



## IMPACT OF ENVIRONMENTAL AWARENESS PROGRAM ON ADULT LEARNERS ATTITUDE TOWARDS ENVIRONMENT

**Dr. Anita Balasaheb Khaire**

*Assistant Professor, Dnyanganga College of Education, Pune-411051*

---

### Abstract

---

*The present research aimed to find the present level of adult learner's attitude towards environment in slum area, develop the environmental awareness Programme for the learners who scored below average grade and study its effectiveness. To study the present level of environmental attitude of adult learners in slum area survey method was used. Data was collected from 104 adult learners in slum area. After analysing the data, it was found that 46% of the students have scored below average in environmental attitude test. That 46% (48 participants) were selected for experimentation. Environmental awareness programme was conducted for 35 days and post-test was administered. single group pre-post-test design was used. It was found that there was a significant difference in pre and post-environmental attitude scale scores of adult learners in the slum area. That means the Environmental awareness program was found useful in enhancing the environmental attitude of adult learners in slum areas.*

---

**KEYWORDS:** *Environmental attitude, Awareness Program, Adult learners*

### INTRODUCTION:

Environmental education is a multidisciplinary field that aims to promote awareness, understanding, and appreciation of the natural world and our relationship with it. It encompasses a wide range of topics, including ecology, conservation, sustainability, and the impact of human activities on the environment. The primary goal of environmental education is to empower individuals and communities to make informed decisions and take responsible actions to protect and preserve the environment.

Environmental education plays a crucial role in creating environmentally literate citizens who are equipped to contribute to a sustainable and resilient future for the planet. Through its diverse approaches and broad reach, environmental education contributes to building a society that values and protects the natural world.

The NEP 2020 emphasizes a holistic and multidisciplinary approach to education. This includes integrating environmental education across various subjects to promote a comprehensive understanding of ecological principles and sustainability. The policy encourages experiential learning, and environmental education often benefits from hands-on experiences, field trips, and practical activities. This approach helps students connect with nature and understand environmental issues more deeply. The NEP 2020 underscores the importance of instilling values and a sense of responsibility in students. Environmental education plays a crucial role in fostering environmental ethics, sustainability, and a sense of stewardship towards the planet. The NEP 2020 advocates for flexible and multidisciplinary curricula. This flexibility could provide opportunities to incorporate environmental education into different subjects and grade levels, promoting a more integrated approach.

Slum areas often face challenges related to inadequate infrastructure, overcrowded living conditions, and limited access to quality formal education. This can impact the availability and effectiveness of environmental education programs. Limited financial resources in slum communities may result in a lack of educational materials, qualified teachers, and infrastructure for conducting environmental learning initiatives. Many slum areas grapple with poor sanitation and health conditions. Environmental learning in such areas might need to address basic hygiene and sanitation practices before delving into broader environmental issues. Successful environmental learning programs in slum areas often involve active community engagement and empowerment. Projects that involve the community in decision-making processes and problem-solving tend to be more effective.

NGOs and community-based organizations may implement innovative approaches, such as mobile learning units, community workshops, and peer-to-peer education, to overcome barriers in delivering environmental education. One of them is MASOOM, an NGO Working for drop out students in Maharashtra and Gujrat States. MASOOM runs The Evening Learning Centres to support the dropouts to pass class 10 especially in the areas where there are no alternative models like night schools or other platforms. Most of the students learning in ELC are adults belongs to slum area. In present study researcher has developed environmental awareness programme for adult learners and studied its impact on their attitude towards Environmental education

## IMPORTANCE OF THE STUDY

**To create awareness:** With the help of awareness programme awareness students will become informed and responsible citizens and net zero leaders of the future who are committed to create a sustainable future for Society. It will also create awareness among children and to involve all people regardless of race, colour, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

**Reduce our greenhouse gas emissions:** All the action plans suggested for individual, group, and community action plans help to neutralize and cover up the carbon footprints of every student and organization as well as our partners and donors.

