Globalization accelerates the competition which leads people’s innovation and generates winners and losers. The Japanese society faces the needs of change to be more sustainable because of its population decline and global competition. School education is tackled with by the strong pressure from knowledge economy in which innovative creativity work out. The results of several education surveys show the Japanese students' performance poorer than expected so that many challenges are taken for better learning conditions. Some guardians still believe high test score is necessary to survive, others already start to emphasize more proactive heuristic competency in the society.

The United Nations (UN) has taken the initiative for sustainability in the name of the Decade of Education for Sustainable Development (DESD 2005-2014) which requires holistic views of educational conditions and evaluation. Because the Japanese government proposed the concept to the Summit and UN in early 2000s, Ministry of Education promotes the ESD campaign through the country.

This article summarizes the Japanese education policies for UNESCO's ESD, focuses on the 13 education activities at the school level, and argues the social competence as an important learning outcome nourished by the ESD practices. ESD creates opportunities for students and teachers to obtain social competency which could be advantageous to the present and future Japanese society because it creates the base for cooperation and innovation more than individual stand-alone performance.

**Keywords:** Learning Outcome; Social Capital; Sustainability Education; Learning Material; Japan
Globalization never leaves people and communities alone today. The Japanese face the competition against newly raising countries in Asia and the rest of the world. As education generally make the human more useful for the industry by the means of school system, students and their parents are sensitive to the outcomes of what is learned at school. The decline of the young population compels the Japanese economic conditions to change, and the people sense a coming see change toward the next political and social stage\(^1\). The high pride of strong Japanese economy dropped among the most industrialized countries, and about 100 people kill themselves everyday for their lost of jobs and family - social belongings - in this hard time\(^2\). Human communication and social relationships are more important for the Japanese people than ever before (Kadowarki 1999). Japanese schools recently receive many non-Japanese background students who potentially bring an opportunity to develop various communication skills for the Japanese children and parents, although the official education system is hard to shift the quick change from the rules and regulations. Many people strongly believe education is the panacea for problem-solving.

Meanwhile, there are positive movements in education today. There is a new alternative approach in education to change the Japanese society more sustainable. Some teachers and schools make proactive lessons for sustainability in natural environment and human society. While environmental education is popular among active teachers of science and social science for quite a long time, the new move is that the teachers try to make their lessons across regular traditional subjects such as mathematics, language and foreign language(s), moral education, home economy, and music in addition to the above two subjects. There has been also the official crosscutting-subject lesson called "integrated study\(^3\)" since 2002 in Japanese school,

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1 For example, the national election of the Lower House was held on August 2009 and the result was very historical that the 60-year-ruling party lost the cabinet seats almost one third as the public really got angry against the party for wasting the governmental resources too long in the severe economic timing. However, the new ruling party lost the national election of the Upper House in 2010 because it could not control the economy good enough.


3 A period of “Integrated Studies” was created within the Japanese school curriculum from elementary to upper secondary school levels in 2000 before the resolution on DESD was adopted. This is lessons that cover the topics across traditional subjects and allow for the implementation of instruction and learning activities related to education for international understanding, information education, environmental education, health and welfare education, and other educations. The knowledge and skills are developed by integrated learning activities whose contents are set by student’s interests for their own life. The numbers of lessons in a year are 105 to 210, depending on the school level. Although the number of “Integrated Study” lessons declines in the recent curriculum reform, ESD practice survives even in subject lessons because the new Course of Study (National Curriculum) mentions the sustainability which gives the foundation of ESD in school.
set 6 lesson hours a week. The series of lessons cover the wide range of materials and learning environments. The popular contents are communication activities in English with non-Japanese, educational activities with the internet, and exploratory activities in the field. It is also used for educational trials to let students and their parents consider and take action for sustainable future across the country.

For education policies at the international level, the United Nations Decade of Education for Sustainable Development (UNDESD) was declared in 2003 after the Japanese government proposed the approach of education for sustainability at the UN General Assembly in 2002. UNDESD started in 2005 and will continue up to 2014. As the half of the Decade is passing, many activities - in and out of school - are focused on for more specific evaluation of education for sustainable development (ESD) practices today (UNESCO (2009)).

