frontiers | Frontiers in Education

TYPE Original Research
PUBLISHED 05 April 2023
DOI 10.3389/feduc.2023.1129824

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OPEN ACCESS

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SPECIALTY SECTION
This article was submitted to
Higher Education,
a section of the journal
Frontiers in Education

RECEIVED 22 December 2022
ACCEPTED 17 February 2023
PUBLISHED 05 April 2023

CITATION
Simon S, Vieira I and Jecu M (2023) Multi-level education for sustainability through global citizenship, territorial education and art forms. *Front. Educ.* 8:1129824.
doi: 10.3389/feduc.2023.1129824

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Multi-level education for sustainability through global citizenship, territorial education and art forms

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This article is aimed at addressing concepts, approaches and challenges that are both very characteristic of the era we are living in and that would also greatly benefit from being more and better integrated into our learning systems (both in the formal and non-formal educational systems and lifelong learning). Those issues and themes have emerged from, or have been exacerbated by, socio-economic systems in place since the middle of the 20th century, promoting amongst other things, a consumption society based on a linear over-exploitation of natural resources, the globalization of exchanges, a rapid urbanization process and not-always-harmonious mixes of cultures and communities. The COVID-19 pandemic seems to have culminated in triggering reflections on what matters most and, conversely, on what makes our world so un-sustainable and non-resilient. From these, a new momentum has been generated on reviewing where our efforts on teaching and learning about 'sustainability' got us to. Our focus here is on new approaches to education for sustainability at global, community and personal levels, as well as at levels that connect those. From linking the local to the global through 'global citizenship,' to experiential learning generated through practical projects such as urban agriculture, to an emotional involvement into understanding sustainability issues through art forms, we re-visit sustainability through the eyes of the learners, questioning the boundaries of the 'sustainability educational project' beyond the ones which, for (too) long, have paralleled those of neo-liberal reforms.

KEYWORDS

global citizenship education, commons, social and environmental justice, experiential and territorial education, education for sustainability, arts education, sustainable and ecological art, slow artistic education

1. Introduction

Education for Sustainability (EfS) has gone a long way. The transformation of our societies, economic systems, and of our inter-relations with ecological systems into more sustainable ones has not. Observing how the integration of sustainability considerations into the educational system was undertaken throughout time helps, in part, in understanding why this is the case.

It was during the 1972 United Nations Conference on the Human Environment that the term 'Environmental Education' (EE) was first mentioned and that the establishment of the International Environmental Education Programme (IEEP) was recommended. Environmentalism was alive and well. Initial EE focused on helping students to understand better the natural environment

from a scientific perspective. Although the socio-economic and political dimensions of 'un-sustainable' practices had been discussed, "the multi-disciplinary approach to EE was left to small bands of enthusiasts in each country" (Fien, 2020, p. 4). This situation remained throughout the 1970s and it is only at the end of the 1980s that a broader understanding of the issues at stake helped to reform EE. After the World Commission on Environment and Development (WCED) (1987) defined sustainable development, the focus turned toward Education for Sustainable Development (ESD) which involved integrating key sustainable development issues into teaching and learning. The UN Decade of ESD (DESD: 2005–2014) mobilized the educational resources of the world to help create a more sustainable future. Agenda 21, the official document of the 1992 Earth Summit, described various ways to do so. The United Nations Educational, Scientific and Cultural Organization (UNESCO) coordinated DESD initiatives and published their findings (Buckler and Creech, 2014). One of the hopes was that development issues would be better linked to environmental issues and that sustainable development would be understood in an interdisciplinary way, encompassing ecological, economic and social dimensions. What was achieved in these 10 years, as Fien (2020, p. 1) stresses, was however disappointing, with "student levels of awareness of key concepts for sustainability being low, and few being able to correctly define essential concepts – e.g., precautionary principle and sustainable development." With this in mind, researchers explored further the shortcomings of the 'greening' of the educational system. A plethora of individual initiatives, project-centred educational programmes were put in place around the world, some of which focused on identifying common features and characteristics of EfS. However, these paralleled a rather imposing Global Education Reform Movement (GERM) (in the 1990s), targeted at creating a 'world class education' everywhere and at generating a process of comparison between educational systems, on which their evaluation would be based[1]. As Teodoro (2020) deplored, the rise of neo-liberalism in the 1980s-90s deprived the traditional professional university culture from its freedom of enquiry and progressively created "a paradigm of 'entrepreneur education" (p. 84). The GERM was criticized (Cowen and Kazamias, 2009) for the technical difficulties in making international comparisons, its generalization of societal values based on Western economic principles and its enhancement of competition in the learning environment. Its methodical obsession to homogenize pedagogical approaches to entirely different communities also raised serious criticisms. Through these reforms, an underlying belief in the neo-classical approach to economic issues was in fact translated into the ways in which development and environmental problems were being tackled. This resulted in a detachment of our communities from nature. The socio-economy-environment interactions advocated by ecological economists (Martinez-Alier, 1987) as being core to the notion of development, were never integrated in educational reforms – which consequently did not help to modify attitudes, beliefs systems and all that had contributed to creating environmental crises in the first place. And so, in an attempt to enforce, generalize and harmonize educational systems, themselves loosely connected with uniformed and timid initiatives in EE, we might have deprived EfS from the practical, contextual, and political dimensions that make sustainability directly relevant to people. 35 years have passed since the WCED defined sustainable development as "a type of development that meets the needs of the present generation without putting at risk the capacity of generations to come in meeting their own requirements" (World Commission on Environment and Development (WCED), 1987, p. 43). The recent COVID crisis triggered reflection on how we organize our economic systems, and 'develop' our societies. A potential conclusion is that, far from being resilient, our societies are not sustainable either. If there was a time to learn from our mistakes and give EfS a new momentum, now would be a good one.