**Incorporation of environmental protection as a cost-cutting aspect of management:** Incorporating environmental protection as a cost cutting aspect of management means integrating environmental considerations into all aspects of an organization's operations and decision-making processes. This approach recognizes that environmental protection is not just the responsibility of an organization's environment department, but rather a shared responsibility of every individual

**TITLE:** Impact of environmental awareness programme on adult learner's attitude towards environment.

## OBJECTIVES

1. To study the present level of Adult learner's attitude towards the environment in slum areas.
2. To Develop an Environmental awareness programme for adult learners in slum areas.
3. To study the impact of the Environmental Awareness Programme on adult learner's attitude towards Environment.
4. To compare the impact of the Environmental Awareness Programme on adult learner's attitude towards the Environment gender-wise.
5. To study the opinions of adult learners regarding the environmental awareness programme

## HYPOTHESIS

1. There is no significant difference in pre and post-environmental attitude scale scores of adult learners in the slum area.
2. There is no gender-wise significant difference in post Environmental attitude scale scores of adult learners in slum area.

**METHODOLOGY:** Qualitative Research approach was adapted for this research. To study the present level of Adult learners' attitude towards the environment in slum areas researcher used a survey method. Adult learners from slum areas having below-average attitude towards environmental education were selected for the experiment. The researcher has developed an

environmental awareness program for the adult learners who participated in the survey and have scored below average environmental attitude. Single group pre-post-test design from the pre-experimental group was used.

**PARTICIPANTS:** One hundred and four students from different ELCs run by MASOOM in Pune have participated in the survey. All participants were from the age group 20 years to 45 years and left the school from 5th, 6th, 7th, 8th and 9th standards. Some of them left the school in 10th standard and appeared for Maharashtra state SSC Examination by filling 17 number form. Among them 73 were females and 31 were male participants. Forty-eight adult learners who participated in the survey and scored below average environmental attitude scores were selected as the participants for experimentation.

**DATA COLLECTION TOOL:** Environmental attitude test developed by researcher was used as a data collection tool for survey method and as a pre and post-test in experimental method. There were 50 statements in environmental awareness attitude scale. Among that 27 statements were negative and 23 statements were positive. Four options were given for each statement strongly Agree, Agree, disagree, strongly Disagree. Respondent had to choose only one option against each statement. Reliability coefficient of the environmental attitude test is 0.84. Total Scores for the environmental attitude test were 200.

**ENVIRONMENTAL AWARENESS PROGRAMME:** Environmental awareness programme was of 5 weeks (35 Days). The objectives of the awareness programme were

- To increase students' understanding of environmental issues and the impact of human activities on the environment.
- To promote sustainable practices for energy consumption, waste reduction, and water conservation.
- To encourage students to adopt sustainable habits and behaviours in their daily lives.
- To promote critical thinking skills and problem-solving abilities in relation to sustainability issues.
- To inspire students to take action in their communities to promote sustainability and environmental conservation.

Various activities were broken down in to weekly plans and implemented as follows:

Week	Day	Activity
Week 1 Build Awareness	Day 1-2	Research and read about the effects of climate change and how it impacts our planet. Understand the importance of mitigating climate change.

