STUDENTS AS AGENTS OF CHANGE IN URBAN STUDIES OF PRIMARY EDUCATION IN THE CONTEXT OF THE NEW NATIONAL CURRICULUM: 'ACTIONS FOR ACTIVE CITIZENSHIP'

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Abstract
The aim of this paper is to present the contribution of the Pilot Study of the new curriculum of primary education 'Environmental Studies' (ES) to the implementation of the new Greek National Curriculum 'Actions for Active Citizenship'. The Pilot Implementation of the ES and its formative evaluation was implemented through educational action research and the creation of Professional Learning Communities during the school years 2021-22 and 2022-23. The main outcomes of this study were that: a) Most of the in-service teachers who were involved in the study emphasized the need of additional time in terms of teaching hours for each thematic unit in order to develop and implement action plans for the achievement of attainment targets. b) A distinction also is raised between those who developed lessons for the learning of citizenship concepts (minimal/soft citizenship education) and those who developed action plans for students' engagements in citizenship actions (maximal/critical citizenship education). The findings of the action research are fundamental for the overall pedagogy and the teaching strategies of the teaching of ES subject as a requirement of the implementation of the national curriculum 'Actions for Active Citizenship'. First of all, in a sort of maximal approach of urban education, studies of the natural and social environment in the context of ES subject are combined in what J. Lemke calls an ecosocial system in which a human social community is taken together with the material (human made and natural) ecosystem that enables, supports, and constrains it. For that purpose, education for active citizenship and sustainability cannot be constrained within the teaching of a single subject but it has to be part of the school practice in a sort of a whole school approach. Teaching practices such as place-based education, challenge based and inquiry based are valuable especially for dealing with the complexity of issues related with sustainability and citizenship. Finally, an adoption of critical, active citizenship is the fundamental requirement towards a transformative education for the purpose that educators and students will be agents of change.

Key words: *sustainability, active citizenship, national curriculum, urban education*

1. Introduction

Education has increasingly been recognized as a catalyst for fostering sustainability and active citizenship (UNESCO, 2022). In an era of complex socio-environmental challenges, the role

of education extends beyond traditional barriers between curriculum subjects to the development of engaged, responsible, and proactive citizens. As it was announced in the Transforming Education Summit (TES) at UN Headquarters in New York on 16-17 and 19 September 2022 (UN, 2023) educational systems are still far from reaching the goals of SDG4 as captured in the 2030 Agenda and are confronted with acrisis of relevance, because many of them are not equipping the new generations with the values, knowledge, and skills they need to cope with the complexities of today's world. Educational institutions are now expected to equip students with the competencies, knowledge, skills and values necessary to address global issues such as climate change, urbanization, and social justice.

In recent years (UESCO, 2024b), there is an alarming demand for the transformation of education systems towards holistic approaches that integrate sustainability into curricula rather than treating it as an isolated subject. This shift reflects the growing acknowledgment that sustainability cannot be compartmentalized but must be embedded within broader educational frameworks (Chinn, 2012, 325). The Greek National Curriculum 'Actions for Active Citizenship' (Law, 2024) initiative exemplifies this paradigm shift, aiming to empower students as agents of change by fostering participatory learning and critical thinking.

A core aspect of this approach is the integration of urban studies within primary education through the subject of 'Environmental Studies' (ES) which is an essential part of the primary curriculum for the first four years of the primary education. The urban environment presents unique challenges and opportunities for sustainability education, as it encompasses issues related to resource management, biodiversity conservation, public space usage, and social justice. Students growing up in urban areas must develop an understanding of their surroundings as interconnected social-ecological systems in which human activities and natural processes interact (Woodhouse et al, 2001).

This paper studies the findings of a Pilot Study that examined the implementation of ES in alignment with active citizenship education. It explores how students can become active participants in their communities through place-based learning and sustainability action plans. Drawing on ecosocial systems theory (Lemke, 2001), urban environmental education (Russ & et al, 2015), and transformative learning (Sterling, 2002), this study argues that Education for Sustainability (EfS) must adopt an action-oriented, place-based, and participatory pedagogy to be effective. By focusing on real-world authentic learning, inquiry-based learning, and collaborative projects, students can move beyond theoretical knowledge to engage in meaningful sustainability practices that benefit both their local and global communities.