The COVID pandemic also encouraged people to question, more specifically, *globalization*. Authors such as Teodoro (2020), Santos (2006), and Sahlberg (2016) have explained the mechanisms by which the 1990s calls for a standardized 'world class education' were mainly targeted at adapting educational institutions to new configuration systems in world organizations. This 'educational reform' was very different from the humanistic approach to 'Global Citizenship Education' put forward by UNESCO (2014, p. 14) which "referred to a sense of belonging to a common humanity, and emphasized socio-political, economic and cultural inter-dependency, and interconnectedness between the local, the national and the global." Exploring how EfS could establish better connections with global citizenship will be the object of our first part.

The second part tackles the territorial, community level of new forms of EfS, showing that the 1990s educational reforms also contrasted with efforts to develop educational approaches that would help communities to 'put sustainability into practice.' It explores the types of knowledge and learning processes needed to understand what urban sustainable communities would look like if cities were to reduce their dependency on food produced outside, in a less globalized world. A strong focus is put on the so-far little explored area of research in Territorial Education (TE), as well as on experiential learning. It suggests that EfS needs to make the key concepts that are relevant to the sustainable development goals emerge from skills acquisition.

Still within the realm of communities' involvement, but with a stronger focus on the creative involvement in 'learning and acting' for sustainability, the third part focuses on art forms as a vehicle to reflect, question, and act on sustainability issues. Here, art is both a research tool and a technique for applied practice. In artistic projects, lead by artists, curators or local communities, innovative strategies in communitarian art projects are tested out, with the objective of defending and disseminating the principles of global citizenship.

The structure of the paper hence addresses and binds multi-levels of learning, illustrating in which direction, why and by whom the 'boundaries of EfS' could be extended in the near future.

2. Global citizenship education

Globalization, through its complex and plural dimensions and impacts on society, defies the educational field to develop analytical and interventional approaches to face structural issues that threaten peace and survival on Earth. Global Citizenship Education (GCE) can thus be framed, and reflected theoretically and practically, in its attempts to defend people and the planet in inclusive, sustainable, and democratic ways. This first part aims to explore the concept of global

1 Reinforced by the Programme for International Student Assessment (PISA), carried out by the Organization for Economic Cooperation and Development (OECD).

citizenship and its impacts on education. It is proposed as an introductory approach that will allow deepening knowledge about possible framings of sustainability, which will be further explored through experiential territorial learning and artistic approaches in the following parts.

2.1. Political framing

Built upon previous constructions with other terminologies (e.g., 'intercultural dialogue,' 'peace' or 'democratic education,' and particularly the synthesis proposed by 'global education' – Europe-Wide Global Education Congress, 2002), GCE can be framed politically, on a global scale, from an initiative (and correlated discourses) produced within the United Nations (UN), particularly involving UNESCO: the Global Education First Initiative (GEFI). Between 2012 and 2016, in the mandates of the UN Secretary-General Ban-Ki Moon, GEFI was retained as a global advocacy platform with three priorities: to put every child in school; to improve the quality of learning; and to foster global citizenship. Overall, GEFI was aimed to accelerate progress toward the Education for All goals and the education-related Millennium Development Goals and subsequent Sustainable Development Goals (SDGs), so as to implement the 2030 Agenda. GEFI was guided by a strategic plan and action framework that, among other objectives, aimed to "Broaden outreach and engagement on global citizenship education with a focus on learning and teaching for sustainable development" (GEFI-Global Education First Initiative, n.d.).

It can thus be observed that this concept of global citizenship is conceived as interweaving the UN sustainability and education agendas. For UN's impact on – and commitment by – other national and federal agendas, we can notice this political construction on other institutions; namely the Council of Europe on its agenda for sustainable development and quality education. Deepening the Council's vision on quality of education for all, it echoes SDG 4.7 – Education for sustainable development and global citizenship, which aims to "ensure that, [by 2030], all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development." (SDG 4.7, n.d.). Within the Council of Europe, understanding education's impact on sustainability is also reflected in the adoption of the Charter on Education for Democratic Citizenship and Human Rights Education by the 47 member states in the framework of Recommendation CM/Rec(2010)7 (2010). The Council of Europe's member states have been adopting different legislation pieces that incorporate these principles of global citizenship, democratic education, and sustainability promotion.

Regarding the skills to be developed in GCE, UNESCO (2014, p. 9) synthesizes the need to develop collective identities, knowledge about global issues and values, cognitive skills to think in critical, systematic and creative ways, social skills for conflict resolution, communication and interaction within social diversity, and behavioral skills to act collaboratively and responsibly while looking for global solutions and fighting for a common good.

2.2. Theoretical-conceptual debates

Considering the potential and political reach of GCE, its development is important at the theoretical and conceptual levels; yet it can be noticed that this approach is mostly "an intervention in search for a theory" (Torres, 2017, p. 1). Some of the possible theoretical-conceptual debates, which we propose to deepen in this section, concern different levels and forms of globalization, critical approaches, commons, and possibilities in education.

