SDG Workshops as an extra-curriculum activity for teaching SDGs to Children

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Introduction

Sustainable development goals (SDGs) put forward by the United Nations (UN) and adopted by the UN member states as a global policy framework emphasize global, regional and national development. In this context, SDGs are related to all of the environmental, socio-cultural and economic issues that affect the quality of an individual's life. SDG is characterized as a universal call to action to eradicate poverty, protect our planet and ensure that all people live in peace and prosperity.

At the 70th Session of the United Nations General Assembly in September 2015, member states adopted a new global development policy program called Transforming Our World: The 2030 Agenda for Sustainable Development. Sustainable development is a system of principles based on the well-being of people and the planet while ensuring global development (UNESCO, 2015a). While the Millennium Development Goals focus only on poor countries, Agenda 2030 has a more universal vision. This vision is based on cooperation and interdependence and aims for a more liveable world for all. In order for this vision to be adopted by the masses, it was declared between 2004-2014 as the 'Education for Sustainable Development (ESD) Decade and aimed that all stakeholders to acquire the knowledge and skills necessary to achieve the goals (UN, 2015b).

Not having comprehensive SDG modules in our formal education system, our workshop series has a total of 17 workshops one for each SDG. These workshops have been designed according to children's emotional, cognitive, social, physical and linguistic development stages. By doing so, we support the holistic development of children as well as increase student awareness of the SDGs in an interactive way. In this context, we implemented 17 workshops with 350 children from different levels, in this presentation we want to share our experience with these workshops on SDGs. In this context, the following section explains the workshop's design and main features.

Education for Sustainable Development (ESD)

According to UNESCO, the aim of ESD is to enable students to respect cultural diversity while making informed decisions and taking responsible actions for present and future generations in the economic, environmental and social spheres (UNESCO 2009). ESD aims to develop people's knowledge, values and skills to participate in the decision-making process about what to do individually and collectively, both locally and globally, to improve the quality of life for the future without harming the world (Summer, Childs, & Corney, 2005). Consisting of 17 main objectives and 169 sub-objectives, ESD include, integrated and open-to-development programs, that cover citizenship, peace education,

multiculturalism, gender education, health education, environmental education and media literacy (Leal Filho, 2009; Samuelsson, 2011).

ESD reveals the vital role that education plays in sustainable development. Until 1992, ESD was seen primarily as environmental education. However, with the 1992 UN Conference on Environment and Development (UNCED) in Rio de Janeiro and the Agenda 21 Framework for Action, ESD expanded and consolidated all forms of education, including environmental, social, ethical and cultural dimensions (UN 1992).

The current Education for Sustainable Development Framework: Toward Sustainable Development Goals (ESD for 2030), was created by UNESCO (UNESCO, 2019). The essence of ESD is the aim of lifelong learning by applying it at all levels of formal, non-formal and informal education. ESD calls not only to increase students' fundamental knowledge and skills on sustainability but also to make act students and professionals meet current challenges. For this reason, ESD is not only learning about global problems but also it is the ability to act locally for a solution (Rieckmann, 2017). With increasing globalization, future leaders have to address complex and controversial issues related to sustainable development and take decisions on these matters. Therefore, ESD should enhance the ability to work with stakeholders with different (and sometimes conflicting) interests and value systems to find common goals, as well as prepare students to assess sustainability issues (Dale & Newman, 2005). For this reason, ESD should be done interdisciplinary as it is based on the solution of multidimensional problems (Annan-Diab, F. and Molinari, C., 2017).

The increased and intensified effect of the contemporary global problems such as Climate Change, and Covid-19, requires a new kind of education that focuses on real-world problems and prepares students to tackle these problems as a change agent for the SDGs. In this context, our workshops aim to contribute to the students to be equipped individuals to guide the transformation in the economic and social structure, to increase their well-being, to increase their research, development and talent capacities, to solve problems in cooperation, to critically is to support the multifaceted development of thinking, creativity, personal and social responsibility skills, and life and career competencies. Within this scope, our workshop program is designed as face-to-face training in order to develop education methods and support new teaching methods that will highlight the creativity, innovation and entrepreneurship of the students in line with the objectives of sustainable development by reaching the primary school level students.

