

Ecological intelligence is the intelligence of our connection to the world around us. It's about seeing the invisible links between our actions and their consequences on the planet." Daniel Goleman (2009)

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Abstract: The present study investigates the level of awareness of ecological intelligence among higher secondary school students in Varanasi city, India. Ecological intelligence, a concept introduced by Daniel Goleman, refers to the human capacity to understand the environmental impact of our actions and to behave in ways that minimize ecological harm. Against the backdrop of the National Education Policy (NEP) 2020, which emphasizes the integration of environmental education across curricula, this research assumes significance. Employing a descriptive survey method, data were collected from a sample of 100 higher secondary school students selected through simple random sampling. A self-designed questionnaire, "Questionnaire for Ecological Intelligence," was developed and validated by the researcher. The tool assessed five key components: knowledge, awareness and sensitivity, attitude, skills, and participation. The reliability of the instrument was established using the test-retest method, yielding a reliability coefficient of 0.79. The findings reveal a promising yet varied landscape of ecological intelligence among students. While a significant majority (68%) demonstrated a high level of awareness and sensitivity towards environmental issues, their knowledge base showed considerable variation. Many students possess theoretical knowledge, but the development of practical skills and active participation in environmental activities require further strengthening. The study concludes that while policy frameworks like NEP 2020 have positively influenced student awareness, there is a critical need to bridge the gap between theoretical understanding and practical application. Enhancing hands-on learning experiences and community-based environmental projects is essential for fostering deeper ecological intelligence and responsible environmental citizenship among the youth.

Keywords: Ecological Intelligence, Environmental Education, Higher Secondary Students, NEP 2020, Environmental Awareness, Sustainability.

Introduction

"Ecological intelligence, is the intelligence of our connection to the world around us. It's about seeing the invisible links between our actions and their consequences on the planet." Daniel Goleman (2009)

The current situation of environmental pedagogy in India is a mixed bag. On the one hand, the country has made significant progress in recent years in terms of integrating environmental education into its curriculum at all levels. In 2003, the Supreme Court of India ordered that environmental studies be made a compulsory subject in all schools and colleges. This has led to millions of students across the country being exposed to environmental concepts and issues. In addition, a number of government and non-governmental organizations are working to promote environmental education in India. For example, the Ministry of Environment, Forests, and Climate Change has developed a number of resources for teachers and students, including curricula, textbooks, and

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teaching aids. NGOs are also playing an important role in providing environmental education programs to schools and communities. However, there are still a number of challenges facing environmental pedagogy in India. One challenge is that the quality of environmental education varies widely from school to school. In some schools, Environmental studies is taught as a separate subject, while in others it is integrated into other subjects, such as science or social studies. In some cases, teachers may not have the necessary training or resources to teach environmental studies effectively. Another challenge is that environmental education often focuses on theoretical concepts rather than practical skills. Students may learn about the importance of protecting the environment, but they may not have the opportunity to develop the skills and knowledge they need to take action. Finally, there is a need to make environmental education more relevant to the lives of students.

Environmental education should be tailored to the specific context of each community, and it should address the environmental issues that are most relevant to students' lives. Overall, the current situation of environmental pedagogy in India is promising, but there is still room for improvement. By addressing the challenges outlined above, India can further strengthen its environmental education system and create a more sustainable future for the country.

The National Education Policy (NEP) 2020 is a comprehensive framework for education in India that aims to create a more inclusive, equitable, and high-quality education system. The NEP places a strong emphasis on environmental education, recognizing its importance in creating a sustainable future for the country.

The NEP outlines a number of key goals for environmental education in India.

These include:

- To develop students' understanding of the environment and its importance.
- To equip students with the knowledge and skills to take action to protect the environment.
- To foster a sense of environmental responsibility and citizenship in students.
- The NEP also outlines a number of strategies for achieving these goals.