2.2.1. Globalization

One of the concepts that mostly helps to locate the field of GCE is: globalization. Yet, there is arguably no main notion of globalization as the concept has been defined in very different ways (Torres, 2015, p. 262–264), from economic and geopolitical perspectives to cultural ones. We will provide a brief synthesis of just a few of its possible conceptualizations that can be important for the debate around GCE. Departing from a territorial and economical focus, globalization can be related to the intensification of world-wide relationships with deep changes in time and space, associated to a late capitalism or postmodern feature within a world system organized by a global capitalist economy (Harvey, 1989, 1996). This system and its global changes carry important consequences in terms of social inequalities, which are an unbalancing factor for the economic and social dimensions of sustainability, and toward which GCE should be positioned, challenging neoliberalism – with the precaution of not being coopted by falling into a neoliberal rationality (Torres, 2017).

Impacting the political level, globalization is also related to the declining importance of isolated notions such as that of nation-state, with the rise of different collective social actors on the political landscape. These changes can be related to the interconnectedness made possible through the expansion of networks and technologies of communication and travel (Castells, 1996), with dematerializing effects on central values systems (Ball, 1998). The lesser capacity of sedentary notions (nation-state, but also ethnicity and other space-bound concepts) to explain the later organization of society has also been linked to a mobilities turn in social sciences (Malkki, 1997; Cresswell, 2006; Sheller and Urry, 2006). GCE can benefit from this turn for its comprehension and work on social diversity and potentially porous frontiers.

All these transformations bring consequences to the understanding of social change, individual and group identities.

Attention should be put also in the directions through which globalization happens, from top-down (framed by neoliberalism and appealing to the opening of financial-related frontiers) to bottom-up (through pro-representational social movements) processes, involving cultural hybridism and the intersection of information, knowledge, and networks (Torres, 2015).

2.2.2. Critical effects and approaches in education

A dominant form of neoliberal globalization marks educational policy worldwide, impressing a competitive feature that endorses the creation of measurable and internationally comparable standards of educational performance (Teodoro, 2022) – among other common features that focus on individual competences, knowledge, and entrepreneurship, with a parallel of center-periphery structures on schooling polarizations (Ball, 1998). This process is affected by the crisis

of the national social contract, as the national time–space loses the stage toward the growing importance of global and local scales, with impacts in government legitimacy, social and economic welfare, and collective safety and identities (Teodoro, 2020). The uncertainty of contemporary globalized life has an important congestion effect with impacts on education, namely due to the combination of (1) a neoliberal turn toward a 'market model' education, and (2) changes in the trajectory of economic growth and job patterns which had allowed the massive expansion of middle classes in the post-war, with a lack of response to the promised futures and consequences in the lesser support to efforts of democratizing education and social policy (Ball, 1998).

These processes and their educational effects can be associated to cultural, political and economic forces and certain ideological visions about what schools and education should be and to whom they should serve; instead of hiding this, critical scholars can retain it as a departure for their analysis, bringing to the public the effects of these policies, defying such positions and defending other types of education, namely those based in human flourishing (Apple, 2019) such as GCE and other approaches to EfS.

A critical reflection on the problems of mass education does not necessarily lead to a drop out of schools as key educational contexts (in the path that could be drawn from Illich, for example – Illich, 1971). Schools can be seen as spaces of critical development, namely as spaces of resonance, as opposed to alienation, considering they are the places where a substantial part of one's relationships with the world are formed (Rosa, 2019). But it is important to also pay attention to other educational contexts, namely non-formal ones, where attitudes and values related to collaboration, responsibility and care (core in GCE) can be developed or contrasted.

In educational research, Critical Social Theory (CST) has been reinforcing the importance of dialectic discourse, democratic organization, and emancipatory action (Pacheco, 2001), questioning the philosophical, economic and organizational principles of education (Darder et al., 2017). In GCE (and EfS more broadly), critical social theory may contribute both to the analysis and action of sustainability, by exploring the roots of social and environmental justice problems and, from their comprehension, creating the basis for a sustainability-oriented educational praxis (Evans, 2010).

The Frankfurt school of thought within CST can be associated with important contributions to GCE, namely in a context where politics of truth and knowledge can be retained as critical praxis, thus seeing the creation of critical and active citizens, with global mentality and competencies, as a part of the solution for global problems (Biccum, 2018).

2.2.3. Commons and global citizenship

Debated in different discipline arenas, of which we highlight political ecology, the commons can be primarily located in the reflections about property, going beyond the binary view that the only solutions are privatization or government control, pointing to other forms of social organization such as community-based approaches to resource management (Turner, 2017). Assuming the complexity and potential hybridity of property systems and going from the name to the verb, 'commoning' (root word for the concept of commons, alluding to Middle Age farmers community praxis of collectivizing the royal lands – Linebaugh in de Angelis, 2021, p. 15) has important consequences. First, it involves "a political and moral commons of production in resistance to the individualization and privatization inherent to capitalism," but it also encourages working toward "attempts to develop conditions that support shared use, management, and production of needed resources" (Turner, 2017, p. 267).

Through an interpretive and metaphorical reading of this process, we find in Torres the understanding that global citizenship requires three types of global commons (Torres, 2017, p. 15–16). The first is the Earth, in a view of shared use and protection to the whole planet (and not solely to some types of property or natural resources), considering it as a common home in need of protection through education for sustainable development and global citizenship. The second is global peace, an intangible culture with immaterial value for the survival of humanity, based in the need of building solidarity while acknowledging and accepting difference (like Beck's cosmopolitan imperative – Beck, 2006). The third type of global commons is people, highlighting the need for people to live democratically in a diversified world, both pointing to the fulfillment of individual and cultural interests and to the guarantee of the inalienable rights to life, freedom, and the pursuit of happiness.

