td>5. 他者と協力する態度</td>
<td>他者の立場に立ち、他者の考えや行動に共感するとともに、他者と協力・協調してのことを進めようとする態度</td>
</tr>
<tr>
<td>6. つながりを尊重する態度</td>
<td>人・もの・こと・社会・自然などと自分とのつながり・かかわりに関心をもち、それらを尊重し大切にしようとする態度</td>
</tr>
<tr>
<td>7. 進んで参加する態度</td>
<td>集団や社会における自分の発言や行動に責任をもち、自分の役割を踏まえた上で、ものごとに自主的・主体的に参加しようとする態度</td>
</tr>
</tbody>
</table>

ＥＳＤ学習の枠組みの有用性などについて考察を深めた。

3. 実践研究の内容
＜実践研究①「ＥＳＤ学習の枠組みを取り入れた教育課程の編成・実施」＞
実践研究①は、小学校における教育課程全体を通じたＥＳＤの実践である。実践校は、富山市内の市街地に位置する、児童数約390人、学級数14の小学校である。

<table>
<thead>
<tr>
<th>4月</th>
<th>5月</th>
<th>6月</th>
<th>7月</th>
<th>8月</th>
<th>9月</th>
<th>10月</th>
<th>11月</th>
<th>12月</th>
<th>1月</th>
<th>2月</th>
<th>3月</th>
</tr>
</thead>
<tbody>
<tr>
<td>国語</td>
<td>学習計画を立てる</td>
<td>学習計画を立てる</td>
<td>学習計画を立てる</td>
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<tr>
<td>社会</td>
<td>わたしの町を学ぶ</td>
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<td>わたしの町を学ぶ</td>
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<tr>
<td>理科</td>
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<td>物の森を歩く</td>
<td>物の森を歩く</td>
</tr>
<tr>
<td>総合的な学習の時間</td>
<td>心をつなごう 手をつなごう ～Think globally act locally～</td>
<td>心をつなごう 手をつなごう ～Think globally act locally～</td>
<td>心をつなごう 手をつなごう ～Think globally act locally～</td>
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<td>心をつなごう 手をつなごう ～Think globally act locally～</td>
</tr>
</tbody>
</table>

図2 ESDの視点を取り入れたESDカレンダー（第6学年の例；一部抜粋）
注）単元名の下のある略記は、構成概念／能力／態度を表す。
体でのＥＳＤの推進に当たるとともに、2010年度からは、全教職員が共通理解の場を定期的に設けるための組織として「ＥＳＤ推進委員会」を設置している。
この実践のＥＳＤカレンダーは、「自然にやさしい（環境・生命尊重）」「人にやさしい（人権・福祉）」「地上やさいしい（国際理解・地域文化）」の3点から、該当する単元を区切り、時間軸に沿って実施時期の順に並べたものを基本としている。

今回の実践研究では、このＥＳＤカレンダーにＥＳＤ学習の枠組みを取り入れた。その例（第6学年の例）を図2に示す。ＥＳＤに関連付けられた各教科等の単元が時間列に沿って並べられており、単元ごとに重視するＥＳＤ学習の枠組みが位置付けられている。図２において、各単元の下に付してある表記は、持続可能な社会づくりの構成概念（表１）とＥＳＤの観点に立った学習指標で重視する能力・態度（表２）を表している。例えば、「多様」「批判」は、「多様性」と「批判的に考える力」を表す。さらに、ＥＳＤの観点に立った学習指導で重視する能力・態度については、各教科等の単元ごと具体的な能力・態度も設定している。その例（第5学年の例）を、表３に示す。

＜実践研究＞「ＥＳＤ学習の枠組みを取り入れた地域学習の展開」＞

実践研究②は、地域学習にＥＳＤ学習の枠組みを取り入れた実践である。実践の場は、和歌山県である。和歌山県では、県内の多くの小・中・高等学校が、各地域の特徴・特色を題材に取り上げた地域学習「ふるさと教育」を展開している。そこでは、児童生徒に、郷土の自然、歴史、文化、産業など、郷土のすばらしさに気付かせるとともに、郷土を愛し守る育てる意欲や態度を育成することを目指している。

