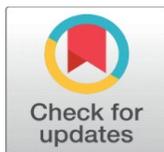
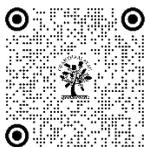


NEED OF DEVELOPMENTAL EDUCATION FOR SUSTAINABLE DEVELOPMENT

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[10.29121/shodhkosh.v4.i2.2023.4983](https://doi.org/10.29121/shodhkosh.v4.i2.2023.4983)

Funding: This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

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ABSTRACT

Knowledge and Skills are essential pillars to promote sustainable development. The global context of education has brought a new focus to development education for an inclusive sustainable future. Education for Sustainable Development addresses global equity, justice, and sustainability issues. To address these global issues, Educational Interventions are necessary to attain sustainability. Educational Interventions builds skills of analysis and understanding, efficiency with a need to promote sustainability and justice. Sustainability includes a wide range of parameters including environmental factors, social and cultural factors, which can only be attained by creating awareness and empower learners to take responsibility to bring a change only through education. This can be attained through development education which is needed to address the inequalities and social injustice. It creates awareness of global injustice, helps to create a critical thinking of the global challenges, and apply an analytical thinking to the thought process to bring a social change. The key goals of ESD are holistic education, create stakeholders' awareness, participation and cooperation of all and building capacity of the stake holders. This paper proposes the purpose of Education for Sustainable Development and what transformation can be bought about through this developmental education to attain sustainability.

Keywords: Education, Sustainable Development, Knowledge

1. INTRODUCTION

Education is the means to bring a developmental change by achieving de-growth. It helps to form a social basis for the implementation of sustainable development goals and helps in developing a sustainable society. Its role is to create a just and peaceful society (Laurie, Tarumi, Mckeown, Hopkins, 2016). Developing a strategy on sustainable issues have a considerable impact on humans as well as environment. The human dimension of the sustainable development consists of developing the human potential through education. The 1992 UN Conference on Environment and Development in Rio de Janeiro called for re-orienting education with SD. Education was undertaken to improve the basic education by addressing SD goals and create public awareness and understanding (Glavic, 2020). In the global context, The United Nations Sustainable Development Goals also focuses on gaining knowledge and skills for global sustainability. It advocates that all learners should have the knowledge and skills to promote sustainable development. Education for Sustainable development has been launched as an answer to cope with the sustainability issues. Its scope is to define the learning content and adopt it according to the level of the learners. ESD is a way to create human consciousness and behaviour through which human development can be adjusted to the changing situations (Nasibulina, 2015) and can

have an impact on the learners through this sustainability consciousness. ESD is a way to create social transformation along with transition of economic growth, and increase environmental awareness (Glavic, 2020). So, Education is an essential element to achieve sustainability. Education, awareness, and training are required to move the society towards sustainability (McKeown, 2002). So, issues that threaten sustainability creates a need to attain quality education as it addresses global justice and sustainability. People should obtain knowledge and skills for learning and find solutions for economic, social and environmental issues.

To address the alarming need of the environment to attain sustainability, the global context of education has brought a new focus to Education Policy as well as education for sustainable development. Development Education came to the forefront because of the work of international development organisations and they felt that this need can be met through holistic education of the learners. So, the need for Educational Intervention arises to address the inequalities and injustices. Educational Interventions builds skills of analysis and understanding, efficiency with a need to promote sustainability and justice. The United Nations Sustainable Development Goals include goals for learners to gain knowledge and skills for sustainable development (UNESCO, 2015). It aims to bring an improvement in Education on sustainable basis by re-orienting education and help people develop knowledge, skills, behaviour etc. This would create among the learners a social responsibility, social justice and ultimately social change. The goals of education include the UN Decade of Education for Sustainable Development (UNESCO, 2012) and the UN Sustainable Development Goals, ensures that all learners must acquire knowledge, skills and training to promote sustainable development by gaining education, human rights, gender equality, promotion of peace and non-violence and cultural diversity (United Nations 2019). Global social justice is needed to recognize inequality in the world through the commitment to bring social justice and equity.

