AUTHOR:

Prof Alessandra Viviani<sup>1</sup>



AFFILIATION:

<sup>1</sup>University of Siena

DOI: http://dx.doi. org/10.18820/2519593X/pie. v40.i3.9

e-ISSN 2519-593X

Perspectives in Education

2022 40(3): 132-145

PUBLISHED:

30 September 2022

RECEIVED:

04 March 2022

ACCEPTED:

03 August 2022

# Inclusion and education for sustainable development: the experience of the University of Siena

#### **Abstract**

According to SDG 4.7, by 2030 all learners will "acquire the knowledge and skills needed to promote sustainable development, including 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". Since 2009, with the establishment of the Working Group on Good Practices for Sustainable Development at the University of Siena has worked to raise awareness and promote good practices for the sustainable development: the campus became carbon neutral, it encouraged sustainable mobility, it tried to put the 2030 Agenda goals into practice, and it expanded the educational activities on sustainability themes. This paper will focus on the educational proposals of the University of Siena with specific reference to the promotion of inclusive societies and development of skills in sustainable development (SD) and global citizenship. In this context the University of Siena has activated courses and participates into projects to promote dialogue on the above-mentioned issues, to ensure a more sustainable future. Along this pattern, for example, the University of Siena has organized two multidisciplinary courses on sustainability and gender discrimination and violence. In order to increase sustainable development competencies for students and staff, it promotes practices on sustainability internally as well as in its relationship with other stakeholders. The University, through its project EDU4SD, addressed to schools, aims at disseminating Agenda 2030 SDGs to promote EU values and fundamental rights through educational tools based on empathy and emotional intelligence. All these experiences demonstrate the potential of a multidisciplinary and holistic approach to SD education, based on non-formal and transformative learning methodologies to enhance inclusive societies.

Keywords: social inclusion, sustainable development, education, higher education

#### Introduction

Today's world is facing unprecedented global challenges, the ongoing global Covid-19 climate change and economic crisis, the rise of populist, and xenophobic and racist ideologies. These complex phenomena require awareness and sense of responsibility for transforming our world for a more sustainable future for all citizens.

The UN 2030 Agenda on Sustainable Development, which was adopted by the UN General Assembly in 2015, represents the global blueprint of this transformation and includes all three dimensions (economic, environmental, and social) of sustainable development, adopting a holistic approach (Sachs, 2012). The 17 Sustainable Development Goals (SDGs) and their 169 associated targets, which represent the content of the Agenda, are global by nature, universally applicable and interlinked. The 2030 Agenda recognises that all States, notwithstanding their diverse characteristics, share the responsibility for conquering the Goals. For the first time, this document enshrines an international consensus according to which peace, security, justice for all, and social inclusion are an essential element of SD. There is therefore no doubt that the idea of social inclusion becomes crucial to the achievement of sustainable development, which calls for the engagement of all sectors of society.

Global mobilisation that sees individual citizens as protagonists alongside institutions and private sectors, both locally and globally, is thus necessary. Ours and future generations will necessarily have to defeat extreme poverty, mitigate climate change, and reduce all forms of inequality, keeping the bar straight towards an economic system capable of responding to social and environmental needs.

In this context the presence of the theme of education as one of the pillars of Agenda 2030 does not come as a surprise. SDG N°4, on quality education and, more specifically, Target 4.7, stresses the necessity for all learners to "acquire knowledge and skills needed to promote sustainable development, including among others ... human rights, gender equality ... global citizenship, and appreciation of cultural diversity ..." as a key factor for quality education.

In other words, the promotion of sustainable development and social inclusion values depends upon education (Agbedahin, 2019). Recent research demonstrates, for example, that better educated persons, notwithstanding their nationalities, tend to consider climate change as a serious concern (Fagan & Huang, 2019) and to act accordingly (Gould, et al. 2018). At the same time, other researchers have shown that increasing the level of education in a population makes them less vulnerable to climate change impacts (O'Neill et al., 2020) and contributes to the adoption of mitigation strategies at global level (Cordero, Centeno & Todd, 2020).

Recently the international conference organised in June 2021 by the European Training Foundation and UNESCO, in collaboration with the International Labor Organization (ILO), the European Bank for reconstruction and Development (EBRD) and UNICEF, "Building lifelong learning systems: skills for green and inclusive societies in the digital era",1 has made evident that the challenges brought in our lives, including the effects of the Covid 19 pandemic, require "changes in values, mind-sets, attitudes" to make sure that all contribute to and benefit from these changes. There is thus a need to promote the competences of all learners to be able to act as responsible citizens, aware of their roles as consumers and as members of the process leading to more sustainable and inclusive societies, without focusing only on environmental education (Short, 2009)

<sup>1</sup> The conclusions of the Conference are available at https://www.etf.europa.eu/sites/default/files/202112/ skills\_for\_green\_and\_inclusive\_societies\_conference\_conclusions.pdf.