今回の実践では、県教育センターが協力校を指定し、その指導のもと、各校で実施された地域学習（教育課程上の位置付けは、総合的な学習の時間や選択教科・科目）に、ＥＳＤ学習の枠組みを取り入れた。各実践で取り上げたＥＳＤ学習の枠組みを表4に示すとともに、各実践の概要を次に述べる。

実践校Ａ「地域学習 －いま昔プロジェクト」：小学校
第1～6学年
この実践は「ふるさと教育と地域学習」をテーマとし、地域についての認識を深め、郷土愛を育むことを目処として展開したものである。児童は、地域の歴史や文化探検などについての調べ学習を行ったり、地域の人々へのインタビューや学習成果の発表を行ったりする
表4 実践校が取り上げたESD学習の枠組み

<table>
<thead>
<tr>
<th>実践校</th>
<th>主な内容</th>
<th>持続可能な社会づくりの構成概念</th>
<th>ESDの視点に立った学習指導で重視する能力・態度</th>
</tr>
</thead>
<tbody>
<tr>
<td>A小学校文化</td>
<td>I 多様性</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>B小学校環境</td>
<td>II 相互性</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>C小学校産業、食育</td>
<td>III 有限性</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>D小学校国際理解</td>
<td>IV 公平性</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>E中学校観光</td>
<td>V 連携性</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>F中学校防災</td>
<td>VI 責任性</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>G高等学校文化</td>
<td></td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>H高等学校文化</td>
<td></td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>I 高等学校観光</td>
<td></td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

実践校B「ショウロは健全な松林のシンボルだ」：小学校第4学年

この実践は、町のシンボルである「樫樹ヶ浜の松林」のもつ役割と、その保全活動の大切さについての認識を深めることを目指して展開したものである。県農林水産総合技術センター林業試験場の職員による指導や、振興局林務課、町役場亜鉛建設課、樫樹ヶ浜保全保護会会等の協力のもと、ショウロの発生誘導試験（健全な松林にしか生えないとされる食用キノコ「ショウロ」の菌を散布することに取り組んだ。児童は、自分の住む地域を守るために自分ができることは何かと考えながら体験学習を進め、地域の松林を大切に守っていこうとする態度を身に付けることができた。

実践校C「マイ醤油造り」：小学校第5学年

この実践では、地域の特産品である醤油を児童の手で作ることにより、地域の多くの人々との関わりで醤油が製造されていることや働く人々の苦労を実感させ、ものへの感謝の気持ちや郷土愛を育成することを目指した。この「マイ醤油造り」を、学校という狭い枠内の活動から、地域に支えられ、地域と交流した活動へと広げていった。その際、保護者や地域の幅広い支援・支援の存在が大きかった。協力し合って問題を解決することや、関わりある人々に感謝し、進んで活動することなど、他者と協力する態度が着実に育ってきた。

実践校D「国際理解－トルコとの交流－」：小学校第6学年

この実践は、1890年に近海で起こったトルコ軍艦の遭難事故の際の島民による救助活動を通じて始まったトルコとの交流に基づいている。人に対する優しさや思いやりの心、人と人とのつながりや生き方を学び、この地で育ったことを誇りに思える心情の育成を目指し、先人が続けてきた「慰霊碑を守る」活動や「追悼する」心を受け継ぎ、未来につなげていくことを重視した。こうした学習を通じて、先人の活動を受け継ぎ、守っていこうとする自覚や責任感が児童に芽生え、地域の人々やトルコの人々とのつながりなど新たな人とのつながりが生まれた。