These include: Integrating environmental education into all aspects of the curriculum, from kindergarten to higher education. Developing and using innovative teaching and learning methods for environmental education. Providing teachers with the training and resources they need to teach environmental education effectively. Partnering with NGOs and other organizations to deliver environmental education programs. The NEP is a significant step forward for environmental education in India. It provides a clear vision for the future of environmental education in the country and outlines a number of concrete steps that can be taken to achieve this vision. Here are some specific examples of how the NEP is being implemented to promote environmental pedagogy in India: The National Council of Educational Research and Training (NCERT) has developed a new curriculum for environmental studies that is aligned with the NEP. The new curriculum is more comprehensive and interdisciplinary than the previous curriculum, and it places a greater emphasis on hands-on learning and problem-solving.

The government of India has launched a number of new programs to promote environmental education in schools and colleges. For example, the National Green Corps (NGC) is a program that provides students with opportunities to participate in environmental projects in their communities.

A number of NGOs and other organizations are working to support the implementation of the NEP. For example, the Centre for Science and Environment (CSE) has developed a number of resources for teachers and students on environmental education.

The NEP is still a relatively new policy, and it will take time to fully implement. However, the progress that has been made so far is encouraging. With continued commitment from the government, NGOs, and educators, the NEP has the potential to transform environmental education in India and create a more sustainable future for the country.

Education and Ecological Intelligence: According to UNESCO, “Environmental education is a way of implementing the goals of environmental protection. It is not a separate branch of science but the lifelong interdisciplinary field of study.” It means education towards protection and enhancement of the environment and education as an instrument of development for improving the quality of life of human communities. Trying to be “green” quickly becomes tricky. A simple question like “paper or plastic?” can lead to a complicated analysis of deforestation and water use versus peak oil and persistent pollution. That’s why Daniel Goleman, best-selling author of *Emotional Intelligence* in 1995, has returned to the subject but with an environmental angle. He introduced ecological intelligence in 2009.

Ecology – The science of interrelationships between organisms and their environment.

Intelligence – A general concept that summarizes the abilities of an individual in reasoning and problem solving, particularly in novel situations. Ecological intelligence refers to our collective ability to understand the human impact on ecosystem and to act in ways that improve them. The term ecological intelligence is coined by Daniel Goleman. The definition of ecological is something related to organism and how they interact with each other and their surroundings, or something related to the biological study of those organisms. Environment education promotes critical and creative thinking skills and inspires students to become more engaged with their communities. It helps students understand why the environment is important and provides them with the building blocks they need to live eco-friendly, sustainable lives. Thus ecological intelligence is the capacity to reason in ecological term. To perceive the interrelationships between living systems as the sustainably functioning whole.

To understand our place within that whole and so shape our thinking and behavior. But ecological intelligence is ultimately about more than what we buy. It’s also about our ability to accept that we live in an infinitely connected world with finite resources. Goleman highlights the Tibetan community of Sher, where for millenniums, villagers have survived harsh conditions by carefully conserving every resource available to them. The Tibetans think ecologically because they have no other choice — neither do we. **According to Daniel Goleman**, The old saying has it that “what we don’t know can’t hurt us” but the truth today is just the reverse: what we do not know about what goes on backstage, out of sight, harms us, others, and the planet. Ecological intelligence — our ability to adapt to our ecological niche.

Ecological refers to an understanding of organism and their ecosystem and intelligence connotes the capacity to learn from experience and deal effectively with our environment.

Review of the Related Literature::

Najmuddeen & Areekkuzhiyil (2017) the aim of this study was to identify the level of ecological intelligence of teachers for the whole sample and relevant sub-samples based on gender, age, educational qualifications, subject taught, length of teaching experience, training, type of management of institution, and level of institution. The study is an empirical one. Researchers used primary data for the study. The population for the study consisted of teachers teaching in different educational institutions ranging from kindergarten to college level in the state of Kerala. The researcher concluded that the teachers were found to have a higher level of Ecological Intelligence. Female teachers were found to have higher Ecological Intelligence than their male counterparts.

