

## Article

# Educating Teachers for Sustainability and Social Justice: A Service-Learning Project in Physical Education Initial Teacher Education

Elsa Ribeiro-Silva <sup>1,\*</sup> , Mariana Amaral-da-Cunha <sup>2</sup> and Paula Batista <sup>3,4</sup> 

- <sup>1</sup> Research Unit for Sport and Physical Activity (CIDAF), Faculty of Sport Sciences and Physical Education, University of Coimbra, 3040-248 Coimbra, Portugal
- <sup>2</sup> Research Center in Sports Sciences, Health Sciences and Human Development (CIDESD), University of Maia, 4475-690 Maia, Portugal; m.amaraldacunha@umaia.pt
- <sup>3</sup> Centre of Research, Education, Innovation and Intervention in Sport (CIFI2D), Faculty of Sport, University of Porto, 4200-450 Porto, Portugal; paulabatista@fade.up.pt
- <sup>4</sup> Centre for Research and Intervention in Education (CIIE), Faculty of Psychology and Education Sciences, University of Porto, 4200-135 Porto, Portugal
- \* Correspondence: elsasilva@fcdef.uc.pt

**Abstract:** The Sustainable Development Goals are a mission for all societies. Higher education has an essential role in preparing citizens for this global challenge by adopting student-centred approaches and active methodologies. Service Learning (SL) is recognised as having educative value in promoting values, teamwork, and social awareness. The pedagogical project reported in this study was built with the underpinnings of the SL and active learning methodologies and aimed to describe and analyse the experience built on the principles of SL for Society within the theme of Olympics values. This study took place during the school placement curricular unit of a master's programme in the Physical Education Teacher Education programme at (blinded for review). Seventy-two preservice teachers, organised in groups, were invited to develop an SL for Society project subordinated to the theme of "No one should be left behind" (ASD 2030). An analysis of the 22 projects revealed a spectrum of seven themes: (1) Inclusion, (2) Environment and Sustainability, (3) Gender Equality, (4) Health and Wellness, (5) Olympic and Social Values, (6) Cultural Heritage and Intergenerational Relations, and (7) Learning Communities. While conceiving, planning, implementing, and evaluating the projects, the preservice teachers understood the importance of embracing inclusion, equity, sustainability, and social justice in teaching.

**Keywords:** teacher education; university service learning for society; active methodologies; Sustainable Development Goals



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## 1. Introduction

In September 2015, the United Nations (UN) approved a resolution entitled "Transforming our World: The 2030 Agenda for Sustainable Development (ASD 2030)" [1], committing to the improvement of people's living conditions, the environment, and the planet through peace and global solidarity. The results expected are partnerships between socially advantaged countries or peoples and others towards the improvement of the living conditions of the latter.

In the ASD 2030, 17 Sustainable Development Goals (SDGs) stand out, unfolded in 169 objectives and enumerated in a list of things to do on behalf of people and our planet in connection with a plan for success (Ban Ki-moon, Secretary-General of the UN) [1]. It aims to solve the needs of all, in which no one should be left behind. The ASD 2030 is an agenda that addresses several dimensions of sustainable development (i.e., social, economic, and environmental) and promotes peace, justice, and effective institutions intending to prepare for active and responsible citizenship. This agenda affects all sectors

of society, and particularly higher education, in which it seeks to incorporate its goals into the present movement of strengthening Active Learning (AL) methodologies and sustainable teaching in favour of the SDGs. In fact, it is crucial to recognise the pivotal role of education in fostering sustainable habits among future generations [2,3]. Accordingly, Cebrián and Junyent [4] emphasise the integration of sustainable development initiatives across education to instigate shifts in knowledge and attitudes towards sustainability. In the field of physical culture, Lundvall and Fröberg [5] propose considering SDGs 3, 4, 5, 10, 11, and 12. Salvo et al. [6] defend the possibility of physical culture contributing to the achievement of fifteen SDGs. Tsyhura and Harkusha [7] argue that all seventeen SDGs can be considered from the perspective of physical culture and sport. The World Health Organization [8] and the Commonwealth [9] acknowledged that physical activity and sport may contribute to the realisation of the vision set by the 2030 Agenda.

Regarding PE, Baena-Morales et al. [10,11] suggested that 24 of the 169 goals could be addressed in this subject area, including the SDG targets such as good health and well-being (SDG3), quality education (SDG4), gender equality (SDG5), reducing inequalities (SDG10), and climate action (SDG13). Consequently, PE has links with the economic, social, and environmental dimensions of sustainable development [12]. Thus, the position of PE as a compulsory subject in the core curriculum of public schools in most countries provides opportunities for pupils to engage in physical activity, develop movement capabilities and sports-related skills, and learn about health and healthy lifestyle [5]. However, there are few studies regarding the distinct role of PE in the context of Agenda 2030 and its SDGs. This indicates that Agenda 2030 is an unexplored area of research in the field of PE [5]. This led Lohmann et al. to state that although the role of PE is not explicit in that agenda [13], different contents and methods of education for sustainable development may have already been implemented and discussed in the field of PE [14]. This reality means there is not yet a consensus among the various authors that the SDGs are related to PE.