In this paper, with specific reference to the activities promoted at the University of Siena, we shall point out that, notwithstanding the great and often successful efforts of the university to include sustainability in its strategies, there is still room for improvement, in particular concerning the efforts towards global citizenship and democracy education as a part to education for sustainable development (ESD) (Chang, Kidman & Wi, 2020).

## 2. Education for Sustainable Development

Agenda 2030, as stated, envisages to address the inequal conditions existing in our communities, including higher education, that put certain social groups at a disadvantage. It aims at creating an egalitarian society and it brings the notion of SD at the core of democratic systems, considering people's participation instrumental to ensure an all-inclusive society.

An inclusive community where no one is left behind is something that needs time and profound societal transformations, to be achieved. It is a process in which education is the key to success. Thus it becomes important to define how education can contribute to SD, which kind of ESD the Agenda 2030 wishes to promote, and what role higher education institutions can play. In such a perspective, ESD must not be intended as the transfer of knowledge from teachers to students, nor the acquisition of technical skills, but rather the process aimed at the development of each and every diverse individual's potential.

Although there is a relevant debate on what the most apt pedagogical approaches to ESD are (Huckle & Wals, 2015), there is general consensus on the need to promote active, experiential and participatory learning, to enable learners to make a real difference not only in understanding the complexity of SD, but also on acting towards transforming societies.<sup>2</sup> To reach this ambitious goal, themes such as poverty alleviation, global citizenship, democracy, justice, gender equality and the fight against discrimination represent the pillars to any action undertaken in the field of ESD.

The relevance of ESD is demonstrated at international level by several recommendations such as those adopted at the 2012 United Nations Conference on Sustainable Development (Rio+20) (Hopkins, 2012). Since the UN Decade of Education for Sustainable Development (2004-2015)³, UNESCO has launched a programme aimed at reorienting education systems towards sustainable development through its Aichi-Nagoya Declaration on Education for Sustainable Development. The Declaration recognised ESD as transformative element of quality education and means that "can empower learners to transform themselves and the society they live in by developing knowledge, skills, attitudes, competencies and values required for addressing global citizenship and local contextual challenges of the present

<sup>2</sup> This is clearly stated in the Resolution by UNESCO, titled "Global Action Programme" (A/RES/69/211).

<sup>3</sup> Numerous documents and reports by UNESCO clarify the relevance of ESD as a general perspective. See, for example, 1997. Education for a sustainable future: A transdisciplinary vision for concerted action. 2007. The UN Decade of Education for Sustainable Development (DESD2005–2014): The first two years; 2009. Bonn Declaration at the UNESCO World Conference on Education for Sustainable Development; 2014. Roadmap for implementing the global action programme on education for sustainable development; 2016. Global education monitoring report. planet: education for environmental sustainability and green growth; 2017. Education for sustainable development goals: learning objectives.

and the future".4 In the following years, the attention, by both UNESCO5 and the Council of Europe, was more precisely focused on the idea that ESD must go hand in hand with Global Citizenship Education (GCE) (Sant, 2018) and Education to Democratic Citizenship (EDC) (McEvoy, 2016)<sup>6</sup>. These are necessary features to reach Goal 4 of Agenda 2030 (Chiba et al. 2021)7 and to encourage learners to take transformative actions towards a sustainable world that starts with individual change of attitudes and behaviours.8

The need for transformative learning and transformative actions is particularly acute when looking at existing social challenges. In line with the idea that the overall objective of Agenda 2030 is "to leave no one behind", the promotion of GCE and EDC refers to the possibility for all learners to develop a sense of belonging to a broader community acting and relating towards others with attitudes and skills based on universal values and respect for diversity9 (Campbell & Covell, 2001). Although there is an ongoing debate on the relationships between ESD and GCE, EDC and environmental education (EE) (Wade, 2008), we consider that ESD represents a sort of umbrella framework that needs to include the other dimensions of education towards transformation fostering social inclusion (Nevin, 2008). Taking a different approach would entail a misrepresentation of what ESD is about, for it would underestimate the holistic vision embedded in the very concept of sustainable development and the relevance of societal challenges enshrined in Agenda 2030 (Khoo & Jørgenson, 2021).

It has been observed that "ESD involves controversial issues, complexity, transdisciplinary approach, system thinking methods, principles and values" (Diemer et al., 2019) and today more than ever needs to focus not on the development of individuals but rather on the individual in connection with others (Biesta, 2011). It is necessary to continue to stress the relevance of ESD and GCE as instruments "to combat isolationism ... and focus on the interconnectedness of the world and develop global awareness ... At the core of global citizenship education is a recognition of our world's shared humanity" (Barrow, 2017).

Todays' bigger challenge for ESD is the threat represented for the road towards sustainable development by the pandemic of inequalities. To address such a challenge human rights and democracy education cannot be seen as a 'side' content of ESD (Andić et al., 2021) but need to become more and more the core of it.