Development Education is an educational process that increases awareness and understanding for a changing world and empowers learners to take responsibility to create and enjoy a sustainable world (UNESCO, 2002). It aimed at increasing knowledge, understanding and awareness of different action outcomes. It builds learner's knowledge and awareness, critical thinking of the global challenges like poverty, injustice, unsustainability etc., analytical skills to apply the knowledge and action should be under-taken about the social and political changes and helps in building capacity of the stakeholders. Development of solution-oriented skills such as creative thinking, decision making is necessary for a sustainable future. They engage learners in considering the different perspectives, questioning about views and biases. (UNESCO, 2015) describes development education for learners where they should play an active role to face and resolve the global challenges and be a contributor for an inclusive and sustainable world. So, efforts started with raising awareness, capacity building, experimentation and with implementation process. Evidence-based changes are needed to justify the changes that education for sustainable development contributes to an effective and quality education. A need arises to improve the environment, by integrating environmental considerations into economic policies and moving towards sustainability.

The idea of Education for Sustainable Development is to empower the learners making them competent with sustainability issues through a holistic inter-disciplinary perspective of content and learner-centered teaching strategies. It centers around a balanced relationship between people and environment. ESD has been adopted globally due to UN Decade for Education for Sustainable Development (DESD; 2005–2014). They realized that Education is the decisive force that can bring about sustainable future. Agenda 21 addresses the critical issues which need to be noticed and awareness need to be created to address the change in human-environmental interactions (McKeown, 2002). Development Education should be conceptualized in terms of the impact of the changing educative experiences. This impact is described as change in knowledge, skills, attitude, taking actions to ethical measures to create sustainable societies. It is brought about in the content of teaching and learning approaches. Teaching and learning get a new transformation when the curriculum includes sustainability content. It also creates a sense of social responsibility, environmental protection and understanding of environmental inter-dependence between human and nature. Education through learning about the global issues can lead to far-reaching concern about ecological threat and risk leading to a change in the educational experiences. This leads us to understand the methods for the need of developmental education.

2. SUSTAINABLE DEVELOPMENT

Sustainability is a concept which is needed to think about the future in which environmental, societal and economic issues are considered for the pursuit of development and for well-being of the people. It is a principle of human development that sustains the long-term needs of the society as well as sustaining the natural resources on which

humans and ecosystem depend (Glavic, 2020). The global challenges that stimulated the concept of sustainable development and the contemporary processes of global change are affecting the challenges. The challenge to meet the present needs are important. But our present needs for the ever -growing population does not compromise with the environmental, economic and social needs of our future generation (Damtoft, Lukasik, Herfort, Sorrentino, Gartner, 2008). So, we need to meet the challenges in such a way, so that by using the resources in an optimal way, we can meet the needs of our future generations.

The concept of Sustainable development was included as a global agenda. It combines environmental concerns with social and economic development. It acts as a balancing system between improved lives of the people as well as preserving the natural eco-systems. To achieve sustainable development, protection of the environment is an integral part by eradicating poverty and reducing disparities in living standard of the people (McKeown, 2002). Innovative technologies should be used to achieve sustainability. Human behaviour is responsible for deteriorating environmental conditions. So, to protect our environment, there is a need to reach towards a sustainable future which is embedded in a system of education where personality foundation takes place with respect to the quality of thinking, ability to build the future, development of moral values, there needs to be a better understanding, positive attitudes, and behaviour with respect to the principles of sustainable development in order to understand the contemporary world view. Education is the path to reach a sustainable future. Education can empower the learners to be more action-oriented to bring about a change. Action competence is related to knowledge, confidence in owns' influence and a willingness to act. In society, education has a special role in empowering women to take community decision and works to achieve sustainable goals. Sustainability goals can be expanded or limited by the level of education attained. Green development options are encouraged as education increases (McKeown, 2002). This would drive towards the path of sustainability.

3. EDUCATION FOR SUSTAINABLE DEVELOPMENT (ESD)

Education for Sustainable Development is a life-long process, creating conditions for environmental consciousness. The main objectives of ESD are the development of views about the world and critical thinking, knowledge and skill acquisition, teaching healthy way of living, nurturing moral values and teaching about sustainable consumption (Nasibulina, 2015). ESD advocates a change in behaviour by creating a new way of thinking, awareness and values reflecting national and global needs for ecological sustainability based on social and ecological equity that sustainable societies require. It mobilized education to create environmental awareness (Glavic, 2020) and centres around on the innovative education based on the education of sustainable development which are relevant locally and culturally. ESD must take into consideration the local, environmental and societal considerations. ESD addresses not only environmental problems but also social matters like justice, non-violence, public awareness and participation etc. ESD focuses on re-orienting education which addresses sustainable development, creating awareness, public understanding and training. It is a long -term process to accomplish the sustainability goals and addresses learning skills, awareness, perspectives and values which motivate people to lead life in a sustainable manner and foster sustainable societies. There is need to improve education by creating the development of higher-order thinking skills and effectively apply them to a wide range of problems. So, ESD was included in teaching and learning process like climate change, disaster risk management, poverty reduction etc. It alters the teaching process by encouraging learners to ask critical reflective questions, critical thinking, analyse and to take decisions through applied learning. It promotes co-operation and takes a collaborative approach. Pedagogies combined with ESD stimulate students to ask reflective questions, analyse, critical thinking and make decisions. It shifts from teacher-centric to student centric through participatory learning (Laurie, Tarumi, Mckeown, Hopkins, 2016). Participation, co-operation and building capacity of all stakeholders are the foundation for successful ESD.

