

A Study of the Awareness, Attitude and Proposed Actions of Secondary School Students toward Environmental Issues

Susmita Basu* and Mandira Sikdar

School of Liberal Arts and Education, Navrachana University, Vadodara-391410, Gujarat, India

Received: 23 April 2020 Revised: 24 June 2020 Accepted: 24 June 2020 Published: 18 August 2020

*Corresponding Author: susmitabasu16@yahoo.co.in

Abstract

The world today is witnessing several environmental crises – an outcome of insensitive exploitation of natural resources by man. There is an urgent need for sensitization so as to protect, conserve and nurture these resources. The objective of Education for Sustainable Development is to empower all people of the world to endeavor for a sustainable future.¹ Education directly imparts responsibility because an educated citizenry is vital to take informed decisions and actions. Development options, especially, the “greener” ones expand as education improves. Thus, Education is central to improving quality of life. The National Curriculum Framework recommended that Environmental Education should be taught in the Upper Primary/Secondary levels in school to create awareness.²

The present Study was conducted to assess the environmental awareness and attitude among the secondary school students who would be the future citizens of the world. The major findings revealed that there was a significant level of awareness and a positive attitude towards sustainable development among the secondary school students. However, while the present approach to environmental education is interdisciplinary, drawing from biological, sociological, economic, political and other humanistic sources, students could be made better aware if proper guidance and counseling are given about environment via a well-structured awareness program. To conclude, it is necessary to augment our efforts in the campaign for environmental education.

Key words: environmental education, environmental awareness, sustainable development, secondary school students

Introduction

The world has been facing a multitude of environment crises – an outcome of the insensitive and reckless exploitation of natural resources by man. The latest is the devastation of COVID 19 virus across the world that has already affected more than 10million people with more than 500,000 deaths till date. These numbers could be even scarier after a month or two. Environment has been worst affected over the years due to misdeeds of human being. The impact of greenhouse gases like Carbon Dioxide is depleting the Ozone layer that protects earth from harmful Ultra-Violet (UV) rays. It is also inducing Global Warming that has adverse impact on Climate Change. The immediate requirement is drastic reduction of carbon footprint in the world which, in turn, would require significant reduction in the use of fossil fuels. The historic Paris Agreement 2016 is case in point.³ Under the banner of United Nations Framework Convention on Climate Change (UNFCCC),195 nations came together and agreed to take certain definite actions to fight this menace to limit global warming to 1.5 Deg C in this century. Sustainable Development has become the only way forward for the world to survive. It means that we need to keep this world habitable for our future generations as we inherited this earth from our past generations. Thus, there is an urgent need for sensitization of the people so as to protect, conserve and nurture the natural resources. Education for Sustainable Development (ESD) Education 2030 proposed by UNESCO (2015, 2017, 2019)^{1, 4, 5, 6} urges people to think and work towards a sustainable future for the world. ESD has a crucial role to play in building social and individual capabilities and attitudes towards finding solutions for climate change. Quality education is a critical tool at all levels for sustainable development. It can help people to develop knowledge, skills, values and behaviors needed for sustainable development. Education directly affects sustainability as an educated society can take informed decisions, implementation and actions. It can lead to "greener" development.

Creating Environment awareness through education

Sustainable development refers to economic development that is achieved without depletion of natural resources. Education is crucial for the present as well as future citizens to create solutions for a better future. Education for Sustainable Development (ESD) is a set of various forms of education – both the existing ones and the new ones that remain to be created. Sustainability requires a population that has the knowledge and understanding of this crucial

issue to achieve the above goals. It needs to be done across all levels in the formal education system.

Environmental Sustainability – The Indian perspective

Environmental protection is the responsibility of the respective states as given in the Indian Constitution. It is not only the state governments; every citizen must be responsible and accountable for it.

The Honorable Supreme Court of India in 1991 made environmental education compulsory at all levels of education. A curriculum framework prepared by the NCERT was accepted by the Court as the guideline for State Education Departments to develop textbooks for schools from 2004-2005 onward.

The National Policy on Education 1986⁷ (modified in 1992) observed the importance of awareness for the environment in all people.