For domestic promotion, the Asia Pacific Cultural Centre for UNESCO (ACCU) received the fund of Japan-UNESCO Partnership Project from the Japanese National Ministry of Education in 2008 and published the guidebook for education practitioners and school managers in Japan in March 2009. ACCU printed 17,000 copies of the guidebook, extended by request from schools, although it originally planned to print only 6,000. It still receives the request from teachers and ESD practitioners. The guidebook consisted of four parts: namely, 13 Case Studies, Approaches to ESD, Competency nourished by ESD practice, and Review of UNDESD and domestic ESD. The guidebook shows good ESD practices to the public and local education boards and explains the base for applied practices to the school teachers who are interested in the activities in the framework of the Japanese National Official Curriculum.

Why did the guidebook receive such amount of request? Many active Japanese educators see the needs for student's personal development to cooperate with each other in reality because competition is natural as far as the Japanese schooling system remain the same and ESD could provide an opportunity to develop social collaboration with available resources. The purpose of this article is to describe the Japan’s education policy and practice about education for sustainable development in the world trend, to examine the issues raised from the education practices studied in the ACCU research project, and to argue the social competence as an important learning outcome nourished by the practices for today’s Japanese children and teachers.

4 However, the Ministry recently decided to decrease the number of the lessons at the next new National Curriculum because the public criticism became stronger after the student’s low performance in several assessments was broadcasted widely. There were also some teachers who did not know what to do in the “integrated study” lessons.

Method

Definition
There are definitions of sustainability and ESD. UNESCO as the UNDESD lead agency publishes many booklets and reports. For example, UNESCO (2005) explains “Sustainable development, a constantly evolving concept, is thus the will to improve everyone’s quality of life, including that of future generations, by reconciling economic growth, social development and environmental protection. … [I]mproving the quality of life takes on a different aspect from one continent to another, from one region to another, and from one country to the next. No single continent, government, institution or individual, however, can attain this alone because the nature of the challenges to overcome requires a global, collective, and individual commitment) (p.3).” The present project defined ESD more micro-level as “the learning to become children or adults who express their opinions and take action along with the process of investigating and considering together at various stages, space and levels such as school, family, community, country and the globe in order for the people in the world today and tomorrow to build the sustainable future in which we can continue living (Narita 2009). By this definition, this article confirmed environmental education, tends to pay dominant attention to the environmental issues, could be included but not the main practice here. Preciously, more socio-cultural aspects of lessons and activities in formal school were carefully to be observed.

Procedure
The Asia-Pacific Cultural Centre for UNESCO (ACCU) has made educational materials for developing countries in the field of non-formal education for more since 1971 (Asia/Pacific Cultural Centre for UNESCO, n.d.). It received the project fund, mainly for the support to UNESCO-Associated Schools Project (ASP) Network, provided by the Japanese National Ministry of Education in FY2008. The goal of this project was to publish the educational material guidebook about ESD for school teachers in Japan. For the purpose, the project team was organized by ACCU, and seven education researchers and practitioners, in addition to several advisors, became the project members. The team selected the 13 ESD practice cases to study across the country. The selection standards were as follows:

1. The case is true with the project's definition of ESD;
2. UNESCO-ASPnet school is preferable; and

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\(^6\) Associated Schools Project Network (ASPnet) was set to practice the principle in the UNESCO Charter, to study experimental trials on education for international understanding comparatively and to coordinate them in 1953. It started with 33 organizations in 15 countries and grew up to about 8500 schools in 178 countries. There are 92 schools from kindergarten to high school and teacher training
3. The practice which school continues for a long time, although it is not titled such as environmental education or ESD.

The team members separately visited the practice sites between 18 December 2008 and 16 February 2009. The members conducted in-depth interview for at least three hours with teachers and school head at each site. The interview covered issues of purpose/goal, backgrounds, and challenges in the case. The team also reviewed the related documents from school reports to official documents at administration and local governments to describe the cases.

ESD could include many activities out of formal education like natural conservation activities in the community promoted by a civil organization. The team, however, limited formal school activities and lessons in this study because the Japanese school education is well-organized and plays the tremendously important role for the children's life\(^7\). The project tried to identify the role of the educational and learning materials in the process of ESD learning. The materials were not only visible hardware but also surroundings in and out of school. The project purposefully focused on educational practices which continued for years\(^8\), as the third standard shows, and tried to pick up the local wisdom which could be sustainable by itself.

