

## Exploring Creativity among Students for Sustainable Development

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“By enabling students to make deeper connections, embrace and work through complexity, develop empathy and imagine new ways of thinking, being and acting in the world, we can prepare the next generation to envision and realize a more sustainable future.”

(Eaton et.al., 2017)

The 2030 Agenda for sustainable development, adopted by all United Nations Member states in 2015, provides a shared blue print for peace and prosperity for people and the planet, now and into the future. The 17 sustainable development goals (SDGs) are integrated in such a manner that action in one area will affect outcomes in others, and that development must balance social, economic and environmental sustainability. SDGs have five major components

### I. The maintenance of people's physical and mental health.

1. No Poverty
2. Zero Hunger
3. Good Health and well being
4. Quality Education
5. Gender Equality.

### II. The mindset of future social progression

6. Clean water and sanitation
7. Affordable clean Energy
8. Employment (Decent work and economic growth)
9. Industry, Innovation and Infrastructure
10. Fairness and justice (Reduced inequalities)
11. Sustainable cities and communities

### III. Care for the Environment

12. Life below water (oceans)
13. Life on Land
14. Responsible consumption and production
15. Climate change (action)

### IV. Reflection on Institutions

16. Peace, justice and strong institutions

### V. Global cross-regional partnerships

17. Partnerships for the goals.

The creativity, know how, technology and financial resources from all of society is necessary to achieve the SDG's in every context. Along with critical thinking, communication, collaboration, creativity and innovation is one of the key competency for sustainable development. There is no fixed path to achieve sustainability and it is subject to human creativity. In the fast changing modern world, creative thinking and creative problem solving should be a necessary and significant component of modern sustainable education. By exposing students to the Sustainable Development Goals, better understanding of sustainability can be developed. By this, students will be opened to design new creations that honour the benefits we all receive being a part of planet earth. Students need to learn to associate creativity with sustainability to protect our planet and future.

### SUSTAINABILITY:

Sustainability means meeting our own needs without compromising the ability of future generations to meet their own needs.

Sustainability is a holistic approach that considers ecological, social and economic dimensions, recognizing that all must be considered together to find lasting prosperity. Environment, Economy and society are the three pillars of sustainability.

### Sustainable Development

“Sustainable Development is development that meets the needs of the present without compromising the ability of future generations to

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meet their own needs.”

- Brundt Land Commission (1987)

This implies that we need to look after our planet, our resources and our people to ensure that we can live in a sustainable manner.

### **Creativity**

Creativity is defined as the tendency to generate or recognize ideas, alternatives, or possibilities that may be useful in solving problems, communicating with others, and entertaining ourselves and others. (Robert E. Franken, Human Motivation) pg. 396)

“The ability to provide or use original and unusual ideas.”

- Cambridge English Dictionary

A well accepted definition of creativity is the generation of a new product that’s both novel and appropriate in a particular scenario. (A product could be an idea, an art work, an invention, or an assignment in your classroom).

Many experts think of creativity as a set of skills and attitudes that anyone is capable of. Numerous psychologists are of the opinion that creativity is a definable, measurable, set of psychological skills that enhance learning and will be necessary in the 21st century work force. The idea of creativity today means thinking out of the box, understanding there might be limits to what you can do, trying to overcome these and improving on the results. Creativity involves more than just thinking things up; it is taking those ideas and developing them.

Creativity directly enhances learning by increasing motivation, deepening understanding, and promoting joy. Beyond academic achievement, creativity can make learning more fun, leading to joy and positive emotional engagement in students. Creativity is a crucial aspect of any personality. It helps to analyze things in diverse and uncommon ways.

Creativity has been said to be a natural ability, a personality trait. It is a skill that can be learned, promoted, or cultivated.

### **Creativity and Sustainable Development:**

In the context of sustainable development, it is essential to use creativity as a weapon in the battle against problems and all odds. Creativity enables stakeholders to view problems from different perspectives, formulate new solutions, and make new connections. Creativity releases us to be more flexible in our thinking process (Mani et al., 2014). With the onslaught of complex sustainability problems that now our world is facing, young minds need to think plurastically and be able to perform cross-disciplinary collaborations” (Conley et al., 2017).

