

Innovative Approaches to Art Education by Integrating Environmental Awareness in Art Curriculum in Beijing

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Abstract

This paper presents a systematic literature review examining the role of arts education in enhancing environmental awareness among students. The increasing concerns for cultivating an awareness for the environment within students is being emphasised by educational institutions in response to the issues related to the degradation of the environment. This research provides a pedagogical framework that combines arts education with environmental awareness. The objective is to develop a generation of environmentally aware individuals who have the creative skills effectively addressing sustainability issues. This paper explores the relationship between arts education and environmental awareness, emphasising how the arts can be used to foster both intellectual and emotional engagement with environmental issues within students. Findings from the reviewed literature suggest that arts education can be an effective medium for environmental learning. The paper details how experiential learning through arts such as eco-art initiatives and outdoor art sessions to fosters a deep, emotional connection with environmental issues. This engagement is further enhanced by collaborative projects that partner with local environmental agencies, allowing students to address real-world challenges through creative expression. In conclusion, the paper argues that a systematic integration of arts education with environmental awareness not only enriches the learning experience but also empowers students to become proactive agents of change. This paper review highlights the potential for innovative, arts-based educational practices to make a significant contribution to global sustainability efforts.

Keywords: Arts Education, Environmental Education, Environmental Awareness, Educational Planning, Curriculum Integration.

Introduction

In China, similar across many countries, scientific teachers are dedicated to redesigning the science education provided in primary and secondary schools. In China, the traditional objective of providing scientific and technological information has been overtaken by a new objective of educating students for a society with advanced technology, with emphasise on enhancing their abilities to use knowledge in solving real-world problems. A more sustainable

way of human existence can be developed through the development that referred to as 'new artistic visions and narrative-based understandings' (Hicks & King, 2007). They continued a substantial but inconsistent discussion that has been ongoing in art education circles since the 1970s by stating that art teachers must use their theoretical and pedagogical practices to address the environmental issues to the students in the curriculum.

The latest curriculum reform began in 1999, marking the start of a series of changes in education over the past few decades and the changes focused on enhancing students' creativity and practical skills (Zhang & Campbell, 2012). The recent revision in the latest standards document by Ministry of Education (2001) in China is consistent with the approach adopted in the establishment of the Programme for International Student Assessment (OECD, 2007). This approach places a strong emphasis on the practical application of scientific knowledge, specifically the ability to apply scientific understanding to real-life situations, as a measure of scientific literacy. The work of OECD (2007) has had a significant impact on this study. It emphasises scientific literacy as the key indicator of learning in science. Scientific literacy refers to the ability to utilise scientific knowledge and skills in science to make informed decisions that affect society.

The purpose of this research is to show if and how arts education can be applied as a distinct learning method in raising environmental awareness within students and what outcomes and effects can be achieved. It addresses the following research questions:

1. How does participation in art projects or activities influence students' attitudes and behaviours towards environmental conservation?
2. How does collaboration with environmental materials in art projects impact students' environmental awareness and critical thinking skills?
3. What are the long-term impacts of sustainable art practices taught in schools on students' lifestyle choices regarding sustainability?

Literature Review

Exploring students' perspectives on eco-art education should be the main focus heading into the future, because minimal consideration has been given to monitoring students' changes in attitude or behaviour in relation to teachers' perspectives. However, until to what extent do their experiences shape environmental knowledge and eco-friendly practices, and what characteristics identify these experiences within students? The awareness of materiality-related issues about eco-art education, such as teachers use less bleached paper and plastic markers to reduce the environmental impact in their art curriculum. Providing students with engaging experiences and encouraging them to embrace innovative techniques are essential elements of art-based environmental education. It also involves developing student's critical thinking skills and creative problem-solving methods (Wilson, 2013).

Emphasising the significance of active participation rather than passive observation, the art experience promotes the positive impact of art in enhancing understanding of information about the natural environment (Huijun & Halabi, 2023). At the same time, it highlights the emotional connection that develops through the excitement, surprise, and attractiveness children usually have when they interact with nature, and how they articulate these feelings through art. Cultural standards can be shaped by various forms of knowledge, including cognitive, emotional, and kinaesthetic (Papavasileiou et al., 2020). The creative process and

new ideas can be inspired by art. Art has served as an instrument for people to express themselves while creating connections with the world around them. It is a medium through which imagination can be expressed.