実践校E「ふるさとの観光プランを立てよう」：中学校第2学年

この実践は、ふるさとを知り、ふるさとの良いところ
実践校F「新庄地震学」: 中学校第3学年
この実践は、地域の課題である地震・津波の防災に関する学習である。自然災害の起こり仕組みと自分を取り巻く環境との関わりを学習し、将来起こりうる災害に対する対策策、地域が期待する防災啓発、災害後の対応や未来づくりについて考え、生徒が将来の地域のリーダーとして活躍できるようになることを目指している。
生徒は、地震・津波の被害を最小限にするためには一人一人の防災への意識を高めることや、地域や行政機関、専門的機関等の取組を知り連携・協力することが重要であることを認識できた。また、生徒同士の協力と責任を重んじたグループ学習を行ったことにより、地震・津波に備えて自分ができることの自覚を高めることができた。

実践校G「世界遺産教育」: 高等学校第1・2学年
この実践は、世界遺産についての基本的な概念を学び、地域の世界遺産「紀伊山地の霊場と参詣道」に焦点を絞って調べ学習を行ったものである。現地調査として、年間で2～3回のグループによるフィールドワークも実施した。また、更なる学習の深化や遺産の保全を担っていくリーダーの育成を目指し、希望者を募り、生徒自らが道のりや古道の清掃活動にも取り組んだ。生徒には、他者の意見を集め、それを踏まえて自らの意見を伝える能力の向上が見られるとともに、現状の課題を多面的な視点で捉え、地域社会の活動に主体的に取り組む姿勢や態度が身に付いた。

実践校H「21世紀を自ら歩む – 地域学習を通じて–」: 高等学校第3学年
この実践は、地域を多面的、総合的に捉える中で、地

には先人が遺してくれた誇るべき文化遺産があること
を知るとともに、地域が抱える今後の課題についても
認識を深めるという学習である。高野山信仰の歴史文化
的価値についての認識を深めたり、地域に関する調べ学
習を行ったりして、地域社会に生きる市民の一人とし
て、各自が想定する地域の未来像を描き、その実現の
ために自分自身が何をすべきかということを考え
させた。生徒は、この学習を通して、自分自身と地域と
のつながりを自覚することを促し、未来の地域社会の担
い手としての責任感を身に付けることができた。

実践校Ⅰ「高校生観光プラン立案コンテスト『観光甲子園』への取り組み」: 高等学校第3学年
この実践は、学校設定科目「観光業務」における学習
である。地域で活躍する外部人材を授業に招くとともに、現地での体験学習を行い、外部機関と連携しながら地域振興のためのプランを作り上げていくという展
開で進められた。この学習過程の中で、「地域の魅力に気づく」「地域に誇るための方法を考える」「自分たちの考えたプランをプレゼンテーションする」という活動を
行った。こうした学習の成果の一つが、高校生観光プラ
ン立案コンテスト『観光甲子園』への出場である。生徒は、地域や全国大会等で高い評価を得ることができ、地域の復興・復興の力として地域から頼まれる存在になっ
てきた。

4. 実践研究の結果と考察
以上述べたように、実践研究①では、一つの小学校
において全ての教育課程での指導計画にESD学習の
枠組みを取り入れて学習を展開することができ、実践
研究③では、「ふるさと教育」という共通のテーマのも
to, 各学校・地域の特徴的な教材を取り上げ、小・
中・高等学校と導入でESD学習の枠組みを取り入れた
学習を展開することができた。図3・4は、実践研究①
及び②について、それぞれ取り上げられた持続可能な社
会づくりの構成概念（以下、「構成概念」と略す）と E
SDの視点に立った学習指導で重視する能力・態度（以
下、「能力・態度」と略す）の数を集計して示したもの
である。どちらの実践研究においても、構成概念と能力・
態度のすべてが取り上げられている。

実践研究①では、ESDカリキュラムにESD学習の
枠組みを取り入れることにより、学習活動の目標を明
確にすることがである。児童に、学習活動のどの場面で、
どんな力を付けたいのかを明確にすることできた。そ
して、各学年の重点課題を明確化し、教科等を超えた横
断的・総合的な指導を展開できたことが大きな成果で
ある。実践研究②では、従来実施してきた「ふるさと教育」
をESDの視点に立って整理したことにより、学習のね
らいと評価の観点をより明確にすることができた。そし
図3 実践研究①で取り上げられた構成概念と能力・態度