- 4 This has been affirmed clearly during the UNESCO World Conference held in 2014 in Aichi-Nagoya, which produced the Aichi-Nagoya Declaration on Education for Sustainable Development.
- 5 The action of UNESCO in the field of ESD and GCE has been particularly relevant in recent years See 2019. Educational content up close. Examining the learning dimension of education for sustainable development and global citizenship education; 2019. UNESCO Education strategy 2014-2021; 2019. International forum on inclusion and equity in education: The Cali commitment to equity and inclusion in education; 2020. Education for sustainable development: A roadmap; Towards inclusion in education: status, trends and challenges: The UNESCO Salamanca Statement 25 years on; 2021 World Conference on Education for Sustainable Development.
- 6 Council of Europe, Learning to live together: Council of Europe Report on the state of citizenship and human rights education. See also European Commission, European Education and Culture Executive Agency, Report on Citizenship education at school in Europe, 2017.
- 7 This was also reaffirmed in the Muscat Agreement adopted during the UNESCO Global education for All Meeting in May 2014.
- 8 In this framework, UNESCO, has made Education for SD and Global Citizenship Education as key education objectives for the years 2014-2021.
- 9 Within the European framework, Education's key role against the rise of violence, racism, extremism, xenophobia and discrimination e and in ensuring sustainable development and sustainable lifestyles is reflected in the Europe Charter on Education for Democratic Citizenship and Human Rights Education, adopted by the CoE's 47 member states (Recommendation CM/Rec (2010)7).

From this point of view, it is important to reaffirm that GCE, as part to ESD, promotes the empowerment of citizens "caring for and caring about all of humanity" (Noddings, 2005). In the process of identifying the scope of ESD, the democratic perspective is therefore essential, since it stimulates learners to discuss values, norms and standards, giving them the possibility to critically reflect upon such values (Ohman, 2008). In this wide perspective, ESD represents an essential tool towards social inclusion. On the one hand, it contributes to the full development of learners' potential as active citizens (Pooley & Connor, 2000); on the other hand, it has an effect on the educational environment, by producing paths towards a better inclusion of learners belonging to vulnerable groups.

Finally, it is relevant to recognise that ESD, in its broader meaning, requires a conscious and continuous effort by education institutions. It necessitates a curriculum reform as well as the creation of spaces, both physical and virtual, where ESD can happen, and students can participate actively, also using non-formal education methods and innovative learning tools (Guimarães & Finardi, 2021).

Research on the field of ESD in higher education to evaluate its use and its results is still largely incomplete, even though at school level some preliminary steps seem to have occurred (Viviani, 2018). The analysis of the activities of the University of Siena in this field represents a good example of how the implementation of ESD can be a challenge, even in a case where the attention to sustainable development is particularly strong.

## 3. The University of Siena and its road towards sustainable development

As stated above, in order to analyse the role that ESD has in the life of higher education institutions, we are going to discuss the approach adopted at the University of Siena towards sustainable development. In this context, the actions undertaken in Siena will be examined looking at the three main areas of activity: research, teaching and public engagement. As we are going to see, the University of Siena is active in all these three areas. At the same time, we are going to argue that in the field of teaching, which is in our opinion more directly connected with ESD, the adopted tools need still to be improved.

The first document certifying the presence of a Stadium in Siena dates back to 1240, and it indicates the direct organisation of the University by the Municipality. The University and the city have since grown together in almost eight centuries of common history, reinforcing each other and contributing to mutual success and prestige. Today, Siena's historic city centre represents the natural campus for its university, where thousands of students live mixed with the local population. During its long history, the University has pursued, achieved and consolidated quality objectives in teaching, in research and attractiveness to students from all over Italy and the rest of the world.<sup>10</sup>

The University of Siena is strongly engaged in the dissemination of the 'culture of sustainability', which is one of the directrices of its strategic plan, having regard to the most deeply felt issues relating to the carbon neutrality, the rational use of water resources, the impact of production systems and lifestyles on climate changes, the relationships between pollution, land, and conservation of natural resources. In this direction, the focus is on the conservation of the territory and the landscape, thanks to the strong bond of the University

<sup>10</sup> Of the approximately 16 thousand students, 50% come from outside the region, with a consistent contribution (9%) of foreigners, placing the institution among the top five Italian generalist state universities for students' attractiveness.

with the city, which springs from deep historical roots and from the impact that the institution and its students have on a small city like Siena. (In fact, the students comprise a quarter of the city population during the academic year.)

In promoting this cultural transformation, the involvement of citizens must be considered strategic and essential, and the University pursues it through thematic seminars, videos and lectures, during which both children and adults, as well as students and staff, can speak with researchers on the various aspects of sustainable development.

