

Original Article

A Proposal to Practice Education for Sustainable Development in the Period for Integrated Studies to Penetrate Schools in Japan

Hironori Sasaki

*Department of Children Studies, Faculty of Children Studies, Chugokugakuen University,
Niwase 83, Kitaku, Okayama City, 701-0197, Japan*

In 2015, the *2030 Agenda for Sustainable Development* (UN, 2015) set out “Sustainable Development Goals” (SDGs) consisting of 17 goals and 169 targets. The international community acknowledged that education was substantive for the success of all 17 of these goals. Target 4.7 is one of the most important in terms of linkages with other SDGs as it describes Education for Sustainable development (ESD). Japan’s Ministry of Education has also emphasized ESD since the UN Decade of Education for Sustainable Development (DESD) project began in 2005. However, it is difficult to say that ESD has become widespread among schools in Japan. At present, ESD has been mainly practiced in science education concerning the environment, energy, weather, climate and so on. The purpose of this paper is to propose that ESD should be practiced more in the Period for Integrated Studies from now on. Hence, firstly, the learning objectives of ESD are presented based on UNESCO’s (2015) learning objectives for ESD goals. Secondly, the objectives and contents of the Period for Integrated Studies are provided based on the revised Japanese curriculum guidelines released by Japan’s Ministry of Education, Culture, Sports, Science, Technology in Japan (MEXT). Thirdly, the similarities between ESD and the Period for Integrated Studies are described, and it is shown that ESD fits well with the goals, contents and inquiry-based tasks found in the Period for Integrated Studies. Finally, suggestions for how to incorporate ESD into the Period for Integrated Studies within schools in Japan is proposed.

Keywords: SDGs, ESD, UNESCO

Introduction

In September 2015, a United Nations (UN) summit adopted the *2030 Agenda for Sustainable Development*, also known as ‘the 2030 Agenda’, which is a set of international development goals to be achieved by 2030 (UN, 2015). The 2030 Agenda is a successor to the Millennium Development Goals (MDGs) announced in 2001 (UN, 2011). The MDGs accomplished measur-

able progress over 15 years. However, the goals on education, maternal and child health, and sanitation were not attained and progress towards their achievement fell behind in some regions. In order to resolve these remaining issues, the 2030 Agenda set out “Sustainable Development Goals” (SDGs) consisting of the 17 goals set out in Figure 1 and 169 targets that are closely related each other.

The international community acknowledged that education was substantive for the success of all 17 of its goals. Expectations for education are essentially represented in Sustainable Development Goal 4 which aims to “ensure inclusive and equitable quality education and promote lifelong learning opportunities

Corresponding author: Hironori Sasaki
Department of Children Studies, Faculty of Children Studies, Chugokugakuen University, Niwase 83, Kitaku, Okayama City, 701-0197, Japan
TEL: +81 86 293 2831 Fax: +81 86 293 2854
E-mail: hironori_sasaki@cjc.ac.jp



Figure 1 The Sustainable Development Goals logo (UN, 2015)

for all". The Incheon Declaration on education was adopted at the World Education Forum in May 2015. UNESCO, as the United Nations' specialized agency for education, was entrusted to continue its mandated role to lead and coordinate the Education 2030 agenda in the declaration.

Target 4.7 is one of the most important targets in terms of linkages with other SDGs and literally describes Education for Sustainable development.

By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development.

The Japanese government and NGOs jointly proposed ESD in the World Summit on Sustainable Development in Johannesburg, South Africa in December 2002. After a UN resolution on the proposal was passed, the *UN Decade of Education for Sustainable Development* (DESD) project was launched in 2005 (UNESCO, 2011). MEXT has also emphasized ESD since the project began. The report by the ESD Spe-

cial Subcommittee of the Education Committee of the Japanese Commission for UNESCO (2015) pointed out that there are several issues in penetration of ESD in schools. Firstly, that "since the concept of ESD is abstract and includes various fields ..., it cannot be confirmed that ESD is understood well enough in general" and secondly that there is insufficient understanding among teachers as to what ESD is. It is unclear why ESD has not become more widespread among schools in Japan. How can ESD be promoted in schools in order for it to become widespread? Until now, ESD has mainly been practiced in science education concerning the environment, energy, weather, climate and so on. The purpose of this paper is therefore to propose that ESD should be practiced in the Period for Integrated Studies subject at elementary school (ages 6-12). Hence, firstly, ESD's learning objectives will be presented based on UNESCO (2015). Secondly, the learning objectives and contents of the Period for Integrated Studies will be presented based on the revised Japanese curriculum guidelines released by MEXT (2018). Thirdly, I will explain why the inclusion of ESD in the Period for Integrated Studies is appropriate.