図4 実践研究②で取り上げられた構成概念と能力・態度

て、地域学習に広がりをもたらすことができ、ローカルな視点だけでなくグローバルな視点を加えることもできたことが大きな成果である。

このように、タイプの異なる実践において、E S D学習の枠組みを無理なく取り入れることができ、E S D学習の枠組みに基づいた実践を効果的に進めることができた。E S D学習の枠組みの有用性は概ね検証できたと言える。また、E S D学習の枠組みを教育課程全体に織り込むことや、小・中・高等学校を通して体系的に取り入れることの重要性を改めて示すことができた。さらに、今回の実践では、各学校で多くの教員が関わり、多様な学習を「持続可能な社会の構築」に関連付けることができたため、学校全体にE S Dの考え方を広げられたことも大きな成果となった。

しかし、図3に示されるように、実践研究①において、構成概念では「有限性」が、能力・態度では「批判的に考える力」が比較的少ないという結果になっている。また、図4に示されるように、実践研究②においては、
中・高等学校と比較して小学校において偏りが大きくなっており、実践研究①と同様に、小学校では「有限性」と「批判的に考える力」が少ないという結果になっている。これらのことから、例えば、小学校では低学年・中学年・高学年ごとに、「有限性」の具体例を設定したり、「批判的に考える力」の指導方法を工夫したりするなど、児童生徒の発達段階に応じて構成概念と能力・態度を更に細かく設定したり、小・中・高等学校を通して関連付けて指導する方策を検討したりすることが今後の課題と言える。

引用文献
国立教育政策研究所 (2010)：「学校における持続可能な発展のための教育（ＥＳＤ）に関する研究」 [中間報告書] pp.211.
国立教育政策研究所 (2012)：「学校における持続可能な発展のための教育（ＥＳＤ）に関する研究」 [最終報告書] pp.354。
「ＥＳＤの学習指導過程を構想し展開するために必要な枠組み」を活用した教育実践

※ 本論文は、「The Education Practices Utilizing the “Framework Necessary to Design and Develop Learning Instruction Processes for Education for Sustainable Development (ESD)” ’(国立教育政策研究所 紀要 第142号)の和訳である。
＜NPO、企業、教育機関、その他民間団体の皆様へ＞

＋ＥＳＤプロジェクトに是非ご協力をお願いします！！
下記のウェブサイトから今すぐ登録できます。
⇒ http://www.p-esd.go.jp/top.html

〇地球温暖化や貧困などの地球規模の問題から、里山の荒廃や地域コミュニティーの衰退などの地域レベルの問題に至るまで、様々な問題が社会・経済活動を取り巻いています。
〇これらの問題を解決し、持続可能な社会をつくる担い手づくりのために必要なＥＳＤ（持続可能な開発のための教育（Education for Sustainable Development）の略称）の活動を推進するため、個々の活動を見つめやすくし、活動者同士をつなげる手助けをして、地球規模・地域社会の問題を解決することを目指すプロジェクト、それが、＋ＥＳＤプロジェクトです。
★世界では、2002年の国連決議に基づき、各国でＥＳＤに取り組んでいるところです。
★日本では、国内実施計画を策定し、＋ＥＳＤプロジェクトを推進しています。
★また、2014年には、日本で、ＥＳＤに関する世界会議を開催することが決まっています。

＜課題＞
〇環境保全、自然体験、環境教育などの活動はたくさんありますが、ＥＳＤの視点で適切にとらえているものは、まだまだはあります。
〇活動を広げようとしても、協力相手を見つけることが困難な状況です。
〇2014年のＥＳＤに関する世界会議が近づく一方、産学官民の盛り上がりに欠けています。