Nagamma & Dr. Taj (2018) have conducted research on the 'Effect of Ecological Intelligence on Environmental Behavior of Secondary-Level Students.' The objective of the present investigation is to identify the effect of ecological intelligence of secondary-level students on their environmental behavior. The present investigation utilized a descriptive survey method and quantitative approach as the substantial method of the study. The data was analyzed with the help of independent 't' test and coefficient of correlation.

Putra et al. (2019) the research aimed to determine the ecological intelligence ability of preservice biology teachers in an environmental knowledge course. This qualitative descriptive study analyzed variables related to students' ecological intelligence, including environmental characteristics, ecological concepts, material and energy, human and environment, and natural resources and environment. The results showed that the ecological intelligence ability of preservice biology teachers was good enough.

Fauzi (2021) the research objective was to determine how effective ecopedagogy is in developing ecological intelligence in students. The study used a mixed approach with a method of classroom action research. The conclusion was that the learning-by-approach Eco pedagogy is an effort to instill attitudes of caring for the environment in the next generation.

Hasanah et al. (2021), the study researched the "Improvement of Ecological Intelligence. Through Educational Comics as Learning Resources." The objective was to describe the increase in ecological intelligence through comics as a learning resource. It used a literature approach to describe the topic systematically. The research concluded that ecological intelligence can be combined with learning, and the source of the comics is factual stories presented with a series of storylines and pictures.

Chomaini et al. (2021), this research focused on "The Relationship between Ecological Intelligence and Media Exposure with Environmentally Friendly Behavior." The aim was to measure the level of ecological intelligence, media exposure, and environmentally friendly behavior of students in Jakarta and to analyze the relationship between these factors. The study used a quantitative correlational approach with cluster random sampling. It was concluded that there is a positive relationship between ecological intelligence, media exposure, and environmentally friendly behavior, meaning that the better the students' ecological intelligence or media exposure, the better their environmentally friendly behavior. Güven & Uyulgan (2021) has been investigated "An Active

Learning Framework for Ecological Intelligence: Using Activities of Multiple Intelligences to Achieve Ecological Awareness.” The paper aimed to identify the relationship between ecological intelligence (EI) and the types of multiple intelligences (MI) and to point out how ecological awareness could be raised through activities of MI. This article used correlation analysis to find the relationship between the students’ ecological intelligence and the types of MI. The research concluded that activities of MI can help students develop physical, intellectual, social, and emotional skills and acquire ecological awareness and sensitivity.

Emel Okur-Berberoglu (2020) worked on “An Ecological Intelligence Scale Intended for Adults,” aimed to develop a valid and reliable scale for measuring the ecological intelligence of adults. The study’s objective was to create a tool based on a holistic perspective that integrates social intelligence and the economy. The research successfully developed a 12-item scale. The results demonstrated its strong theoretical background, validity, and reliability, with key psychometric values like a Cronbach’s alpha of 0.824.

Ferhat Kilicarslan (2023), this study focused on “Investigation of university students’ environmental behaviors and ecological intelligence.” The aim of this study is to determine the environmental behavior and ecological intelligence levels of university students. The result of this study shows that the environmental behavior level of university students is at a medium level, and the ecological intelligence levels of university students were found to be at a high level.

Basak Ozgun & Volkan Ozgun (2019) The study investigated “Importance of Nature Relatedness: The Case of Class and Preschool Pre-Service Teachers.” The aim of this study was to determine the nature-relatedness, ecological knowledge, and environmental attitude of preservice teachers and examine the relationship between these variables.

The result of this study shows a significant positive correlation was found between nature relatedness and both ecological knowledge and environmental attitude. The study concluded that developing preservice teachers’ connection to nature is crucial for effective environmental education.

