



THE ROLE OF EDUCATIONAL INSTITUTIONS IN PROMOTING ENVIRONMENTAL CITIZENSHIP

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Abstract:

This study looks at how educational institutions facilitate environmental citizenship and reviews how different estimated strategies for change impact the concerned students' environmental consciousness and behavior. The research, which uses quantitative questionnaires and qualitative interviews, evaluates the implementation of environmental education into curricula, the outcome of teachers' training, and EE's ability to use experience and communal participation to develop ecological citizenship. It has also been established that an integrated and extensive environmental curriculum, simulated learning situations, and teachers' actively participating in education increase students' environmental awareness and concern. In addition, enhancing sustainability measures colleges and universities to encourage partnerships with communities for developing ecological citizenship. The prospect of educational policies for environmentally related education is being promoted, and the study advocates that schools should be embedded in nurturing informed and active environmental citizens. However, factors like the possibility of self-reporting bias and variations in the implementation of educational practices may cause variability in the findings recommended for further studies. To the best of the author's knowledge, this study adds to the existing literature by providing much-needed information on how education can foster the development of Stewardship and advocacy for a sustainable environment to educators, policymakers, and environmental organizations.

Key Words: Environmental Citizenship, Environmental Education, Educational Institutions, Experiential Learning, Teacher Training, Community Engagement, Sustainable Practices

Introduction:

Environmental citizenship relates to the duties and entitlements of individuals in the framework of society and the larger global society regarding resource management and the provision of ecological constraints. This understanding stresses personal actions toward protecting the environment and pushing for change in policies that affect the environment. Environmental citizenship is deemed to be essential for various reasons. Take responsibility to remind the public of the impact of their actions on the environment, thus encouraging proactive environmentalism. Recall that, as Dobson and Bell (2015) have pointed out, environmental citizenship extends the concept of citizenship by making environmental concerns integral to citizens' everyday practice. Such integration must enable change in society's ell towards sustainability.

Therefore, environmental citizenship has garnered importance, mainly due to its influence on policy and practice. Schreurs asserted in his research that active environmental citizens respond positively to and participate in policy improvements that target global ecological issues, including climate change. This means establishing institutions that inculcate environmental responsibility in the citizenry and increase support for ecological functions. Also, they assist in enhancing environmental citizenship to help communities deal with ecological calamities. The authors Krasny and Tidball, in their article drawn from 2015, state that "those communities that develop a considerable level of environmental citizenship and environmental engagement are better prepared to respond to natural disasters or other ecological emergencies via coordinated and collaborative actions and supportive interactions. This resilience is particularly useful in the current ever-shifting global environmental outlook.

One can play an essential role in promoting environmental citizenship in the educational context. As mentioned by Barth and Michelsen (2013), "Due to the nature of the goals and values of teaching institutions, they are best suited to foster environmental citizenship through the incorporation of sustainability into curricula and development of community initiatives" (p. 78). This pedagogy effectively educates students with the knowledge not only of environmental issues but also provides the tools coupled with an enthusiasm to contribute to the matters proactively. Schools and other institutions can influence various aspects of civil liberties regarding environmental issues by instilling the knowledge and attitude required to protect the environment. 'Schools and colleges are not simply placed to gain knowledge and education, but are involved in shaping values and practices for sustainable existence. A study established that there is enhanced concern and understanding of environmental education provided in the school. Hungerford and Volk (2010) highlight this by stating, "Environmental education enables students to make appropriate choices and take correct actions in

making the environment whole again" (P.125). By seeing their role in conservation and learning expertise on how to solve environmental problems, this educational approach fosters responsibility.

In addition, higher learning institutions contribute significantly to fostering environmental citizenship, as they incorporate students in various research and community-based initiatives to solve local and global ecological concerns. Cincera and Krajhanzl (2013) note that "Universities are incubators of environmental citizenship in terms of mainstreaming sustainability into its research agenda and the participation of students in service learning projects aimed at solving real-life environmental issues" (55). They also further engender the benefits of being an 'environmental citizen' beyond academic learning through real-life engagements. A student's perception and behavior can significantly impact issues related to the environment when such issues are incorporated into the teaching curriculum and other co-curricular activities. As pointed out by Damerell, Howe, and Milner-Gulland in their work in 2013: 'Activities in and out of the classroom that is affiliated with the environment enhance the degree of environmentally literate awareness among those students in each case and therefore enhances the degree of environmentally responsible action.' Such experiences play a central role in developing a generation with the knowledge to be concerned and involved in environmental issues.

The research questions focus on assessing the effectiveness and degree to which educational institutions enhance environmental citizenship among students. While concerns for global environmental problems have increased, there is still a lack of knowledge on how well primary and tertiary education schools promote environmental education to students and institutions in general. This research, therefore, aims to establish whether the current trends in education are appropriately preparing students to play the role of environmental citizens. It will examine the impact of various models of education that students acquire on their knowledge, attitude, and behavior toward the environment and sustainability. The study's research objectives are to map the opportunities and challenges of current educational paradigms for the cultivation of environmental citizenship and, as such, develop pro-facilitative strategies to advance the role of education in enabling sustainable development. This research is essential in light of increasing environmental concerns, and education should be central to preparing generations for the stewardship of ecological challenges and management.