Furthermore, this paper addresses the role of teachers and educational policymakers in supporting this transition. Effective implementation of active citizenship initiatives requires not only curriculum reform but also teacher training, institutional support, and community engagement. By examining the successes and challenges encountered during the Pilot Study, the present study contributes to the broader discourse on how primary education can foster sustainability literacy, civic responsibility, and transformative learning outcomes.

1.1. The Need for a Green Curriculum

In the face of recent environmental challenges, there is a growing imperative to integrate sustainability education into formal curricula worldwide. Despite increasing international emphasis on sustainability, many educational systems still fail to provide comprehensive coverage of climate change and sustainability-related issues. A recent UNESCO (2024a, 21) review highlights that in a study of over 530 Grade 9 science and social science curricula from 85 countries worldwide while 77% of national curricula make reference to environmental or sustainability topics at least once, only 31% explicitly address climate change. Also, while 69% of surveyed teachers from eight of the countries studied reported

that environment, sustainability and climate change topics were included in the science and social science curricula in their schools only 50% included them in their teaching. This gap and the in-balance between environmental education and education for sustainable development underscores the need for a systemic and structured approach for embedding sustainability into the entire school curriculum. In particular, UNESCO (2024c) suggests that more education systems need to be taking a whole institution approach to tackling sustainability issues within school subject curricula. Including indigenous and local knowledge in relation to environment, sustainability and climate change in school subject curricula recognizes the oneness of all things, rather than a dualistic worldview that sees the world in terms of binary opposition between human beings and nature (UNESCO, 2024b). Education on environment & sustainability should include action oriented, place-based and participatory teaching and learning methods within school subject curricula to empower students and teachers to act individually and collectively and take responsibility on sustainability issues.

Due to these findings just six years before the completion of the AGENDA 2030 the Greening Education Partnership (UNESCO 2024d) has set ambitious global targets, aiming to incorporate sustainability into 90% of curricula by 2030 and transform 50% of schools into sustainable learning environments (UNESCO 2024b,c). Achieving these objectives necessitates a multifaceted approach that includes curriculum reform, targeted teacher training, and the fostering of stronger school-community partnerships by establishing communities of practice. A 'green' curriculum should not only integrate sustainability as a cross-cutting theme but also encourage interdisciplinary learning, critical thinking, and real-world application of sustainability principles.

Furthermore, a shift towards competency-based sustainability education is required, wherein students develop the skills and mindsets necessary to address complex ecological and socio-economic challenges. For the accomplishment of that purpose the European Sustainability Competence Framework (Bianchi, et al, 2022), as announced in the European Green Deal has addressed the importance of political agency that means the capacity to positively influence the collective future, by mobilising those at political level to take action for change (Bianchi, et al, 2022, 26). Such an approach aligns with the EfS framework, which advocates for participatory, transformative, and action-oriented learning experiences (UNESCO, 2020).

1.2. Active Citizenship in Education

Education for active citizenship extends beyond the transmission of theoretical knowledge to actively engaging students in civic participation and democratic processes. According to UNESCO (2021), students and educators should be regarded as agents of change, capable of driving sustainability-oriented transformations at the local, national, and global levels. A core tenet of active citizenship education is participatory learning, which enables students to critically engage with societal issues and collaboratively develop solutions.

In alignment with these principles, the Greek National Curriculum has incorporated an ecosocial systems perspective, linking human societies with material and ecological environments. This approach underscores the interdependencies between social structures and environmental sustainability, encouraging a holistic understanding of sustainability challenges.

Scholars differentiate (UNESCO, 2018, 18; Noula, 2014, 21) between two primary forms of citizenship education:

1. Minimal or so-called "soft" Citizenship Education, which primarily focuses on conceptual understanding of national, social identities, the discourse of human rights and the dissemination of civic knowledge.

2. Maximal, Critical Citizenship Education, which emphasizes student-led initiatives, participatory democracy, and direct civic engagement towards citizenship literacy and competencies.