Ali Syahban Amir et al. (2025) The study investigated “Traditional knowledge as ecological intelligence:

An Eco pedagogy study.” The aim of the study is to investigate how traditional knowledge, which reflects a form of ecological intelligence, can be preserved and developed through education. The study specifically looks at how schools can become a platform for revitalizing this knowledge. Their study used quantitative methods, including observation, interviews, and documentation, to explore the connection between traditional wisdom and modern education. The findings suggest that both ecological intelligence and digital literacy can be developed together through project-based learning that is rooted in local cultural content. The paper argues that digital tools can be used not just for entertainment but also to help students appreciate and conserve their cultural and ecological heritage.

A D W M Wijayanti (2025), the study investigated “three dimensions of ecological intelligence: cognitive, behavioral, and technological.” The primary objective of the study was to provide a clear and structured understanding of the concept of ecological intelligence by classifying it into three distinct dimensions based on a review of existing academic literature. The study employed a literature review as its research method. This

involved a systematic synthesis and analysis of various existing papers and scholarly works on ecological intelligence to identify common themes and components, which were then used to create a new, organized framework. The study's main result was the development of a comprehensive, three-dimensional model of ecological intelligence. The three dimensions identified are Cognitive: Encompassing an individual's awareness, understanding, and knowledge of environmental issues.

Behavioral: Focusing on pro-environmental actions and attitudes, such as sustainable consumption and resource efficiency.

Technological: Highlighting the importance of developing and using technologies with minimal environmental impact.

Research question: The following research question stimulated the investigator to conduct the present study in the field of education—

1. What is the level of awareness of higher secondary school students towards ecological intelligence?

Objectives: The objective of the study is as follows –

1. To determine the awareness of ecological intelligence of the students of higher secondary school.

Research Methodology: *In the present study, descriptive survey method is used for data collection.*

Population of the Study: Students of higher secondary schools of Varanasi city have constituted the population of the study.

Sampling Technique: 100 students of higher secondary school of Varanasi City is considered as sample using simple random sampling technique.

Research Tool: Self-designed questionnaire (**QUESTIONNAIRE FOR ECOLOGICAL INTELLIGENCE**) was prepared by the researcher. The researchers administered the questionnaires personally with two trained research assistants. For establishment of content validity, the researcher consulted subject experts from various institutions and modified the items. Reliability of the tool was calculated by following the test-retest method, and the value of coefficient of reliability was found to be 0.79, and thus the tool was found reliable.

Objective- 2: To determine the awareness of ecological intelligence of secondary school students

To determine the awareness of the ecological intelligence of secondary school students. To do this, the researcher followed the component-wise analysis with the help of the questionnaire (**QUESTIONNAIRE FOR ECOLOGICAL INTELLIGENCE**). The components are as follows –

- Knowledge
- Awareness and sensitivity
- Attitude
- Skills
- Participation

To determine the knowledge of higher secondary school students towards ecological intelligence**TABLE-4.1.1(a)**

S. No	CLASS INTERVAL	FREQUENCY
1.	40-50	36
2.	30-40	18
3.	20-30	34
4.	10-20	11
5.	0-10	1

4.1.1. (a) Graphical representation of knowledge of students of higher secondary school towards ecological intelligence: The bar graph represents the knowledge of students of higher secondary school towards ecological intelligence. The height of the bars indicates the number of students in each category. The graph indicates that there is a mixture of students with varying levels of awareness regarding ecological intelligence, with some having knowledge and others still lacking knowledge. They gain knowledge due to environmental education programs organized by the institution and through various government initiatives. Knowledge of the students can be enhanced by participation in ecoclubs, nature-based programs, and environmental projects can enhance students' understanding of ecological intelligence. Visiting natural habitats, wildlife reserves, or eco-friendly establishments allows students to experience and learn about ecosystems firsthand.