Education for Sustainable Development Goals: Learning Objectives

The SDG's learning objectives are described in

UNESCO (2015), which states that “ESD can develop cross-cutting key competencies for sustainability that are relevant to all SDGs. ESD can also develop specific learning outcomes needed to work on achieving a particular SDG”. There are eight key competencies for sustainability, paraphrased below:

Key competencies

1. Systems thinking competency is the capacity to recognize, understand and analyze relationships within and between complex systems in various contexts and to cope with uncertainty.
2. Anticipatory competency focuses on comprehending, assessing and bringing about potential, likely and preferable future outcomes while applying the precautionary principle and evaluating related potential consequences and managing risk and change.
3. Normative competency refers to comprehension and reflection of one’s underlying norms and values when acting, and to mediating sustainability values, principles and objectives where conflict of interest, compromise, uncertainty and inconsistency exist.
4. Strategic competency relates to the collective development and implementation of local and wider innovations towards sustainability.
5. Collaboration competency stresses learning from and empathizing with others, showing empathic leadership, coping with in-group disagreement and facilitating collaboration and participation in problem-solving.
6. Critical thinking competency emphasizes the ability to question accepted norms, methods and views, introspection on values, perceptions and actions and to have a stance on sustainability-related issues.
7. Self-awareness competency focuses on introspection on our individual role within our local and global society, ongoing evaluation and motivation of our actions, and coping with our feelings and desires.
8. Integrated problem-solving competency relates to

the more general capacity to use various models for solving complex sustainability problems and developing practicable, inclusive and fair solutions that promote sustainable development while also applying the other competencies.

UNESCO (2015) explains competencies and the above key competencies in the following manner:

There is general agreement that sustainability citizens need to have certain key competencies that allow them to engage constructively and responsibly with today’s world. *Competencies* describe the specific attributes individuals need for action and self-organization in various complex contexts and situations. They include cognitive, affective, volitional and motivational elements; hence they are an interplay of knowledge, capacities and skills, motives and affective dispositions. Competencies cannot be taught, but have to be developed by the learners themselves. They are acquired during action, on the basis of experience and reflection.

Key competencies represent cross-cutting competencies that are necessary for all learners of all ages worldwide (developed at different age-appropriate levels). Key competencies can be understood as transversal, multifunctional and context-independent. They do not replace specific competencies necessary for successful action in certain situations and contexts, but they encompass these and are more broadly focused.

For each SDG, the learning objectives are described in three domains. The cognitive domain comprises knowledge and thinking skills necessary to better understand the SDG and the challenges in achieving it. The socio-emotional domain includes social skills that enable learners to collaborate, negotiate and communicate to promote the SDGs as well as self-reflection skills, values, attitudes and motivations that facilitate learners’ self-development. The behavioral domain describes action competencies.

Table 1 below paraphrases the learning objectives for SDG 1, “No Poverty”

Table 1 Learning objectives for SDG 1 “No Poverty”

Cognitive learning objectives	<ol style="list-style-type: none"> 1. To understand the distinction between: <ol style="list-style-type: none"> a. extreme and relative poverty, and b. deficit-based and strength-based approaches to combating poverty; 2. To understand how extreme poverty and wealth impact basic human rights and needs; 3. To think critically about the assumptions and practices that underpin extreme poverty; 4. To know the: <ol style="list-style-type: none"> a. local, national and global distribution of extreme poverty and wealth, b. causes and consequences of poverty, for example uneven distribution of resources and power, colonization, conflicts, natural and technological disasters, climate change, environmental degradation and inadequate social protection programs, and c. poverty reduction strategies.
Socio-emotional learning objectives	<p>To be able to:</p> <ol style="list-style-type: none"> a. collaborate for the empowerment of individuals and communities to affect equitable power and resource distribution, b. raise awareness of extreme poverty and wealth, c. encourage discussion on solutions, d. be sensitive towards poverty-related matters and empathize and show solidarity with those in poverty and vulnerable situations, e. identify personal experiences and biases relating to poverty, and reflect critically on how they affect the maintenance of global structures of inequity.
Behavioral learning objectives	<p>To be able to:</p> <ol style="list-style-type: none"> a. organize, conduct, assess and duplicate activities that contribute to poverty reduction, b. publicly call for and support policies that develop and integrate the promotion of social and economic justice and risk reduction and poverty eradication measures, c. evaluate, join in and affect decision-making on management strategies of local and (inter)national activities related to poverty generation and eradication, d. incorporate into their consumer practices poverty reduction, social justice and anti-corruption measures, and suggest solutions to resolve systemic problems connected with poverty.