It must be noted that the University of Siena was among the first universities to promote studies and research in the field of sustainability. Already at the beginning of the 1980s, scholars of this topic were active in various disciplines. Among these, Enzo Tiezzi, chemist, (e.g. Tiezzi, 2003) highlighted the need for human society to move towards biological equilibrium (the word 'sustainability' would appear only three years later), and Alessandro Vercelli, economist, who solicited the attention of his discipline for environmental issues. At the beginning of the 90s, the two scholars, along with others, began an interdisciplinary study path on sustainability, which today is still very relevant for the University of Siena's research (e.g. Vercelli & Borgehsi, 2012).

Thanks to its history and its current skills, the University of Siena has been entrusted with the coordination of multiple initiatives aimed at advancing sustainable development goals both globally, nationally and locally, such as:

- (global level) UN SDSN Mediterranean (SDSN 2022), reference centre for the entire Mediterranean area of the Sustainable Development Solution Network of the United Nations (UN SDSN);
- (national level) Italian Secretariat of PRIMA Partnership for Research and Innovation in the Mediterranean Area (PRIMA, n.d.). It is the connection point between the world of research, innovation and the new generations of entrepreneurs and aims at enhancing knowledge and the productions of the agri-food sector from the point of view of quality, sustainability and perceived value (prima-med.org);
- (local level) Carbon Neutrality Siena Territorial Alliance (2020), which aims at maintaining and improving the province's greenhouse gas neutrality status (www.siena2030.org), through a project whose objective is to collect and estimate useful indicators for monitoring the province of Siena.

The relevance of sustainability as one of the strategic directrices of the University of Siena has been indicated in explicitly the University's planning documents for the last decade. A similar vision obviously resulted in adoption of numerous 'sustainable behaviours' that have been reported on the university's sustainability annual report since 2020.

The commitment of the University of Siena for all dimensions and issues related to sustainability is proven by the numerous and consolidated activities that it has today as one of the leading universities in promoting sustainable development through research, education, and mission.

Looking at research, for example, comparing the data on publications by researchers at all Italian universities (regardless of their dimension and therefore extending the comparison also to the large universities that have a much higher number of researchers), the University of Siena is in second place on publications on Ecological Economics and Emission Trading issues.

The attention to education on sustainability issues has been growing in recent years. More than 60 teaching courses in 25 different degree courses of 12 different departments of the University of Siena are dedicated to training their students in sustainable development issues (both in Italian and English). In addition, four master's degree programmes are entirely dedicated to sustainability in different areas:

- Ecotoxicology and environmental sustainability
- Economy for the environment and sustainability
- Social sustainability and welfare management
- Sustainable industrial pharmaceutical biotechnology

In addition, a School on Sustainable Development that organises summer courses has been created to meet the growing needs of specialist skills in the field of sustainable development and at the same time adapting to the most modern forms of interaction and didactic and scientific collaboration both online and in presence. The School pursues high-level skills that can contribute and strengthen the transformation process in the key sectors of sustainable development, focusing on the basic knowledge on the theories of sustainability, the history of sustainable development and the 2030 Agenda Goals. The School is organised by ASviS Italia in collaboration with Enel Foundation, Leonardo Company, RUS – Network of Universities for Sustainable Development, SDSN Italy, SDSN Mediterranean, thus giving the opportunity to the university to reach out and cooperate with other society's stakeholders.

In order also to enhance the awareness of all the academic community on sustainability issues, the University promotes a series of internal initiatives, for instance, the installation of dispensers for the distribution of drinking water in departmental structures, thanks to the partnership with the local water company and with the Municipality of Siena. With the same approach, the University has joined the National University Mobility Manager Coordination, an integral part of the RUS – Network of Universities for Sustainable Development, supporting sustainable mobility initiatives, including a public-transport season ticket agreement for all university employees, and car-sharing services.

The University also contributes to raise awareness and increase the percentages of separate waste collection in its buildings, equipping them with special containers as well as devoting particular attention to the management of special waste (such as used toner for printers and electronic and hardware waste).

The role of the University as a promoter of a culture of sustainability reaches outside its buildings. In this sense, the University is constantly engaged in organising numerous and heterogeneous non-profit initiatives aimed at communicating and sharing the benefits of research with the overall community. Numerous initiatives are therefore implemented promoting knowledge transfer, with specific reference to sustainable development issues, large participation of citizens through conferences, public debates and workshops.