	Day 3-4:	Watch documentaries on climate change such as 'An Inconvenient Truth,' 'Before the Flood,' and 'Chasing Coral.' Discuss with your fellow ELC students to build awareness
	Day 5-7	Share your learnings with your friends and family and encourage them to do their part in mitigating climate change. Start a social media campaign to raise awareness among peers.
Week 2 Reduce Energy Use	Day 8-9	Conduct an energy audit of your home and school, identify energy inefficiencies, and develop an action plan to reduce energy consumption.
	Day 10-11	Turn off lights and electronics when not in use and use natural light whenever possible.
	Day 12-14	Set up a carpool system with fellow Night School students or walk, bike, or use public transport to reduce carbon emissions.
Week 3 Waste Reduction	Day 15-16:	Reduce the number of single-use plastics used and opt for sustainable alternatives such as reusable water bottles, utensils, and bags.
	Day 17-18	Recycle properly and encourage others to do the same. Start a recycling program at your school or in your community.
	Day 19-21	Compost food waste and encourage your school to start a composting program. Host a composting workshop to teach others how to compost.
Week 4 Water Conservation and Green Your Space	Day 22-23	Reduce water consumption by taking shorter showers and turning off taps when not in use.
	Day 24-25	Fix leaks in your home and school to reduce water wastage.
	Day 26-27	Support water conservation efforts in your community, such as rainwater harvesting. Start a rainwater harvesting project in your school or community.
	Day 28-29	Plant trees and support afforestation efforts in your community. Create a green space in your home and school, such as a garden or rooftop garden.
Week 5 Advocate for	Day 30	Write to your local politicians and urge them to take action on climate change. Participate in climate strikes and rallies, and join climate action groups

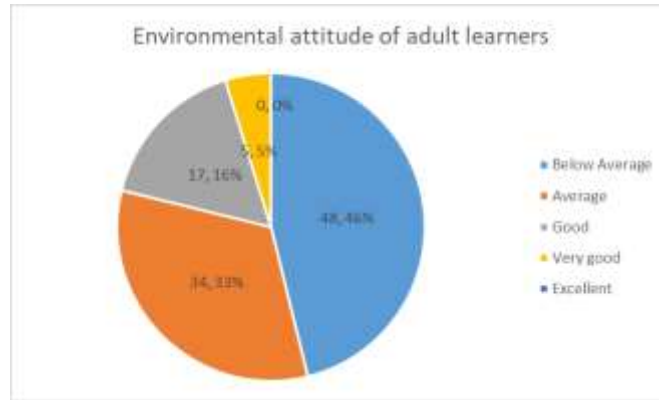
Climate Change	Day 31-32	Use social media to spread awareness and build a community of environmental heroes. Share your knowledge and encourage others to take action on climate change.
	Day 33-35	Educate others about climate change and how they can reduce their carbon footprint. Host a climate change workshop or presentation at your school or community center Share your knowledge on social media and encourage others to take action on climate change. Use social media to spread awareness and build a community of environmental heroes.

**DATA ANALYSIS:** In the research quantitative data analysis was conducted for the data collected in survey by using percentage and graphs. Values of mean, Standard deviation, range, skewness, kurtosis of scores in pre and post-test, Comparisons of means of pre and post-test scores were calculated by using SPSS (Statistical Package for Social Science) version- 20.00. Comparison of pre-test and post-test scores was done at 0.05 significance level. to determine the applicability of the t-test, it was checked whether the data, had a normal distribution and the variances were homogeneous as it is one of the assumptions of the parametric hypothesis tests. To analyse the data collected through structured interview descriptive technique was used.

#### DATA ANALYSIS TO STUDY PRESENT LEVEL OF ADULT LEARNER'S ATTITUDE TOWARDS THE ENVIRONMENT IN SLUM AREAS.

Environmental attitude test was administered on 104 adult learners in slum area. The scores obtained in the test were classified in the grades as follows.

Sr.No.	Grade	Environmental Attitude Scores	Number of Students	Percentage
1	Below Average	less than 100	48	46%
2	Average	100 to 120	34	33%
3	Good	120 to 140	17	16%
4	Very good	140 to 160	05	05%
5	Excellent	above 160	00	00 %



Forty-Eight participants scored below average which means 46 % of Participants had below average scores in the environmental attitude test, thirty four participants (33%) achieved average Scores, Seventeen participants (16%) achieved good grade and only five Participants (5%) achieved very good grade. Not a single participant scored excellent grade.