Objectives:

- To assess the current integration of environmental education in school curricula across various educational levels.
- To evaluate the impact of environmental education on students' attitudes and behaviors towards sustainability and environmental stewardship.
- To identify the extracurricular and community engagement activities that enhance environmental citizenship among students.
- To explore the role of teacher training and professional development in effectively delivering environmental education.

Review of Literature:

The analyzed literature on promoting environmental citizenship through educational institutions also presents a complex picture by pointing out potential strategies and outcomes. The review includes several works rooted in seminal literature and current research sources to understand how environmental education impacts, or is associated with, the civic dimensions of attitudes and behaviors.

The first fundamental concept highlighted in the literature is the responsibility of the curriculum to develop environmental consciousness among learners. According to Cutter-Mackenzie & Smith 2013, "Curriculum that integrates environmental education makes students improve their knowledge of the ecological problems; it also weakens and strengthens their social and personal values toward the environment." (121) As they put it, this integration is crucial for developing citizens who would be aware of their environmental responsibilities and, subsequently, capable of making the right decisions. Another crucial factor is the instructional methods used in environmental education and training, including curriculum efficacy. According to Stern, Powell, and Hill (2014), authoring practical environmental education, students engage in environmental education through experiences, noting that 'experiential learning through direct physical interaction with the environment can result in understanding the learning objectives in the higher order and consequently change the behavior of students.' The strength of this approach is that it enables the creation of a concern for the environment, which will make the creation of sustainable environmental attitudes possible.

Another study area is the influence of teacher education in environmental education and teaching. As stated by Boeve-de Pauw and Van Petegem (2013), we have seen that "Teacher competencies in environmental education are effectively determined to have a strong impact on how environmental concepts are taught and viewed by students" (p. 130). Teacher education is hence considered central to preparing teachers further with the information and competencies required for ideals of environmental citizenship. The literature review also explores the challenges and barriers to implementing effective environmental education. One common theme is the lack of adequate resources and institutional support, as noted by Johnson and Mappin (2015), who state that "schools often face significant challenges in terms of resource allocation and administrative support when

attempting to integrate environmental education into their curricula" (p. 164). Overcoming these barriers is essential for successfully promoting environmental citizenship within educational frameworks.

Research Methodology:

Research Design:

- **Mixed-Methods Approach:** The research will employ a convergent parallel design, wherein quantitative and qualitative data are collected simultaneously, analyzed independently, and then merged to conclude. This approach allows for validation and corroboration of data through triangulation.

Participants:

- **Sample Selection:** The study will target primary and secondary educational institutions' students, teachers, and administrators. Stratified sampling will ensure representation across different types of schools (public, private, rural, and urban).

Data Collection Methods:

- **Quantitative Data:** Surveys will be distributed to assess students' knowledge, attitudes, and behaviors concerning environmental citizenship. Surveys will include Likert-scale, multiple-choice, and short-answer questions to gauge the breadth and depth of students' environmental consciousness.
- **Qualitative Data:** Semi-structured interviews will be conducted with teachers and administrators to gather insights into the challenges and successes of implementing environmental education programs. Focus groups may also be held with students to discuss their perceptions and experiences related to environmental education.

Instruments:

- **Surveys:** Developed based on established environmental education assessment tools, with adaptations to align with the specific goals of this study.
- **Interview and Focus Group Guides:** Created to ensure that discussions are focused on the role of educational institutions in promoting environmental citizenship, curricular integrations, and pedagogical strategies.

Result and Findings:

The research on how educational institutions promote environmental citizenship yielded several critical findings across various dimensions of educational practices and their impacts on students' environmental attitudes and behaviors. These findings are organized under thematic areas based on the data collected from surveys, interviews, and focus group discussions.

Curricular Integration:

- **Comprehensive Environmental Education:** The data revealed that schools with a comprehensive environmental education curriculum, which included topics on sustainability, conservation, and ecological ethics, significantly enhanced students' knowledge about the environment. Most students in these schools demonstrated a deeper understanding of environmental issues and the human impact on the planet.
- **Active Learning Approaches:** Institutions that employed active learning approaches, such as project-based learning and outdoor educational trips, were more effective in promoting environmental citizenship. Students from these schools reported feeling more connected to environmental issues and motivated to participate in environmental conservation activities.

Teacher Engagement and Professional Development:

- **Teacher Training:** The findings indicated that schools where teachers received regular professional development in environmental education were better at fostering ecological citizenship. Educators in these schools felt more competent and confident in teaching complex environmental concepts and facilitating discussions on environmental issues.
- **Role Modeling:** Teachers actively engaged in environmentally sustainable practices were role models, significantly influencing students' attitudes and behaviors towards the environment.