＜＋ＥＳＤプロジェクトに参加すると･･･＞
〇ＮＰＯなどの民間団体にとっては、自分たちの取組を広く知ってもらえ、環境教育などの社会活動を行っている仲間にとのつながりが生まれ、イベントに参加してもらう機会が増えます。
　また、学校とのつながりも生まれれば、学校教育への進出、提案もしやすくなります。
〇企業にとっては、自社のＣＳＲ活動等を他の活動者向けに情報発信できます。
〇大学などにとっては、実施している環境人材の育成プログラムを登録することなどにより、教育方針や地域社会への貢献をアピールすることができます。
〇地方自治体などにとっては、地域のプログラムの知名度が上がり、参加者の拡大や地域の振興が期待できます。
〇基金や支援法人にとっては、支援内容が広く知られることにより、優良な案件の応募や採択につながります。

あなたの活動や取組が＋ＥＳＤプロジェクトにあてはまるかどうか、チェックするポイントは、6つの概念7つの能力です。まずは裏面のチェックシートで点検してみてください。
あなたの活動を、ＥＳＤの視点でとらえてみてください。
ポイントは、6つの概念（Ⅰ～Ⅵ）と7つの能力（①～⑦）です。

A．持続可能な社会づくりに関する以下の6つの概念のいずれかを拔っていますか？

| Ⅰ  | 多様性（例：社会は多様多様な物事から成り立ち、多様多様な現象が起きていること） |
| Ⅱ  | 相互性（例：社会は互いに働き掛かるシステムであり、物質等が循環し、人と人が互いに関わり合っていること） |
| Ⅲ  | 有限性（例：社会を成り立たせている資源やエネルギーには限りがあること） |
| Ⅳ  | 公平性（例：持続可能な社会には、基本的な権利の保障などが、地域や世代を渡って公平・公正・平等であることが大切であること） |
| Ⅴ  | 連携性（例：持続可能な社会は、多様な主体が状況などに応じて順応・調和し、互いに連携・協力することにより構築されること） |
| Ⅵ  | 責任性（例：持続可能な社会は、多様な主体が将来像に対する責任あるビジョンをもち、それに向かって変容・変革することにより構築されること） |

B．Aの課題を見いだし、解決するために必要な7つの能力のいずれかを身に付けることができますか？

| ①  | 批判的に考える力 （例：客観的な情報や公平な判断に基づき、物事を思慮深く思考・判断する力） |
| ②  | 未来像を予測して計画を立てると力 （例：過去や現在に基づき、あるべき未来像を予測し、他者と共存しながら物事を計画する力） |
| ③  | 多面的、総合的に考える力 （例：人や物などのつながりや広がりを理解し、それらを多面的、総合的に考える力） |
| ④  | コミュニケーションを行う力 （例：自分の気持ちや考えを伝えるとともに、他者の気持ちや考えを尊重し、コミュニケーションを行う力） |
| ⑤  | 他者と協力する態度 （例：他者の立場に立ちその考えや行動に共感し、他者と協力・協働して物事を進めようとする態度） |
| ⑥  | つながりを尊重する態度 （例：人や物などと自分とのつながりに関心を持ち、それを尊重しようとする態度） |
| ⑦  | 進んで参加する態度 （例：集団や社会における自分の言動に責任を持ち、物事に主体的に参加しようとする態度） |

例： 自然体験・自然観察（Ⅰ⑥）、地元の川の清掃活動（Ⅱ⑥）、環境を軸としたまちづくり（Ⅵ②）
環境に関する映画鑑賞と製作者との座談会（Ⅰ①）、地域の子ども・高齢者見守り活動（Ⅴ④）
地域の食材を義務的に学校給食に使用（×）、エコグッズの販売・促進のみ（×）

注：ＥＳＤにおける概念、能力は、上記に限定されるものではありません。

2014年には日本で「ＥＳＤに関する世界会議」が開催されます。
2014年に来日する人々に、ＥＳＤ先進国、日本をアピールしましょう！
平成24年度教育改革国際シンポジウム
「ESDの国際的な潮流」
日 時：平成24年12月18日(火) 会 場：文部科学省講堂