### DATA ANALYSIS TO STUDY IMPACT OF ENVIRONMENTAL AWARENESS PROGRAMME

#### DESCRIPTIVE DATA ANALYSIS OF PRE AND POST TEST SCORES

Statistic	Pretest	Post Test
N	48	48
Mean	65.12	160.43
Median	64.50	158.50
Mode	45.00	145.00
Std. Deviation	17.30	19.26
Skewness	-0.253	-0.258
Std. Error of Skewness	0.343	.343
Kurtosis	-.256	-.518
Std. Error of Kurtosis	.674	.674

In Pre and Post environmental attitude test values of skewness and kurtosis are between -1 and +1, it means the distribution of pre and post-test scores follow normal distribution.

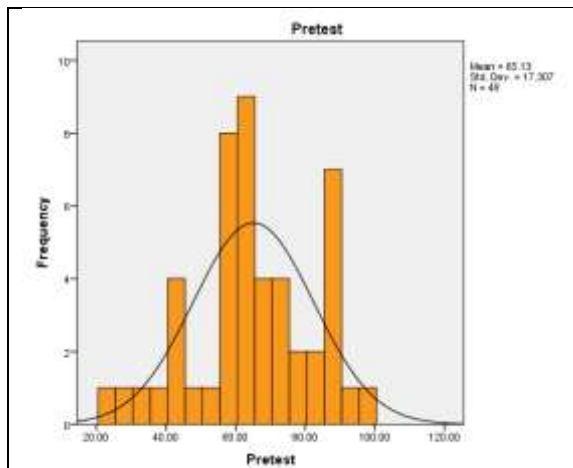


Fig 1. Histogram of Environmental attitude  
pre-test scores

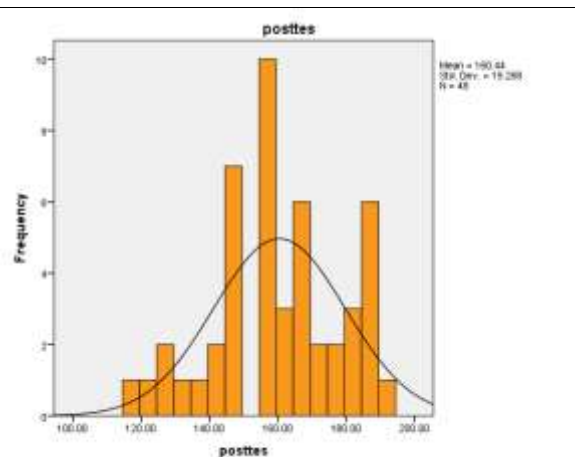


Fig 1. Histogram of Environmental attitude  
post-test scores

The histogram graphs of the pre test scores also examined for the normal distribution from the graphs it was observed that they followed bell shaped frequency curve.

The Shapiro-Wilks Test was used as The third method applied for normality was the Shapiro Wilks Test, since the group size was less than 50. The data of the Shapiro-Wilk Test applied for the Environmental attitude pre and post-test scores are shown in the table below.

Test	Statistic	df	P
Pre-test	0.92	48	0.296
Post-test	0.98	48	0.124

Table 2. Shapiro-Wilk test results for Environmental attitude pre-test

In the Shapiro-Wilk test, the p value for the experimental group was  $p=0.296$ , and the p value for the control group was  $p=0.124$ . The Value of  $p>.05$ . This was interpreted as the scores were normally distributed.

### INFERENRIAL STATESTICS OF PRE AND POST TEST SCORES

Hypothesis 1- There is no significant difference in pre and post-environmental attitude scale scores of adult learners in the slum area.

To test this hypothesis Environmental attitude scores were compared with t-test by using SPSS

Test	N	Mean	SD	Standard Error of Mean	t value	Df	p
Pre-test	48	65.12	17.30	2.66	35.71	47	1.678
Post-test	48	160.43	19.26				



After applying t test for pre and post-test mean scores the calculated t value for df 47 was 35.71 and  $p= 1.678$ , so there is a significant difference between the pre-test scores and post-test scores at 0.05 level after implementation of environment awareness programme.

