

Promoting Active Citizenship and Inclusion Through Environmental Education in General Education Schools

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Abstract: *This review article explores the role of environmental education in fostering active citizenship and promoting the inclusion of students with disabilities in general education settings. It highlights how experiential learning, group collaboration, and environmental initiatives contribute to the development of self-esteem, critical thinking, and social engagement among diverse learners. Drawing on theoretical frameworks and global educational practices, the study emphasizes the need for inclusive pedagogical strategies that integrate environmental responsibility with civic participation. The article concludes that environmental education not only enriches academic learning but also empowers students with and without disabilities to become responsible, empathetic, and active members of their communities.*

Keywords: Students with disabilities, environmental education, active citizenship, inclusion, general education schools

1. Introduction

Through the integration of pedagogical practices that cultivate and promote collective action, responsibility, and respect, the school transforms into a space for the creation and development of experiential experiences and democratic principles and values. Environmental education –especially in contexts such as general education schools, where the inclusion of students with disabilities is pursued– constitutes a fundamental tool and medium for the enhancement and promotion of active citizenship (Finger et al., 2023). In this way, it is evident that the environment functions as a field of action, social cohesion, and dialogue development, while participation in environmental activities cultivates skills and abilities such as critical thinking, communication, and collaboration. Regardless of disability, students therefore learn to recognize their contribution to shaping a sustainable and justly developing environment that will have a future (Ballard et al., 2024).

Thus, understanding the ecological, political, and social implications of environmental responsibility is enhanced through the introduction of environmental programs and initiatives incorporated into daily school practice, thereby contributing to the shaping of active citizens with social sensitivity and respect for diversity. Students with and without disabilities, through this process, consequently redefine school as a community of social solidarity and learning, while simultaneously being empowered to assume roles and responsibilities that make them active, substantial, and effective participants in school life and social life (Ardoin et al., 2022). It is increasingly evident and perceptible that environmental education is not merely another cognitive subject or a set of activities with simply ecological content, but functions –as a subtle and underlying deeply pedagogical vehicle– for the development of active citizenship in students of all ages and all learning abilities and capacities (Wilson et al., 2025). The integration of environmental education, particularly in school contexts where inclusive teaching strategies are correctly and intensively applied for students with disabilities, provides diverse and multiple opportunities and horizons –beyond

purely cognitive domains– for social participation, skill development, and experiential learning (UNESCO, 2017; Varga et al., 2023).

Teaching extends to practical environments and is no longer confined only to the classroom, where students develop and employ life skills that transcend the everyday school context and life (UNESCO, 2019). Evidently, their self-awareness and sense of responsibility and participation in the broader social reality are strengthened through active and forward-looking engagement in organized projects and initiatives of community and social significance. Students, from this perspective, comprehend the importance of collective action and develop awareness of human-society interaction through these experiential images, perceptions, and experiences (Fan & Cai, 2022; Etter et al., 2023).

Theoretical approaches to environmental education and active citizenship

The basic principles of environmental education –such as information, understanding, skills, attitudes, and participation in solving environmental issues– were established in the Tbilisi Declaration (1977), which became a landmark for the development of this field. Moreover, from the 1970s and 1980s onward, and in response to escalating environmental crises and problems, environmental education emerged as a fundamental area of pedagogical intervention in schools. Within this logic, there appears to be a promotion of student participation in activities combining social collaboration, decision-making, and critical thinking, through the shift of educational practice from theoretical knowledge to experiential learning (Williams et al., 2021). Based on the above, it becomes evident that the ecological dimension of environmental education has expanded to connect environment, society, economy, and politics, focusing on the interdependence of all systems, without being limited merely to theoretical reference of environmental topics and issues (Reid et al., 2021).

This perspective highlights that environmental education –as an interdisciplinary subject– promotes the development of practical life skills such as democratic participation,

responsibility, self-awareness, and resilience, gradually being integrated into national curricula (DEPPS-APS, 2003). The evolution and development of active citizens capable of managing and solving complex social and environmental issues with responsibility, creativity, and respect for diversity constitute challenges highlighting the importance of environmental education as a means of perceiving environmental issues from a different perspective (MacPhail et al., 2020; Liljestrand, 2024). Today, global challenges such as climate change, social justice, and inclusion are integrated into environmental education, which as a cognitive/teaching subject evolves into a strategic and methodological tool for promoting sustainable development (Page et al., 2024). Theories emphasizing collaborative, experiential, empirical, and socially embedded learning constitute teaching tools for the development and support of active citizenship through environmental education (UNESCO, 2014). According to Vygotsky (2000), the importance of social interaction and the cultural context in cognitive development is emphasized, while the Zone of Proximal Development enables students to advance beyond individual capabilities with guidance from adults and peers. Kolb's experiential learning theory (1984) also emphasizes the cycle of conceptualization, observation, experience, and application, providing a dynamic model where students actively participate in creating personal meaning (Clement et al., 2023).

All these theoretical approaches, when applied to environmental education, enhance authentic student engagement, as emphasis is placed on personal experience, critical thinking, and collaborative problem-solving (Chekan et al., 2023). The utilization of multisensory and differentiated experiential approaches, especially for students with disabilities, ensures access and full participation in knowledge (UNESCO, 2024). Clearly, promoting not only cognitive development but also social cohesion enables, develops, and improves all students, with and without disabilities, to contribute as responsible and active citizens to ecosystem preservation, when the environment is incorporated into teaching and learning in a structured pedagogical manner (Woolner et al., 2018; Tauginienė et al., 2020).