In addition to the observation and interviews, the team reviewed literature on domestic and international political documents and the decision-making process for ESD policies in Japan and in international organizations. The following results firstly show the summary of these documents and the 13 cases are described in the second half.

**Results**

*International Scene and Policy on ESD*

The United Nations Conference on the Human Environment was held as the high-level official meeting in Stockholm in June 1972 to deal with environmental issues and made a trigger for activities among the 113 participating countries at the global level. There was conflict between the industrialized countries, believing development destroyed nature, and the developing countries, arguing under-development was the largest cause for the poverty. The public interests grew for the causal relationships between environmental issues and economic development then.

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\(^{7}\) Children at least spend their time from 8 am to 3 pm in weekday in Japan, and almost all of them participated in all the school activities

\(^{8}\) It was hard, and not intended, to draw a line which case lasts longer than others in the scale of sustainability
The concept of sustainable development rose in 1980s. The Japanese government appealed at the United Nations in 1984, and World Commission on Environment and Development or so-called Brundtland Commission defined the concept as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” in the final report “Our Common Future” in April 1987 after three-year discussion. When the definition was understood in 1991 for leading the unlimited growth, the report “Caring for the Earth” as a new World Conservation Strategy suggested to maintain the eco-system based on the limits of resources on earth and to improve the living conditions for human race. The United Nations Conference on Environment and Development mentioned economy, society and environment as components of sustainable development in June 1992.

The Japanese government proposed it would lead ESD at the Johannesburg Summit in 2002. The then Japanese Prime Minister spoke “Japan, a country poor in natural resources, has grown to be what it is today on the strength of its human resources. It has attached paramount importance to education as the basis of development. My government, together with Japanese non-governmental organizations, has proposed that the United Nations declare a ‘Decade of Education for Sustainable Development.’ We shall provide no less than 250 billion yen in education assistance over a five-year period.” This suggestion was included into the ESD implementation plan as a result of the Summit and was submitted to the United Nations as a proposal on UNDESD. It was supported by other 46 countries for the joint proposal and received solid vote at the 57th UN General Assembly (ACCU (n.d.). This was how the international political initiative started: The UN Decade of Education for Sustainable Development from 2005 to 2014. At the domestic level, the Japanese National Commission for UNESCO started to promote the ESD concept to schools and assist them to apply for UNESCO-ASPnet school.

The 13 Practice Cases
Now let us look at the cases the present project studied. Each case could be briefed as follows:

1. Traditional Textile: Matsuzaka. Matsuzaka used to be very famous textile for the Kabuki play in the Edo mid-age era. The case makes students remember it and start business by the students themselves.

2. Pict-sign: understanding across borders. Universal design is focused on in this case. Students experience the disabled conditions and make their school accessible

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to anyone without Japanese language.


4. *Plastic Bottle*. Recycle movement becomes so common in Japan today that students and their parents collect the top of the plastic bottle for both recycle and financial assistance to the disabled people.

5. *Samurai Boy: Minamoto-no Tomonaga*. Tomonaga (1143-1160) was an actual Samurai who died young for his brothers who created the first government in Japanese history but received very little attention from the public. The students find the value of locality and make it public by themselves in this case.

6. *Sushi on Convey*. What makes Sushi so reasonable to everyone today? Students find the whole process and backgrounds we eat at Sushi bar and extend their understandings about the fast food and economic circulation today.

7. *School Library*. People read books fewer and fewer today. This case promotes student’s participation in reading and motivation toward reading.

8. *The “eco-pika” Set*. Okayama, southern Japan, is active in environmental education and students cooperate with community movement for environmental protection. The “eco-pika” set is the cleaning tool made by recycled goods.

9. *The River Omose*. The River Omose is natural learning material for schools around it. Students go in the river and catch lives to observe with scientific investigation to check the change in condition of the river.

10. *Hungry Experience*. We eat enough more than necessary today. But the case shows students grow grain and livestock by themselves and eat them to find their importance because they shock by the gained small amounts.

11. *Disaster Prevention Map*. Sendai, northern Japan, will face large earthquake within a decade. Students and families prepare the hazard map to survive the disaster. They find how people can make the victim smaller.