However, even though the Agenda started cross-cutting discourses in multiple contexts, it has been a challenge to put it into practice in higher education, particularly in initial teacher education. Thus, according to Batista et al. [15], the commitment of universities to educate teachers in sustainability and social justice must go beyond the mere declaration of intentions.

- Active learning methodologies

AL methodologies seek to break with the traditional teaching model, characterised by a teacher-centred approach, in which the teacher is the primary source of information and knowledge, and pupils adopt a passive learning stance: they listen, take notes, and absorb the content presented by the teacher [16]. AL centres the process on students, structuring them around a problematising pedagogy, in which the student is encouraged to take an active stance in their learning process to achieve autonomy and meaningful learning. Francisco-Garcés [17] asserts the importance of fostering a holistic education for higher education students to effectively address contemporary societal needs. To meet this requirement, employing AL methodologies in alignment with the SDGs emerges as a practical approach. Furthermore, Meztler [18] underlines the necessity of educators transitioning from conventional teaching methods and embracing innovative approaches aligned with today's societal demands. In this context, active and participatory methodologies appear suitable because of their inherent characteristic.

This understanding of AL methodologies is reinforced in the National Survey of Student Engagement and the Australasian Survey of Student Engagement, which consider that active learning implies students' commitment to the construction of their learning [19].

In AL practices, it is intended that students not only do but, above all, reflect on what they are doing and explore their attitudes and values [20,21].

Misseyanni et al. [22] (p. XIX) extend this meaning to the teaching context at distinct levels, noting that "[...], active learning is not a simple didactic approach in a complex world. [...] Active learning [...] is about linking human minds and souls in a creative spiral of knowledge transformation and skills development at individual, group, and

institutional levels.” Thus, active methodologies are not limited to teaching practices but can be translated into projects developed or integrated in the community, collaborating with colleagues outside of class hours, discussing ideas for a subject or mentoring a colleague. In other words, it is a learning process that [23] should be seen as a construction capable of bringing together individuals from all over the world.

Since learning in active methodologies is built by the student through teaching proposals close to real and meaningful contexts, appealing to the decision-making capacity and transferability to other life situations in the lives of individuals, it allows for the consolidation of learning. Thus, AL methodologies lead to sustainable teaching while allowing for a better understanding with the same resources as traditional methodologies. AL methodologies are aligned with one of the goals of the ASD 2030, which is the effectiveness of institutions, namely, educational institutions (SDG16).

On the other hand, increasing an individual’s education and their knowledge empowers them and increases their decision-making capacity to improve their personal and professional circumstances throughout their lives. This is the central objective of SDG4, which is associated with all people’s physical and emotional well-being, as embodied in SDG3.

Professional improvement may translate into the easiest way of integrating the work environment and/or assessment into better-paid professions, contributing to the reduction of poverty, thus responding to SDG1. As we can read in the Profile on the Student Leaving the Compulsory Education [24] (p. 5), a Portuguese humanist-based reference document, inspired by the SDGs, “What distinguishes development from backwardness is learning”.

Misseyanni et al. [22] advocate that the main contribution of AL is an innovative way of thinking. Teaching and learning are an exploratory path to the richness of knowledge and different realities. Nothing is taken for granted but depends on a fruitful learning context full of interactions, revealing to everyone their own path to personal and/or professional fulfilment.

For these authors, AL is a transformative process that brings together instruments of knowledge, learning contexts, and people, identifying social problems, as well as challenges, for present and future societies for which a humanist vision of higher education should be pursued. It presents an image of individuals, groups of institutions, and nations that contribute to a global transformation that is balanced and respectful of the environment.

Børte et al. [25], in a review of two systematic reviews, identified that the success of AL methodologies depends on (1) an optimal alignment between research and teaching practices, (2) a supportive infrastructure for research and teaching, and (3) the professional development of staff and learning design. Among the AL methodologies, SL for society emerges as a possibility, with the purpose of educating individuals for equity and social justice, regardless of their level of education.