Strategies and methods for promoting active citizenship and inclusion of students with disabilities through environmental programs and actions

In every way, it is evident that access to knowledge for students with disabilities is strengthened through the integration of multimodal methods, such as art projects, interactive games, sensory experiences, and outdoor explorations in their daily school reality. Indeed, it is well known that environmental programs provide unique opportunities for the development of environmental sensitivity and activation among students with diverse skills, abilities, and capacities (Aivelo, 2023; Pocock et al., 2023). Specifically, it is emphasized that all students can successfully participate in environmental educational activities and practices, thereby enhancing self-esteem, self-perception, self-awareness, and social inclusion, as methodological differentiation strategies allow adaptation of activities to the cognitive and academic level of all (Kefallinou et al., 2020; Rončević & Rieckmann, 2025).

It is noteworthy that –particularly for students with disabilities– through educational activities based on collaboration, social interaction, communication, and decision-making skills are developed (Kauffman et al., 2018; Christ et al., 2022). These findings suggest a school environment where active citizenship constitutes a daily practical experience, providing students the opportunity to live the importance of solidarity, cooperation, and sustainability, rather than merely learning it as a purely cognitive subject (Jadallah & Ballard, 2021; Pateman & West, 2023; Stahlhut et al., 2025). Therefore, the –school functions through these practices– as a space of democratic participation, cultivating and building a sense of responsibility and the ability to act for the common good (Zubiri-Esnaola et al., 2020). A thorough analysis of school and community dynamics, the establishment of clear goals, and the development of activities and practices combining collaboration, creativity, and problem-solving constitute the main components required so that the design of environmental programs and actions promotes active citizenship and inclusion of students with disabilities in general education schools (Lindgren et al., 2021; Atias et al., 2023).

Within this logic, it is recognized that full participation of all students in teaching and learning –where no one remains excluded– is ensured and simultaneously safeguarded by adapting activities to the individual characteristics, needs, and capabilities of each student and by integrating multimodal pedagogical techniques and utilization of the local community (Kali et al., 2023). Student autonomy is enhanced through individualized learning approaches tailored to their strengths and needs, without compromising the collective dimension, as this makes them active participants in the school community (Phillips et al., 2018). The connection of environmental education with active citizenship is achieved through actions extending beyond the school environment and into the wider society. For example, activities such as participation in local recycling programs, collaboration with local authorities, public awareness on environmental issues, and development of social campaigns provide students the opportunity and ability to experience the significance of collective action and responsibility (Page et al., 2023).

Given these conditions, it is noted that students with disabilities understand –through these experiences– that active participation in community life is a fundamental component of democratic consciousness and social cohesion (Blackmore & O'Mara, 2022; Plummer et al., 2024). In particular, it becomes evident that outdoor activities, such as wetland studies, participation in school gardens, and biodiversity recording, combine cognitive, psycho-emotional, psychomotor, social, and behavioral learning, enhancing critical thinking, judgment, fairness, reflection, creativity, and self-esteem (Korpershoek et al., 2020; Kelly et al., 2022; Shulong et al., 2023). Through these activities, the significance of interdependence and collaboration emerges through collective work, while students are encouraged to assume responsible roles, make critically important decisions, and develop meaningful and effective problem-solving strategies (Aristeidou et al., 2021). Participation in experiential environmental activities,

especially for students with disabilities, offers multiple benefits, as it expands social relationships, contributes to emotional stability, promotes autonomy, and enhances cognitive and physical activity (Korfiatis & Petrou, 2021; Kete Ipurangi, 2024).

2. Conclusions

The promotion of critical thinking and empathy through experiential activities and collaboration in group projects enhances social skills and solidarity among students. Additionally, analysis of the aforementioned actions indicates that –inclusion– increases significantly the participation of students with disabilities in the learning process and creates a more equitable and supportive environment. Learning individualization through multisensory methods and technological tools, moreover, raises self-esteem among students with disabilities and improves monitoring of their learning needs and difficulties. Regarding active citizenship, it is observed that it enhances decision-making abilities and participation in collective projects, moreover participation in community actions cultivates responsibility, social solidarity, and awareness of environmental responsibility.

However, it must be emphasized that are monitored via ongoing assessments of actions, which simultaneously increases and allows for optimization and efficiency of interventions. Students, among other things, learn through these programs to connect theoretical knowledge with practice and develop life skills that transcend the daily school environment. The creation and shaping of a framework where social cohesion and equality of opportunities are effectively applied is achieved through the integration of sustainable development into every activity and practice. Moreover, active citizenship contributes to the cultivation of political literacy and responsible attitudes, while participation in group activities enhances autonomy and responsibility. In this way, students develop leadership skills, enhance critical thinking, and improve problem-solving abilities, while school-community interaction is strengthened. Knowledge becomes experiential and socially active when the school community serves as a safe and supportive space. Targeted interventions demonstrably lead to positive change, enhances self-esteem, increases social participation to encourages greater engagement in social settings –with and without disabilities– creating informed, active, responsible, socially sensitive, and engaged citizens.

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