プログラム

13:00-13:15 主 催 者 挨 拶
尾 崎 春 樹 国立教育政策研究所長

13:20-14:55 各地域におけるESDの現状と課題についての発表
【ヨーロッパ地域】
ミッシェル・リカード
フランス ミシェル・モンテーニュ＝ボルドー第3大学教授、ユネスコチェア

【北米地域】
チャールズ・ホプキンス
カナダ ヨーク大学ユネスコチェア

【オセアニア・アジア地域】
野 口 扶 美 子
認定NPO 法人持続可能な開発のための教育の10年推進会議(ESD-J)
国際プログラムコーディネーター

【日本】
角 屋 重 樹
国立教育政策研究所教育課程研究センター基礎研究部長

14:55-15:15 コーヒーブレイク

15:15-16:45 パネルディスカッション ESDの過去・現在・未来

パネリスト
ミッシェル・リカード、チャールズ・ホプキンス、野口扶美子、角屋重樹

コーディネーター
五 島 政 一
国立教育政策研究所教育課程研究センター基礎研究部総括研究官
Program

13:00—13:15 Opening Remarks
Haruki Ozaki Director General, NIER

13:20—14:55 Presentations: Trends and Issues on ESD

[Europe]
Michel Ricard
Professor, University Michel de Montaigne Bordeaux 3 (France)
UNESCO Chair “Education, Training and Research for Sustainable Development”

[North America]
Charles Hopkins
UNESCO Chair, York University (Canada)

[Oceania and Asia]
Fumiko Noguchi
International Programme Coordinator
Japan Council on the UN Decade of Education for Sustainable Development

[Japan]
Shigeki Kadoya
Director, Department for Curriculum Research, Curriculum Research Center, NIER

14:55—15:15 Coffee Break

15:15—16:45 Panel Discussion: The Past, Present, and Future of ESD

Panelists
Michel Ricard, Charles Hopkins, Fumiko Noguchi, Shigeki Kadoya

Coordinator
Masakazu Goto
Senior Researcher, Curriculum Research Center, NIER
ミッシェル・リカード
ミシェル・ド・モンテデュ＝ボルドー第３大学教授、ユネスコチェア

ミッシェル・リカード氏は、科学博士で、ボルドー大学教授（生態学および生物学）である。「持続可能な開発のための教育・訓練・研究」のユネスコチェアであると同時に、環境・持続可能な開発のためのデジタルユニバーシティ学長、ユネスコのESD世界会議の国際運営グループのメンバー。さらに、環境・学校イニシアティブ（ENSI）の国際ネットワークの副議長、毎年開催の「科学と海洋倫理」会議議長、国連欧州経済委員会（UNECE）運営委員会及び「国連持続可能な開発のための教育の10年」の理事会メンバーであり、学生を対象としたヨーロッパのTEMPUS ESDプログラムのフランス国内を担当している。

リカード氏は、15年間にわたり、パリのフランス国立自然史博物館で生態学および生物学の科学プログラムを監修した。大学に赴任後、フランス国内の大学2校の総長となり、その後自然資源高等研究所長に就任。この間、生態学・生物学の数々の学位論文を指導、百本近くの科学論文や何冊もの本を出版、数々の国内・国際科学イベントを企画。

2002年からは、フランス首相直属の2つ組織、持続可能な開発のフランス国内カウンシル及び国連ESDの10年のフランス国内委員会のチェアとして、ESDに主に従事している。この枠組みで、フランスの学校システムに持続可能な開発の必修プログラムを導入した。2004年から2008年には、ESDの国際会議を3つ企画。国連のESD10年のUNESCO運営委員会ではフランスの代表者として参加。ヨーロッパ環境諮問委員会持続可能な開発ワーキンググループ議長も務めた。