- **Service Learning for Society**

Within the challenges of the ASD 2030 [1], the concerns and responsibilities passed on to higher education institutions have become more acute. Hence, several AL methodologies have emerged. One is Service Learning (SL), which was originally proposed at the beginning of the 20th century in the United States by Dewey [26]. It has taken on different names in different languages, such as “Aprendizaje-Servicio” in Spanish or “Aprendizagem por Projeto para a Sociedade” in Portuguese, and it is increasingly turning into social intervention. Furco and Billig [27] define SL from an educational perspective, emphasising achieving educational objectives by mobilising students to develop community services. So, we can consider that SL is based on an action pedagogy structured on experience in which students are active agents of change and protagonists of their teaching–learning process. The focus is the educational and personal development of students through community service. SL’s evolution has been in the direction of considering the service visage of society and its needs, namely, SL for Society, which places a stronger emphasis on the broader societal and community impact of the activities.

Based on this educational experience, students reflect on the service performed, thus generating a much more comprehensive knowledge of the subject on which the whole process is based [28,29]. Both approaches have their place in education, and many SL

programmes aim to strike a balance between meeting the educational needs of the students and making meaningful contributions to society.

Given the transformation of the university due to the current needs that the world and society require, the teaching provided by higher education institutions must assume the role of educating future citizens capable of living together in a society in constant and rapid change. Thus, “SL for Society” emerges as a pedagogical approach aligned with these ideas. It already makes up part of different curricula in higher education that advocate for incorporating new methodological approaches committed to experimental and active forms of learning [28].

SL for Society positions itself as an educational approach aligned with a democratic and participatory culture, inducing students’ interest in taking an active part in public life and promoting civic coexistence in the face of the different challenges posed by today’s society [20]. In this sense, SL for Society has been consolidating itself as an approach capable of satisfying processes of (self)-reflection and pedagogical action in different subjects, promoting student learning, focusing on transversal skills, and serving as a basis for the professional training from a critical–transformative approach [30]. The same idea was defended almost thirty years ago by Bringle and Hatcher [31] (p. 112) when they defined SL for Society as an educational experience based on accredited courses in which students participated in an organised and service activity related to the needs identified in the community and reflected on this activity and the service provided. As a result, students acquire a greater understanding of the course content, a broader appreciation of the curricular unit carried out, and, consequently, a greater sense of civic responsibility. In line with this definition, this methodological approach allows for the development of students’ critical capacity, since they actively develop a project to support society that aims to respond to the real needs of the social community. On the basis of this educational experience, students reflect on the service provided, thus generating a much broader knowledge of the subject on which the whole process is based [28].

This pedagogical approach contains the necessary elements to be considered a transformative pedagogical model, embodied through the established connection between theory and practice, that generates a promising interdependence between teaching and learning.

The literature in the field of Sport Sciences and Physical Education (SSPE) highlights the positive effects that participation in SL-based initiatives can have in this area of knowledge. Among other aspects, studies based on SL in SSPE show improvements in many positive areas, such as (1) in the development of professional and social skills [20]; (2) growth and personal maturity of students and their development as critical citizens [21]; (3) the significant increase in pedagogical skills [18]; and (4) the deepening of pedagogical knowledge [32].

Despite the many positive aspects, the implementation of ASD in SSPE also has limitations that largely underlie the model itself. These include the short duration of the interventions and their adaptation to the needs of the agents involved, as well as the approach of the reflection process that must be developed by the teaching–researcher staff and addressed by the participants. In any case, several recent systematic reviews highlight the benefits that SL is likely to bring to students [20,21].

Thus, it can be said that the area of SSPE appears as an appropriate field to commit to SL and respond to the transformation in university education required by society, promoting an education designed in the social community, capable of promoting change and promoting learning opportunities that extend over time [29].

In any case, the area of teacher education emerges as one of the most suited contexts for the implementation of AL methodologies, namely, SL for Society. The purpose is to respond to the transformation in higher education demanded by society and promote an education framed in the social community, capable of generating changes and learning opportunities that last over time.

According to the International Bureau of Education of UNESCO [3] (p. 26), teacher education should adopt diverse teaching and learning methods using a combination of

disciplinary and pedagogical approaches to give teachers the references and instruments needed to challenge students to create and share knowledge when faced with situations that relate more to themes than to fragmented individual learning.

Within this framework, the goal of this study was to describe and analyse a pedagogical project built on the principles of SL for Society within the theme of Olympics values.

## 2. Materials and Methods

Sustained Olympics Project description.

### 2.1. Label

In its commitment to sustainability, the Olympic Committee of Portugal has a vision of Olympism far beyond the Olympic Games, extending its in-competition to several areas such as the social domain, sustainability, training, and development, supporting and/or developing projects at the level of education and values [33].