Rationale

Though, there is sufficient literature available on environment education in India, it is important to assess the ground reality i.e. to understand the impact of Environmental Education strategies at school level. The present approach to environmental education is interdisciplinary, drawing from biology, sociology, economics and many other disciplines, but the researchers believe that students' awareness about environment can be made better if proper guidance is given through a well-structured program. Developing understanding and knowledge about the environment in secondary school students can change their behavior and attitudes as well as bring about sensitization leading to positive thoughts and actions towards solving their local environmental problems. For the reason explained above, a Study was undertaken to assess the awareness, attitudes and actions to be taken, for Std X students of a Senior Secondary school in Vadodara, for environmental sustainability.

Ethics

Due consent was obtained from the respondents and complete anonymity was maintained in conducting the Study.

Sample of the Study

All the Std X students (total 100) of Sections A, B and C of a Senior Secondary School in Vadodara were taken as sample, purposively and were explained the objective of the Study. Responses were collected on their awareness, attitude and actions to be taken, to ensure environment sustainability.

Tool employed

The research was carried out using a questionnaire as data collection instrument. The questionnaire consisted of 3 sections: “Awareness”, “Attitude” and “Action”. The instrument developed in this Study consisted of a questionnaire using a 4-Point Likert -type response scale and Agree/Disagree response items. The tool included both open and close ended questions to elicit information related to environmental concerns. The tool was validated by the experts of education discipline.

Analysis

Quantitative Analysis – The responses received were then tabulated into a Microsoft Excel Sheet and the scores were analyzed to determine the percentage of students in each category via percentage analysis.

Findings

The survey was conducted to assess students’ awareness and attitude to sustainable development. Major findings revealed that there was a significant level of awareness and a positive attitude towards sustainability among secondary school students, as given below:

Awareness

- a) 53% of students were aware of the concern regarding Environmental Sustainability;
- b) 55% understand the meaning of the term ‘Sustainability’;
- c) 66% responded that carbon footprint means the amount of CO₂ released into the atmosphere as a result of human activities;
- d) 51% students responded that the current state of the world’s ecosystem services was average.
- e) 66% of students understood the importance of renewable/non-renewable resources;
- f) 83% informed that sustainable development was being taught via the school subjects.

Attitude

- 1) 55% of students make effort to be knowledgeable about sustainability;
- 2) 60% students strongly agree that it is their responsibility to make a difference with respect to environmental issues;
- 3) 45% are strongly concerned about sustainable development;
- 4) 74% students were in favor of Energy conservation practices;
- 5) 48% of students supported Recycling of solid waste;
- 6) 43% supported Sustainable transportation programs;
- 7) 63% supported water conservation practices;
- 8) 33% students supported the use of environment-friendly products;
- 9) 72% supported measures to minimize carbon emission due to transportation;
- 10) 59% of students supported the use of reusable products.

Actions Proposed

Students suggested the following to bring change and ensure environmental sustainability:

1. Spreading awareness amongst students to ensure environmental sustainability;
2. Prudent use of resources;
3. Minimizing wastage;
4. Adopting Carpooling; Using of public transport;
5. Avoiding the burning of waste in the open;
6. Using of solar / other renewable sources of energy;
7. Supporting planting trees (afforestation);
8. Installing rainwater harvesting system;
9. Segregating degradable / biodegradable wastes;
10. Substitute the use of plastic with environment friendly products;
11. Adopting the philosophy of 5Rs – Reduce, Recycle, Reuse, Refuse & Regenerate
12. Educating the masses via a Best out of waste management program.

Implication of the findings

2005-2014 was declared as the UN decade of Education for Sustainable Development. The goal was to create a more sustainable future for the world. Amongst various ways to

sustainability, education is an important one. Agenda 21⁸ is an action plan of the United Nations with regard to sustainable development discussed in United Nations Conference on Environment & Development Rio de Janeiro, Brazil, 3 to 14 June 1992. The "21" in Agenda 21 refers to the original target year of 2021 to achieve their development goals. It has been subsequently revised to a new time line of 2030.

Education is the primary agent for transformation towards sustainable development. Education augments people's potentials and capacities; it provides not only the requisite scientific and technical skills, but also the understanding for their judicious application. Education is essential for mobilizing minds and communities in the endeavor for sustainable development. It is for this reason that society must be deeply concerned both with the access to education as also the quality of education imparted. Education for sustainable development aims at future, ecology and social well-being of all people.