On the one hand, it facilitates understanding through shared metaphors and it brings people together over meaningful symbols and themes. Creativity and imagination are set free by art. As a means of self-expression, the arts are frequently embraced by both students and educators. The artist's work generally reflects a harmony between their real-life experiences and their creative vision. Through the arts, we are able to contemplate and connect with nature in new ways. A key component of learning is the use of one's imagination. Meaning is communicated through the use of common representations of subjective experiences. Art allows us to delve into student's imaginations for ideas, but it is also adaptable, dynamic, and connected to their emotional self.

Stories about a sustainable future must be reimagined with imagination. New ways of thinking, caring, and being interested in other people can all be fostered through artistic expression. Students have the opportunity to express themselves and share their stories through art. For the growth of one's sense of self and concern for the environment, shared experiences are crucial (Papavasileiou et al., 2020). Many different challenges and contexts can benefit from the arts curriculum to gain insight into student emotions and develop values (Prior, 2022). A society values and quality of living are intrinsically related to its cultural practices, educational opportunities, and creative achievements. Emotions, new ideas, different perspectives, ambiguity management, and cultural norms can all be influenced through the arts. On the other hand, in Malaysia, wall painting activities in Malaysian schools could influence the information and knowledge held by secondary school students. The findings demonstrated that students' environmental knowledge was significantly different before and after the introduction of environmental activities involving wall painting into classes and schools (Othman et al., 2011).

Natural settings including parks, woods, mountains, rivers, and oceans and outdoor activities are important. Children can develop an appreciation for the environment through these subjects. There was a complete lack of discussion on environmental issues such as pollution, cleanliness and preserving resources.

Table 1.1

Summary of Articles that Implementing environment awareness in the Art classroom

Author	Objective	Application/Activities	Student grade/ level	Content area
Zhang & Campbell (2012)	Effectiveness of the Integrated Experiential Learning Curriculum (IELC) in China	Quasi-experimental design	Unspecified	Science-Technology-Society
Papavasileiou et al. (2020)	Environmental education, wall painting	Mixed-methods	Primary school	Arts
Spörk et al. (2023)	The effects that the method had on participants' humour orientation and sustainability consciousness	Mixed-methods	Unspecified	Arts education
Hamadneh & Eddeen (2023)	Art Education and Science in the Elementary Stage in the Development of Environmental Education Based on Arts	Qualitative methods	Elementary school	Arts education
Flowers et al. (2015)	Art as a tool to assess children's environmental attitudes and awareness	Qualitative methods	Primary school	Arts

Methodology

Environmental education must start in from preschool, primary and secondary schools, college and university. This research highlights the importance of how arts education can be used as a teaching tool and to raise students' awareness of the environmental issues by adopting both quantitative and qualitative data of information and evaluations. However, the objective of this study was to systematically gather and collect reliable data and information regarding the educational curriculum use of art to enhance students' environmental awareness. Prior to starting the literature search for studying this issue, it was considered important to establish keywords or phrases and simultaneously determine the quantity and type of information to be utilised in the discussion of the subject. A systematic literature review is more than an average compilation of existing research. This strategy is systematic and comprehensive, aiming to analyse the research landscape that is unbiased and comprehensive, in order to provide a full and current understanding of a topic.

The methodology employed in this review involves a comprehensive search of academic databases for studies published in the last two decades. The selection criteria focus on empirical studies that assess the impact of arts education on students' environmental awareness, attitudes, and behaviours. A quality assessment is conducted to ensure the reliability and validity of the included studies, and data synthesis is performed through narrative analysis due to the qualitative nature of most educational research.

Results

The purpose of this research was to examine the feasibility and efficacy of arts education as a unique teaching method, as well as to investigate the outcomes and its impact. This approach introduces a new perspective to research in the field of education.

Table 4.1

Arts education as enhance environmental awareness in teaching and learning methods

Arts education as enhance environmental awareness in teaching method	Arts education as enhance environmental awareness in learning method
Encourage students to work on long-term projects that address local environmental issues	Facilitates openness and contributes to creativity in nature-based art creation
Combine art with subjects like science and social studies	Empower students to collaborate on environmental theme projects and engage with peers
Experiential learning to foster deeper appreciation and awareness	Incorporate in upcycling and creatively reuse materials
Utilise digital media and technology to create art with environmental themes	Encourage creative and critical thinking through various art forms

Teachers started to give more attention to environmental issues and challenges. The arts education as a tool enhancing environmental awareness can be implementing through teaching method and learning method. Both students and teachers play important role to integrate an experiential learning curriculum involves creating educational activities and opportunities that engage students directly with the subject matter through hands-on experiences and reflection. Contemporary educational trends recognise the importance of integrating an environmental perspective into the design of curriculum, particularly in subjects such as Science and Arts. Table 4.1 shows the strategy that aims to promote environmental education and sustainable development, foster environmental awareness, and preserve the environment and its ecosystems in the institutions Additionally, they contribute to the cultivation of favourable mindsets, ecological awareness, and logical conduct. The objective is to preserve the environment through the use of diverse methodologies and instructional techniques that are stimulating for the purpose of motivation and acquiring knowledge about the environment (Hamadneh & Eddeen, 2023).

