

Environmental Education: Building Sustainable Mindsets among Students

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ABSTRACT

Environmental education plays an important role in developing students' awareness and sense of responsibility towards the environment. This study examines how environmental education helps in building sustainable mindsets among students by increasing their understanding of issues like pollution, climate change, and conservation. It focuses on how such knowledge influences students' attitudes and daily behaviour, encouraging them to think critically and act responsibly. The study also highlights the need to include environmental topics in the school curriculum so that students become more conscious and caring towards nature.

The research follows a descriptive approach and is based on responses from both students and teachers. It explores how different teaching methods, such as classroom discussions, project work, and practical activities, help in creating environmental awareness. It also considers the role of schools in encouraging eco-friendly practices like waste management, tree plantation, and energy conservation. The findings show that environmental education positively influences students by making them more aware of their actions, though more practical involvement is needed. Overall, the study concludes that developing sustainable mindsets among students is essential for a better future, and schools play a key role in achieving this goal.

KEYWORDS: Environmental Education, Curriculum, Awareness, Sustainable.

INTRODUCTION

Education about the environment is essential in molding the manner in which students perceive and respond to the environment. In our era, when environmental problems such as climate change, pollution, and disappearance of biodiversity grow, there has been a need to sensitize the young minds on the environment. Environmental education does not only cover learning facts, it is the creation of awareness, responsibility and positive attitudes towards nature.

Schools can teach students about the need to preserve natural resources and the ecological balance through bringing to them the concepts about the environment. It challenges the students to think critically of what they are doing and how this affects the planet. Students are taught through real life examples by practical activities and discussions how little efforts in their day to day lives like saving water, wasting less and planting trees will have a big impact. By means of that, environmental education can be considered not only as an educational topic, but also as an effective instrument of building a more sustainable and eco-friendly society.

BUILDING SUSTAINABLE MINDSETS AMONG STUDENTS

The modern international environment is characterized by an increasing amalgamation of ecological crises, including not only the loss of biodiversity and depletion of resources never seen before, but also the overall effects of man-made climate change. To address this, the international community has turned to the educational industry as the core driving force in bringing about the systemic changes needed to guarantee survival on the planet. Sustainable Development Education (ESD) has not only become a side light in the curriculum but it is actually a renegotiation of the whole learning process. The paradigm shift aims at going beyond the mere passing of environmental information to the development of sustainable mentalities that are typified by an advanced synthesis of cognitive knowledge, socio-emotional endurance and behavioral agency. These sustainable orientations are pursued through a complex plan that includes

the global policy frameworks, psychological interventions, new pedagogies, and the technological changes, all in a bid to empower the new generation to become guardians of the robust and just society.

Modern environmental education relies on core frameworks of environmental education provided by UNESCO Education for Sustainable Development 2030. This vision places education as one of the most important reactions to the pressing issues of the planet where a holistic approach is promoted, offering people the knowledge, skills, values, and attitudes to allow them to have a future that is environmentally friendly, economical and socially inclusive. The main idea of this framework is based on the assumption that human survival requires the fundamental shift on the way people think and behave as societies. The Global Action Programme (GAP)-to-ESD-2030 roadmap is indicative of becoming more interested in the role of education as the core driver of all sixteen Sustainable Development Goals (SDGs) and even SDG 4: on quality and inclusive education; and SDG 4.7 specifically: on the need to have learners gain skills and knowledge to be sustainable.

The strategy of UNESCO is operationalised into five priority action areas that aim at developing an overall enabling environment to bring change. These pillars entail policy promotion, learning environment change, capacity building in instructors, youth empowerment and mobilization and action acceleration at the local level. The model highlights the fact that current lifestyles of humanity are unsustainable, with 47-percent of national curriculum frameworks of 100 countries involved in a survey having no mention of climate change, showing a deep disconnection between the environmental reality and education delivery. In addition, 40 percent of teachers might feel competent to teach the cognitive aspects of the climate change, but only a quarter are able to properly teach how to take a meaningful action, and it is a severe lack of the pedagogical readiness that the 2030 roadmap aims to address.

The Greening Education Partnership which is the component of this worldwide movement focuses on climate change education using a whole-institution approach. This move will ensure that all areas of learning such as school governance, facilities and operations, teaching and learning, and community involvement are greened. Through the incorporation of a sustainability into the physical structure and the everyday rhythm of school existence, they can transition to a model of students living what they do and learning what they do. It is a fundamental systemic integration that will help transcend the surface level understanding into the profound cultural change that will be needed to achieve sustainable change.

DEVELOPED PSYCHOLOGICAL MINDSETS

Development of sustainable mindset needs a subtle conceptualization of the psychological process that converting awareness to action. It has been shown over and over again that environmental awareness which can be described as the cognitive knowledge of an individual concerning the issues of ecological problems and the need to protect them is an inevitable, yet too many times a requirement of the action towards the sustainable behavior. This is often termed as the knowledge-attitude-behavior (KAB) gap or the behavior-impact gap (BIG) in which people profess to be very concerned about the environment but still follow unsustainable lifestyle patterns. To illustrate, it has been found that though upon finishing a course, students might be able to know more facts about industrial pollution or resource depletion, they might not change their individual consumption patterns, e.g., buying clothes.

This dynamism is also complicated by the fact that objective knowledge (factual knowledge) and subjective knowledge (perceived knowledge) are different. It has been shown that subjective knowledge, which is the belief in knowing, may prove more powerful in predicting pro-environmental behavior than the objective factual accuracy, because it makes the individual feel empowered and ready to take action. In research on Egyptian students at the university, environmental education awareness revealed that it expounded 71.9 percent of the variation in environmental responsibility scores and thus indicated a significant correlation between the two variables. But usually, personal norms, social context and

responsibility mediate this relationship.