The components of education which are re-oriented to address sustainability issues.

- **Knowledge:**

Knowledge is needed to understand the principles of sustainable development, how they can be implemented and the values involved. Knowledge has to be selected in such a way so that it fulfils the sustainability goals.

- **Issues:**

Understanding and addressing the key issues are at the centre point of ESD. Issues that enhance the understanding of ESD continues to gain importance.

- **Skills:**

ESD provide people with skills so that they can continue their lives in a sustainable manner. People need to learn the skills in order to interact with the environment.

- **Perspectives:**

ESD focuses on the perspectives that addresses the global and local issues. ESD looks at the root of the issues and forecast the future based on different scenarios, are part of the ESD.

- **Values:**

Understanding own values and values of others is a central theme for educating for sustainable future.

It should be ensured that ESD should be implemented in the curriculum, and across all subjects by providing professional training to the teachers. For the effective implementation of ESD, the ESD community should convince that it is effective and helps in the improvement of the quality of education. Through evidence-based education, ESD should be implemented and contribute to quality education.

ESD focuses on the following points:

To reach sustainability goals, Community participation should be encouraged, through the attainment of skills, values and different perspectives. So, basic education should be re-oriented to address the sustainability goals. This would lead to critical thinking, to interpret and analyse different issues.

Re-orienting education means teaching and learning knowledge, skills and perspectives that will guide people to lead sustainable livelihoods. Old tradition carries with them values and practices that incorporates sustainable resource use. These can be adopted in the present times by re-orienting education in an effective manner.

Awareness and Public Understanding are important to achieve sustainability goals. Knowledge and skills are required to attain these goals.

4. FINDINGS ON ESD

ESD provide different perceptions regarding implementation of sustainability goals and a better outcome for strong sustainability including de-growth transformation. The characteristics of ESD is a holistic approach, looking forward for a change and achieving the transformation.

ESD can improve the educational outcome: Students of ESD schools develop a better critical thinking by showing better communication, writing and mathematical skills, better understanding of the topic and problem-solving skills. Students' attendance rate increased in schools using ESD. There is no negative relation between ESD implementation and educational outcome.

ESD can improve the school curriculum development: This shows the relation between school curriculum and outcome measured in terms of relevance of the curriculum and students' engagement with it. ESD could be improved by supporting the curriculum towards trans-formative teaching- learning process and increase the efficiency of the teachers by integrating in the educational policy (Glavic, 2020). The curricula must follow the needs of human society during the phase of sustainable development transformation. ESD approach increases their relevance to the learning content by making the learning context more interesting. It increases students' engagement and have an influence on education. Integrating ESD in the school curricula stresses on outcomes rather than on students' performance.

Guidance of ESD to develop the knowledge, skills, and values: ESD provide the students with the opportunity to identify the relevant issues and find solutions of the problems so that they can address the problems in future. It helps to develop students' ability and confidence through skill formation. They come to know about the reconciliation between environmental sustainability and human development. ESD leads to development of skills and competencies helping them to adopt themselves to the changing environment.

Strengthening of ESD for the partnership between Schools and other Stakeholders: Schools play an important role for its usefulness to the community. ESD helps to connect schools and stakeholders in the community. Students need opportunities to engage themselves with community issues involving different community members. On the other hand, community members become directly involved with the school. ESD helps to understand the importance of the relationship between schools and communities. So, schools can create opportunities through ESD and foster ties between schools and community.

ESD promoting innovation in Teaching-Learning: ESD provides an integrated perspective on education and contributes to improved teaching as well as learning for students. It leads to innovative teaching approaches like cooperative and peer-based teaching and learning method. This has increased the variety of assessment method. Since ESD issues are multi-disciplinary, it creates improved teacher ability to create values and awareness among students towards sustainable development.