The Pilot Implementation of the ES and its formative evaluation was implemented through educational action research and the creation of Professional Learning Communities during the school years 2021-22 and 2022-23 (Ntoka, et al, 2024, 441). The main outcomes of this study were that: a) most of the in-service teachers who were involved in the study emphasized the need of additional time in terms of teaching hours for each thematic unit in order to develop and implement action plans for the achievement of attainment targets which deal with citizenship, inclusion and values, b) a distinction also is raised between those who developed lessons for the learning of citizenship concepts (minimal/soft citizenship education) and those who developed action plans for students' engagements in citizenship actions (maximal/critical citizenship education). The ES Pilot Study revealed that educators implementing critical citizenship education faced challenges related to instructional time constraints, as facilitating student-driven civic action plans required extended periods of classroom engagement. These findings suggest the necessity for curriculum adjustments that allow greater flexibility for project-based and experiential learning in sustainability education (Rizaki, et al, 2024) beyond the limits of a single subject towards the direction of a school practices.

2. Sustainable citizenship and urban education

2.1. Overcoming Climate Anxiety and Fostering Resilience

As awareness of climate change increases, so does the prevalence of eco-anxiety among young learners. The Programme for International Student Assessment (PISA, 2022) reports that Students' satisfaction with life, more generally, declined in many countries and economies over recent years. In 2022, 19% of students in Greece reported that they were not satisfied with their lives: they rated their satisfaction with life between 0 and 4 on a scale ranging from 0 to 10. In 2018, fewer students were not satisfied with life (15%). On average across OECD countries, the proportion of students who are not satisfied with life increased from 11% in 2015 to 16% in 2018 and 18% in 2022.

An increasing number of studies (Pihkala, 2020) show recently that a rising environmental consciousness has led to heightened psychological distress mostly among 15 to 30 year olds, often manifesting as ecological anxiety, grief, guilt and anger—a profound emotional responses to uncertainty because of extensive environmental degradation and loss.

To mitigate these effects, sustainability education should incorporate strategies aimed at building emotional resilience. Antonovsky's Sense of Coherence (SOC) theory (1987) provides a relevant framework, suggesting that resilience is cultivated through three key dimensions (Mittelmark, et al, 2022):

- Comprehensibility: a belief that challenges are understood and that you can understand events in your life. That means ensuring that students can make sense of environmental changes through clear and accessible information.
- Manageability: a belief that resources to act are available and that things are manageable and within your control. Therefore, equipping students with the tools and resources needed to take constructive action.
- Meaningfulness: a belief that things in life are interesting, motivating, and a source of satisfaction. So, encouraging personal investment and emotional connection to sustainability challenges.

By embedding these principles within sustainability education, students can develop a greater sense of agency and optimism, enabling them to navigate complex environmental issues with confidence and purpose.

2.2. Urban Education and Place-Based Learning

Socioecological issues now days often pose wicked problems, because they involve interlinked complex systems, such as the natural systems and the social systems including technological, political and economic systems (Bianchi, et al, 2022, 17). Urban environments present unique sustainability challenges, necessitating educational approaches that address the socio-ecological complexities of cities (Chinn, 2012, 330). Urban environmental education provides a framework for integrating sustainability learning within the urban context, focusing on issues such as air pollution, waste management, biodiversity loss, and social justice.

A particularly effective approach in this regard is place-based education, as proposed by Woodhouse & Knapp (2001a,b). This pedagogical approach emphasizes the importance of situating learning within local contexts, enabling students to explore sustainability issues within their immediate environments. Place-based learning fosters situated cognition, wherein students gain knowledge through direct engagement with real-world sustainability challenges.

Williams & Agyeman (1999) further argue that urban environmental education should promote environmental stewardship, encouraging students to take an active role in improving the sustainability and social coherence of their communities. This aligns with the broader goal of empowering students as agents of change who are capable of implementing localized solutions to urban sustainability problems.

2.3. Transformative Learning and Sustainability

Achieving sustainability requires a fundamental shift in educational paradigms, moving beyond traditional transmissive models towards transformative learning (Mezirow, 1997). Transformative learning theory posits that education should challenge existing worldviews, encouraging learners to critically reflect on dominant socio-economic models and explore alternative sustainability pathways.