Under this umbrella, the Sustained Olympics Project (SOP) was conceived to (1) create an educational space in higher education for teachers and to enhance Preservice Teachers' (PST) autonomy in building a more inclusive, equitable, and socially just society and (2) ensure that future teachers recognise the importance of the teaching–learning process while being attentive and attending to the issues of inclusion, equity, sustainability, and social justice in all its phases (planning, implementation, and evaluation). More specifically, the SOP project aimed to explore how PSTs answered to challenges against their self-designed intervention projects and what they had learned.

The SOP had the partnership of the Committee, since it was a project that focused essentially on the awareness of social and environmental issues and on the development of attitudes and values that potentiate change, both in terms of future teachers' of education and pupils.

### 2.2. Context

The SOP was developed during one-year school placement, the completion of which is a requirement of a master's in Physical Education Teacher Education (PETE) at (blinded for review). The school placement is a curricular unit of the second and last year of this programme that qualifies the prospective teachers to teach PE to basic and secondary school pupils, hereby referred as "pupils". It consists of the insertion of PSTs in a real teaching context, in which they take the role of a primary or secondary school teacher for a full academic year.

Every PST is assigned to a partner school in cohorts of three to four elements, after which university staff establish protocols. This arrangement favours an invaluable cooperative and collaborative work for the PSTs' professional and social lives. The PSTs are supervised by two teachers: one from the partner school at which the school placement takes place; the cooperating teacher, who attends all of the PSTs' classes and monitors the development of their work at the school; and another from the faculty, the faculty tutor, who is responsible for observing a minimum of two classes per PST in each of the three academic terms, as well as coordinating the pedagogical supervision with the cooperating teacher.

### 2.3. Participants

The participants were 72 PSTs undertaking their school placements at cooperating schools. In addition to the main participants (the future PE teachers) and in view of the interdisciplinarity that was intended in this pedagogical project (SOP), it involved the collaboration of a wide range of public and private institutions and stakeholders, such as the faculty where the SOP was developed; 27 basic and secondary public schools; 1740 pupils from distinct levels of education; 47 PE cooperating teachers; 12 PE faculty tutors; the Portuguese Olympic Committee; a national museum; two associations of citizens with mental disabilities; two sports clubs; two health centres; and several learning support



centres of some of the partner schools; as well as many school placement cohorts of other subject areas.

#### 2.4. Project Foundation and Design

The SOP was framed within one of the ASD 2030's goals: the effectiveness of institutions, namely, those dedicated to higher education. To this end, the SOP aimed to promote sustainable, multiskilled, contextualised, and meaningful higher education for the PSTs, expanding their teacher education through the incrementation of their autonomy and responsibility to build their own learning. The expectation was that they would become capable teachers who could teach throughout their professional careers. The goal was also to make them realise that their actions extend beyond the classroom through authentic and contextualised experiences. They are active players in their pupil's learning with solidarity, equity, social justice, and peace. Overall, the aim was to educate new teachers in (and for) sustainable, equitable, and socially just education, where no one, regardless of their characteristics or differences, is left behind. It is about putting education (in this case, PE) at the service of the social to improve the living conditions of people and our planet.

The SOP materialised in the work proposals of 22 school placement cohorts of PSTs in the 2021–2022 school year. The PSTs were invited to develop a project within the SL for Society tenets, subordinated to the common theme/motto “no one should be left behind” (ASD 2030). Each school placement cohort had to plan, develop, and evaluate a project that would respond to a social issue identified as relevant towards improving the lives of pupils and/or schools and/or schools' contexts, considering the partner school's geographic and social contexts.

Concerning the design of the SOP, the PSTs were asked to follow the SL for Society methodology structure and respective planning and implementation phases (see Table 1). Specifically, the projects should take place over a certain period; be experiential, focused on a pressing social or environmental cause; and end with a celebration moment of the achieved results by all participants.

**Table 1.** SL for Society project's planning and implementation phases followed by the PSTs.

Phases	Description
<b>How to start the project?</b>	<ul style="list-style-type: none"> <li>– Start on some experience that the school has already conducted, taking advantage of the SL for Society's value and developing the dimension of the social contribution that needs to be improved.</li> </ul>
<b>Finding partners</b>	<ul style="list-style-type: none"> <li>– Contact various entities, such as other schools, municipalities, social entities/services, etc.</li> <li>– Jointly design the proposals.</li> <li>– Define and agree on the roles and tasks of each element of the working group.</li> </ul>
<b>Identifying the needs</b>	<ul style="list-style-type: none"> <li>– Involve pupils in detecting and analysing the needs on which they will work.</li> <li>– Allocate time and define specific activities for a critical understanding of reality.</li> </ul>
<b>Thinking of a social contribution</b>	<ul style="list-style-type: none"> <li>– Define which tasks pupils can conduct concerning the needs detected.</li> <li>– Invest in a lasting social intervention (project lasting various sessions, days, months, etc.).</li> <li>– Bear in mind that the tasks performed by pupils involve mobilising different skills.</li> <li>– Ensure that assignments require effort and commitment from all and each pupil.</li> </ul>