More importantly, collaborative research and open science are required to prepare societies for current and future crises and their post-crisis recovery. Being directly related to all sectors such as health, environment and employment, Education is not only a key concept in achieving goals, it is also a key to overcoming the obstacles along the way.

Why ESD for children is necessary?

It is essential to raise awareness in all segments of society in order to advance the goals of sustainable development. At this point, considering the whole life of the individual, childhood has vital importance in terms of preparation for life. In order to ensure a sustainable life, the participation of early learners in the realization of sustainable development goals is important for future generations to have the awareness of being beneficial to the world, to be ready for the future and to be sensitive to global problems.

Moreover, the early learners have the advantages of a desire to discover the new, their curiosity about learning, low levels of anxiety, and unlimited imagination and creativity (Ayık, 2019). These holistic development characteristics of early learners will enable these goals to be easily achieved with effective social outcomes. During the childhood period, all other developmental areas, especially the cognitive development of children, are quite rapid. In other words, children are very open to learning during this period. The earlier the child is, the faster and easier she/he learns (Tuğrul & Yılmaz, 2013). Therefore, in our workshops, our target group is 6-10 years old primary school students.

The necessity of inclusion of SDGs in children's education has been demonstrated by different studies, in which children easily acquire, apply and become conscious of SDG concepts as a result of their developmental characteristics (Caiman & Lundegård, 2014; Hägglund & Samuelsson, 2009). With the studies to be carried out effectively in this field, it will contribute to increasing the knowledge and skills of children, obtaining qualified learning outcomes, filling the gap between the aims and outputs of the curriculum, and developing a deeper understanding of their own future and the future of our society. Thus, it is aimed to achieve better social, environmental and economic outputs for both the children's own future and the future of our society.

The skills to be gained at an early age also contribute to the academic success of the child in the future. Carrying out studies that support the holistic development areas of children has become even more important in this period. In this context, increasing the knowledge and skills necessary for the advancement of sustainable development at an early age with careful planning enables children to develop a deeper understanding of sustainable development goals, developing features such as empathetic thinking, establishing cooperation, being aware of their feelings, will make significant contributions to the society.

The aim of the Workshops

Above mentioned reasons, in our workshops, we aim to offer an extra curriculum activity program for primary school students through new and creative learning models as opposed to traditional teaching methods in countries which not have the SDGs as a model in their formal education system. On the other hand, the transformation in the social, environmental and economic spheres requires a different perspective on education. Different from the traditional education methods, in our workshops, we applied both theoretical and practical methods during the workshops such as interactive presentations, student centre approach, group work, games and learning by doing. Activities to be created with concepts that attract children's attention will also have the quality of preparation for school.

The Workshop Design

In this direction, a variety of resources will be presented to the field, which will provide solutions for children's concept development, cognitive, affective and social skills, as well as increase the awareness of both families and teachers.

Main features of the SDG workshops for Children

a) The complex economic, political, environmental and social concepts of SDG are conveyed by considering the developmental characteristics, interests and needs of primary school students.

b) It is designed to develop their skills of expressing their feelings through different methods such as painting, poetry, poster and model, and to enable them to make connections between SDG elements.

c) Motivation, which is very effective in learning, allows learning to take place more effectively. In this respect, the activities were created in a simple and understandable order in order not to cause a loss of motivation.

d) It is very important for the learner to feel comfortable in the learning process. For this reason, the activities were supported with active and competitive games.

e) Since the learning characteristics of children differ from each other and considering the individual differences of the students, the activities consist of at least three different parts; consist of warming up activity, a presentation and workshops.

f) The activities were made interesting by giving the students the opportunity to use different tools and equipment in each activity. The tools and equipment used are easily available.

g) It is created with contexts in which children can actively participate in activities and relate what is learned to daily use.

Based on these features we design 17 workshops for each SDG. The following section explains 2 examples of them.

Sustainable Development Workshops for Children

Workshop 1 (SDG 12- Responsible Production and Consumption)

Content of the workshop:

This workshop focuses on SDG 12- Responsible Production and Consumption and aims to increase student knowledge on basic consumption habits as well as give practical information on individual responsibilities.

Learning Outcomes

• Realize that daily consumption habits as an individual have social, economic and environmental effects.

• Distinguish between wants and needs.