12. *Questionnaire to Think Back*. Mathematics, many students do not like today, is used in many places. If people know it well, it can be a tool of empowerment of them. By making own questionnaires, students find its importance.

13. *Mozambique: a far country changes us*. School is sometimes isolated from the surroundings. The case school cooperates with an NGO, assisting Mozambique, for students to think about development and own life style for their own action to live together.

The eight (case 2, 3, 4, 6, 8, 9, 11, 13) out of the above 13 cases used the concept of ESD as the core of their lessons, and the rest did not mention the concept of ESD or even its name. One of the practices about the local Samurai boy (case 5) was taken at the final stage of students' learning activities and lasts more than 10 years, although the teachers and students never knew about ESD. The case 1 did not know about ESD but developed students’ ability such as meta-recognition, self-reliance, and
self-controlled learning. The students set their own goal and thought objectively how to reach it. This ability promoted their academic learning and performance because they could identify their own stage of understanding in mathematics, for example, and think how to develop it by themselves.

On the other hand, the case of a UNESCO-school in Kesen-numa located in Sendai city, northern Japan, was found as one of the top-level practice, approved by the UNESCO (case 9). The author interviewed with the school head and teachers on 28 January 2009 and found the elementary school and junior high were connected as continuum of learning for the students. The case proves the interaction within students and between students and teachers. The headmaster in the case explains the largest difference of ESD from environmental education (EE) is whether students learn to take action. The school head and teachers explained the tales of shift from their practice of EE to ESD and clarified the identity of ESD as taking personal action among students in addition to self-reflection in EE. The local education board supported the schools’ activities strongly for the international UNDESD.

Narita (2009) summarizes practices in common approaches as like underground water flown in the cases in the guidebook. All of them contain the aspect of sustainability, social connectedness, and participation. Maruyama (2009a) mainly focuses on the social connectedness in the guidebook and points out the possible development among students in the process of learning in the ESD lessons. He uses the concept of social capital, especially the bridging social capital besides the bonding one, as the most important learning outcome for the Japanese students and adults who are good at building the strong bonding ties among their in-group but rather poor between different out-groups.

Discussion

Political initiative and learning one another

For accountability and fund-raising, recent learning is believed to have clear evaluation mechanism. Evaluation tends to be conducted by higher level investigator such as teachers or external agents out of school. The outcomes of schooling are measured as academic performance examined by the series of tests. Teachers are evaluated by their school head. Many teachers had already conducted their original activities with students but faced the difficulty of being well evaluated because their activities used to be recognized something extra to the normal lessons before the political initiative of ESD taken in 2005.

11 Generally speaking, the Japanese education system has a bridging problem of knowledge and skills the students learn between the different school levels.

12 For example, private academic tests, aiming at entrance examination of higher education stage, are common for students in Japan.
However, the political initiative and recognition of ESD promote their activities better. This is thanks to the international movements influenced to the Japanese situation, as the Japanese education system is highly authorized by the governments. The central government has strong authority and takes initiative for ESD as a part of recent education reform. For example, the government changed the law on official teacher's license to shift permanent to the update system in June 2007, and the system started in April 2009. The change of system received some criticism but was also understood that it could bring an opportunity to update teacher’s knowledge and skills, including an idea of ESD because the National Course of Study mentions sustainability in science, social studies, moral education and special activities.

The present study shows this normal trend of evaluation, and at the same time, the same-level monitoring, or informal peer review, was observed. In other words, a teacher came in the class to observe the lesson practice of another, and the observer and the receiver review the performance together after class. The author interviewed the teachers in the case who explained they hesitated to come into the class to observe at first because they had never tried, but they became used to it for their own improvement of the practices. The exchange between teachers takes place quickly only five or ten minutes but they now can check their position of teaching more objectively and more frequently. This is a good informal learning for new teachers particularly experienced little in teaching. The students also evaluate each other by their own products and presentations, while referring to their teachers’ attitude. In the case the students made own mathematics tests by themselves.

Sato (2001; 2009) explains the communication among students creates the space of learning and increases motivation toward learning by students themselves. In the process of empowerment evaluation, as Fetterman (2001) and Nagata (2009) show, there is always dialogue among stakeholders. The present study also shows the peer-reviewing which relates with empowerment of actors. The school teachers evaluate each other and sometimes are evaluated by students. There is, however, a risk in Japan that participants/evaluators tend to feel satisfied with the own evaluation and exclude the views of other views.