4.1.2. (a) To determine the awareness and sensitivity of higher secondary school students towards ecological intelligence

TABLE-4.1.2(a)

S. No	CLASS INTERVAL	FREQUENCY
1.	60-70	35
2.	50-60	33
3.	40-50	18
4.	30-40	13
5.	20-30	1
6.	10-20	-
7.	0-10	-

4.1.2 (a) Graphical representation of the awareness towards ecological intelligence of students of higher secondary school: The result shows that there are only 30% students who are not aware of environmental education. From graph 4.1.2(a), it is seen that 68% of the students are aware of ecological intelligence and it is evident that higher secondary school students exhibit a higher level of awareness. The graph likely shows a prominent and elevated bar representing the awareness level of higher secondary school students, indicating that they possess a greater understanding and awareness of ecological intelligence. This higher level of awareness among higher secondary school students might be attributed to various factors, such as educational initiatives,

curriculum integration, environmental awareness campaigns, and growing concerns about sustainability issues. Their increased awareness signifies a positive trend in fostering ecological consciousness among the youth, which bodes well for a more sustainable future.

4.1.3 (a) To determine the attitude of higher secondary school students towards ecological intelligence

TABLE-4.1.3(a)

S. No	CLASS INTERVAL	FREQUENCY
1.	40-50	36
2.	30-40	37
3.	20-30	18
4.	10-20	9
5.	0-10	-

4.1.3(a) Graphical representation of the attitude towards ecological intelligence of higher secondary school students: Based on the bar graph depicting the attitude towards ecological intelligence among higher secondary school students, it is observed that 63% of students exhibit a positive outlook. The graph 4.1.3(a) shows a higher number of bars on the positive side of the scale, indicating that a significant portion of students have a favorable attitude towards ecological intelligence. This suggests that the students are environmentally conscious and receptive to the importance of ecological awareness and sustainable practices in their daily lives.

4.1.4(a) To determine the skill of higher secondary school students towards ecological intelligence

TABLE-4.1.4(a)

S. No	CLASS INTERVAL	FREQUENCY
1.	30-40	33
2.	20-30	54
3.	10-20	13
4.	0-10	-

4.1.4 (a) Graphical representation of the skills of higher secondary school students towards ecological intelligence:

The interpretation of the data on ecological intelligence among higher secondary school students suggests that there is a concerning lack of skills in this area. 53 of the students possess the necessary skills, while the remaining 47 students are lacking in this area. This indicates a need for targeted education and awareness initiatives to improve ecological knowledge and practices among students. The skill of ecological intelligence can be enhanced through various means such as learning about ecosystems, biodiversity, and

sustainable practices, engaging in environmental activities, and staying informed about current environmental issues.

4.1.5(a) To determine the participation of higher secondary school students towards ecological intelligence

TABLE-4.1.5(a)

S. No	CLASS INTERVAL	FREQUENCY
1.	40-50	32
2.	30-40	34
3.	20-30	25
4.	10-20	7
5.	0-10	-

4.1.5 (a) Graphical representation of participation of higher secondary school students towards ecological intelligence. From the bar graph 4.1.5(a), it appears that 31% of higher secondary school students are actively participating in the ecological intelligence campaign through the environmental education program. This is inferred from increased engagement in eco-friendly activities, such as waste reduction, recycling, and sustainable practices. The students' willingness to be part of this campaign indicates a growing participation and concern for environmental issues, which is a positive sign for the future of ecological consciousness among the younger generation.

Summary of the components

The composite analysis reveals a distinctive pattern across the five components of ecological intelligence:

1. Awareness and Sensitivity (32%) emerges as the strongest component, indicating that students are highly receptive to environmental information and demonstrate keen sensitivity towards ecological issues. This suggests that awareness campaigns and media coverage have successfully penetrated student consciousness.
2. Participation (29%) ranks as the second most prominent component, demonstrating that a considerable segment of students actively engages in environmental activities. This is encouraging as it represents behavioral commitment beyond passive awareness.
3. Attitude (17%) occupies a moderate position, indicating that while students generally hold positive environmental values, there remains scope for strengthening deeper ecological consciousness and value internalization.
4. Skills (14%) emerges as the weakest component, confirming the critical gap between knowing and doing. Despite adequate knowledge and awareness, students lack the practical competencies required for effective environmental action.
5. Knowledge (8%) appears proportionally smaller in this composite representation, though individual analysis revealed high absolute scores. This reflects that knowledge, while present, constitutes a smaller proportion relative to the broader construct of ecological intelligence.

