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Education in the Context of SDG 4.7: Integration of Education for Sustainable Development (ESD) and Global Citizenship Education (GCED) in School Curriculum

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Abstract

This paper focuses on integration of Education for Sustainable Development (ESD) and Global Citizenship Education (GCED) in school curriculum in the context of the target 4.7 of the Sustainable Development Goal (SDG) that is to be achieved by the member nations by 2030. Curricular practices need to promote sustainable lifestyle so as to enable the learner to decrease the carbon foot print and live in harmony with the environment. The curricular practices that have been implemented in various parts of the country and how they have helped in inculcation of values and competencies required for a global citizen has been elucidated. The paper also puts forth the transformative pedagogies that can help learners in acquiring the skills and competencies needed for achieving the target.

INTRODUCTION

With the Sustainable Development Goals (SDGs) to be achieved by 2030, as per the 2030 Agenda for Sustainable Development, all the United Nations member states, need to pace up their actions. It's a new age of revolution with the entire global community striving to achieve the SDGs and all the actions directed to achieve the target.

The SDG 4, that focuses on the education has its seventh target, SDG 4.7, which states that 'by 2030 ensure all learners acquire 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

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non-violence, global citizenship, and appreciation of cultural diversity and of culture's contribution to sustainable development' (UN, 2015).

The target 4.7 of the SDG 4 on education focuses on ensuring that all learners through GCED and ESD acquire the knowledge, skills and competencies required for a global citizen. It is a known fact that unless the education policies, curriculum, pedagogy and the assessment practices prevalent in the country integrate ESD and GCED, the target cannot be achieved. Devoid this integration, the learners will not be able to acquire the knowledge, skills, values and attitudes that are required by citizens to lead lives in a productive manner and assume active roles in facing and resolving local and global challenges.

Education is an enduring process of improving knowledge and skills and acquiring competencies, and focuses on bringing about personal development and nurturing relationships. There have been far-reaching changes in the traditional patterns of life, with the industrialisation, urbanisation, globalisation and the growth of mass consumerism making it interdependent. This demands for a world of mutual understanding, peaceful living and, indeed, harmony. It proposes for the transformative education for developing a culture of peace emphasising on 'learning to live together' (Delors, J. et al., 1996). Learners need to be facilitated

to critically understand their own perspectives, their history, traditions and culture, their relationships with the world, recognise the interdependence and learn to manage the differences and conflicts in a peaceful manner, all of which can be achieved through ESD and GCED.

Promoting ESD and GCED

Building on Target 4.7 of SDG 4 on education, there is a need to take forward GCED and ESD, to empower learners to assume active, responsible and effective roles to tackle challenges at local, national and global levels. They need to be active global citizens, who are well-informed about the diversity in the world and at the same time avidly involved in the change for the common good.

ESD as an integral part of education, empowers the learners in taking responsible decisions and actions for bringing in economically viable, environment friendly and just society that respects cultural diversity and is sustainable (UNESCO, 2014). Through the core competencies of GCED, the learners are to acquire a deep knowledge of global issues and universal values such as justice, equality, dignity and respect and cognitive skills to think critically, systemically and creatively. A multi-perspective approach that recognises different dimension, perspectives and angles of issues is to be attained along with the non-cognitive skills including social skills such as empathy and conflict

resolution, and communicative skills and aptitudes for networking and interacting with people of different backgrounds, origins, cultures and perspectives. They need to be capable to act collaboratively and responsibly, and strive for the collective good (UNESCO, 2013).

In the light of the interconnectedness in today's world, learners need to be empowered to become conscious of and understand global issues. There is a need to integrate environmental awareness and sensitivity towards conservation of environment and sustainable development appropriately in the education policies and school curriculum.

Advancing Policy

The global transformation can be put in place only through policies and the policy-makers are instrumental in forming the enabling environment for the successful scaling up of ESD and GCED in all settings of learning whether it is in the formal, non-formal and informal sectors. Policies need to be directed towards strengthening collaborative relationships of diverse stakeholders to encourage learning on sustainability issues and embed it in education quality assurance criteria.

In the Indian context, the National Policy on Education-1986 and the Programme of Action-1992, has placed environmental education as a priority area in all the curriculum development programmes and its concerns have been addressed

through curricular and co-curricular interventions. Following the judgement of the Supreme Court of India (2002) it became obligatory for the States and UTs to comply with the implementation of environmental aspects through education. States adopted various strategies of infusion, integration or learning environment as a separate subject area.