Baumgartner (2001) and Sterling (2002) emphasize that transformative learning is particularly relevant in sustainability education, as it fosters critical consciousness and the ability to question unsustainable practices. A whole-school approach to EfS is crucial in this transformation, as it encourages collective action among students, educators, and communities. This approach necessitates:

- Interdisciplinary curriculum design, integrating ecological, social, and economic perspectives.
- Experiential and inquiry-based learning, allowing students to develop practical solutions to sustainability challenges.
- Institutional sustainability practices, ensuring that schools serve as models for sustainable operations.

By adopting transformative learning models, schools can serve as incubators for sustainability innovation, equipping students with the knowledge, skills, and ethical frameworks necessary for leading the transition towards a sustainable future.

3. Sustainability and citizenship in the context of the new National Curriculum 'Actions for Active Citizenship'

Since the 1st of November 2024 the New Greek National Curriculum "Actions for Active Citizenship" (Government Gazette 6048/2024, Issue B) for kindergartens, primary and secondary schools provides guidelines for the implementation of action plans towards the accomplishment of the 17 goals of sustainable development. Each thematic unit of the Curriculum is focused on one of the targets of sustainable development. The attainment targets of each thematic unit are grouped in four age groups: a) nursery, 1st', 2nd' and 3rd' classes of lower primary education, b) 4th', 5th' & 6th' classes of upper primary education, c) 1st', 2nd' and 3rd' classes of lower secondary education and d) 1st', 2nd' and 3rd' classes of upper secondary education. The range of actions according to age groups varies from school community and neighborhood up to the national state and global scale also with the use of digital world. A Teachers' Guide for Active Citizenship consists of examples of 24 complete structured action plans, 6 action plans for each age group and additionally 48 proposals for action plans. Each action plan is focused on certain attainment targets in accordance with the 17 SDGs.

The National Curriculum Actions for Active citizenship and Teachers' Guide for actions of active citizenship develop an ecosocial educational system which is simultaneously a material and a social-semiotic system. An ecosocial system is simultaneously a material and a social-semiotic system (Lemke, 1993). Ecosocial systems show ecosystem organization in both their cultural-semiotic and their material-ecophysical dynamics. Sustainability and citizenship in this ecosocial system are complementary, one presupposes the other and at the same time one refers to the other. Actions of active citizenship supply this ecosocial system with material entities (for example the reconstruction of a local park) and/or social practices (the creation of educational materials, an internet campaign, etc.) and in return the system generates new actions (https://iep.edu.gr/el/aeiforia-energos-politeiotita). The methodological approach of each action plan has five stages:

a) students' decision of what they want to do in order to resolve problems and respond to challenges, presuppose their collaboration for decision making,

b) the design of action's implementation means that students curry on research in order to decide the most relevant and effective action plan and conceptualize the issue from different points of view depending on the various stakeholders and groups of interest,

c) the action itself which has to be done as an intervention to the real world and not as a 'think as if…' practice,

d) the dissemination of the action and its outcomes, and

e) teachers' and students' reflection on the entire process.

Students are called as agents of change to envision sustainable futures for the purpose of SDGs achievements. Actions are implemented during teaching hours of specific subjects which are suggested by a Ministerial Decision 146472/ΓΔ4/06-12-2024 even though it is at the discretion of teachers' decisions to use any subject of the entire curriculum.

The National Curriculum (2024) 'Actions for active citizenship' meets the objectives of the Agenda 2030 with regard to the interlinkages, interdependencies and synergies required across sectors and policies, as well as for partnerships and collaboration to meet "horizontal" and win-win objectives for: a) local environments (e.g. neighbourhood, town, etc.), b) biodiversity, c) ecosystems, d) safety protocols and procedures in terms of prevention of and preparedness for natural disasters; also, in respect to: a) understanding and adopting whole system approaches for school management so as to be transformed into eco-schools, b) analyzing the interconnections and interdependencies of the natural, social and economic environments in relation to overconsumption and the adverse impacts of intensive and

unsustainable agriculture, fishing and tourism practices on natural resources. Students are called to imagine and describe their actions as citizens in their local community in terms of a sustainable future. They are also called to think about the values, attitudes and principles that have to be adopted in a sustainable future. In terms of adaptability, they learn how to directly link waste production with consumption, value approaches which are based on rethinking, reducing, reusing, repairing and recycling processes in their everyday lifestyle decisions, understand and apply circular economy principles based on products' life-cycle analysis, learn and apply safety procedures for their protection from natural disasters and epidemics. Finally, at a more political level, they understand how to adopt and adapt the 17 SDGs and act against the current planetary crises of climate change, pollution and biodiversity loss, food insecurity, poverty and inequalities.