2.3. Educating for global citizenship

GCE can thus be framed as a commoning, critically informed and sustainability-oriented educational approach, which citizenship dimension embraces a post-national consideration of rights and responsibilities (Soysal, 1994), with reflexes in different levels of social life.

GCE can benefit from critical realism, acknowledging its principles of ontological realism (a real world exists independently of one's knowledge and positioning), epistemological relativism (knowledge about reality, namely science, is socially produced under specific conditions) and judgmental rationality (not all interpretations have the same epistemic or moral value, rational choices can be made) (Bahskar in Khazem, 2018, p. 125–126), and adapting them to the core features of education on global issues, particularly sustainability.

Positioned within the broad field of education, an agenda and political culture can be drawn around concepts of possibility (as inspired by Freire). Teodoro (2020) suggests three main directions for this: (1) cosmopolitan solutions, considering we are all citizens of the same world, with important differences of inclusion and privilege, so there is a concomitant needed fight for the educational good and against poverty, injustice and social exclusion; (2) contrasting the fear of alterity in pedagogical practices and policies, posing side by side the principles of equality and recognition of differences; and (3) excellence of schools and education for all the students.

Linking these considerations to what has been achieved so far in EfS is as important as ensuring that EfS does not lose track of – nor neglects – the key components of GCE which, to some extent, highlights alternative, more humanistic, understandings of and responses to globalization. Suggestions of how this may be translated at 'closer-to-home' levels are discussed in the next two parts of the article.

3. Contextualizing EfS: Territorial education and experiential learning

3.1. The need for contextualization: New focus on the territory

Lahire (2012) emphasizes that no other notion is as essential to the reasoning of human sciences – and as neglected – as the notion of

context. Yet, the multiple and complex links between education and territory, as Boix-Tomàs et al. (2015) highlighted, "have only really been tackled for fifteen years" (p. 12). The integration of the territorial aspects of educational contexts into debates on EfS is helping to apprehend teaching and learning as dynamics that both can *adapt to* territorial specificities and *contribute to* territorial sustainability. It helps to re-establish respect for an adapted relationship with the local territory without losing a global perspective (Boix-Tomàs et al., 2015). This 'adapted relationship' was reflected through new initiatives in landscape education (Crespo, 2017). Following the European Landscape Convention in Florence (Council of Europe, 2000), landscape was defined as "an area, as perceived by people, whose character is the result of the action and interaction of natural-human factors." Understanding the territory through landscape education therefore implies introducing new forms of eco-social literacy (Salonen and Konkka, 2015) through, for instance, forms of didactic of geography at different scales (Ponce et al., 2021), itself promoted by the Commission on Geographical Education of the International Geographical Union (IGU-CGE) in the Lucerne Declaration (IGU-CGE, 2007). It also relates to service learning through Community Economic Development and Ecological Economics, both described later in more depth.

The original interest in the *territory* accompanied what Courlet and Pecqueur described as a "trust issue" with regards to the "*Etat-Nation*" (nation-state), a questioning of liberalism and growth models and ways in which the dogma of the "homogeneous space" is being contested (2013, p. 7). This led to the emergence of "local and territorial development" which sees the territory as being aligned with the deepest challenges of current societies and "has to be approached *as a complex system* made of stakeholders linked by dynamic socialites and connected to the outside world" (Courlet and Pecqueur, 2013, p. 15).

TE was originally closely linked to the *theories of localization* which suggest that "the diminution of transportation costs amplifies the polarization of activities" (Courlet and Pecqueur, 2013, p. 35). Technically, sustainable development is taking our societies toward "new proximities," due to the requirements of recycling, energy saving and reclaim. In food systems, notably, traceability will be imposed and lead to a reinforcement of geographical and institutional proximity and a shortening of food chains linking producers to consumers. But the importance of the territorial context goes beyond this, highlighting cultural, political, ecological specificities to a milieu and the necessity to understand and respect the place of citizens in their territory in order to apprehend how to undertake sustainable transformation of territories, itself enhanced through education. Numerous institutional networks have recognized this and have been mobilized in many countries and in all kinds of territories, to facilitate the integration of school in their territory, in line with programs on ESD (Francis et al., 2011) and EfS (Kulikova et al., 2021).

3.2. Practical examples

3.2.1. From living schools ...

Howard et al. (2019) presented the Living School concept as a more practical way of approaching EfS at primary and secondary school levels. As they explain, "in keeping with the ethos of ecological thinking and the interdependence of communities, the values of local relevance, and cultural appropriateness, an approach to scalable educational change through sustainable Community Economic Development (CED) is offered" (p. 2). CED has been defined as a set of actions by people, at the local level, to create sustainable economic opportunities and to improve social conditions contributing to the well-being for all. As explained by Schaffer et al. (2006), it occurs when people in a community take action and, as a result, local leadership and initiative are then seen as the resources for change. The full integration of CED in sustainability focused curricula in Living Schools illustrates a strong wish to recognize the economic, developmental dimension of sustainability, inter-related with ecological dimensions. Linking those to socio-cultural dimensions is also crucial. Although, historically, economic development and community development were viewed as separate concepts, researchers were encouraged to progressively integrate them, highlighting the benefits of partnership-building within communities (Beauregard, 1993; Reese and Fastenfest, 1996).