In view of the global concern for sustainable future, the United Nations launched the 'Decade of Education for Sustainable Development' (DESD) in 2005 which mandated the concerns on sustainable development to be inculcated through education. The National Curriculum Framework (2005) in consonance with the principles of DESD (2005), recommended adopting a 'whole school' approach where the learners' experiences are not confined to the classroom alone but are part of the learning in the school and at the society level (NCF, 2005). Inside the classroom it gets limited to content learning for examination and the responsibility of imparting being confined to only teachers teaching social sciences. The learners need to be exposed to the real-world problems and concerns and engaged in activities which can enable them to analyse, evaluate and draw inferences. This shall provide them with the competencies required for facing the real world problems and contribute in the pursuit of sustainable development. For this to be in implementation, the issues and

concerns on sustainability need to be in focus of the 'whole school' practices and education policies need to drive the stakeholders towards it.

Curricular Practices

The curricular practices and programmes need to be designed in accordance with the traditions and systems prevailing in the country suited to its local conditions. The curriculum needs to be strengthened by integrating the ESD and GCED themes in the curricular materials, transacted in the classroom using innovative pedagogies, evidenced in assessment practices along with implementation of the curricular programme or practices that promote building up the GCED and ESD competencies. The focus is to be on how to learn, cultivating positive values and attitudes, and development of generic skills that equip the learners with knowledge and skills to cope with challenges in the future. This can be in form of whole school approach, which is organised in a manner that all stakeholders from the school leadership, administration, teachers, to the learners, jointly develop a vision and plan to implement ESD and GCED related curricular practices in the whole institution (UNESCO, 2014).

The early years of life in society are devoted to the education system, hence, building up of social and emotional competencies by integrating socio-emotional learning activities or programmes into the education system can provide universal and

long-lasting experience. Mounting trajectory of mental illness and aggressive behaviours can be curbed by imparting the socio-emotional skills through the education system (Greenberg, 2003). *Seva* or service and participation in community service programmes are to be considered as an integral part of a holistic education.

In the Indian context, various curricular practices that are being carried out by different NGOs, state governments, civil society, religious organisation, etc. as whole school approach helps in building the values, socio-emotional competencies and sustainability competencies. The *Vidyarthi Van Mitra Yojana*, implemented in the schools of Himachal Pradesh aims to create awareness by involving school students in conservation of forest and environment. The state of Kerala has implemented the School Police Cadet (SPC) programme which inculcates in students respect towards law, discipline, civic sense and democratic values. It nurtures within them commitment towards their family, the society, and the environment. The socio-emotional competency scale of the learners who had undergone the SPC programme in comparison with the non-SPC learners reveal that the learners who were involved in the programme demonstrate more confidence and discipline (Ashita, R., and Subhash, 2019). The *Vidyavahini* project, that have been implemented in the schools of Sikkim, help to inculcate moral and

social values among the learners. These programmes implicitly help in inculcating the elements of GCED. In Assam, the folklore for social change trains the adolescents in the use of folk-art forms for community mobilisation and awareness on issues such as child marriage, early pregnancy, drop-out from schools, alcohol consumption that affect their lives and the communities at large. Similarly, the *Mulyavardhan* programme of Maharashtra, the *Vasudeva Kudumbagam* of Uttarakhand, the *Yuva Manch* of Haryana, the Awakened Citizen Programme etc., implemented as a part of the school curriculum enhance the sustainability and citizenship values, skills and competencies of the learner.

Transformative Pedagogies

There are various ways in which ESD and GCED can be implemented. The curricula need to empower learners with the knowledge, skills, values and attitudes to address the interconnected global challenges, strengthen the learner's self-concept and at the same time should be able to appreciate diversity and accept other people, places and perspectives. The curricular materials offered at various stages of learning need to be effective, inclusive and innovative that focus on fostering peace, equality and mutual understanding. Appreciation of differences and acceptance can be brought in through discussions on the celebrations, practices and stories

of other cultures. The transformative pedagogies including experiential learning, project-based learning, toy-based pedagogy, etc. help in enhancing the cognitive, socio-behavioural and global and sustainable competency skills, values and attitudes.

A classroom scenario: It's 10:00 AM and the bell rings. It's science class now. Students are seated and are ready to learn. The teacher enters, greets the children, goes to the board and writes the topic 'Organic chemistry—plastics manufacture and uses'. She starts teaching about natural polymers. Asks children to identify the natural polymers and discusses about it. Then she moves on to synthetic plastic, explains how it is harvested from oil and so on. She provides the notes and asks students to answer how principles of chemistry have helped in the plastic manufacture, properties and its benefits. How does the polymer made from bio-plastics differ from polymers made from oil? Bell rings. The teacher assigns homework for the students and leaves the classroom.