Key Findings and Implications

The comprehensive analysis yields several critical insights:

1. **The Awareness-Action Gap:** Students demonstrate high awareness (32%) and moderate participation (29%) but exhibit significantly lower skills (14%). This confirms that ecological intelligence is not unidimensional — heightened consciousness does not automatically translate into practical capability.
2. **Knowledge-Attitude Consistency:** The alignment between knowledge and attitude suggests that students possess both cognitive understanding and affective commitment to environmental values, providing a strong foundation for behavioral change.
3. **Skill Deficit as Primary Challenge:** The lowest scores in the skills component (14%) represent the most significant barrier to holistic ecological intelligence. Students know what should be done and express willingness but lack the procedural knowledge to execute environmental solutions effectively.
4. **Participation Potential:** While current participation stands at 29%, the combination of high awareness (32%) and positive attitude (17%) suggests substantial untapped potential for increasing active involvement through appropriate motivational strategies and skill-building interventions.

Result and Conclusion: Results: The present study investigated the ecological intelligence of higher secondary school students across five fundamental components: Knowledge, Awareness and Sensitivity, Attitude, Skills, and Participation. A structured questionnaire was administered to assess these dimensions, and the findings reveal a nuanced profile of ecological consciousness among the student cohort.

Knowledge Component: The findings indicate that students possess a robust theoretical understanding of ecological intelligence. A substantial majority (36 students) achieved scores in the highest bracket of 40-50, while the 20-30 and 30-40 intervals recorded considerable frequencies of 34 and 18 students respectively. Only one student fell into the lowest category (0-10), confirming that environmental education programs have been largely effective in imparting foundational knowledge. Students demonstrated comprehension of core ecological concepts, including systems thinking, empathy for nature, and environmental responsibility.

Awareness and Sensitivity Component: Awareness emerged as the strongest component, with approximately 68% of students exhibiting heightened sensitivity towards ecological issues. The distribution showed 35 students in the 60-70 range and 33 in the 50-60 range, with nearly absent representation in lower intervals. This elevated consciousness reflects the positive impact of educational initiatives, curriculum integration, environmental campaigns, and growing societal discourse on sustainability.

Attitude Component: Approximately 63% of students demonstrated a positive disposition towards ecological intelligence and environmental stewardship. The concentration of scores in upper intervals indicates that students have internalized pro-environmental values and exhibit favorable attitudes towards sustainable practices. This positive orientation suggests minimal attitudinal barriers, providing a conducive foundation for translating awareness into action.

Skills Component: The skills component presented the most concerning finding. While 33 students demonstrated higher skills (30-40 bracket), the majority (54 students) fell within the moderate 20-30 interval. Critically,

approximately 47% of students exhibited inadequate skill development despite possessing theoretical knowledge. This discrepancy between knowledge and practical application represents a significant gap in ecological intelligence, confirming that students understand environmental concepts but lack the procedural knowledge and hands-on capabilities to implement sustainable solutions.

Participation Component: The participation component revealed that approximately 31% of students demonstrate active engagement in environmental activities and ecological initiatives. While 32 students fell in the highest bracket (40-50) and 34 in the 30-40 range, indicating a committed minority, the presence of 25 students in the moderate range and 7 in lower ranges suggests that participation is not universal. Many students who possess knowledge and awareness fail to translate these into active involvement.