A very good example of this effort is represented by the video "From Agenda 1338 to Agenda 2030: good governance and the SDGs in a fresco"11. On the occasion of the Siena Food Innovation Festival, the Santa Chiara Lab of the University of Siena in 2017 produced a video that identifies the 17 Sustainable Development Goals in the fresco 'The allegory of good and bad governance'12 by Ambrogio Lorenzetti, which is in the municipality palace in the

<sup>11</sup> https://www.facebook.com/mufpp/videos/the-good-government-and-the-sdgs/1558307484248675/

<sup>12</sup> https://youtu.be/TjQuLdfbE1Y

central square of Siena. One of the most important civic fresco cycles dating from the Middle Ages, the 1338 fresco by Lorenzetti concerning the consequences of good governance on the city and the countryside is a real political manifesto, highlighting the search for good governance and the common good, as the subordination of private interest to that of the community. The painter dedicated himself to these themes painting their abstract principles and effects, including, in his work, philosophical references that could only be fully interpreted and appreciated by the most educated, but at the same time, using many details of daily life and making the content immediately understandable, even for the less educated public. Indeed, the fresco is a true 'Agenda 1338', and thanks to its communicative effect and the artist's reflections on universal concepts today it is possible to look at the work as an iconographic map where the 17 key Goals of the 2030 Agenda can be found.

In July 2022, the University took part in the organization of CoversAzioni Carbon Neutral a series of event, including workshops with experts. Laboratories for children, concerts and exhibitions engaging the whole town in themes concerning carbon neutrality for three days.

## 4. The University of Siena and the social dimension of sustainable development

As noted in the previous paragraph, in the last decade, the action of the University to promote a culture of sustainability within and outside the academic community has been particularly relevant. The focus on environmental issues characterises most of the adopted measures and initiatives, both in terms of research and education.

At the same time, it must be outlined that the values of the social dimension of sustainability, in particular the values of inclusion, are also part of the picture. In this context we can mention a series of initiatives - including financial support - to facilitate the access to study for students belonging to socially disadvantaged groups, for example through devoted scholarships. Within the same approach the University has created services to support students with special learning needs and other disabilities through its dedicated office. Moreover, a special administrative unit for the welcoming and the inclusion of refugee students and asylum seekers has been created, together with other specific dedicated initiatives. For example, UNISI CARES, present since 2015, in collaboration with a group of university experts, offers advice and information and/or training support, free of charge, by intervening at the request of the subjects and institutions that are at the forefront of reception policies in the area. The University also has adhered to the network of 'Universities for Peace' promoted by the CRUI (the Conference of the Rectors of Italian Universities) with the aim of spreading the culture of peace and of increasing the positive effects of the actions implemented by the members of the network, especially in terms of refugees welcome.<sup>13</sup> To implement this project, the University has created its own 'Just for Peace' desk, which takes care of the refugee students during their studies.

The University has also adopted a series of measures and actions aimed at ensuring the development of inclusion practices also in the field of discrimination based on national, ethnic, and religious origin or in matters of gender identity and sexual orientation. The presence of a service such as 'The listening desk' is of particular importance and anyone can access for personal support, to a place where the culture of inclusion is cultivated for all.

<sup>13</sup> The University of Siena is among the founding universities (February 2019) of the national section of Scholars at Risk (Sar), the international network promoted by the universities of Padua and Trento which works for the protection of scholars whose freedom of research and teaching is precluded in their respective countries.

The University has also implemented the internal Guarantee Commission (CUG) that is formed by both staff and academics and aims at evaluating practices and initiatives in terms of welfare of the employees and fight against discrimination. To reach this goal an external Guarantor has also been appointed with the task of receiving individual complaints on discrimination cases.

As we can see form the above, the University is certainly acting as a player in the field of social inclusion, within and outsides its rooms, but this social dimension is not focusing on educating students.

## 5. ESD at the University of Siena

As we have stated above, ESD is a complex endeavour,14 which needs to encompass not only the transfer of knowledge on the various dimensions of sustainable development, but also the awareness, skills and attitudes that lead to personal and community transformation. The University of Siena, as we have seen, works seriously on the environmental dimension of education to sustainable development. At the same time, this per se is not enough to produce the needed transformative personal attitudes capable of fostering social inclusion.

The concept of social inclusion at higher education level is a two-faced coin: it looks at the inclusion of marginalized groups within academic life (students with disabilities, migrants, persons belonging to several vulnerable groups); it raises awareness and understanding on the actions needed to fight exclusion and discrimination within society at large. For higher education institutions to participate in the efforts towards sustainable and inclusive societies both coins need to be represented in university life.

The question is therefore whether the University of Siena is taking both faces of the coin seriously. It is surely so in the case of contributing to inclusion of marginalized groups. Although such activities can always be increased, a lot has been done in recent years. At the same time, as we have already affirmed, it seems that the face of the coin concerning education towards social inclusion not so prominent.

As stated above, ESD needs to embed activities related to GCE and DE. This holistic approach has somehow been partially adopted at the University of Siena in the various activities that have been carried out in recent years. For the first time, in the academic year 2013/2014, the University activated a multidisciplinary course called Sustainability which is addressed not only to the overall academic community (students and staff), but also to interested citizens. The idea of the course is to provide the basis for understanding the problems related to sustainability, in all its aspects, analysing the environmental, economic, financial, social and institutional frameworks of sustainable development. Within this multidisciplinary approach the course focuses on the interconnected aspects of sustainable development and devotes relevant attention to the themes of social inclusion. The course was also awarded in 2017 as Best Practice in Higher Education by the Italian University Network for Sustainable Development (RUS) and has been attended so far by several hundreds of participants.

