

## ART INTEGRATED LEARNING AS CATALYST FOR SUSTAINABILITY: A REVIEW OF EDUCATIONAL PRACTICES AND OUTCOMES

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### **Introduction**

*India has now become the most populous country. We account for open, uncontrolled burning a core form of plastic pollution and some previous efforts did not take this into account or have underestimated it. India faces major challenges concerning this unsustainable, hugely damaged practice- Costas velis, one of the authors of paper and academic on resource efficiency system from school of civil engineering at university of Leeds.*

Our Environment today faces numerous environmental challenges. Limiting the global warming to 1.5°C above pre-industrial level has become a major task. Education plays a vital role in addressing the challenges we faced, and it is the only way to revolutionized changes in a positive way. There is a need for sustainable practices.

The Art Integrated learning has emerged as a transformative pedagogical approach which will combine the expressive power of art with the infusion of sustainability. The role of art is considered particularly important for students for environmental awareness (Boekel, 2009) Creative approaches can encourage a student to explore and reflect on their value and their relationship to environment. The integration of arts with sustainability represents a novel paradigm that seek to cultivate environmentally conscious individual.

This study aims to investigate the papers, review it and will explore how art and environment can engage together to foster better learning and inculcate a positive educational outcome.

### **Literature Review**

The integration of art act as a significant approach for fostering sustainable practices and environmental awareness among students. There are various studies which proves that art integrated learning can enhance students' understanding towards environmental issues.

Bentz (2020) found out that creative engagement among primary school students led to deeper connection with the climate change, Saraiva and Azevedo (2020) also reported on how art based projects significantly increased environmental awareness among 12-16 age group, Zhougbing (2024) also emphasize on experiential learning and interdisciplinary integration in art education, advocating collaborative approaches that will engage students to learn more on environmental issues, Edwita et.al (2023) has explored the project based learning (PBJL) model and found out, it is effective in cultivating the mindset of elementary students. Jacobson et.al (2016) also noted that diverse teaching modalities could enhance the hands-on experience and increased the understanding on climate change.

The review supports the notion of art integrated learning is a impeccable approach for promoting sustainability and environmental awareness.

*Summary of the papers for implementing Art integrated learning for sustainable practices*

<b>Title of the Study</b>	<b>Year of Publication</b>	<b>Name of the Author</b>	<b>Methodology</b>	<b>Sample Size</b>	<b>Age Group</b>	<b>Key findings</b>	<b>Future Recommendation</b>
Innovative Approaches to Art Education by Integrating Environmental Awareness in Art curriculum in Beijing	2024	Zhougbin,Z	Systematic Literature review	-	-	To foster experiential learning, Interdisciplinary integration, collaborative Interaction.	To further carry in-depth research through experimental study, integration of arts.
Stimulating Environmental Awareness among elementary children through integration of PBJL Model	2023	Edwita et.al	Qualitative method	28 Elementary school teachers from various schools of Jakarta Area	6-12 Years	i) The PBJL-Art Model effectively stimulates environmental awareness if applied correctly. ii) Integrating art with environmental education enhances students understanding and engagement. iii) Teachers experienced	Teacher should effectively implement PBJL-Art Model to inculcate awareness on environmental awareness. ii) Art integration should be utilized in the curriculum to cultivate a

						varying levels of success with the model	pro-environmental mindset from the early age.
Awareness of Climate change- The role of art, education, and culture in raising awareness of climate change	2022	Sabra et.al	Review	-	-	Art should be used as a tool for awareness, art for empowering students for cultural approaches to climate change	Evaluation study, longitudinal study, and experimental study to assess the impact of art and its relevance with climate change and awareness.
Between fact and fabrication: how visual art might nurture environmental consciousness.	2022	Buening et.al	Review and theoretical analysis			It was found that the traditional knowledge still lacks deeper level to advocate environmental literacy. Therefore, incorporating art with environmental studies will create a mindset.	Empirical study.
A systematic review of Art-based intervention delivered to children and young people in nature or outdoor spaces: Impact on Nature connectedness, Health and well being	2022	Moula et.al	Review	-	-	To encourage more time to spent outdoor, engage in artistic activities to foster positive environmental behavior.	Empirical study, and longitudinal study.

Students' empathy for environment through eco-art plant-based education- A review	2021	Sunasseet al	Qualitative study and Review	-	-	The finding of the study reveals that eco-art education has greater effect on students in a variety of way such as awareness, behavior, attitude, and action	Experimental study
The role of art in environmental education	2020	Papavasileiou et.al	Review	-	-	The integration of art in education significantly contributes to students understanding and awareness of environmental issues, It will promote a Art-based pedagogical approaches connection with the natural world.	To conduct empirical study,
The Impact of environmental education on primary school students' environmental awareness & visual	2020	Yesilyurt et.al	Qualitative method	38, second grade students	7-8 years	Most of the students used visual language.	To integrate Art with environmental education, Utilize students on hands on experiences
Learning about climate change in with and through art	2020	Bentz,J	Qualitative method	70 students	16-18 years	It was found that students had deeper connection to climate change through creative art, art also facilitate as transformative	To integrate art into curriculum, to engage interdisciplinary project and include collaborative learning, allow