4.1. ESD AS A RESPONSE TO SD

It is hoped that by educating learners can be a way-out to address the SD issue. This led to the launch of the UN Decade of Education for Sustainable Development. ESD was undertaken through teaching and learning to promote SD. It includes participatory teaching and learning which motivate and empowers the learners to take decisions on SD. The essential features of ESD are holistic and pluralism.

ESD include key elements like climate change, disaster risk reduction, biodiversity, poverty reduction etc. It leads to critical thinking, creates imaginative power and takes decision in a collaborative way. A holistic approach since it includes multiple perspectives like environmental, social, economic and need to focus on their inter-relationship between these three dimensions. There is always a conflict of interest between economic, social and environmental goals. It recognizes that social and cultural factors are the cause of environmental problems. So, ESD as a teaching approach should bind environmental, economic and social aspects of SD issues, integrate their past, present and future implications and focus on their local, regional and global nature (Pauw, Gericke, Olsson, Berglund, 2015)

ESD deals with teaching and learning by focusing on skill formation and action competence for sustainability. It engages different perspectives, views and values on sustainability issues. Progress has taken place at the level of teaching i.e. collaborative learning, experimental learning and problem-based learning. It is an interactive, student-centred method of learning with participatory teaching taken as the pillar of ESD. ESD rather than being a response to SD, it focuses on reflecting on issues by bringing in sustainability thinking through the educative process. Students create a mindset based on sustainable thinking practices. It develops learners' critical evaluation and creates learner-centred teaching strategies. It facilitates learning in such a way so that learners understand the world based on their own observations and develop competencies to act for sustainability. This leads to a practical solution for their future problems based on their skills and efficiency.

4.2. RELATIONSHIP BETWEEN EDUCATION AND SUSTAINABLE DEVELOPMENT

Education is central to sustainability. It is the key to develop a nation's developmental ability and attain sustainability target. Education improves the well-being of the individuals raising the next-generation chances for economic and social well-being. It is one of the ways to modernize society as well as the economy and create a modern outlook for the people. In the long run it creates a generation capable with an innovative capacity. The main task is to create an integrated and value-oriented education within the process of sustainable development. There is a synthesis of value-based education in the realm of sustainable development, where the stakeholders will play a productive role and create a society which is sustainable in the long-process.

4.3. CHALLENGES TO ESD

Sustainable development requires a change in the mindset which can come through education. So, education can bring about the change through access to knowledge, skills and values by expanding the capabilities for contributing to sustainable development. All these actions must carry out for creating an equitable society. ESD has several challenges as it a solution to the general educational problems, forming of moral values and strategic thinking skills, encouraging interactive methods of teaching, introducing educational technology in educational process with creative teaching methods, providing incentives for creating a bond between the stakeholders and the society through interactive study. It is aimed at improving the well-being of the people as well as the environmental well-being, creating environmental awareness and development of environmental infrastructure.

Implementation of ESD requires the following changes: revision of teaching-learning method, integrating ESD curriculum with respect to the regional problems of sustainable development, grading system should be developed with respect to the parameters of the sustainable development. The curriculum should be integrated in such a way, so that it

focuses on the regional and local problems leading the learners to be accustomed with their environmental problems and take innovative approaches to optimize the resource use.

Professional development should be imparted to the teachers which is aligned with the teacher education programme (Laurie, Tarumi, Mckeown, Hopkins, 2016).

People should be motivated for their own living and for future generations. So, education becomes more efficient for its creative use for ecological and social problems. It can have positive impact on academic performance through the innovative approach of ESD.

5. CONCLUSION

ESD is a guiding tool in contributing to quality Education. When the curriculum includes sustainability in its content which is in terms of local, social, economic and environmental context, then teaching and learning process transforms education in all its forms. ESD curriculum help to foster sustainable societies by facilitating knowledge, skills and values. Curriculum modification is required to throw light on regional and local problems to address the inequalities existing in the society. Strategic thinking in the right direction and awareness will open the way out for re-directing our thought-process and actions. Thus, ESD creates creativity, skill formation by enhancing quality education and leading to a sustainable path of development. So, collaborative way of teaching-learning among the stakeholders will help in maintaining ecological balance and development.

CONFLICT OF INTERESTS

None.

ACKNOWLEDGMENTS

None.

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