The overall objective of the new national curriculum is the envisioning of the transformation of schools towards the direction of sustainable schools through Whole School Approach practices. Ideally, teachers will identify with a concept of transformed sustainable school because it offers something strong and inspiring with which to identify. According to the new national curriculum, a view of education is developed for a paradigm shift which demonstrates how our education systems can create new levels of awareness and work towards a sustainable future. Students are expected to change their behaviors toward climate change and the protection of their local environment. It is also expected that their behavioral change will be directly linked with their modified lifestyle choices and a new social identity.

In terms of the way (platforms, networks, etc.) curriculum materials are accessible to those who are interesting: educators, students, stakeholders, etc., it is anticipated that available resources will be accessible in the most efficient, productive and convenient way, avoiding mistakes, irrelevant information, repetitions and time-consuming efforts via a new digital platform: https://act.digitalschool.gov.gr/. Getting information, experience and good practices from those who work in the same or similar issues, projects, in what we use to call communities of practice for the purpose of 'bottom – up' reforms may work in parallel with 'top – down' initiatives.

Partnership networks between educators, scientists and stakeholders, accompanied by databased communication platforms are expected to provide expertise knowledge in training activities and initiatives. Bottom - up approaches of best educational practices of action plans for local history and local geography and experiences which are shared by schools are expected to bring together pupils and teachers from various places, such as urban areas, coastal regions and remote continental areas. School knowledge and experiences developed from participating partnership are expected to support cross curricula implementations mainly in terms of skills/competencies and reforms of the national curriculum for sustainable development.

4. Recommendations for Enhancing Education for Sustainability (EfS) and citizenship in Primary Education

Integration of active citizenship approaches, embedding participatory, action-oriented learning methodologies within the curriculum are all crucial practices for fostering a sense of agency among students. By incorporating hands-on projects, collaborative decision-making, and problem-solving activities, students can be empowered as sustainability advocates. Encouraging student-led initiatives, such as eco-clubs and sustainability campaigns, will help them develop a deeper understanding of their role in shaping a sustainable future.

Urban-focused curriculum design, given the unique socio-economic and environmental challenges of urban environments, should be part of the primary education curricula in order to address issues such as pollution, resource management, social equity, and urban resilience

(Rus et al, 2015, 20). Through localized case studies, place-based learning, and interdisciplinary approaches, students can develop practical solutions to real-world urban challenges while gaining a deeper appreciation of their communities (Sturrock, et al, 2023, 98).

Adoption of transformative learning models, implementing experiential, inquiry-based, and reflective pedagogies can significantly enhance critical sustainability thinking. Experiential learning through field trips, nature-based education, and hands-on environmental projects can cultivate a strong connection with ecological and social systems (Chinn, 2012, 327). Encouraging inquiry-based learning fosters curiosity and problem-solving skills, while reflective practices—such as journaling, discussions, and ethical debates—help students critically engage with sustainability issues.

Strengthening school-community collaborations, establishing strong partnerships between schools and local stakeholders—including municipalities, NGOs, businesses, and community leaders—can create opportunities for real-world engagement. Schools can collaborate with local environmental organizations on projects such as urban gardening, waste reduction programs, and clean-up initiatives. These partnerships can also support service-learning projects where students actively contribute to their communities while applying sustainability principles (Sturrock, et al, 2023, 111).

Teacher training is essential for the successful implementation of EfS strategies. Providing professional development workshops, access to up-to-date sustainability education materials, and opportunities for interdisciplinary collaboration can enhance teachers' ability to integrate sustainability concepts into their teaching. Additionally, fostering a culture of continuous learning and peer exchange among educators can strengthen their confidence and effectiveness in promoting sustainability education.

Empowering students as agents of change is essential for advancing sustainability education. By integrating active citizenship, place-based learning, and transformative pedagogies, primary education can foster responsible and engaged citizens. Future research should focus on evaluating the long-term impact of EfS initiatives on student engagement and community participation.

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