						learning environment and provides a seamless holistic understanding.	freedom to students, Integrated a science art education for creative climate communication.
Primary school project fostering environmental education through art	2020	Saraiva & Azvedo	Qualitative method	Convenience sampling was used	12-16 years	The finding states that through art there was a increased in awareness, behavioral changes among students	The study further recommended a descriptive study, experimental study.
Dance and Mixed-Media performance for building scientific understanding and environmental respect	2018	Butler, L.M	Mixed Method	Convenience sampling and purposive sampling	Do not specify	The study is culturally relevance and artistic medium may foster greater empathy towards environmental issue	The study further recommended longitudinal study, integration of art with another subject.
Integrated science and art education for creative climate communication	2016	Jacobson et.al	Qualitative method	Purposive sampling	20-30 years	The findings states that Art can improved understanding of students to gained better awareness of climate change	To conduct a longitudinal study, incorporate diverse modalities (utilize various teaching methods, including hands on experience, field trips, collaborative projects to engage students in multiple senses and

## Educational outcomes and practices of the Art integrated learning in Environmental sustainability

### Educational Outcomes:

- **Enhancement of Environmental Awareness-** Students will be able to demonstrate deeper understanding of environmental issues and sustainability through the help of artistic expression and their engagement with art.
- **Increased Creativity and innovation-** Integration of art into education can expand their ability to think creatively and allow students to explore innovative way to environmental challenges.
- **Empathy and social and responsibility-** AIL can inculcate empathy towards environmental issue, encouraging students to take the responsibility for their action which could have impact on the planet.
- **Holistic learning experience-** Students will be benefited from the integration of knowledge across discipline, leading to more complete understanding of sustainability.
- **Collaborative learning skills-** AIL always involves group project which will enhance students' ability to work together, collaborate and communicate effectively with their peers.
- **Cultural awareness and relevance-** By including local art and relating it with environmental issue and cultural context into art projects, students will develop a greater appreciation for diversity and their importance on community engagement.

### Educational Practices:

- **Interdisciplinary curriculum design-** AIL encourages the integration of art with all the core subjects such as science, social studies, environmental studies, mathematics creating a transformative pedagogical environment to learn, it will help students to creatively express their ideas without any limitation.
- **Project- Based learning-** By implementing hands on experience project through art in combination with environmental education will allow students to apply their knowledge in the real-world context and help better to understand about environmental issue and subject better.

- **Use of diverse Art forms-** Incorporating various art forms such as visual arts, performing art and digital media, and using all the three of them together as a multiple asset will create an avenue for expression of better learning.
- **Reflective Practices-** The AIL will encourage students to reflect their learning experiences through the forms of discussion, reflective journals, presentations, display of artwork to help solidify their understanding and personal connection with sustainability.
- **Professional development for teachers-** Providing proper training and resources for teachings to effectively integrate AIL into their classroom.

### Challenges and barriers

- **Lack of insufficient Empirical Evidence-** There are many studies which have highlighted the benefits from AIL, there is more for empirical research to validate the effectiveness in achieving sustainability and environmental awareness among students.
- **Limited interdisciplinary frameworks-** Effective AIL requires collaboration between various discipline, yet many educational institutions still work in traditional way and thus making it difficult to create an interdisciplinary project.
- **Inadequacy on local context-** All educational institute does not always consider local environment issue and cultural context. Which will ultimately limit their relevance and will impact the students' understanding of sustainability.
- **Challenges in engaging diverse learners-** AIL can enhance engagement but it may not always resonate with all the students, particularly those who prefer traditional learning method over other approach.
- **Need for teacher support and resources-** Teachers often require further assistance, including to access resources and professional development, to effectively implement AIL in their classrooms.
- **Balancing the curriculum demands-** Teachers may find it difficult to balance the integration of AIL with the existing curriculum which will ultimately lead to potential conflicts.
- **Sustainability of AIL initiatives-** Most of the AIL practices are project-based and may lack the long-term sustainability needed to create a lasting change in the educational practices and students' attitudes towards sustainability.
- **Resistance to change from Traditional paradigm-** The educational sectors still are accustomed to the conventional method of teaching, making it challenging to shift towards more innovative art-based practices.

## Conclusion

The Art Integrated Learning serves as a transformative approach to educate students more effectively on environmental issues. By blending the Artistic expression with environmental education will enhances the students understanding for environmental concerns, it will also cultivate creativity, empathy, and social responsibility. The literature highlights the abundant benefits, including how it can improve engagement and deeper connection to environmental topics through creative use of art.

Even though art has many benefits but still the implementation of AIL will face several challenges, including limitation of resources, lack of educators, curriculum constraints and one must address these obstacles which is essential for maximizing the potential of AIL in educational system. By investing more on professional development, cultivating interdisciplinary collaboration, and ensuring that art integrated learning is culturally relevant, for which teachers, educators, policymakers can create more inclusive and effective environment.

Ultimately, AIL serves an important catalyst for promoting sustainability in education, encouraging students to become more environmentally conscious individual. As we navigate global challenges with environment integrating art in educational context will surely play crucial weapon for sustainable future ahead.

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