**Social competence in meritocracy**

As Hofsted (2001) shows the lower level of the Japanese people’s tendency of avoiding

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13 Private school are minor in elementary (729 out of 10,955) and junior high (1,322 over 5,313) as of March 2007 (Ministry of Education, Culture, Sports, Science and Technology 2008). All the schools must conform to the National Standard for the learning contents and strict criteria for safe building set by the government.

14 The stop or pause of the update system is under consideration by the new government, won a national election and started in September 2009

15 It provides the actual national minimum standard of each subject.
uncertainty than other countries and Nakane (1968), one of the most influential Japanese anthropologists, describes the Japanese people’s exclusiveness against outer group members, the people are prone to keep close relationship strong. Putnam (2000) and Woolcock (1998) explains such as a social structure could be categorized as strong social connectedness in which people share something common and maintain their close relationship, and this can be regarded as bonding social capital. It brings benefit to the in-group members but not to the out-groups.

However, there is more sustainability in relationship between different groups. In addition to the “dark side” of the social connectedness, shown by literature (Portes 1998; Lin 2001; Fukuyama 2001; Putnam 2000, and Field 2008), Maruyama (2009b) introduces an example of a good practice in a Japanese local city for its sustainability by focusing on its wider social relationship across the different groups. This is called bridging social capital (Putnam 2000; Narayan 1999), a structural hole (Burt 1992) or weak tie (Granovetter 1973) in the people’s network. This is because learning activities have provided with local resources in the students’ life contexts which come with relationships with local people. For example, Samurai boy (case 5) was one of the oldest education practices at local contexts. While the students in the cases shared common vision as same as other traditional ones, they also worked with others out of schools in their community. The Japanese schools are generally surrounded by physical walls or fence to prevent potential dangerous outsiders from coming in the school space. The cases showed the practices ran over the walls to collaborate with outer people.

In the age of accelerated competition, student’s individual performance catches more attention from their parents and the public. The rigid or reliable academic ability, shown by score of subject examinations, is focused again after the impact of international and domestic surveys in Japan. Some Japanese are still eager to win the competition and regard those who drop out of the race as social losers. Kariya (2001) points the economic conditions of family influence appear more on the student's resources for learning and education investments than before in the contexts of meritocracy. In addition, Honda (2005) also empirically shows the positive relationship between the performance and social network in family and in community.

However, the present cases show the collaborative works, requiring students' and teacher's will and skills to participate in the activities, created the situation in which the students learn from others for their interests, and meantime, the teachers can also informally learn something from students. This process needed social skills of collaboration among students and teacher so that the social competence could be developed in the ESD practices. When social competence is important, it must be opened and tolerant to various opinions, positions, groups and others. EDS practice

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16 Although bridging social capital is more beneficial than bonding one, it also has risk to nurture insider networks and thus reproduce inequality. It may also serve perverse goals (Field 2008).
requires such a mental positioning and actions to change their attitudes and surroundings by themselves as actors in human society. As Yunus (2007) shows, the competence could be advantageous to the individuals and the community in the future as the base for social business which is increasing today.

Conclusion

Globalization is one of the strongest pushing forces which dynamically change the Japanese society to be more flexible. The Japanese were good at producing the things efficiently but kept the past successful experience even in the dynamic change. When people look away from the change and persist with the past experience, the society would be hard to sustain today.

This article firstly described the international and domestic ESD political initiatives and movements which support and accelerate the school practices. The case practices were reviewed in these contexts, including newly short and long-lasting ones, even though some did not intend to contain the ESD concept. All the cases had approaches of social sustainability and social competence. The social competence, understood here as stock of bridging social capital, needs to be open to different others, as Maruyama (2007) points out that the diversity is highly valuable for the future Japanese society because it makes the society various for catching up the changes and creating the better changes.

Education for sustainable society is a key concept for the Japanese people and groups to shift their attitude of living for collaboration among different groups which could be born in the process of ESD activities in and out of school. Not only children but adults as a change agency in the community can participate in the activities. Coming request for the guidebook means that there are increasing active educators and learners who emphasize social competency in addition to traditional academic competency in Japan.

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