Integrating Education for Sustainable Development in the Higher Education Curriculum

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Abstract: *This study is an attempt to highlight the urgent need of integrating Education for Sustainable development into the Curriculum of Higher Education Institutions. The paper begins with listing the principles of sustainable development as recommended by the Earth Summit –The United Nations Conference on Environment and Development held in Rio de Janeiro in the year 1992 in order to understand the concept and the responsibilities of all the stakeholders towards achieving the goal of Sustainable Development. The core areas which are the focus of Education for Sustainable Development are then identified before discussing their integration into the curriculum. It then provides detailed illustrations of the ways and means to integrate the different themes of Education for Sustainable Development (ESD) through examples, in the Higher Education Curriculum in universities and Colleges of India to build a case for ESD.*

Keywords: Education, Sustainable Development, Higher Education, Achievements.

I. INTRODUCTION

It is an established fact that for any development to take place whether social, economic, or political education remains a key vehicle for the same. We talk of Education which empowers us with knowledge, skills, and attitudes for being global citizens. Any citizen across the globe who is educated in the real sense of the word cannot escape the responsibility he or she has towards making the earth a better place to live in. The planet earth can only be more habitable if we understand the urgent need to care for the environment. For learning to care for the environment we need to sensitize the younger generation toward sustainable development. Now the point which emerges is what do we understand by the term sustainable development?

What does Education for Sustainable Development Include?

Education for sustainable development stands for the development of attitudes and values which foster the understanding of the need for environmental conservation and the steps involved therein. In most universities, it can be easily observed that there is no emphasis on education that fosters sustainable development. If education for sustainable development was a priority in Higher Education, then we would regularly see deliberations in the form of discourses and activities in the following focal areas:

- Education for the removal of poverty
- Education for Peaceful Coexistence
- Education for Gender Equity and Equality
- Education against Substance Abuse
- Human Rights Education
- Population Education
- HIV/AIDS Prevention Education
- Education to Promote Healthy Lifestyles
- Education for Good Governance
- Education for Democracy
- Education for Biodiversity Conservation
- Education for Natural Resource Management

As a university then what are the steps that we ought to take on an urgent basis to infuse Education for Sustainable Development in the Curricula across all courses. It is high time that ESD just does not remain as a part of an elective environmental Education or is taught only to students pursuing courses in environmental Studies or Environment Management.

Integration of ESD in the Higher Education Curriculum-

Our students are calling for a curriculum and HE experience that has sustainability at its heart; supporting their development of attributes and expertise that enable them to meet well-being needs and make a difference locally, nationally, and globally (NUS 2018).

Plymouth's vision is to grow our international reputation for being a center of excellence in sustainability teaching and learning. We have an exciting team of staff, students, alumni, and community partners helping to continue this pioneering work. Called the Centre for Sustainable Futures (CSF), this community of practice is led by researchers and extends across all faculties of the University.

If you have a spark of interest in being part of CSF and helping to take this great educational work forwards through your teaching, studying, or volunteering then we would love to work with you.