The findings indicated that there were significant in differences regarding the level of collaborative interaction between Art Education and Science teachers at the elementary level in promoting environmental education through the arts. These differences emerged across all aspects of the studies, including participatory planning, implementation, evaluation, and the overall score on the assessment tool. Years of experience of teachers had been attributed

for the variables of effects. The significance of the teaching experience component in shaping the scientific personality of the instructor may account for this outcome. Thus, it is observed that highly experienced Art Education and Science teachers possess a range of cognitive and physical abilities, behaviours, and knowledge in technologies, materials, and environmental resources. These skills are utilised in the creation and design of artistic and creative works, with the aim of fostering environmental education among elementary school students (Hamadneh & Eddeen, 2023). Furthermore, the extensive experience of teachers in the domain of instructing primary school kids motivates them to persistently fulfil their professional and educational responsibilities with the highest level of accuracy.

Furthermore, implementing environmental issues in arts education becomes a catalyst for the necessary transformation and it is a fundamental method for accomplishing environmental protection within the young generations. Environmental education is an initial phase in protecting the environment because it increases the awareness of individuals about the need of learning about environmental issues and their causes, symptoms, and effects (Singh, 2011). This will lead to collective action to address these issues and prevent them from happening again. Additionally, creating environmental art helped students from primarily science backgrounds express their personal impressions of environmental issues (Ison & Bramwell-Lalor, 2023). Despite initial hesitations, the positive experiences with eco-art allowed students to connect with the environment emotionally, enhancing their desire to protect it. These findings suggest the arts as an effective pedagogic strategy to foster environmental understanding and action among students.

Utilising art as a tool to evaluate children's environmental attitudes and awareness (Flowers et al., 2015). This study evaluated the effectiveness of a modified drawing prompt and grading rubric with that of a more conventional survey administered to campers ranging in age from six to twelve. The study determined that utilising art-based assessment proved to be a successful and student-centered strategy that identified unique facets of environmental attitudes. This emphasises the importance of employing various assessment methods.

Conclusions and Further Research

Utilising art in environmental education has the ability to develop an inclusive and supportive classroom to encourage students to work together and improve their communication and collaboration skills. This is a crucial tool for teaching and learning for teachers in school. The use of art in environmental education is important because it allows students not merely to express themselves creatively but also to learn and grow. Therefore, in the context of Environmental Education, student artwork and the presentation of significant works of art that draw inspiration from nature may be utilised as learning tools, capture students' attention, guide them to new information, and raise their environmental awareness. This research found that art-based assessment was an effective, learner-centered method that captured distinct aspects of environmental attitudes, different from those measured by surveys, highlighting the value of multiple assessment approaches.

There was a significant impact of the approach on the teachers' attitudes towards teaching art and their overall quality as teachers. However, these findings indicate the importance for further research into the additional support that teachers may require to enhance their attitudes towards teaching arts and their abilities in managing the classroom while

implementing curriculum and inquiry arts education in enhancing environmental awareness within students. Student attitudes towards the learning environment are another factor that may influence the teacher outcome measures. The results of this assessment were based on students' self-reported measures of teacher assistance and their overall satisfaction with the class, among other factors.

Moreover, this research has added new insights to the roles of art-based learning within the more established field of environmental education, and it has also contributed to the expanding body of knowledge about eco-art education. Further research can be carried out in-depth investigation of the impact of integrating environmental awareness in art curriculum in arts curriculum across several primary schools in Beijing. The results will show that eco-art education can help primary school students learn about the environment and art at the same time. These classes will showcase art-based environmental learning and add to the growing theoretical understanding of eco-art education. In conclusion, it is suggested that teacher training must implement to provide trainings using different art forms as the subject matter, to highlight the goals for learning in enhancing the awareness of environmental impact, and other significant scientific criteria, in order to implement environmental programmes that incorporate in arts curriculum. These initiatives can provide better quality students and effective education system in China.

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