Table 1. *Cont.*

Phases	Description
<b>Predicting learning</b>	<ul style="list-style-type: none"> <li>– Schedule learning-oriented activities before, during and after “service” to society.</li> <li>– Link learning to the social world.</li> <li>– Link the project to the academic curriculum.</li> </ul>
<b>Promoting participation</b>	<ul style="list-style-type: none"> <li>– Design projects that are flexible enough to allow for adjustments during their course.</li> <li>– Give pupils the possibility to make decisions and intervene in the project’s distinct phases.</li> <li>– Create/establish moments and spaces that favour collaborative work given the objectives.</li> <li>– Open the possibility to the participation of other agents of the community.</li> </ul>
<b>Reflecting on the experience</b>	<ul style="list-style-type: none"> <li>– Schedule moments and activities throughout the project that facilitate reflection.</li> <li>– Establish a moment for balance and recognition of the value of the social contribution.</li> <li>– Link reflection to the set of project tasks/activities.</li> <li>– Disseminate the results achieved with this reflection.</li> </ul>
<b>Celebration of the results</b>	<ul style="list-style-type: none"> <li>– Drawing up the posters to thank, celebrate, and close the project.</li> <li>– Involve as many agents, entities, and partners as possible in the “thanking you” moments.</li> <li>– Structure an evaluation plan for the participants, with the moments, instruments, and usable evidence.</li> </ul>
<b>Evaluate to improve the process</b>	<ul style="list-style-type: none"> <li>– Meta-evaluation of the project.</li> <li>– Identification of the strengths and weaknesses.</li> <li>– Improvement proposals for future implementations.</li> <li>– Communication of the results to the governing bodies of the schools and other entities involved.</li> </ul>

Adapted [23].

Given the SL for Society’s methodological features described above, the culmination of the SOP took place on the Closing Day of SOP, with the theme “no one should be left behind”, held in June 2022, commemorative of the Olympic Day. The celebration included the exhibition of the posters of the 22 projects developed and the authors’ presentations.

It should also be noted that the development of the SOP was complex and time-consuming, not only because of the high number of people involved but also because the goal was to follow a work methodology that fostered the PSTs’ autonomy, creativity, innovation, and responsibility, in addition to the pupils’ characteristics or needs of the 22 partner schools involved.

### 2.5. Project Stages

The SOP was developed in seven interconnected stages: (1) project proposal by the course leader of the master’s PETE programme; (2) continued SL for Society features training for PSTs and school-based and faculty-based teachers; (3) reflection and designing of the projects by each of the school placement cohorts; (4) general meeting to present and discuss the projects; (5) implementation of the projects, involving the participants’ evaluation and the elaboration of a critical–reflective report by the organisers (i.e., PSTs), including a self-assessment on the learning experiences and the value of the project to their teacher education; (6) elaboration and presentation of a poster based on the projects’ research principles undertaken by the respective authors; and (7) celebration/closing of the SOP with the posters’ exhibition and a presentation to the faculty and university community in a session expressly organised for this purpose, integrated into the Olympic Day celebrations. This culminating event included the presence of the Olympic Committee of (blinded for review) representatives, the stakeholders involved, and other invited entities.

Since the PSTs were working on the SL for Society methodology for the first time and some difficulties were expected, the dialogue between the master's course leader and the PSTs was constant throughout the process. The purpose was to guide them through the development of the SOP's stages.

The implementation phase of each subproject in the school was the responsibility of each school placement cohort. It involved a critical reflection of the PSTs throughout their development to collect information for possible adjustments and the production of a final reflective group report on the strengths and weaknesses of their projects, the effects on the learning of their pupils, and their own teacher education. This is in line with the evaluation proposal in the SL of Santos-Pastor and Martínez-Munoz [34].

A reflective report was produced summarising the projects' strengths and weaknesses, as well as the effects on their pupil's learning and teacher education, according to the following structure: (1) identification of the project, pupils, cooperating teachers and schools, and reports requested; (2) detailed description of the project; (3) evaluation by the participants (forms and instruments); (4) evaluation of their contribution to the education of pupils (or other participants); (5) reflection and evaluation of the project developed as a whole and its results; (6) improvement proposals for new editions; (7) limitations of the project itself (organisation or others); (8) reflection on the teacher education value for the PSTs and their involvement in the organisation (what they learned, difficulties encountered, successes obtained, what they would like to have learned, etc.).