The task of integration of ESD is not simple yet very much possible. It begins with making the educators in Higher Education understand the basic tenets of ESD through exhaustive workshops on the themes listed in the previous section and also acquainting them with the strategies to be used in terms of pedagogical practices. Let us discuss the integration of the relevant themes of ESD one by one. Steps for the removal of poverty must be discussed across the board in all courses linking it with population control, the economic prosperity of the people, and the nation at large. We as educators need to emphasize the need for being educated and empowered in such a way that we are gainfully employed. Examples of steps taken by the govt in increasing the skilled workforce can also be given such as the launch of the National Skill Development Project and Entrepreneurship Development Projects to make people self-reliant. In today's conflict-ridden world Education for Peaceful Coexistence assumes importance along with Human rights Education by devoting at least 15 mins in a week to discussing the effects of War, Terrorism, etc. through National and International Case Studies. In India, we may take the examples of Kashmir, North East, and Maoist Insurgency discussing the adverse effect on people and habitats. We need to reinforce repeatedly to our younger generation that wars or any kind of armed conflict are not the solutions to any problem and the only way to solve a dispute is by Dialogue. On the International front, we make take the examples of Syria, Palestine, Israel, Iraq, etc. as countries destroyed by war leading to the loss of precious human lives mass migration, and struggle for existence for millions. Another very important area that requires urgent attention is taking steps, to initiate students, towards the adoption of healthy lifestyles. The canteen's universities ought to serve healthy nutritional meals instead of churning out fast food dishes with very low nutritive value and high calorific values. With the fast-food brigade expanding very fast you can see the challenge before you with the younger generation having less physical endurance, grappling with obesity, etc. We also need to move our youth away from sedentary lifestyles by motivating them toward sports and Yoga activities. Another raging battle is to join hands against the growing menace of substance abuse on campuses be it smoking, taking drugs, or consuming alcohol. Apart from prevention, it is also important that we assist the students who are addicted to these through the cycle of de-addiction. Just reprimanding and penalizing students is not a long-term solution to this growing problem. Another aspect of being healthy is to be fully aware of the dangers of acquiring a life-threatening disease such as/AIDS. We as teachers need to discuss the causes and effects of acquiring AIDS with students either through a workshop on the theme of sex education or life skills education. This should not just be the duty of a biology teacher but all of us as a collective. With increasing incidents of crime against women in India and the sex ratio being skewed in favor of the male child, the alarm bells are ringing loud that we have miserably failed in gender sensitizing the youth. We need to make conscious efforts to bring a change toward gender equality and it has to be done very subtly. We may use the medium of theatre for this by making students participate and witness theatre performances wherein the changing gender roles are depicted along with gender stereotypes being broken. Here we may also need to sensitize the teachers such that they do not reinforce the existing gender stereotypes such as Boys don't Cry and neither do they cook or Girl ought to laugh less loudly or Women are poor drivers etc. Well, any discussion on sustainable development is incomplete without stressing the need for Biodiversity Conservation and natural resource management. And this can be best taught through field trips and

excursions. Students need to be taken for excursions to Biodiversity Hotspots, National Parks, Zoological Parks, Museums, and Wildland life Conservation reserves and thus be sensitized to the need for conservation for maintaining the delicate balance in nature. It is important that excursions just don't become mere picnics for recreation and this opportunity is well utilized for sensitizing students towards their role in conservation We need to screen films and documentaries such as Black Hole, Bhopal Express, Born Free, Before Vanishing, An Inconvenient Truth, etc. touching on various important themes such as Conservation of Rivers and Forests, Impact of Coal Mining, Global Warming, etc. Simultaneously there is an urgent need to train our faculty, staff and students in Disaster Management Skills both with respect to Natural and Man-made Disasters. For any kind of citizenship training, it is important that we begin with education for democracy which is grossly missing in the Higher Education system. A major problem in universities in India at the moment is that the space for dissent is shrinking day by day.

Pedagogical Approaches in ESD

There is no 'correct' pedagogy for sustainability education, but there is a broad consensus that it requires a shift toward active, participative, and experiential learning methods that engage the learner and make a real difference to their understanding, thinking, and ability to act.

We've identified five pedagogic elements that cover a host of pedagogical approaches or methods that staff at Plymouth might use to bring these elements into the learning environment.

1. **Critical reflection** – including the more traditional lecture, but also newer approaches such as reflexive accounts, learning journals, and discussion groups.
2. **Systemic thinking and analysis** – the use of real-world case studies and critical incidents, project-based learning, stimulus activities, and the use of the campus as a learning resource.
3. **Participatory learning** – with emphasis on group or peer learning, developing dialogue, experiential learning, action research/learning to act, and developing case studies with local community groups and business
4. **Thinking creatively for future scenarios** – by using role-play, real-world inquiry, futures visioning, problem-based learning, and providing space for emergence.
5. **Collaborative learning** – including contributions from guest speakers, work-based learning, interdisciplinary/multidisciplinary working, and collaborative learning and co-inquiry.