In addition, UNESCO (2015) introduces suggested topics for each SDG. The suggested topics for SDG 1 “No Poverty” are paraphrased below:

- Defining poverty;
- Extreme poverty’s and wealth’s local, national and international disposition, wealth and causations;
- Why social welfare programs and activities are important;
- Why equal rights are important in relation to access to economic resources, basic services, land and property ownership and control, inheritance, natural resources, appropriate new technologies and (micro)financial services;
- The relatedness between poverty and its causes such as natural disasters, global warming and economic, social and environmental problems;
- Working situations as they pertain to poverty, for example sweatshops, child labor and slavery;
- How the poor and vulnerable cope with their situation;
- The ramifications of poverty, for example malnutrition, infant and maternal mortality, crime and violence;
- Forming cooperative groups to work towards development objectives;
- Local, national and international policies founded on sensitivity towards poverty and gender related development strategies.

UNESCO (2015) also introduces examples of learning approaches and methods for each SD goal. Examples for SDG 1 “No Poverty” are paraphrased below:

- Create collaborative relationships between schools and universities in various parts of the world;
- Organize and implement a campaign to raise awareness of local, national and global poverty;
- Organize and implement student-led businesses

- enterprises to sell fair trade goods;
- Organize and implement local training and/or engagement opportunities to enable the poor to reduce their vulnerability to various dangers and increase their capacity to cope, in partnership with NGOs, private sector companies and/or community-based groups, among others;
- Implement case studies on local poverty and wealth or via field trips, interviews, etc. and/or in various countries via Internet-based research;
- Offer internship opportunities in organizations dealing with poverty-related issues;
- Create and conduct an enquiry-based project on poverty-related topics such as whether poverty rates are rising or falling.

From the above examination of ESD's learning objectives, suggested topics and examples of the approaches and methods that might be used to realize them in the classroom, these seem to be an excellent match for the learning objectives of the Period for Integrated Studies taught at Japanese elementary schools. In support of this proposal, I next outline the latter's learning objectives.

The Period for Integrated Studies

MEXT (2017) revised the curriculum guidelines such that there is now the Period for Integrated Studies in elementary, junior high and high schools' curricular. For example, the overall objectives for the Period for Integrated Studies lessons at the elementary school level are:

I. Overall Objectives

To aim at foster the qualities and abilities needed to solve problems better and to think in their own way about life through cross-synthetic studies and inquiry studies as follows:

- (1) To enable pupils to acquire knowledge and skills needed to solve problems, form concepts concerning problems and understand the benefits of inquiry studies;
- (2) To enable pupils to find questions from the reality of society and life, to establish themes, collect information, organize, analyze, summa-

rize, and express themselves;

- (3) To aim to foster the qualities and abilities needed to solve problems better and to think in a proactive and cooperative manner and participate in society positively by promoting goodness among each other. (MEXT, 2017)

Moreover, there are descriptions to manage the Period for Integrated Studies in each school as follows:

II. Schools' own objectives and content

1. Objectives

Each school should establish its own objectives for the Period for Integrated Studies based on the overall objectives.

2. Content

Each school should determine its own content for the Period for Integrated Studies based on the overall objectives.

3. Handling of each school's own objectives and content

In establishing each school's own objectives and content, consideration should be given to the following:

- (1) With respect to the objectives to be established by each school, each school should include pupils' qualities and abilities to be developed through the Period for Integrated Studies based on each school's own education objectives.
- (2) With respect to the objectives and content to be established by each school, relationships with pupils' qualities and abilities to be developed in each subject should be emphasized while paying attention to the differences in objectives and content of each subject.
- (3) With respect to the objectives and content to be established by each school, relationships with everyday life and society should be emphasized.
- (4) With respect to the objectives and con-

tent to be established by each school, pupils' qualities and abilities to be developed through solving the appropriate inquiry tasks should be included.