Regarding the PSTs' evaluation, the development of the project by each school placement cohort was mandatory. Their assessment was of the responsibility of their faculty tutors within the scope of the ethical–professional attitude dimension. This is one of the four evaluation dimensions of the school placement. However, it cuts across the other three dimensions, since its parameters apply to all areas of the PSTs' teaching performance in school during the school year.

Thus, the project development task focused on the following 10 parameters (and respective descriptors) that make up the respective assessment framework: (1) commitment to the pupils' learning; (2) commitment to self-training and professional development; (3) general and specific knowledge; (4) self-training and professional development; (5) availability to pupils and school; (6) teamwork; (7) innovation in teaching practices; (8) critical and reflective analysis; (9) capacity for initiative and responsibility; and (10) personal conduct. To this ethical–professional and attitude dimension corresponds a maximum of 3 values (out of 20), and students are only approved in the curricular unit when they obtain a positive grade in all 10 parameters.

### 3. Data Analysis

The study followed a qualitative methodology under the social constructivist worldview, described by Creswell and Creswell [35] as an approach to qualitative research where 'individuals develop subjective meanings of their experiences' (p. 46). The projects developed by the school placement cohorts of PSTs and the respective final school placement reports were analysed under the assumptions of thematic content analysis [36] using a three-component flow process: data condensation, data display, and conclusion drawing/verification [37], with the researchers oscillating between the three components.

Data were re-read by two authors to start the codification process (data condensation). The creation of charts capturing the most relevant themes and subthemes (data display) resulted from the data condensation and data display interacting with one another. The analysis of the titles, objectives, and results of the projects led to seven subthemes within the main theme—"Between themes and objectives": (1) Inclusion; (2) Environment and Sustainability; (3) Gender Equality; (4) Health and Wellness; (5) Olympic and Social Values; (6) Cultural Heritage and Intergenerational Relations; and (7) Learning Communities. This analysis of the reflective reports led to the identification of a cross-cutting theme related to the value of the learning experience to the PSTs and their pupils.



## 4. Results

The SOP, developed by the 22 school placement cohorts of the PSTs, framed under the tenets of the SL for Society, covered a wide spectrum of themes and objectives but all were connected to the concerns inscribed in the ASD 2030, namely, the overarching theme: “No one should be left behind”. Although all of the placement cohorts were able to draw up their projects, the PSTs faced some difficulties, such as adapting to the needs and regulations of the agents involved; structuring the reflection process; and measuring the learning of both their pupils and themselves. The short duration of the interventions was also identified as a difficulty.

### 4.1. *Between Themes and Objectives*

#### 4.1.1. Inclusion

This theme was the most represented. It included eight projects. The objectives were divided between raising awareness among nondisabled pupils on the difficulties and abilities of their disabled peers and sports opportunities offered to young people with disabilities. Strategies included the organisation of practice sessions with different durations, frequencies, and sports. Within these sessions, specific adapted sports were selected, such as boccia or wheelchair basketball, as well as other sports adequately adapted to the difficulties and skills of the practitioners.

#### 4.1.2. Environment and Sustainability

This was the second most represented theme. Five school placement cohorts built their projects on its tenets. Because of the particularities of the regions where the partner schools were integrated, the events developed were very diverse. They included walks to collect rubbish at school, close beaches, or even rivers using canoes. These projects resulted in a significant amount of piled rubbish (properly sent to be recycled). The PSTs made visible to their pupils a reality that, until then, they were not completely aware of, i.e., the excessive production of garbage uncontrollably invading the environment. The following reflections resulted in strategies designed and proposed to reduce plastic packaging.

#### 4.1.3. Olympic and Social Values

The four projects developed under this theme, although different in duration and structure, were all competitive (tournaments, championships, etc.) and consisted of offering extracurricular sports practice for pupils in which the values of respect, friendship, excellence, equity, social justice, and peace were the learning foci.

An effort was made to meet this set of values at all stages of the projects, namely, by setting up heterogeneous teams, defining game rules adjusted to each pupil's performance capabilities and each pupil's specific characteristics, or even by awarding prizes of equal relevance to all participants.

#### 4.1.4. Gender Equality

Two school placement cohorts only developed this theme, and both focused on the struggles and achievements of women in high-performance sports over time. In both, the work began with making the pupils responsible for studying the theme through document analysis research. The aim was to gain knowledge of the reality that would allow them to prepare a set of questions to be posed to highly competitive sportswomen who were subsequently invited to a debate session at each school.

#### 4.1.5. Health and Well-Being

This theme was developed by only one of the school placement cohorts and resulted from the identification of an obesity problem in the school's population. As such, the project consisted of setting up a school club dedicated to the practice of sports by pupils with obesity (The Fit Club) and respective nutritional monitoring. The club was also open to pupils at risk of social exclusion to improve their physical and emotional well-being.