Most of the administrators, as well as academicians, are not appreciative of students raising their voices for their concerns to be addressed. In many universities, the Students' Union itself stands suspended since along. If we do not provide opportunities to feel the pulse of democracy in college life then we can understand by this diagram. Fig.1
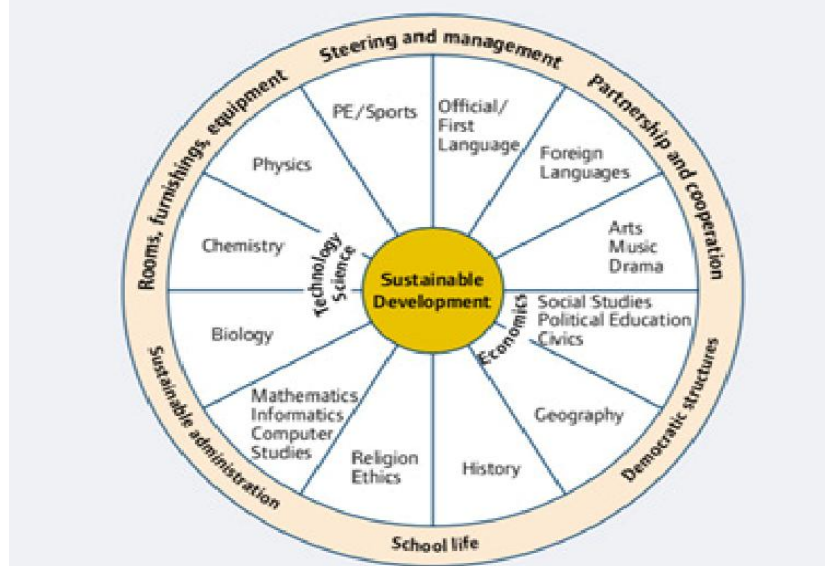
Curriculum Framework: For ESD Education is the basis for sustainable development. The curriculum framework for ESD helps to incorporate the national strategy "from project to structure". This is a contribution to the UNESCO Global

Action Program, the ESD decade program and UNESCO 2030 agenda, and the achievement of SDGs. The focus is to ensure that as global challenges increase, the quality of school education is the basis for sustainable development. The curriculum framework is aimed at curriculum designers, planners, and senior executives at various levels of the education system, and schools. Its practical implementation needs further support. Teachers and students need new project models, textbooks, and learning materials. Therefore, close collaboration between didactic subjects, teaching practices, and textbook publishers is needed. Cross-curricular topics such as diversity in values, culture, and living conditions; economic globalization; peace and conflict; changes in the global environment can be a theme of learning (KMK & BMZ, 2016). Education for Sustainable Development allows every human being to acquire the knowledge, skills, attitudes and values necessary to shape a sustainable future.

Education for Sustainable Development means including key sustainable development issues in teaching and learning; for example, climate change, disaster risk reduction, biodiversity, poverty reduction, and sustainable consumption. It also requires participatory teaching and learning methods that motivate and empower learners to change their behavior and take action for sustainable development. Education for Sustainable Development consequently promotes competencies like critical thinking, imagining future scenarios, and making decisions in a collaborative way. Education for Sustainable Development requires far-reaching changes in the way education is often practiced today."

This article introduces a course concept called "Experts in Teams" (EiT) as a new platform of learning which makes use of experience-based learning to address sustainable development in an academic context. The article investigates the ways in which these new forms of learning lead to sustainable lifestyle and behavioral changes among participants. Based on the results from the case study, the article presents a combined framework for implementing sustainable development as part of a curriculum that not only provides theoretical education about the topic but also furthers a behavioral change among its participants towards more pro-environmental actions.

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