The multidisciplinary course was, back in 2013, quite a novelty for higher education institutions in Italy and it has been followed by many other experiences nationwide. In addition to this experience, since the academic year 2018/2019, a new multidisciplinary course has been launched. In this second example the focus of the course is on the more specific aspects related to Goal 5 of Agenda 2030 on gender equality. Also in this case, the course is open to

<sup>14</sup> All the activities led by UNESCO are moving in that direction, as it has been reaffirmed also in 2021.

both the academic community as well as citizens and public administrators. The approach is to consider sustainable development from the perspective of gender mainstreaming as one of the most relevant issues to be addressed, especially in Italy, in terms of social inclusion and achievement of Agenda 2030 Goals.

More interestingly still, in 2018, the University of Siena launched EDU4SD. This project comprises various steps and activities enhancing the dissemination of the contents of Agenda 2030 and the acquisition of specific knowledge on the issues of environmental, economic and social sustainability, with particular regard to Goal 2 (Hunger zero), 4 (Quality Education) and 12 (Responsible Consumption and Production). The course was designed as a training for secondary school teachers and was organised in two parallel paths on content and methodologies. Content was provided through lectures given by academics on specific aspects of Agenda 2030 concerning the environment and pollution, the structure of Agenda 2030, education as a human right and the role of non-discrimination. At the same time, the methodological path was based on the use of non-formal education tools, specifically devoted to the development of transversal skills such as teamwork and emotional intelligence.

A second step within the EDU4SD project was the production of a handbook on Agenda 2030 main issues addressed mainly to secondary school students. The book, divided into 17 chapters, focused on the concept that each of the 17 Goals of the Agenda has a strong connection with daily life and contemporary relevant issues. The book was published in 2021 in cooperation with ASviS, the Italian Alliance for sustainable development (Giovannini & Riccaboni, 2021).

Finally, as a third step, EDU4SD established a Peer Education project connecting university students to secondary schools in 2019. A group of university student tutors are selected from various degree courses. The tutors are chosen according to their competences and commitment to sustainable development. Following the selection, they take part in a short, dedicated training session which equips them with the necessary skills to carry out workshops in secondary schools on Agenda 2030. Each pair of student tutors will meet different secondary school classes and will realise workshops based on a training model that presupposes the use of experiential and non-formal learning methodologies, while discussing issues related to environmental protection and social inclusion. The aim of the peer education workshops is to allow pupils to develop their transversal skills and actively participate in the educational process, sharing ideas and objectives, working in groups, and learning to express their opinions freely, developing transversal skills such as critical thinking, teamwork, emotional intelligence, while addressing the complexities of sustainable development and Agenda 2030 (De Vreede, Warner & Pitter, 2014). Although in 2020, due to the COVID 19 school closures, the project was suspended, it started again this year with great participation from many local secondary schools. The results of this project are very encouraging. The response from both university and school students demonstrates once again the validity of the holistic approach to ESD and the necessity to stress the need for combining GCE, EDC and human rights education, together with raising awareness on environmental concerns. At the same time, the adopted methodology focused on experiential and transformative learning, the use of non-formal education tools and the development of transversal skills on emotional intelligence and empathy seem to be particularly effective in reaching the objectives set by Target 4.7 of Agenda 2030 (Heidenreich & Breukers, 2020).

Despite these encouraging results, the mentioned activities are still based on the efforts of individual researchers and teachers and have yet to produce a systemic impact on the University's strategy towards sustainable development. Notwithstanding this positive approach, by and large the academic community, in fact, continues to be convinced that ESD is mainly about transferring knowledge focused on environmental and economic issues. The possibility of ESD to become an integral part of all students' curricula is still far from being achieved. This is even more the case if we look at ESD in the sense of raising awareness and understanding on the actions needed to fight exclusion and discrimination. Only a small minority of students, for example, chose to take part to the EDU4SD project or to other trainings on non-discrimination organized within the framework of Erasmus Plus Strategic Partnership projects. Moreover, there is no strategic attention towards these themes as essential parts to renewed curricula.

The idea that ESD is an integral part of higher education institutions' efforts to promote social inclusion within and outside classroom has yet to find solid ground for its development. Universities seem to still believe that promoting the respect for democratic values and nondiscrimination, which are essential elements to social inclusion, is outside their core scope.