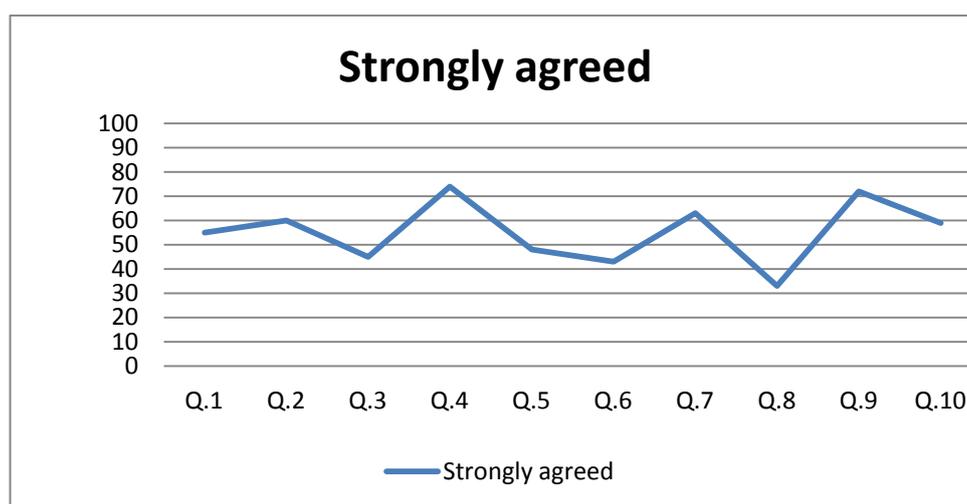


Figure 1: Student Attitude about environment sustainability

The major findings of this Study indicated that while there was awareness about environment sustainability and a positive attitude too, we would be required to step up our efforts as can be seen from the figure above where the responses were positive but could definitely be enhanced. It is necessary to augment our efforts in the campaign for environmental education.

School education must contribute to increased sensitivity to this concern via the designing of curricular events - Organize excursions and field trips, develop enquiry-based projects, as also "improve the capacity of our education systems to prepare people to pursue Sustainable development" (United Nations, 2012: Para 230⁹). We must devise more support for teachers via flexibility in curriculum policy that allows primary and secondary schools to develop content

and projects that are locally relevant as also support the Education for Sustainable Development.

References

1. UNESCO. (2015, May). *Education 2030. Incheon Declaration and Framework for Action. Towards inclusive and equitable quality education and lifelong learning for all*. Retrieved from <https://unesdoc.unesco.org/ark:/48223/pf0000245656>
2. *National Council of Educational Research and Training (NCERT)*.(2005). Retrieved from <https://kviffcogimlibrary.files.wordpress.com/2018/02/ncf-2005.pdf>
3. United Nations Framework Convention on Climate Change (UNFCCC). (2015, December 12). *Adoption of Paris Agreement*, Conference of the Parties, 21st session. 2016, draft dated 12th December 2015, effective 4th November 2016. Retrieved from <https://assets.documentcloud.org/documents/2646274/Updated-109r01.pdf>
4. UNESCO. (2017). *Education for Sustainable Development Goals – Learning Objectives*. Retrieved from <https://unesdoc.unesco.org/ark:/48223/pf0000247444>
5. UNESCO. (2019, June). *Education for Sustainable Development (ESD) – Overview of International Frameworks on Education for Sustainable Development*. Retrieved from <https://unfccc.int/sites/default/files/resource/2%20UNESCO.pdf>
6. UNESCO (2019, September 3). *Frameworks for the implementation of Education for Sustainable Development (ESD) beyond 2019*. General Conference 40th session, Paris, Document No. 40 C/23. Retrieved from https://www.oneplanetnetwork.org/sites/default/files/40_c23_framework_for_the_implementation_of_esd_beyond_2019.pdf
7. *National Policy on Education 1986 (modified in 1992)*. MHRD.1986/1992. Retrieved from https://www.mhrd.gov.in/sites/upload_files/mhrd/files/document-reports/NPE86-mod92.pdf
8. United Nations Conference on Environment and Development. (1992). *Agenda 21, earth Summit, Rio de Janeiro, Brazil, 3 to 14 June 1992*. Retrieved from <https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf>
9. United Nations General Assembly (2012). *The Future We Want, Para 230*. 66th Session. 2012. Resolution adopted on 27 July 2012. Agenda Item 19,66/288. Retrieved from https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_RES_66_288.pdf