Composite Analysis: The composite analysis across all components revealed a distinctive pattern: Component Proportion Awareness and Sensitivity 32%, Participation 29%, Attitude 17%, Skills 14%, Knowledge 8%. This distribution confirms that while awareness is well-developed, practical skills remain the weakest dimension of ecological intelligence among higher secondary students.

Conclusion:

The present study leads to the following conclusions:

Summary of Findings: Higher secondary school students possess adequate theoretical knowledge and demonstrate high awareness and positive attitudes towards ecological intelligence. They understand the concept of environmental pedagogy and recognize its importance in promoting sustainable development. However, a significant gap exists between cognitive understanding and practical application. Students exhibit limited skills and low levels of active participation in environmental protection initiatives, despite their awareness and favorable disposition.

The Awareness-Action Gap: The most significant finding of this study is the pronounced discrepancy between awareness and action. While 68% of students demonstrate high awareness, only 31% actively participate in environmental activities, and skills remain underdeveloped (14%). This confirms that ecological intelligence is multidimensional — heightened consciousness does not automatically translate into practical capability or active citizenship.

Implications for Environmental Pedagogy: The findings underscore the need for pedagogical reform that moves beyond information transmission to competency building. Current environmental education approaches have succeeded in creating informed and sensitive individuals but have fallen short in developing skilled and active environmental citizens. The data empirically supports the initial premise that students are aware but lack skills and participation.

Recommendations: Based on the findings, the following recommendations are proposed for enhancing ecological intelligence within environmental pedagogy:

1. **Experiential Learning Integration:** Incorporate regular opportunities for direct nature engagement through field trips to natural areas, outdoor experiments, biodiversity audits, and nature-based activities. Direct

experience with natural environments is essential for transforming abstract knowledge into embodied understanding.

2. **Skill-Oriented Curriculum Design:** Develop hands-on learning modules that build practical competencies in waste management, energy conservation, water harvesting, biodiversity monitoring, and sustainable agriculture. Skills must be explicitly taught through demonstration and guided practice rather than assumed to develop automatically from knowledge acquisition.
3. **Problem-Based Learning Initiatives:** Engage students in critical thinking and problem-solving activities related to real-world environmental challenges. This could involve designing solutions for local environmental problems, conducting community-based research projects, and participating in structured debates and discussions about sustainability issues.
4. **Participatory Action Projects:** Create structured opportunities for active participation in environmental campaigns, recycling programs, tree plantation drives, and community awareness initiatives. Participation should be integrated into the curriculum rather than treated as extracurricular activity.
5. **Reflective Practices:** Encourage students to reflect on their relationship with the environment through journal writing, creative arts, and group discussions about their thoughts, feelings, and experiences with nature. Reflection fosters deeper internalization of environmental values.
6. **Value-Based Education:** Recognize that environmental pedagogy is not merely about teaching about the environment but about teaching how to live in harmony with it. This requires fostering respect for nature and commitment to sustainable practices as core values.

Concluding Remarks

The findings of this study confirm that higher secondary students possess the foundational awareness necessary for ecological intelligence. However, awareness alone is insufficient for addressing the complex environmental challenges of the twenty-first century. As educators, the responsibility extends beyond imparting knowledge to developing the skills, values, and participatory competencies that empower students to become active stewards of the planet. By bridging the gap between awareness and action through targeted pedagogical interventions, environmental education can fulfill its transformative potential. The transition from informed individuals to competent environmental citizens requires intentional focus on skill development and participatory engagement. This study provides empirical justification for such pedagogical shift, offering a roadmap for enhancing ecological intelligence in ways that prepare students not merely to understand environmental challenges but to actively contribute to their resolution.

The future of environmental sustainability depends on cultivating generations of ecologically intelligent citizens who possess not only knowledge and awareness but also the skills, values, and commitment to live in harmony with nature. The present study affirms that this goal is attainable through deliberate, comprehensive, and action-oriented environmental pedagogy.

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