また、リカード氏はレジオン・ドヌール勲章、フランス国家功労賞、学術功労賞、農業勲章を受賞している。

Michel RICARD has a doctorate in Sciences and is a professor in ecology and biology at Bordeaux University. In charge of the UNESCO chair "Education, training and research on sustainable development", he is also the president of the digital university for environment and sustainable development (UVED) and a member of the International Steering Group for the UNESCO World Conference on Education for Sustainable Development. In addition, he is vice-chair of the international network Environmental and School Initiatives (ENSI), chair of the yearly conference "Sciences and ethic of the sea", member of the UNECE steering committee and board of the UN Decade of education for sustainable development (DESD) and in charge for France of the European Tempus program on ESD for licence’s students.

Michel RICARD spent 15 years at the French Museum of Natural History in Paris where he supervised several scientific programs on ecology and biology. After moving to the University, he was the Chancellor of two French universities, then the director of a higher institute on natural resources. During all this period, he supervised several thesis, published about a hundred of scientific papers and several books on ecology and biology and organized several national and international scientific events.

From 2002, Michel RICARD was mostly involved in educations for sustainable development (ESD)
as the chair of two bodies attached to the French Prime minister, the French council on sustainable development and the French committee of the UN Decade on education for sustainable development. In this framework, he notably introduced a compulsory program on sustainable development in the French school system. From 2004 to 2008, he organized three international conferences on ESD: furthermore, he was the representative of France at the UNECE steering committee of the UN ESD Decade and the chair of the SD working group of the European Environmental Advisory Council (EEAC).

Michel RICARD is a holder of several awards: knight of the French Legion of Honour, of the French National Merit, of the Academic Palms and of the National Order of Agriculture Merit.
チャールズ・ホプキンス
ヨーク大学ユネスコチェア

チャールズ・ホプキンス氏は現在、カナダのヨーク大学（トロント）において、大学院課程で教鞭をとりながら、ユネスコチェアとして、初等中等教育段階の教師教育に持続可能な開発を取り入れようと協働する、70カ国をこえる国々の教師教育機関の国際ネットワークで調整役を担っている。また、2014年に愛知県名古屋市で開かれる持続可能な開発のための教育（ESD）ユネスコ世界会議に関し、ユネスコ、国連大学、および日本政府に対するESDのシニアアドバイザーを務めている。

カナダ国内においては、持続可能性を取り組む学校システムへの転換に携わる教育分野の高官やリーダーたちを補助するために作られた共同職業能力開発プログラムである、持続可能性と教育アカデミー（SEdA）の共同所長である。また、ジョン・ディアネス環境協会の議長も務める。

過去には、教師の他、校長、教育課程指導主事、トロント教育委員会地方委員長の経験もある。1960年代より環境教育に従事し、カナダで初となる宿泊設備完備の環境委教育センターのセンター長を務めたこともある。

ホプキンス氏は、教育、ESDの分野における長年のリーダーであり、70以上の国において、講演や論文発表を行ってきた。エコロジーの教科書の著者であり、数々の本の章や学術論文を執筆。教育、環境、持続可能な開発を取り扱うドキュメンタリー番組にも出演経験がある。

Charles Hopkins is currently the UNESCO Chair at York University in Toronto, Canada where as well as lecturing in the graduate program, he coordinates an international network of teacher education institutions from over 70 countries collaboratively working upon the reorientation of elementary and secondary teacher education to address sustainable development. Hopkins is a senior advisor regarding education for sustainable development to UNESCO, the UN University and the Government of Japan regarding the UNESCO World Conference on ESD to be held in Aichi Nagoya in 2014.

Within Canada, Hopkins is the Co-Director of the Sustainability and Education Academy (SEdA) which is a collaborative professional development program designed to assist senior education officials and leaders in reorienting school systems to address sustainability. He is also Chair of the Board of the John Deearness Environmental Society. Previously, Charles was a teacher, a principal, a superintendent of curriculum and a regional superintendent with the Toronto Board of Education. He has been involved in EE since the 1960’s and at one point was the Director of Canada’s first residential EE Centre.