This teaching surely has helped the learners to learn science and attain the learning outcome of understanding organic chemistry, identification of natural polymers, synthetic plastic and its manufacturing. But what about the sustainability dimension and GCED competencies? The lesson can be driven through learners' ideas and views on sustainability. If the teacher had extended the discussion

to the negative issues associated with the development of synthetic plastics and how chemistry can address the sustainable use of plastics made from fossil fuels, the learner would have reflected upon it, discussed with peers and thereby, acquiring sustainability competencies. The learners could be asked to find out the effects of negligent disposal of plastic waste and analyse the environmental, health and social problems associated with current attitudes towards the disposal of used plastics. How to deal with plastics that cannot be recycled? Why is it not possible to recycle some plastics safely or easily? As an extended learning the learner can be asked to find out solutions to address the problems associated. Unless we make the shift from the science teaching-learning to making our children think, discuss, analyse, realise, experience the environmental and social aspects of the concepts in science, they will not be able to achieve the sustainability competencies.

Promotion of participatory programmes prepare learners of all ages to engage in their communities and society and find solutions for the challenges of today and the future. An interdisciplinary approach can help in ensuring ESD and GCED at all stages of education. For example, the following excerpt from Chapter 14 'Natural Resources' of Class VII, science textbook, NCERT, (NCERT, 2018).

"The addition of undesirable substances to water-bodies. These substances could be the fertilisers

and pesticides used in farming or they could be poisonous substances, like mercury salts which are used by paper-industries. These could also be disease-causing organisms, like the bacteria which cause cholera."

It confines to just science learning when teacher does not extend the learning by discussing about ways in which the water bodies in their locality is polluted. It can further be extended to an activity, where the student is asked to find out about the implications brought about by developmental activities in and around the water body. What effect does it have on the health condition of the habitats using the water body? The learners can also be asked to discuss in groups and come out with solution to reduce water pollution. Learners are to be made active creators and owners of their learning (Zhao, 2011, 2012). The more the learners gets engaged in the learning process and are able to connect the learnings to the real world situations, learning becomes interesting and useful for learners and society.

In Chapter 7, 'Women Caste and Reform', of history textbook of Class VIII, a story about the happenings in the Bombay Presidency, as late as 1829 is provided, which states about a classroom situation wherein untouchables were not allowed to enter into the government schools but were sitting on the veranda outside the classroom and listening without polluting the room where upper-caste were taught. Posing

questions like, 'Imagine that you are one of the students sitting in the school veranda and listening to the lessons. What kind of questions would be rising in your mind?', 'Some people thought this situation was better than the total lack of education for untouchable people. Would you agree with this view?' would enable the learner to acquire capacity for empathy, imagination and sensitivity (NCERT, 2018).

In essence, the teaching-learning needs to be characterised by elements of participation, collaboration, problem solving, critical thinking, etc. and inter and intra-disciplinarity. Opportunities for the learners to experience diverse views on issues and realities, open-ended debates and discussions enable the learners to explore the multiple perspectives.

CONCLUSION

Reconfiguring the education system so that the ESD and GCED competencies and skills are imbibed by the learners is needed for achieving the SDG target 4.7. Educating each learner to take good care of the environment and practice sustainable lifestyle is the most significant concern of the new millennium. While preparing the learners for the world of work, education also needs to equip them with the skills and competencies needed to become active, responsible and engaged citizens (OECD, 2018). Fundamental changes requisite for a sustainable future start with individuals and their change of behaviour, attitude and

lifestyle which can be attained only through education.

The integration of ESD and GCED into the curricular practices has the potential to lead to a major paradigm shift in the education system. For this to happen on policy, ESD and GCED must be integrated in global, regional and national policies related to education so that these policies can create an enabling environment for integration of ESD and GCED pedagogies in the curriculum. The curricular materials, pedagogy, and practices need to be transformative and assessment needs to focus on skills and competencies of ESD and GCED. To create the ethos of GCED and ESD, deliberate actions are to be taken to make it an integral component within and outside classroom practices. More attention is required to promote the whole-institution approach, emphasising the importance and necessity for all the stakeholders of education to work together nurturing global competence. Teachers being at the core of "preparing children and young people to deal with the challenges of today's increasingly interconnected and interdependent world" (Tawil, 2013), requires the teacher education, both pre-service and in-service, to provide more opportunities for them to increase their capacities to empower learners. They should be capable to provide globally competent teaching and lead the learners through the transformation. The education system needs to propagate a holistic

educational philosophy that believes in ‘*Vasudhaiva Kuktumbakam*’—world as a family, promotes sustainable lifestyle preserving the planet Earth from mindless destruction and callous exploitation, makes learners overcome hatred and bigotry, fundamentalism and fanaticism, greed and jealousy and move towards living harmoniously with the environment.

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