The main message of the Living Schools approach is that the learning outcomes of education for sustainability have to be meaningful in practice for communities, who therefore need to get a sense of ownership of the concept of sustainability. They do so first by directly benefitting from a strong focus on positive education, as well as social–emotional learning (Collaborative for Academic, Social, and Emotional Learning (CASEL), 2013) and health (Morrison and Peterson, 2013). Also, thanks to a focus on problem-solving and outdoor learning (Williams and Brown, 2012), learners acquire the skills and competencies that are needed to prepare young generations for the 21st century – including critical thinking, communication, collaboration, creative problem solving, character education, and citizenship but also innovation, creativity, computer-enhanced learning and entrepreneurial mindsets (Fullan and Langworthy, 2013).

As O'Brien and Howard (2016, p. 123) stress, "the curriculum of the Living School is founded on understanding the vitality of one's place within the larger landscape as being inextricable from human wellbeing." To that extent, it links the local practical context to values defended through GCE.

3.2.2. ...to innovative higher education in agro-ecology, landscape architecture and ecological economics

Recent initiatives in more practical approaches to EfS at university level have also been occasionally observed – although, as the general tendency tends to show, there is a lack of integration of the goals of the UN DESD 2005–2014 (Farinha et al., 2018), of long-term objectives (Teixeira and Koryakina, 2016), and of an underpinning framework (Dlouhá et al., 2016) in strategies in higher education.

This has been the case in forms of sustainable territorial pedagogies developed in the sphere of tourism. Thus the Sustsinable Tourism Pedagogy (STP) modele (Jamal et al., 2011) could contribute to giving insights for designing territorial education initiatives from a sustainable approach.

This has also been the case with the transdisciplinary agro-ecology educational projects presented by Francis et al. (2011), focused on sustainable farming and food systems. These have created an effective learning landscape "for students to deal with complexity, uncertainty and a range of biological and social dimensions, life-cycle analysis and long-term impacts" (Francis et al., 2011, p. 226). In those, students had to develop new governance and management systems in order to, for instance, better manage interconnections between agriculture and overarching resource systems of food, energy, water and land-use, using

a whole set of skills – such as negotiating, open-mindedness, and appreciation of different perspectives. In parallel, in Landscape Architecture courses, Keeler (2011) documented the benefits derived from the 'Urban Farm educational Program' (University of Oregon). He concluded that "place-based education implies a process of re-storying, whereby students are asked to becoming part of the community, rather than a passive observer of it" (2011, p. 11). Away from top-down approaches to education and training, TE through this type of projects, "focuses on the collective influence and responsibility in creating inclusive and responsive public spaces" (Smaniotto Costa and Ioannidis, 2017, p. 53). The territory, through its ecological but also its cultural characteristics, therefore both becomes an educational agent and content (Villar-Caballo, 2001).

Like in the case of educational projects at school levels, one important conclusion is that, in order to grasp the practical dimensions of what makes a territory sustainable, one has to embrace practical projects and acquire skills. As Kolb (1984), learners need experiential components to really understand concepts. Many researchers have also highlighted the importance of adopting a systems perspective (Bawden, 1991) to appreciate the multiple dimensions (economic, social, political and environmental) of sustainability. In the examples of agro-ecology or landscape architecture university courses quoted earlier, systemic learning is fundamental because the focus of study deals with human-natural systems – i.e. the dynamic interactions between human and ecological systems, as studied in an alternative approach such as ecological economics. Authors such as Earle et al. (2017), strongly defended this point and developed an in-depth plea for reforming higher education courses in economics, criticizing the fact these have become solely focused on one approach – that of neo-classical, market-centred, economics -, hence neglecting not only the historical, ecological, socio-cultural (and many more) dimensions of our societies but also rejecting alternative perspectives and critical thinking. This is problematic since the organization, running and ranking of our societies and of their 'health/performance' are dominated by an economics discourse focused on the growth of Gross Domestic Product (GDP) which itself ignores environmental values. If university courses in economics are not open to becoming more pluralistic, it is difficult to understand how decision-makers of tomorrow will even consider integrating SDGs in their strategies. New courses in ecological economics (at undergraduate and postgraduate levels, as illustrated)[2] address this issue by specifically focusing on a new paradigm to approach human- socio-economic – relationships to the surrounding natural environment upon which it depends for its economic activities and survival. The educational value of Ecological Economics projects on the ground has also been highlighted (Healy et al., 2012) and is crucial in new developments of EfS.

3.3. Learning from practical community projects extended to circular economy networks

EfS has an important role to play *beyond* formal educational institutions (such as schools and universities). The problem-centred pedagogical angle adopted when developing experiential learning toward making places more sustainable has led some researchers to extend the emphasis put on agro-ecology (mentioned in the context of higher education) to a particular interest in Urban Agriculture (UA) as a way of addressing jeopardized food security in growing urban environments post-Covid. As the Food and Agriculture Organization of the United Nations (FAO) stressed, "the pandemic has disrupted urban food systems worldwide [and] this has presented a number of challenges for cities and local governments" (FAO, 2020, p. 5).

Food production in a city constitutes indeed a relevant case study and platform for the application of TE, since UA both facilitates a practical understanding of what greening a city, contributing to food security, and linking food production to other activities in a 'circular – zero waste – economy' mean. The evolution of policy responses by local authorities and citizens in many places (India, Kerala; Lisbon, Portugal; Milan, Italy; Thailand, as explained in IPES Food, 2020) shows that learning platforms are also developing outside the educational system, extending to its subject of study itself: the city as a sustainable territory. This learning also relies on the creation of strong solidarity and knowledge networks. The FAO (2020, p. 5) suggested the establishment of an *Urban Food Actions (UFA) COVID-19 Knowledge Hub* to facilitate not only local governments' access to reliable information on practices by national peers but also by peers around the globe. It also emphasized that international city networks such as the Milan Urban Food Policy Pact (MUFPP, 2015) can play a crucial role in fostering dialogs.