We need to empower our students with the creativity necessary to work across disciplines while deepening their understanding in specific knowledge domains.

To tackle complex sustainability challenges, we need to equip our students with the creativity necessary for that. Sustainability researchers Wick et al. (2011) noted “Sustainable education should enable students to analyze and solve sustainability problems to anticipate and prepare for future sustainability.

Challenges as well as to create and seize opportunities for sustainability.

Education in all developing countries faces two major challenges – under development and globalization. To face these challenges, there is a dire need to acquire new pedagogy, use it, and foster creativity in educational institutions, leading to sustainable development. Hallington in his social theory of creativity expressed that as in an Ecosystem, living things are related to each other and their ecosystem, so in the creative ecosystem all members and aspects of the environment are interacting. Educational institutions have a unique freedom to develop new ideas and contribute to the new knowledge.

Educational institutions must develop such competencies in their students which enable them to deal with difficult and new uncertain situations and challenges.

## Role of Education To Foster Creativity For Sustainable Development.

Education system has an essential role in sustainable development.

Education also helps in creating a balance between different dimensions of development. The Learners must face the problem directly to explore the relationships, processes, to further analyze draw conclusion and solution. By this the power of creativity, invention, discovery, exploration and research appears in the individual. This educational method needs support at the level of secondary education, University level and then at the level of open society for fostering creativity and self realization. Appropriate educational strategies are necessary to increase the desire and diligence to learn and share with others in solving social problems. A few of them are –

1. Flexibility: as each learner is unique. The learners social and cultural conditions are different so there is need to adapt the educational method most suitable to them.
2. Mental Exploration : Learner's should be guided to search for information. For mental exploration, leaving learners free to comment and express ideas can be a good exercise.
3. Quality of thinking : the best and most creative thoughts and the solutions, require thinking with reflection, instead of instant thinking. So appropriate time and environment should be given to learners, to think and consider various aspects (of the problem/question/thought).
4. Quality of learning : special emphasis should be given on the quality of learning, especially multidisciplinary learning, so that learners pay attention to macro-perspectives and their own views and analysis.

As classroom atmosphere, teacher teaching method, student motivation and research spirit are very important factors in creativity, production of thought and science, teachers, curriculum planners

need to pay attention to following strategies to foster creativity.

Combined use of divergent thinking and convergent thinking – In divergent thinking, the mind is concerned with seeking all possible solutions to a problem. To allow creative thinking to occur to the learner, teachers should use divergent thinking (creative or horizontal thinking) along with convergent thinking.

Free and Reciprocal Discussion – Teachers should allow learners to express creative thinking by using their spontaneous words and free and reciprocal and non-formal dialogue.

Active Teaching Method-Learners are allowed to express creative thinking by using comprehensive sensory-analytical mechanisms in learning by teachers. For this active teaching method is used by teachers.

Brainstorming Methods-For allowing learners to develop creative thinking, teachers should use the brainstorming method to increase the flexibility and fluidity of mind to generate more and new ideas.

Cultivating Creativity Through Mindfulness – To promote responsiveness to complex sustainability challenges, mindfulness need to be given more attention. Mindfulness promotes creativity, reflection and integrated thought. When mindful, a student can reflect, innovate, integrate and can tackle the grand challenges associated with sustainability. Mindfulness can support the development of creative perspectives, which in turn can lead to sustainability-oriented innovation (Siqueria and Pitassi, 2016).

Problem-Solving Approach-Learners need to be equipped to address sustainability challenges through problem solving approaches- that integrate- systems thinking, structured anticipation, Value Laden deliberation, evidence supported strategies and strong collaboration across government, business and civil society, Wiek et.al. (2016).

By Problem based learning methods, students acquire knowledge and skills through solving theoretical and practical problems. As the students search for knowledge themselves, they are active. This fosters their development, independence and thinking, as well as they gain and improve competencies.

Activating Method: is based on the assumption that students learn through acting experience and critical reflection of this acting (experience). The essence of learning is the students' activity, and it is expressed in the main didactic principles.