Hypothesis 2- There is no gender-wise significant difference in post Environmental attitude scale scores of adult learners in slum area.

To test this hypothesis Environmental attitude scores were compared with t-test by using SPSS

Gender	N	Mean	SD	Standard Error of Mean Difference	t value	df	p
Female	35	157.97	20.07	5.52	1.64	46	1.679
Male	13	167.07	15.70				

After applying t-test for post-test mean scores of male and female participants the calculated t value for df 46 was 1.64 and  $p= 1.679$ , so there is no significant difference between the post-test scores of male and female at 0.05 level. Thus Null hypothesis is accepted.

**QUALITATIVE DATA ANALYSIS:** After the implementation of the environmental awareness programme, a questionnaire was given to the participants to know their opinions about the programme. There were 5 questions in the questionnaire. First question was whether the awareness programme was useful? From the responses of the student it was found that students found the programme useful as it provided all necessary information about environmental challenges and practical solutions to them. It also provided knowledge about sustainable environmental processes and enlightened participants on environmental education.

The second Question was which activity students like most in the programme and why. after analysing the responses, it was found that student like ‘recreation of paper’ activity most as we have lots of waste papers in our house and we throw it in the dust bin. after learning this activity participant recycled the papers at home and made very beautiful, colourful papers at home.

The third question What difficulties did you face while doing activities at home? for this question responses of the participants were Initially when participant instructed their family members to do activities that save energy, avoid the use of plastic, minimize domestic waste, etc. family members got irritated but when they were oriented at the centre regarding environmental pollution and its adverse effect on the human body they agreed to follow the instruction. When it was asked to use public transport instead of personal vehicles for shorter distances they found it difficult because it consumed time.

The fourth question was what changes you observed in yourself after attending the programme? In response to this question, participants responded, they follow every action that saves energy like switching off the electric appliances when not in use, not overcharging mobile phones etc. They also turned off running taps, used cloth bags, didn't throw garbage in open places, tried to prepare seed balls, never wasted food, started reusing waste water etc.

The fifth question was, Will you aware your neighbour and society about environment? how? 100 % students responded yes. they will aware of the neighbour and society, public places regarding environmental pollution, cleanliness and hygiene.

## CONCLUSIONS

1. 46 % of Participants had below-average scores, 33% average Scores, 16% achieved good grades and only 5% achieved very good grades. Not a single participant scored an excellent grade.
2. There is a significant difference in pre and post-environmental attitude scale scores of adult learners in the slum area. That means the Environmental awareness programme was found useful in enhancing the environmental attitude of adult learners in slum areas.
3. There is no gender-wise significant difference in post-environmental attitude scale scores of adult learners in the slum area.
4. Participants found the environmental awareness programme to create awareness about environmental issues and agreed to spread awareness about environmental issues in the neighborhood and in society.

**RECOMMENDATIONS:** To create an impactful awareness that will help in sustaining the environment. Schools, colleges and educational institute should integrate this environment awareness module in curricula and extra- curricular activities. NGOs and community leaders and workers should take initiative to educate the peoples on environmental issues and how to save the ecosystem. A school level environment committee in each school will be formed, which will work for environment related issues. School Management and Development Committees (SMDCs) should have environment as the agenda for at least 3 meetings in an academic year. 'Environment Day' to be conducted once a month in schools.