(5) With respect to the appropriate inquiry tasks, the tasks should be conducted in light of the conditions of each school: for example, learning tasks about cross-synthetic tasks related to modern issues, including international understanding, information, environment and welfare/health; learning tasks depending on the characteristics of the local community and the school such as people's lives, traditions and the culture of the local community, and tasks based on pupils' interests and concerns.

(6) With respect to the pupils' qualities and abilities to be developed through solving inquiry studies tasks, consideration should be given to the following:

- Pupils' knowledge and skills acquired in other subjects and those acquired in the Period for Integrated Studies should be interlinked with each other and be formed so as to be activated in society.
- Pupils' ability to think, make decisions, express themselves and other abilities should be acquired as to be shown in the process of inquiry studies such as task setting, information collecting, organizing, analyzing, summarizing, and expressing and to transferable to unknown circumstances.
- Pupils' zest toward learning, humanity and others should be based on both viewpoints of matters related to pupils themselves and the involvement of others and society.

(7) With respect to pupils' qualities and abilities to be developed through solving inquiry studies tasks, the fundamental qualities and abilities for all learning beyond the subject learning should be developed and worked.

Above, I have outlined the overall learning objectives for the Period for Integrated Studies under the revised Japanese curriculum guidelines and established that schools' have the flexibility to decide their

own objectives and content for this course. Next, in support of my proposal, I will explain how the learning objectives for ESD and the Period for Integrated Studies can fit together.

Fitting ESD with the Period for Integrated Studies

I can now compare the outline of the learning objectives for ESD with the outline of the curriculum of the Period for Integrated Studies, and show how the former can be covered appropriately in the latter.

Each school's objectives for the Period for Integrated Studies

When each school establishes its own objectives for the Period for Integrated Studies, it has to include the pupils' qualities and abilities to be developed. These are similar to the key competencies which ESD aims to develop. The revised Japanese curriculum guidelines emphasize fostering pupils' qualities and abilities to be applied in novel situations. These also work towards key competencies which are transversal, multifunctional and context-independent. Therefore, developing ESDs' key competencies would be suitable to each school's own objectives.

Each school's content for the Period for Integrated Studies

When each school decides its own content for their Period for Integrated Studies, it has to include pupils' qualities and abilities to be developed through solving the appropriate inquiry tasks. Each school also has to consider three elements of pupils' academic qualities and abilities: knowledge and skills, the ability to think, make decisions, express themselves, etc., and enthusiasm for learning, humanity, etc.

These can include inquiry tasks which correspond to each of the goal's objectives as described in the cognitive, socio-emotional and behavioral domains (Table 1). Firstly, the requisite knowledge and skills are similar to the objectives of the cognitive learning domain. Secondly, the ability to think, make decisions, express themselves, etc. is similar to the objectives of the behavioral learning domain. Thirdly, enthusiasm for learning, humanity, etc. is similar to the objectives of the socio-emotional learning domain. Therefore, ESD's learning objectives are well-suited for inclusion in a

schools' own Period for Integrated Studies content.

Each school's appropriate inquiry studies tasks

When each school conducts its appropriate inquiry studies tasks, it has to conduct them based on cross-synthetic tasks related to modern issues. UNESCO (2015) states not only suggested topics for each SDG, but also examples of learning approaches and methods for each. Therefore these can help each school to conduct its inquiry studies tasks.

As stated above, ESD fits well with the goals, contents and inquiry studies tasks expected of an elementary school's Period for Integrated Studies. Therefore, the practice of embedding ESD within the Period for Integrated Studies in that context should be taken up.

Conclusion

The purpose of this paper was to propose that ESD should be practiced within the Period for Integrated Studies at elementary schools in Japan. Firstly, UNESCO's (2015) ESD learning objectives were presented. Then, the objectives and contents of Japan's elementary schools' Period for Integrated Studies were shown, based on the revised national curriculum guidelines (MEXT, 2018). Thirdly, the similarities between ESD's goals and objectives, and the Period for Integrated Studies' learning objectives, content

and inquiry studies tasks were highlighted. It has been shown that there is substantial commonality between these two, so it is proposed that ESD should penetrate early years' education through the Period for Integrated Studies in Japanese schools.

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