A long time leader in the fields of education, and ESD, Hopkins has lectured and presented papers in over 70 countries. He is the author of a textbook on ecology, of numerous book chapters, journal articles and has appeared in television documentaries dealing with education, the environment, and sustainable development.
野口 扶美子

認定NPO法人持続可能な開発のための教育の10年推進会議（ESD-J）国際プログラムコーディネーター

1992年津田塾大学国際関係学科卒業。卒業後、シティバンク銀行で金融企画商品開発・信託業務などの業務に携わる傍ら、地元葛飾区の国際理解教育や国際交流団体の設立など、地域での市民活動を継続。92年の「環境と開発に関する国際連合会議（リオサミット）」で「持続可能な開発」を知り、ライフテーマとすることを決意。持続可能な開発に向けた地域コミュニティのエンパワーメントや伝統知・先住知の重要性に気付き、環境教育を学ぶために渡豪。ジョン・フィン教授による指導のもと、2000年グリフィス大学環境教育学修士課程修了。大学院を含め、約7年オーストラリアに滞在。タイ環境省でのインターン、オーストラリアでの先住民族アボリジニの文化的視点に根差したエコツアーの企画・実施の他、多言語放送コミュニティラジオのディレクター、パースチョイス（出産の選択権）運動等の市民活動にも従事。


オーストラリアの環境教育・ESD政策に関するペーパー、アジアのNGOによるESD活動の分析、論文等の執筆、ESD国際実施計画、ESDポスター宣言文の翻訳なども行う。

Fumiko Noguchi is a doctoral candidate at RMIT University, Australia, as well as International Programme Coordinator for the Japan Council on the UN Decade of Education for Sustainable Development (ESD-J). She obtained a Bachelor of Arts in International and Cultural Studies from Tsuda College, Tokyo, in 1992. After five years’ experience of working for Citibank N.A. in Tokyo and volunteering at NGOs in her local community, she pursued and completed a Master’s of Environmental Education from Griffith University, Brisbane, Australia, under the supervision of Prof. John Fien.

Since the Rio Summit in 1992, she has devoted her life to seeking sustainable development through education. In particular, she has been working on EE, EFS and ESD, from the local community, indigenous, and civil perspectives. She has designed and coordinated projects and programmes for local communities, and worked with governments, businesses, NGOs, and local and indigenous peoples in Australia and Japan.

In the last nine years, she has been committed to working for ESD-J and conducting projects for the documentation and analysis of local community-based ESD activities particularly by NGOs in Asia including Japan, networking with NGOs in Asia on ESD, and engaging in policy advocacy in international communities, including the G8 Summit in 2008, CBD COP10 in 2010 and Rio+20 in 2012.
She is currently pursuing her PhD study at RMIT University, Melbourne, Australia, from July 2011, under the supervision of Prof. Fien and Dr. Roberto Guevara. Her published articles cover topics such as EfS trends and policy in Australia and ESD efforts by civil society organisations in Asia. She has translated EE, EfS and ESD related policy papers, including the UN DESD International Implementation Scheme and the Bonn Declaration from the ESD World Conference in 2009.
角屋 重樹
国立教育政策研究所教育課程研究センター基礎研究部長

Shigeki Kadoya is Director of the Department for Curriculum Research in the Curriculum Research Center, National Institute for Educational Policy Research (IER) of Japan. He was born in Mie Prefecture in 1949. He completed his doctorate studies at Hiroshima University’s Graduate School of Education with a focus on science education in March 1980 and holds a doctorate in education. Before joining NIER, he held positions such as Research Associate at the Faculty of Education at Hiroshima University, Senior Specialist for Curriculum at the Elementary and Secondary Education Bureau of the Ministry of Education, Culture, Sports, Science and Technology (MEXT), and Professor at the Graduate School of Education of Hiroshima University.