Simon (2022) examined how practical TE, through UA and experiential learning focused on how to produce food differently and with different stakeholders involved, could help urban communities to build more resilience through strengthening food security. Through a networked set of UA initiatives, improving the interconnections between agricultural and non-agricultural activities so that principles of a circular economy are put into place at the city scale, with wastes from one production unit being used as an input in another production process, could also help to make a city more sustainable. For instance, organic wastes from UA units and households could be used to generate organic compost. In a circular economy where "closing the loop" (reducing waste) is considered as a sustainable outcome, the territory matters (Ellen MacArthur Foundation, 2020): it is thanks to the interconnection between existing stakeholders, and the creation of new start-ups that will help in using certain wastes better, that the loop can be closed.

Work is now focused on re-designing the cities of tomorrow and envisaging and imagining the long-term changes that Covid-19 will have triggered. In Europe, the *New Urban Agenda* represents a shared vision for a better and more sustainable future. As the document stresses, if well-planned and well-managed, urbanization can be a powerful tool for sustainable development and can have a real transformative power.

The relationship between territorial economies, governance and globalization is interesting in that, as Courlet and Pecqueur highlight, "whilst questions related to the governance of civil society and to sustainable development clearly encompass a global dimension, they also, paradoxically, require more and more proximity" (2013, p. 17). The globalization movement does not necessitate a *homogeneization* of the economy of the planet, as Innerarity (2020) explained through his notion of *glocalization*. A global dimension that remains core to sustainable development relates to common values encompassed in

2 https://ecolecon.eu/ecological-economics-courses-and-programmes/

the humanistic concept of GCE, as defended by UNESCO (2014) and discussed previously.

The next part of the article focuses on more personal and creative dimensions in learning about sustainability.

4. Artistic education for sustainability

The objective of this part of the article is to present key positions on artistic education for sustainability that are based on 'slow' and immersive educational projects. Education is usually understood in these projects as a mutual knowledge transfer between the artists, educators, institutions and communities, groups and agendas. Education is experienced as a creative exchange and a process in which the roles (educator, educated) are inter-changeable – as the last example included in this text will show. This part of the article presents non-formal and in-formal artistic educational projects for sustainability that aim to stimulate knowledge production and elaboration of solutions that can revitalize specific social, economic and environmental contexts. These performative, creative and exploratory artistic micro-solutions to existing problems pursue concrete results: elaborating grass-roots democratic models, formulating critiques of art and society, fostering social responsibility and inclusiveness of marginalized groups and raising a concern for non-human life forms.

This part of this article is based on artwork analysis as well as on the overview of a selection of theories from the field of art education. Our aim is to show that, since the period of the *neo-avant-gardes* in the 1960s, contemporary art has been marked by initiatives for sustainability – identified under the large umbrella of terms such as 'artistic educational projects,' 'sustainable art and education' or 'intervention art.' Focused on developmental, creative and project-based learning, this part also formulates a critique of projects and practices that – although presenting the appearance of inclusive and reciprocal educative models – end up reiterating hegemonic cultural policy (Foster, 1995).

4.1. Introduction to artistic education for sustainability

As a starting point, it would be important to differentiate between sustainable art and ecologic art, as proposed by Artsper Magazine (2021) and Kagan (2014). While sustainable art is concerned mainly with social responsibility and inclusiveness on a global environmental scale – a direction that this article is focusing on -, ecological art is dealing mainly with specific material use.

Sustainable art is preoccupied with knowledge production and the understanding of environmental challenges, using the creative and applied tools that art offers for stimulating and practicing communitarian awareness and sensitivity to the environment. Sustainable artistic educative programs, workshops, collective artworks, performances aim to foster concrete involvement of the citizen. The ultimate aim is the restoration of social or ecological dysfunctions, remediation and the raising of public awareness (Fowkes and Fowkes, 2006).

Sustainable contemporary art has been a major preoccupation since the 1970s as can be observed in works of artists such as Walther de Maria, Dennis Oppenheim, Joseph Beuys (in the 1960s) and more recently Tadashi Kawamata, El Anatsui, Olafur Eliasson, Andy Goldsworthy, Thomas Hirschorn – to cite just very few. Prevalent in their approaches is the fact that the artist mounts collective actions that develop creative approaches to existing societal problems, with the aims of new skills development toward promoting a just, sustainable and non-hierarchic society, searching for the elaboration of micro-solutions for the improvement of environmental quality. Sustainable art has also a self-reflexive orientation, also problematising the impact of art production on a social, economic, biophysical level in the global world, an aspect that will be addressed further on.

Ecological art, on the other hand, is a genre of art and artistic practice that incorporates resources and ecology in its very body, using nature, natural materials, sustainable and vernacular techniques. As Tim Morton states, it 'includes its environments in its very form' (Morton, 2018, p. 52). Ecological art aims to preserve, remedy and/or vitalize earth's life forms.

4.2. Key positions in artistic education for sustainability

UNESCO's constitution goes back to 1945, right after the end of World War II. In 1954, UNESCO founded the International Society for Education Through Art (INSEA), dedicated from the beginning to art-education for peace, strategies to attain equitable societies, human rights and sustainability.

One of the most important figures of the contemporary history of arts, the critic Herbert Read, was elected president of INSEA at its founding (Steers, 2022). He launched the notion of education through 'living art,' intended for environmental and personal self-realization (Read, 1943) – an idea which considerably influenced the *neo-avant-garde*[3] and which manifested itself through concepts such as performance art, action art, happening etc.