The international awareness clearly demonstrated by the continuous and steady efforts by UNESCO as well as by the Council of Europe or the European Commission have yet to show an effective impact on educational systems, especially on higher education. There is still a distance between what happens outside the ivory tower of academia and the real word. Researchers do make enormous progress in the analysis and definition of sustainable development phenomena, but at institutional level there seem to be less concern in transforming these results into societal changes through the means of a systematic use of EDS instruments.

#### REFERENCES

Agbedahin, A.V. 2019. Sustainable development, Education for Sustainable Development, and the 2030 Agenda for Sustainable Development: Emergence, efficacy, eminence, and future. Sustainable Development, 27(1): 1-12. https://doi.org/10.1002/sd.1931

Anđić, D., Rončević, N., Biasutti, M. & Vukelić, N. 2021. Education for Sustainability, Peace, and Global Citizenship: An Integrative Approach. Education Sciences, 11(8): 430. https://doi. org/10.3390/educsci11080430

Barrow, E. 2017. No global citizenship? Re-envisioning global citizenship Education. In times of growing nationalism. The High School Journal, 100(3): 163-165. https://doi.org/10.1353/ hsj.2017.0005

Biesta, G.J.J. 2011. Learning democracy in school and society: Education, lifelong learning, and the politics of citizenship. Rotterdam, Springer.

Campbell, K.M. & Covell, K. 2001. Children's rights education at the university level: an effective means of promoting rights knowledge and rights-based attitudes. The International Journal of Children's Rights, 9(2): 123. https://doi.org/10.1023/A:1015156001438

Carbon Neutrality Siena Territorial Alliance (2020) Available at https://www.carbonneutralsiena. it/en/ [Accessed on 25 September 2022].

Chang, C.H., Kidman, G. & Wi, A. 2020. Education for sustainability - where do we go from here. In: C-H. Chang, G. Kidman, & A. Wi (Eds). Issues in teaching and learning of education for sustainability: theory into practice, 180-191. Abingdon: Routledge. https://doi. org/10.4324/9780429450433-14

Chiba, M., Sustarsic M., Perriton S. & Edwards B. 2021. Investigating effective teaching and learning for sustainable development and global citizenship: Implications from a systematic review of the literature. International Journal of Educational Development, 81: 102337. https:// doi.org/10.1016/j.ijedudev.2020.102337

Cordero, E.C, Centeno, D. & Todd, A. 2020. The role of climate change education on individual lifetime carbon emissions. PLoS ONE, 15(2): e0206266. https://doi.org/10.1371/journal. pone.0206266

Council of Europe.2017. Learning to live together: Council of Europe Report on the state of citizenship and human rights education in Europe, Strasbourg.

De Vreede, C., Warner, A. & Pitter, R. 2014. Facilitating youth to take sustainability actions: the potential of peer education. The Journal of Environmental Education, 45(1): 37-56. https:// doi.org/10.1080/00958964.2013.805710

Diemer, A., Ndiaye, A., Khushik, F. & Pellaud, F. 2019. Education for sustainable development: a conceptual and methodological approach. Social Science Learning Education Journal, 4: 43-51.

European Commission. 2019. European Education and Culture Executive Agency, Citizenship education at school in Europe, 2017, Publications Office, https://data.europa.eu/ doi/10.2797/818387

Fagan, M. & Huang, C. 2019. A look at how people around the world view climate change. https://www.pewresearch.org/fact-tank/2019/04/18/a-look-at-how-people-around-the-worldview-climate-change/

Giovannini, E. & Riccaboni, A. (Eds). 2021. Agenda 2030: un viaggio attraverso gli Obiettivi di sviluppo sostenibile. ASviS e Santa Chiara Lab. Roma: Asvis.

Gould, R.K., Ardoin, N.M., Thomsen, J.M. & Wyman, R.N. 2018. Exploring connections between environmental learning and behavior through four everyday-life case studies. Environmental Education Research, 25: 1-27. https://doi.org/10.1080/13504622.2018.1510

Guimarães, F.F. & Finardi, K.R. 2021. Global citizenship education (GCE) in internationalisation: COIL as alternative. Thirdspace, Globalisation, Societies and Education, 19(5): 641-657. https://doi.org/10.1080/14767724.2021.1875808

Heidenreich, S. & Breukers, S. 2020. Who is telling whose story? The effectiveness of peerto-peer approaches as inclusive participatory interventions towards sustainability. Sustainable Production and Consumption 21: 216-227. https://doi.org/10.1016/j.spc.2019.10.001

Hopkins, C. 2012. Reflections on 20+ years of ESD. Journal of Education for Sustainable Development, 6(1): 21-35. https://doi.org/10.1177/097340821100600108

Huckle, J & Wals, A.E.J. 2015. The UN Decade of Education for Sustainable Development: business as usual in the end. Environmental Education Research, 21(3): 491-505. https://doi. org/10.1080/13504622.2015.1011084

Khoo, S. & Jørgensen, N. 2021. Intersections and collaborative potentials between global citizenship education and education for sustainable development. Globalisation, Societies and Education, 19(4): 470-481. https://doi.org/10.1080/14767724.2021.1889361

McEvoy, C. 2016. Historical efforts to implement the UNESCO 1974 Recommendation on Education in light of 3 SDGs Targets UNESCO Recommendation concerning Education for International Understanding, Co-operation and Peace, and Education relating to Human Rights and Fundamental Freedoms (1974). Paris: UNESCO.