The shift in the attitude to the sustainability also presupposes the emotional landscape of the climate crisis. Climate anxiety (or eco-anxiety is a concept that is becoming more and more common in students, it is characterized by distressing feelings that are associated with the degradation of the environment and the uncertainty of whether to expect it to improve. Although it may not be a pathologic element, climate anxiety may affect subjective well-being, and alter life choices, including career goals and family planning. Teachers are consequently obliged to embrace approaches that legitimize these ecological feelings without compromising in the process of both recognizing uncomfortable feelings and letting these feelings empower them to act.

PEDAGOGICAL INNOVATIONS

In order to overcome the knowledge-action gap, environmental education has increasingly taken the form of active and place-based as well as learner-centered pedagogies where learning is given priority. The old forms of teaching that presuppose that the teacher is the only source of knowledge are becoming more and more considered to be insufficient to prepare the so-called action competence that is necessary to lead a sustainable life. Action competence is not only technical knowledge, but the planning skills, participation skills, and critical reflection skills required to engage in environmental issues as an active member.

Place-based education (PBE) full immerses students in the local heritage, landscapes and cultures of their immediate setting, with the schoolyard or the neighborhood being used as the main laboratory. PBE overcomes the abstraction of global environmental issue and the sense of psychological distance by basing education on local realities. This strategy also helps to develop a place-conscious relationship that can be used as a bedrock of ecological literacy. This plays out in most settings as a critical pedagogy of place, integrating environmental education with social justice through the importance of indigenous stories and the importance of land rights and traditional ecological knowledge.

Project-based inquiry and reflective practice are examples of strategies of experiential learning that enables students to shift their roles as passive receivers of information to active change agents. In this case, transformative learning usually encompasses six major pedagogies, namely experiential learning, enquiry learning, co-operative learning, reflective practice, student-centered learning, and affective-aware teaching. Such means have been proven to successfully change the attitude and behavior of the students since they engage them in significant decision making and practical solution of a problem. As an illustration, biosphere reserves can be used as living classrooms so that students could be able to apply scientific knowledge to the sustainable utilization of natural resources, which would largely contribute to their critical thinking and the use of evidence in their arguments.

THE FOREST SCHOOL MODEL AND HOLISTIC DEVELOPMENT

The Forest School model, rooted in the Scandinavian tradition of *Udeskole*, exemplifies a child-centered approach to environmental education. It is characterized by regular, long-term sessions in a natural woodland environment, where children engage in play-based learning and supported risk-taking. Forest School ethos is based on the holistic growth of the person emotionally, socially, spiritually, physically, and intellectually and helps to become resilient and independent in the world with a strong bond to the natural world.

It has been shown that children attending Forest School programs have much more positive attitudes towards the environment and stronger social and motor skills than their counterparts. Practical, physical Forest School is also helpful to the kinesthetic learner and has been found to enhance motivation, concentration and language development. When children are left to pursue their personal interests and make their own risk choices, Forest Schools establish the basis of intrinsic motivation that they will need in order to make their own commitment to sustainability throughout their lives.

Smart apps have also helped to expand citizen science, with students engaging in real science to do by gathering and sharing information about rainfall, biodiversity, or pollution. The projects will span the education and community impact gap since students will feel as though they are the ones who apply science to address the problems in the world. A case study of senior high school students in Indonesia shows that involvement in citizen science projects has a large positive effect on sustainability literacy through enhancement of research capabilities and environmental awareness. Nevertheless, the adoption of such tools should be offset by skepticism; critics observe that with overreliance on AI applications (the “Apparatgeist”), the user may tend to be less critical-thinking, when he/she believes in machine-compiled information as truth without knowing how to operate, etc.

India has been developing a strong policy framework of implementing environmental education in its formal system initially via the National Education Policy (NEP) 2020. This policy aims at a multidisciplinary system that is flexible and holistic and one that is capable of matching the demands of the 21st century. According to the NEP 2020, environmental sustainability should be integrated in all education levels, and the practical skills in this area should include the use of waste management, water conservation, and water use of renewable sources.

University Grants Commission (UGC) and National Council of Educational Research and Training (NCERT) are very instrumental in this implementation. Environmental education is a mandatory subject in India following the directives of the Supreme Court. At the undergraduate level, the UGC has modeled a compulsory 4 credit course on environmental studies, one of the units of which is the practical fieldwork. Environmental issues are also studied thoroughly in NCERT textbooks, starting in Class VI and go through to Class XII and training programs (B.Ed.) in teacher training are required to incorporate environmental sensitivity and conservation.

CONCLUSION

Building sustainable mindsets among students is a complex task that needs the support of global ideas, modern teaching methods, and proper guidance. Programs like UNESCO’s ESD for 2030 give a clear vision, while policies such as India’s NEP 2020 and local initiatives like Gujarat’s Saksham Shala help apply these ideas in real life. However, simply giving information is not enough. True change happens when education also focuses on students’ emotions, values, and behavior. Schools should not only teach but also create experiences where students can learn by doing, such as through activities, projects, and the use of technology like virtual and augmented reality. At the same time, students should be supported emotionally so that they feel hopeful and motivated rather than worried about environmental problems.

The main aim of environmental education is to develop responsible and aware individuals who care for the planet. It should help students think critically, act wisely, and understand their role in protecting the environment. This kind of education is not an extra subject but an essential part of learning that prepares students for the future. By making schools, classrooms, and communities more eco-friendly, we can create a generation that values sustainability and works towards a better and safer world for everyone.

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