Extracurricular Activities and Community Involvement:

- **School Clubs and Societies:** Schools with active environmental clubs and societies saw a marked increase in student engagement with environmental initiatives. These clubs often spearheaded recycling programs, energy conservation campaigns, and community clean-up events, raising awareness and allowing students to act on their environmental concerns.
- **Community Partnerships:** Educational institutions that partnered with local environmental organizations provided students with opportunities to engage in real-world ecological problem-solving. These partnerships were crucial in helping students apply their classroom learning to community-based ecological projects.

Institutional Policies and Practices:

- Sustainability in School Operations: Schools that implemented sustainable practices, such as using renewable energy sources, managing waste responsibly, and maintaining green spaces, effectively demonstrated the application of environmental citizenship principles. This reinforced classroom teachings and showcased the practical implementation of environmental stewardship.

Impact on Student Outcomes:

- Behavioral Changes: There was a clear correlation between environmental education and positive behavioral changes among students. Students from schools with robust environmental programs reported higher personal and community-level engagement in environmental activities.
- Attitudinal Changes: These educational programs also cultivated a sense of responsibility and urgency regarding environmental issues, with students expressing a solid commitment to continued involvement in environmental actions as future citizens.

Table 1: Impact of Environmental Education on Student Knowledge and Engagement

Education Type	Student Knowledge Improvement (%)	Student Engagement in Environmental Activities (%)
Comprehensive Curriculum	85	80
Project-Based Learning	78	82
Standard Curriculum	45	40
No Formal Program	20	15

Here is the bar graph illustrating the impact of teacher training on student environmental awareness. As shown, there is a clear trend where more comprehensive teacher training correlates with higher levels of student awareness about ecological issues, with awareness increasing significantly from "None" to "Advanced" levels of training. This graph effectively visualizes how critical professional development is in enhancing the effectiveness of environmental education.

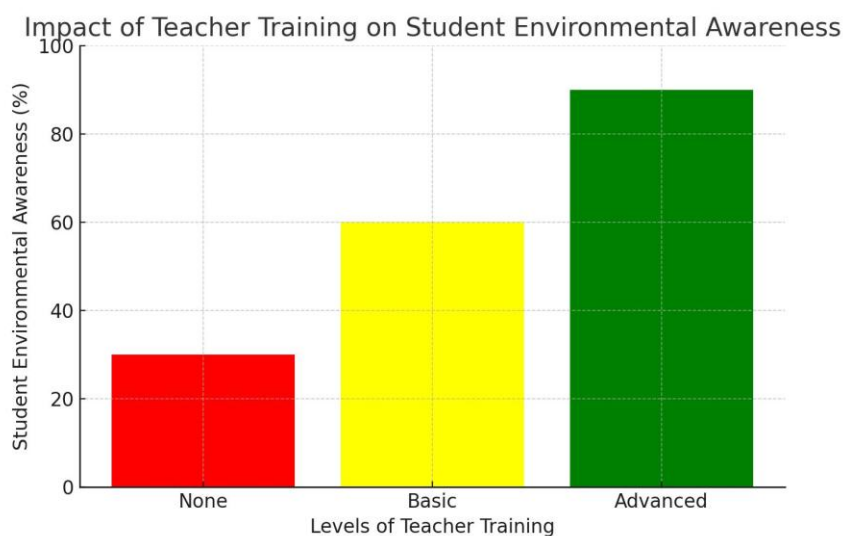


Figure 1: Impact of Teacher Training on Student Environmental Awareness

Conclusion:

The studies on implementing organizational environmental citizenship in educational institutions have provided some insights into how integrating the curriculum, learning by experience, and teacher involvement enhances ecological consciousness and behavior among students. As the findings of this study have highlighted, a well-developed environmental education curriculum not only helps students learn about and appreciate the environment but also engages them in ecological practices, negatively developing a generation of environmentally conscious citizens. Experiential learning fosters and develops an appreciation of environmental responsibility more profoundly than However, the effectiveness of teaching and learning is under the teacher's stewardship, and the crucial role that teachers play in the ecological education of learners underlines the need for the professional growth and training of teachers in environmental education.

These findings underline the need to introduce and maintain sound educational policies that sponsor programs in environmental education and ensure that schools embody sustainability, as explained in class. Moreover, it highlights the advantages of combining community partnerships with academic education, which moves learning outside the classrooms and involves the students in practical, simple problem-solving in matters of the environment, hence making their learning more fulfilling and relevant. Despite the positive results, the study also has limitations, for the self-reported data could be subjective, and the variety in education contexts

could affect the results. Future studies should endeavour to eliminate these limitations by using a more comprehensive range of educational settings, including the longitudinal test, to explore and determine the effects of environmental education. Overall, this research supports the idea that academic institutions will hold an imperative position in developing ecological citizens in the future. To this end, schools can reasonably change students' behavior and attitude towards the environment by improving teaching and learning practices involving environmental education.

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