Expository(validating) Method

To develop attitudes and a system of values and beliefs, expository method should be used by teachers. Use of these methods is connected with experiences and emotions of students. Expository method stimulates imagination, emotions and encourage intellectual exploration of the work presented.

Strategies To Foster Creativity

Creativity needs to be cultivated and for this teachers can use the following strategies in the classroom.

\*Design an actual designated space and creative thinking.

\*Encourage Curiosity.

\*Use divergent thinking

\*Use of Multiple intelligence theory

\*each creative skills

\*Design cross curricular lessons.

\*Recognise and promote creativity

\*Risk taking

\*Active learning

\*Use of technologies:- Blog, Brainsforming and Mappingtools, Infographic, Online Games, Pictorial representation, web Quest, Piktochart, visual story, Video Diary.

\*Design lessons for wondering, exploration

\*Allow Expressive freedom.

\*Open ended projects

\*Passion Project (Genius How)

\*Class room collaboration (Team Building)

\*Expository Methods – Drama, Performing Arts

Exhibition, Display.

\*Activating Methods–Individual and Group Projects, Creative Problem solving Evaluation method, Diagnostic Methods and techniques, creative thinking development, web quest, profile, SWOT Analysis, Mind map, Educational Project.

\*Reflections on the creative process – class critiques, sharing sessions, individual conversations.

\*Value creativity, celebrate and Reward it.

\*Teaching students how to think.

With the help of these strategies, creative competencies can be developed in students which will enable them to solve new complex problems in all areas of sustainable development.

### Conclusion

During the crisis caused by the Corona Virus Pandemic, creativity is the competence which has enabled survival of business. A creative approach has facilitated the development of smaller and big business, cultural activities, sustainable social and economic development. If we wish to achieve long term sustainability, we must strive for a green economy, which will require innovations and creativity in all fields. Rooted in the sustainable social, economic, environmental and cultural practices, creativity is the core of sustainability.

Related literature on creativity and sustainable development informs that human creativity may be closely connected with education for sustainability practices at individual institutional and societal as well as national and international levels.

At this time, when we are not sure about the problems the world may face in the future, to fulfill the sustainable Development Goals, teachers must support their students in learning to associate creativity with sustainability. Teachers should help and support their students in acquiring and developing creative competence for this teachers should use adequate teaching strategies and choose the right didactic methods and forms to explore creativity among students.

## References

1. Cebrian, G and Junyant, M. (2015), competencies in Education for “Sustainable Development. Exploring the student teachers views Sustainability-7, No. 3 : 2768-2786.
2. Hensley, Nathan, “Educating for Sustainable Development : Cultivating creativity through Mindfulness.” Journal of Cleaner Production, 243 (2020) 118542.
3. Mathews, S.M. and Reddy, PJK (2019) “Teaching Strategies to Foster Creativity in the classroom.” Journal of Applied Science and Computations. Volume VI, Issue 1, January 2019 pp. 2108-2714 ISSN No. 1076-5131.
4. Matraeva, A.D. Rybakova, M.V. Vinichenko, M.U., Oseev, A.A.,Ljapunova, N.V. (2020) “Development of creativity of students in Higher Educational Institutions: Assessment of Students and Experts”, Universal Journal of Educational Research 8(1) 8-11, 2020 <http://www.hrpub.org>
5. Mohammadi, Mohammad “Creativity in Higher Education; A way to Achieve sustainable Development in Afgnanistan.” Shanlaz International Journal of Education, Vol. 9, 2020, pp. 51-55.
6. Mroz, A; Ocetkiewicz, I. “Creativity for Sustainability : How do Polish Teacher Develop Students Creativity Competence? Analysis of Research Results”
7. Schulz, K.P., Mnisri, K., Shrivastava P, R. Sroufe. R (2021) Facilitating,envisioning and implementing sustainable development with creative approaches.” Journal of Cleaner Production, 278, 123762.
8. Sustainable Development Goals United Nations Development <https://www.undp.org>&gt;
9. Sustainability and Sustainable Development – Circular Ecology <https://circularecology.com>