## REFERENCES

- Boca, G., & Saracli, S. (2019). Environmental education and student's perception for sustainability. *Sustainability*, 11(6), 1553. doi:10.3390/u11061553 Boeve-de Pauw, Borchers, C., Boesch, C., Riedel, J., Guilahoux, H., Ouattara, D., & Randler, C. (2014). Environmental education in Côte D'Ivoire/West Africa: Extra-curricular primary

- school teaching shows positive impact on environmental knowledge and attitudes. *International Journal of Science Education*, 4(3), 240–259.
- Bradley, J. C., Waliczek, T. M., & Zajicek, J. M. (1999). Relationship between environmental knowledge and environmental attitude of high school students. *The Journal of Environmental Education*, 30(3), 17–21. doi:10.1080/00958969909601873
- Breiting, S., & Wickenberg, P. (2010). The progressive development of environmental education in Sweden and Denmark. *Environmental Education Research*, 16(1), 9–37. doi:10.1080/13504620903533221
- Choudhary, S., Saha, A. R., & Tiwary, N. K. (2019). The role of compulsory environmental education in higher learning: A study in the University of Delhi. *Applied Environmental Education and Communication*, 1–13. doi:10.1080/1533015X.2019.1605946
- Dada, D., Eames, C., & Calder, N. (2017). Impact of environmental education on beginning preservice teachers' environmental literacy. *Australian Journal of Environmental Education*, 33(3), 201–222. doi:10.1017/aee.2017.27
- DeChano, L. M. (2006). A multi-country examination of the relationship between environmental knowledge and attitudes. *International Research in Geographical and Environmental Education*, 15(1), 15–28. doi:10.2167/irgee/184.0
- Disinger, J. (1981). Environmental education in the K-12 schools: A national survey. In A. Sacks & ... (Eds.), *Current issues VII: The yearbook of environmental education and environmental studies* (pp. 141–156). ERIC/SMEAC.
- Erhabor, N., & Don, J. (2016). Impact of environmental education on the knowledge and attitude of students towards the environment. *International Journal of Environmental and Science Education*, 11(12), 5367–5375.
- Erkal, S., Safak, S., Yertutan, C. (2011). The Role of Family in Creating Awareness of Sustainable Development and Environment. *Sosyo Ekonomi Dergisi*, 1, pp 145-157.
- Ernst, J., & Monroe, M. (2004). The effects of environment-based education on students' critical thinking skills and disposition toward critical thinking. *Environmental Education Research*, 10(4), 507–522. doi:10.1080/1350462042000291038
- Faguet, J., & Sanchez, F. (2014). Decentralization and access to social services in Colombia. *Public Choice*, 160(1-2), 227–249. doi:10.1007/11127-013-0077-7
- Fisman, L. (2005). The Effects of Local Learning on Environmental Awareness in Children: An Empirical Investigation. *The Journal of Environmental Education*, 36(3), 39–50. doi:10.3200/JOEE.36.3.39-50

- Nath, B. (2003) Education For Sustainable Development: The Johannesburg Summit and Beyond. *Environment, Development and Sustainability*, pp 231–254.
- Sengupta, M., Das, J. and Maji, R. K. (2010): Environmental Awareness and Environmental Related Behaviour of Twelfth Grade Students in Kolkata: Effects of Stream and Gender – *Anwesana*, Vol.5, pp. 1 – 8.
- Srikanta, K. Panigrahi 2004 – Environmental Education; Need of the hour, *Yojana Journal*, Vol-48, No. 6, pp. 13-22. 9.[www.greenteacher.org](http://www.greenteacher.org) 10.[www.ceeindia.org](http://www.ceeindia.org)
- Stern, M. J., Powell, R. B., & Ardoin, N. M. (2011). Evaluating a constructivist and culturally responsive approach to environmental education for diverse audiences. *The Journal of Environmental Education*, 42(2), 109–122. doi:10.1080/00958961003796849
- Sundar, I. (2010). *Teaching & Learning Methods in Environmental Education*. Sarup Book Publisher.
- Tanriverdi, B. (2009) Analyzing Primary School Curriculum in Terms of Sustainable Environmental Education. *Education and Science*, 34 (151), 2009, pp 89-103.
- Thomas, G. (2005). Facilitation in Education for the Environment. *Australian Journal of Environmental Education*, 21, 107–116. doi:10.1017/S0814062600000999