Nevin, E. 2008. Education to Sustainable Development. Policy and Practice: A Development Education Review, 6: 49-62. Spring.

Noddings, N. 2005. Global citizenship: Promises and problems. In: N. Noddings (Ed). Educating Citizens for Global Awareness, 1-21. New York, NY: Teachers College Press.

Ohman, J. 2008. Environmental ethics and democratic responsibility - A pluralistic approach to ESD. In: Öhman, J (Ed). Values and democracy in education for sustainable development. Contributions from Swedish Research. Malmö: Liber AB.

O'Neill, B., Jiang, L.K.C.S., Fuchs, R., Pachauri, S., Laidlaw, E., Zhang, T., Zhou, W. & Ren, X. 2020. The effect of education on determinants of climate change risks. Nature Sustainability, 3: 7. https://doi.org/10.1038/s41893-020-0512-y

Pooley, J.A. & O'Connor, M. 2000. Environmental education and attitudes: emotions and beliefs are what is needed. Environment and Behavior, 32(5): 711-723. https://doi. org/10.1177/0013916500325007

PRIMA (n.d.) Partnership for Research and Innovation in the Mediterranean Area. Available at https://primaitaly.com/ [Accessed 17 September 2022].

Sachs, J.D. 2012. From millennium development goals to sustainable development goals. Lancet, 379: 2206-2211. https://doi.org/10.1016/S0140-6736(12)60685-0

Sant, E. & Davies, I., Pashby, K. & Shultz, L. 2018. Global citizenship education: a critical introduction to key concepts and debates. London: Bloomsbury. https://doi. org/10.5040/9781474286749

Short, P.C. 2009. Responsible environmental action: its role and status in environmental education and environmental quality. The Journal of Environmental Education, 41: 7-21. https://doi.org/10.1080/00958960903206781

Tiezzi, E. 2003. The End of Time. Southampton: WIT Press.

UN SDSN Mediterranean. 2022. Available at https://www.sdsn-mediterranean.unisi.it/ [Accessed 15 September 2022]

Vercelli, A. & Borgehsi S. 2012. Happiness and Health: two paradoxes. Journal of Economic Surveys, 26 (2):203-233. https://doi.org/10.1111/j.1467-6419.2010.00635.x

Viviani, A. 2018. The right to education and human rights education as a tool towards social inclusion. In Viviani, A. (Ed). global citizenship education, multiculturalism and social inclusion in europe: the findings of the project I have rights, 71-90. IUS Gentium Conimbrigae, Centro de Direitos Humanos, Coimbra, COIMBRA, ISBN: 978-989-20-8570-8.

Wade, R. 2008. Education for sustainability: challenges and opportunities. Policy and Practice: A Development Education Review, 6: 30-48. Spring.

### I WANT TO ACKNOWLEDGE THE FOLLOWING UNESCO DOCUMENTS THAT INFORMED THE DISCUSSION IN THIS ARTICLE

UNESCO. 2007. The UN Decade of Education for Sustainable Development (DESD 2005-2014): The first two years. Paris: UNESCO.

UNESCO. 2009. Bonn Declaration. In UNESCO World Conference on Education for Sustainable Development, Bonn: UNESCO.

UNESCO. 2014. Roadmap for implementing the global action programme on education for sustainable development. Paris: UNESCO.

UNESCO. 2016. Global education monitoring report. planet: education for environmental sustainability and green growth. Paris: UNESCO.

UNESCO. 2017. Education for sustainable development goals: learning objectives. Paris: UNESCO.

UNESCO. 2019. Educational content up close. Examining the learning dimension of education for sustainable development and global citizenship education. Paris: UNESCO.

UNESCO. 2019. UNESCO Education strategy 2014-2021. https://unesdoc.unesco.org/ ark:/48223/pf0000231288.

UNESCO. 2019. International forum on inclusion and equity in education: The Cali commitment to equity and inclusion in education https://unesdoc.unesco.org/ ark:/48223/pf0000370910

UNESCO. 2020. Education for sustainable development: A roadmap. Paris: UNESCO.

UNESCO. 2020. Towards inclusion in education: status, trends and challenges: The UNESCO Salamanca Statement 25 years on. Paris: UNESCO.

UNESCO "Global Action Programme" (A/RES/69/211)

UNESCO. 2021 World Conference on Education for Sustainable Development https:// en.unesco.org/sites/default/files/esdfor2030-world-conference-concept-note-en.pdf