The planning, implementation, and evaluation work were structured in weekly sessions (two per week) led by the PSTs and with the support of the health centre of their city.

#### 4.1.6. Cultural Heritage and Intergenerational Dialogue

Only one school placement cohort of PSTs worked on this issue. However, this project was significant, as it took place in an archipelago region with its own cultural heritage and an ageing population. The project aimed to bring the elderly to school and their youth recreational and gastronomic heritage. The project unfolded in two stages: The first included a survey conducted by the pupils with their “grandparents” (or, in their absence, an elderly relative) related to traditional games and their respective rules. The second stage, using the same survey, focused on the eating habits or ancient ways of cooking. Aimed at an intergenerational coexistence and the preservation of the region’s cultural heritage, the event culminated with an afternoon practice of traditional (blinded for review) games from the respective region between “grandparents” and grandchildren, previously chosen and organised by the schools’ pupils. The day ended with the tasting of old and forgotten gastronomic specialities, made by the “grandparents” according to the traditional rules.

#### 4.1.7. Learning Communities

This topic was also limited to one project. It consisted of teaching classes conducted by a cohort of PSTs in a learning community (“Cerejeiras Learning Community”) where the Montessori method was followed. This educational perspective was developed from the observation of children’s behaviour in structured and unstructured environments. The PSTs had the opportunity to teach over several weeks using this methodology in an authentic context, guided by experienced teachers.

#### 4.2. Learning Experiences

The analysis of the reflective final reports produced by the PSTs from each school placement cohort allowed us to understand that they recognised the value of the SOP not only for their teacher education but also for the pupils involved.

The contributions pointed out by the PSTs to their teacher education were multiple. Among the most highlighted, the PSTs referred to the knowledge acquired with the ASD 2030 and how to operationalise it in school and teaching contexts. Other relevant learning experiences were shared, such as the notion of responsibility, the acquisition of new knowledge, and more inclusive and equitable teaching methodologies:

“In fact, this was the first time we worked under the SOP’s principles. To date, we have only heard about them and the 2030 Agenda. We had no understanding of its connection with being a teacher, and with what we can do to meet those goals.” (School placement cohort 17)

“Having chosen the theme, designing, and developing the entire project was of great responsibility because, on the one hand, the name of the school was at stake, and we could not fail; on the other hand, we also felt that the autonomy they gave us was a vote of confidence in us, as a cohort. (...) it was worth the effort, not only for our learning, but also for the feeling of success that we felt in the end.” (School placement cohort 4)

“(...) but also, for me, as a future PE teacher, it allowed me to realize the value of other ways of teaching. A teaching that aims to be inclusive, equitable, and sustainable.” (School placement cohort 14)

The PSTs also emphasised as learning experiences the understanding and appreciation of the need of not leaving anyone behind, as well as incorporating the concern of preparing pupils for active citizenship in favour of sustainability and social justice in their intervention as future teachers:

“At first, we thought it was just one more task to add to the many we already had to perform out as PSTs, but in the end, we realised that it was more than a task; it

was a new way for us to make our pupils learn important issues for their lives, which goes beyond the PE as a subject matter.” (School placement cohort 22)

“(.) allowed us to understand what it means to “leave no one behind”, i.e., to find activities and tasks that constitute challenges for all participants and, at the same time, allow them to succeed, regardless of their features and abilities.” (School placement cohort 20)

Regardless of the theme of the project, the PSTs perceived that they brought pleasure and new understandings to their pupils, both in terms of the participation of boys and girls and their attitudes towards disability:

“It should be noted that the majority [of pupils] responded that they would like to carry out this activity again in the near future.” (School placement cohort 18)

“We found that in (blinded for review) [a traditional game], everyone showed a lot of interest and curiosity since it is a sport of precision and strategy, where the male pupils do not have an advantage over the female.” (School placement cohort 5)

“At the end of the activity, we conducted a reflection between us and the participants, where it was perceptible a change in the pupils’ without disabilities ways of thinking and acting towards those with disabilities.” (School placement cohort 8)

## 5. Discussion

This educational/training experience, using SL for Society, a pioneering approach to teacher education, achieved the set-out objectives.

The teacher education space created during the SOP boosted the PSTs’ development of the PSTs, both in terms of their ability to incorporate the ASD 2030 goals into their teaching activities (i.e., building a more sustainable, equitable, inclusive, and socially fair society) and of their understanding of the importance of these elements in their performance as future teachers.

These findings echo several authors’ perspectives, who argue that teachers need to experience the evidence of the benefits of inclusive practices through initial and continuous teacher education programmes, oriented towards inclusion, with the support and collaboration of schools and universities [38,39].