Sir Herbert Read (1893–1968) explained the goals of what he called 'aesthetic education': learning natural communication, based on the individual's affiliation with the environment – something which he explained should be an essential component of children education. He stated the importance of the art of the present to serve to environmental global interests. The development of the human is seen by him as conjoined with the development of the environment, they are co-dependent and have to be thought of together. Art is seen as a tool that can merge the fields of contemporary humanism with environmental education.

One of UNESCO's first international conferences, where 20 countries convened, was entitled 'The Visual Arts in General Education' and was held in 1951 at the University of Bristol, England. This conference was followed by the founding of INSEA. Since then, INSEA's mission has been to promote art and artistic education for social transformation and to advocate education through art with the objective of achieving a more peaceful world, more equitable societies, and to build awareness of human rights (INSEA, 2022). These ideas

3 The Neo-avant-garde is considered to be a loose grouping of North American and Western European artists of the 1950s and '60s who reprised and revised the modernist avant-garde of the 1910s and '20s.

implemented by one of the most influential critics of art of that time, deeply shaped the conceptual content of the Land Art movement (Coutts and Torres de Eça, 2019). This movement operated an important shift from a thematic approach to nature to a vision of sustainability with a humanist, pedagogic and social orientation.

Beginning with the *neo-avant-garde*, institutional criticism progressively became associated with environmental awareness. Indeed, artistic education for sustainability can be also connected to what has been called the 'environmental turn' of the 1950–70s, from which other preoccupations such as 'engaged art,' postcolonial ecological critiques and the central notion of eco-justice further emerged. At that time, art started to be seen as action, performance and social critique, which were practiced often collectively. In the works of artists such as Allan Kaprow, Jospeh Beuys, Yoko Ono, Nancy Holt and Ana Mendieta, ecological awareness and the idea of sustainability were translated into social actions thought for food and other resource sharing in the context of expanding cities, performative collective actions in nature, where the audience becomes the co-author of the piece, gatherings to celebrate nature and artistic retreats. In all these actions, art is not concerned (as it was the case in previous decades) with the realization of an esthetically accomplished work, but with the transmission of knowledge, ecological education, learning alternative social models, sharing sustainable skill development, and practicing different forms of connecting collectively to nature.

These movements also had an activist component, militating toward collective ecological consciousness and transmitting micro-strategies for counter-acting the fast expansion of the capitalist consumerism and the exploitation of resources, especially in the United States. The artists Walter de Maria, Dennis Oppenheim and Robert Smithson are other significant names in this field connected to Land Art actions.

The end of the cold war in 1989 impacted art by generating a global awareness of ecological and social problems. Fowkes and Fowkes (2006) connected the urgency associated to the concept of sustainability to the end of the Cold War in 1989. It was associated at that time with a new awareness of the global character of ecological and social problems.

As Maja and Reuben Fowkes show in the first chapter of their recently appeared volume (Fowkes and Fowkes, 2022), starting in the 1990s, artists began to be increasingly identified as social actors, with the potential to practice, show and teach alternatives to the dominant ideological paradigms, to post-colonial exploitation and to politically motivated excessive resource exploitation.

In 2010, the theoretician Irit Rogoff launched the notion of an 'educational turn' in the field of art. Marked by a holistic approach to art, it is dedicated to highlighting the interconnectedness between global social and environmental phenomena. Art is perceived as a tool for social militancy, raising awareness toward the urgency of collective intervention (Stojanovic, 2017, pp. 58–60).

In the following, we will see some examples of how artists, often in cooperation with subcultural movements, have established parallel institutions (Bourriaud, 1998) – universities, summer schools, workshops, farms, and entire mini-communities – that challenge classical teaching and provide alternantive understandings of nature (Weintraub 2012). These creative ways of stimulating knowledge transfer are meant to offer functional alternatives to production processes in the global world, whilst stimulating a 'slow' efficiency and counteract performance optimization.

Kevin Hetherington's definition of the proximal knowledge best describes the meaning production in such actions: 'Proximal knowledge is unsightly. (…) Proximal knowledge is not necessarily representational at all, rather it is performative, multiple, and heterogeneous in its outcomes' (Hetherington, 2020, p. 21). Thomas Hirschhorn (born 1957 in Bern) is one of the most important exponents of these movements. His large-scale workshops, collective discussions in informal 'universities' and reading schools, his collective buildings and demolition processes are taking place in urban sub-cultural communities, in disadvantaged neighborhoods and in drug-dominated urban areas.

Using art practices in formal and non-formal contexts raising awareness of environmental education, the Spanish artist Lucia Loren is engaging collective learning processes for ecological justice. Contemporary art strategies (performance, creative expression, handicraft, workshop) promote in her work the awareness of social justice and ecological well-being. In her 2016 work 'Biodivers' in Valencia, she planted marigolds and lavender in an abandoned agricultural plot together with the local villagers. These plants are promoting the pollination of other plants, hence revitalizing a dry and non-utilized territory and introducing these two plants into the circuit of local production.

Another influential educational artistic project is *Sustainable Art School*, with a complex website gathering projects made all over the world and diversified partners. From collective projects, such as one focused on paper fabrication which uses a variety of techniques collected from all over the world and introduced in communities where book production was missing, this project merges actors and methodologies from education and contemporary arts.

Finally, in the European Project CREARTE, some teachers and artists from Cyprus and Portugal made similar projects addressing various issues related to the necessity of introducing creative pedagogy for children and involving primary schools in marine sustainability.