• Recognizes sustainable practices in production and consumption and fulfils its responsibilities.

• Exhibit conscious consumer behaviour as a responsible individual.

• Making more informed decisions to protect his own and his family's budget while meeting his wishes and needs.

• Suggest solutions with inquiry-based thinking to ensure sustainable production and consumption patterns.

Areas of Development: Cause-effect relationship, imagination, collaboration.

Name of the Workshop: SDG 12 Responsible Production and Consumption for Children.

Materials: Small ball, rope, SDG 12 images (like food waste, rotten fruit and vegetables, children struggling with hunger), 50x70 background cardboard, crayons.

Implementation of the Workshop: In the first stage of the activity, a warm-up game is played in order to understand the current knowledge level of the children and to increase their participation in the activities to be done. In this game, children form a circle around a tree. A rope is tied to the tree and at the end of this rope is a small ball. The trainer shows the selected images about SDG 12 to the child holding the ball and asks him to make a sentence about the image. The child who makes a sentence throws the ball to the friend he wants; the trainer shows the child receiving the ball a different visual and asks him to form a sentence. The game is completed when all children make sentences about the images shown.
In the second stage of the event, a quiz is prepared with the general SDG on the Kahoot online platform and questions related to each SDG are applied to the children.
In the third stage of the activity, an interactive presentation is made about SDG, designed for the interests and needs of children. In the fourth and final stage of the activity, the children are divided into four different groups. Starting from an activity, each group prepares a poster in the first five minutes, the second group writes a poem, the third group designs a logo, and the last group writes a story. When the time is up, the children move on to the next activity as a group, picking up where their friends left off. The event ends when the coproduced poster, logo design, poetry and story writing are completed.

Workshop 2 SDG 11 (Sustainable Cities and Communities)

Content of the workshop:

This workshop focuses on SDG 11- sustainable cities and communities and aims to increase student knowledge of sustainability concepts at the city level as well as develop new ideas based on sustainability by collaborating.

Learning Outcomes

• Compare the requirements for the sustainability of systems in the areas of food, energy, transport, water, security, waste treatment, education, integration of green spaces and disaster risk reduction.

• Develop ideas to make his city more sustainable and inclusive.

• Develop new ideas to solve the main problems caused by unplanned urbanization.

• Develop new ideas based on sustainability by collaborating.

• Suggest solutions with inquiry-based thinking to make cities and human settlements inclusive, safe, resilient and sustainable.

Areas of Development: Awareness, contribution, model making, cause-effect relationship, cooperation.

Name of the Workshop: SDG 11 Sustainable Cities and Communities for Children

Materials: Post it, 2 different coloured background cardboard, scissors, glue (preferably water-based), play dough, string, coloured tongue stick, patterned tape, plastic coloured number stick, hairy wire, felt-tip pen, craft papers, 120x80 printout of road pattern

Implementation of the Workshop: In the first stage of the activity, a warm-up game is played in order to understand the current knowledge level of the children and to increase their participation in the activities to be done. In this game, the background cardboard of 2 different colours is hung in a suitable place. Cartons bear the titles "The city you live in and the city you dream of". For both titles, the following questions are directed to the children, they are asked to write their answers on the post-its distributed to them and paste them on the cardboards.

What is the sound you hear most in the city you live/imagine?
What is the colour you see most in the city you live/imagine?
What is your favourite smell in the city you live/imagine?
What is the taste you feel most in the city you live/imagine?
A discussion environment is created based on the answers of the children.

In the second stage of the activity, a quiz prepared with the general SDG on the Kahoot online platform and there is a question related to each SDG is applied to the children. Later, it was designed to meet the interests and needs of children on SDG; An interactive presentation consisting of videos and visuals is made. In the third stage of the activity, children are divided into groups according to their numbers. Activity materials are distributed equally to each group. Children are expected to design a sustainable city on the maps given to each group. After the design phase is completed, each group presents the models they designed and the activity ends.

Conclusion

We believe that these workshops contribute to increasing the knowledge and skills necessary for the advancement of Education for Sustainable Development, obtaining qualified learning outcomes, and raising individuals who are in harmony with nature. Moreover, these workshops support children to have social and environmental responsibility, and have high knowledge and skills, by positively supporting their general understanding of development in line with the SDGs.

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