Concerning the developed projects, although varying in relevance, all PSTs gained autonomy and responsibility because they followed all its stages (i.e., planning, implementation, and evaluation) and conducted them within a real teaching context, inspired by a collaborative, multidisciplinary, interdisciplinary, meaningful, and situated dynamic.

All of the projects developed by the PSTs were aligned with the ASD 2030, and most of them (11) with SDGs 3, 4, 5, 10, 11, and 12, which were identified by Lundvall and Fröberg [5] as the goals most related to the field of physical culture, and the other 9 were associated with SDGs 13, 15, and 17. Such projects highlight what Tsyhura and Harkusha [7] argue in regard to the connection of all seventeen SDGs with physical culture and sport. These data also provide insight into what is acknowledged by the World Health Organization [2] and the Commonwealth [3], namely, that physical activity and sport can contribute to achieving the goals inscribed in the 2030 Agenda.

From the point of view of the pupils of the schools involved, the benefits of the SOP materialised in the experience of an inclusive practice in which “no one was left behind” in favour of sustainability and social justice. This evidence aligns with Lohmann et al. [6], who stated that it is possible to use different content and methods of education for sustainable development in the field of PE.

It should also be noted that the SOP also intended to answer to the Agenda 2030’s call for the effectiveness of higher education institutions and their role in teacher education training for sustainability.

As Batista et al. [15] refer, we think that higher education institutions, despite being genuinely concerned with the SDGs, are sensitive to the development of large, financed

projects but not so much to the teacher education methodologies of their students. Teacher education remains traditional, and the gap between the discourse of institutions and their practices is perpetuated, thus not favouring effectiveness. To this end, projects like the SOP can be a way to empower future teachers with the knowledge and competencies to use active methodologies and to put the ASD 2030 into their teaching concerns. While we think it would be more accessible to collaborate with teachers from the schools themselves, we also realise the overload of teaching and nonteaching work to which most of our teachers are subject. This lack of time is also emphasised by Richards et al. [30], who add to this the idea that teachers need to be more motivated to take part in these projects.

The SOP revealed itself as a safe space for developing PSTs' autonomy to build a more inclusive, equitable, and socially just society. Still, its implementation has also revealed limitations and difficulties. The majority of which underlie the model itself. These include the short duration of the interventions, adapting to the needs and regulations of the agents involved, structuring the reflection process, and difficulties in measuring the learning of both the PSTs and their pupils. Attending to the potentialities and problems of this kind of projects, we agree with Francisco-Garcés [17], which defends the necessity to find new ways to endorse holistic education in higher education to empower students to answer society's challenges.

It should also be emphasised that participation in the project enabled the PSTs to improve their ability to reflect on the effects of their intervention. This understanding is in line with Richards et al. [30], who state that SL has been progressively consolidated as a capable approach of satisfying processes of (self)reflection and teaching action in different subject areas, fostering student learning, focusing on transversal skills, and serving as a basis for professional teacher education from a critical–transformative perspective.

Finally, we agree with Mezler [18] when he says that the breakdown of traditional ways of teaching at all education levels and the adoption of active methodologies, like SL for Society, seems to be a road that will direct students to be better prepared as active citizens concerned with sustainability and justice for all.

The emergence of approaches to improving higher education, namely, teacher education, and the need to contribute to the construction of a more sustainable and fair society calls for more projects of this nature and, ultimately, active methodologies in which students are at the centre to empower them to be agents of change.

## 6. Conclusions

Understanding the link between the SDGs and the 2030 Agenda and the role of the teacher was one of the most important learnings noted by the PSTs, as it enhanced an understanding of what inclusive, equitable, sustainable, and socially just education means. In the end, it was unanimously recognised that the role of the teacher was the strong point of this project.

The interdisciplinary work with other teachers from other subject areas or partnerships with other actors or institutions that is favoured by this methodology were also important learnings. However, the PSTs gave more importance to the partnerships, which reveals the (remaining) need for more relationships and working capacity between the subject–teacher groups in each school.

Despite this, the educational aim for the future PE teachers was achieved, given that, despite some initial resistance to the added work that this task could represent to the PSTs, in the end, they unanimously recognised its value making it the project's strong point.

Education, specifically initial teacher education, is responsible for meeting the challenges of the 21st century and contributing towards social progress. In this sense, there is an urgent need for educational institutions to rethink their ways of teaching and how their students learn. Plus, higher education institutions should not stop at simply expressing their intentions or at one-off interventions developed by one or a few teachers who are more aware of these needs.

Finally, it is essential to note that despite reporting a pedagogical project conducted in PETE, it can be developed in any scientific area, where the foundation of this methodology—Service Learning to Society—should be set within the specificities of the respective syllabus.

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