4.3. Critique of artistic projects in sustainable education

We hereby aim to give some possible answers to the question of how can sustainable art educators, artists or project managers use contemporary artistic strategies to challenge essentialist and opportunistic teaching situations. The question addresses the potential of participatory art forms to explore alternative and more sustainable conceptions of human subjectivity, beyond just reiterating political agendas that are not formulated on a bottom-up basis. How can art education work in favor of a sense of interconnectedness between the individual, the social and the environmental dimensions of being, without instrumentalising the social conditions found in the field and finally feeding back the cultural market system?

Starting in the 2010s, the critique of 'instrumental art' and of the artist as self-proclaimed representative of communities, became very present. Knudsen and Kølvraa (2021, p. 4 and 19) problematise artistic projects education as reiterating a position of power and cultural hegemony. Self-reflexive and critical theory de-conspired an artist who was assuming the role of 'saviour' of a community through artistic practice, producing an implicitly domineering discourse, formulating a utopia that results from an elitist social position, reproducing stereotyped ecological ideology.

As a concluding note, we would like to cite an innovative model of artistic educational project for sustainability: 'Cosmopolis' – a series

of 3 exhibitions that took place at the Pompidou Centre in Paris, in 2017–2019, curated by Kathryn Weir. This example captures the quintessence of the ideas discussed so far, as it fuses historic and recent practices in artistic sustainable education, incorporates a critical attitude toward the field's own ambiguities, and also proposes a truly innovative structure. Organized around a number of workshops/stations hosted in the exhibition space in the Pompidou Centre, it promoted different forms of knowledge exchange. The project was based on a year-long thematic research in different rural and urban locations and communities worldwide, and on building a solid and updated theoretical grounding of all the methodologies involved. The actions developed created a functioning network of knowledge and information transfer between the audience, the concerned communities, artist collectives, activist groups, citizens, curators, theoreticians and the Pompidou Centre, while the usual hierarchy of production (an art exhibition as outcome of an educational program) was diverted (Papastergiadis, 2018).

5. Conclusion

A few decades have passed since the concept of sustainable development was created. Since then, a young 21st century has seen new faces of globalization emerge – be they strictly neo-liberal or else more humanistic – and theorisations of sustainability have swung between the two. The recent COVID-crisis we have experienced worldwide raised – or justified – doubts concerning certain types of global practices, as well as concerns with the fact that efforts to make our societies more sustainable – including through education – had not succeeded. Re-adjusting our efforts to improve EfS is utterly topical and urgent. In the current context, thinking in terms of *alternative modernity* – as Santos had already advocated in 2006, presenting it as a new way of understanding and apprehending the reality that surrounds us – can help us in exploring the type of knowledge that is needed to improve our societies. These "epistemologies of knowledge" need to be recognized at multiple scales of our planet, societies, communities and individual experiences.

As Teodoro (2020, p. 18) explained, "we should consider a methodological strategy that enables us to take into account different levels of analysis, namely: the supra-national, focusing on international orientations of educational policies; the national, centred on specific cases of national member states and their interpretations and strategies of [more global] educational policies; the institutional, addressing specific educational institutions; and finally, the individual level of analysis, which allows us to explore the ways individuals deal with the changes taking place in educational policies."

In this article, we suggested three avenues that could help in transforming EfS at multiple levels whilst allowing different ways of approaching learning methods as well as social transformations that are context and cultural dependent. Whilst, at a planetary level, GCE (explored in Section 2.) interweaves the UN sustainability and educational agendas, deepens our knowledge about possible framings of sustainability and offers alternative understandings of globalization and common(s) routes, territorial and experiential learning (in Section 3.) and artistic education for sustainability (in Section 4.) reach out for the territorial and personal scales and for practical examples of educational and artistic approaches in sustainability. A multitude of initiatives have been suggested, carried out, and experimented on. Although we mentioned some of them in this article, many more exist that deserve paying attention to and drawing lessons from. To some extent, it feels like the time when the drive behind designing EfS was very conceptual and homogenized is over. It is now time to integrate various more practical, 'experienced' and context-based types of learning as prime sources of inspiration to carry on improving EfS and adapting it to a fast changing world. More research is needed on such approach. This, we emphasize, will not only help us in advancing research in education, but it will also help us to understand better what 'sustainability' means, for whom, and its links with 'global citizenship.'

A potential opening to our reflection is therefore that global citizenship, as opposed to a homogenized neo-liberal model of development, might be particularly helpful in carrying the sustainable development goals through to operationalisation. Indeed, it might facilitate their integration into new types of learning processes (experiential, place-based, and/or artistic) that resonate better for both learners and educators and feel therefore more meaningful and worthy of being embraced in the future.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Author contributions

SS took the lead in structuring the manuscript. Each author elaborated a particular part (conceptualization and investigation): IV developed section 2, SS developed section 3, and MJ developed section 4. IV reviewed and edited the text. All authors approved the final version of the manuscript.

Funding

Authors' work benefited from the FCT grant (UI/BD/150716/2020) and the COFAC work contracts COFAC/CeiED-ECIJ/0001/2020 and COFAC/CeiED-ECIA/0002/2020, besides the institutional support granted by CeiED through FCT funding (UIDB-4114-2020).

Acknowledgments

The authors express their thanks to Lusófona University which hosted the PhD seminar *Global citizenship, territorial education and art forms for Sustainability* that they designed and taught in July 2022 and from which this article emerged. A warm thank you to António Teodoro for challenging and supporting us to elaborate this article.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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