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# The effects of service-learning on physical education teacher education: A case study on the border between Africa and Europe

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## Abstract

Recent studies, supported by the European project *Europe Engage – Developing a Culture of Civic Engagement through Service-Learning within Higher Education in Europe*, suggest that service-learning (SL) is an effective approach to develop personal and social learning linked to real contexts. This particular case study analyses the perceived effects of an SL programme implemented in Melilla (on the border between Africa and Europe) by Physical Education Teacher Education (PETE) students. They offered a service focusing on promoting physical activity and sport among different vulnerable groups (unaccompanied foreign minors, migrants and refugees, adults with autism spectrum disorders, women in conditions of social exclusion, ex-drug addicts and vulnerable older people). This case study used a qualitative hermeneutic-phenomenological methodology. A total of 46 PETE students (36 male and 10 female) participated in one of the two editions of SL carried out in 2017–2018 and 2018–2019. Two focus groups and 46 personal reflective journals were analysed, and some interesting outcomes emerged from the thematic analysis, related to the four categories of Butin's conceptual model, which was used as a benchmark. These findings reveal how SL can

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promote an inclusive Physical Education (PE) experience in such a multicultural setting. The positive results achieved are consistent with previous SL research and specifically support the applied intervention design based on the phases of Kolb's experiential learning (1984). In conclusion, SL offers an empowering approach for multicultural education in PETE programmes, supporting the socially critical research developed in PE in recent decades.

## Introduction

Located on the border between Africa and Europe, the context of Melilla is very unusual. It is not only a cultural crossroads, but also a city of coexistence where diversity is an inherent component of educational, social, political, economic, religious and cultural life (Melilla Ciudad Monumental Foundation, 2021). This scenario provides specific challenges for Physical Education Teacher Education (PETE), since socially critical work has shown that social empowerment and emancipation are important purposes of Physical Education (PE) (Devis-Devis, 2006; O'Sullivan, 2018).

In PETE programmes, the ability to successfully teach students from diverse cultural backgrounds (e.g. migrants, refugees, unaccompanied foreign minors) should be underpinned by the education of the PETE students in question (Baldwin, 2015; Barker et al., 2014; Zozakiewicz, 2010). Higher education programmes require the implementation of active methodologies allowing students to acquire and apply learning in real conditions (Chambers and Lavery, 2012). Such methodologies foster academic competencies and skills, but also more generic skills for today's world such as personal, social and sociocultural skills (Nortomaa and Grönlund, 2019). In this scenario, service-learning (SL) is a pedagogical model that aims to develop these different competencies and skills while providing a community service (Yorio and Ye, 2012). SL can be defined as an experiential, proactive and reflective pedagogical model in which educators create experiences that place students at the axis of their learning process (Chiva-Bartoll et al., 2019).

On the one hand, students are involved in educational activities that address social and community needs. On the other hand, they are asked for related reflective tasks that are specifically designed to achieve learning outcomes to acquire course content and develop certain social and personal skills (Jacoby, 2015). As part of the project *Europe Engage – Developing a Culture of Civic Engagement through Service-Learning within Higher Education in Europe*, we argue that the methodological renewal of European higher education, focusing on the promotion of active teaching and learning methodologies, finds in SL an educational approach that enables universities to build an educational model that fosters academic competencies and skills as well as educating active citizens for today's world (e.g. Nortomaa and Grönlund, 2019).

These objectives are in line with the key aims of PE. There are various pedagogical models (Casey, 2014; Metzler, 2011) that can be effective in promoting civic competencies, such as positive values and attitudes related to socially vulnerable populations and social justice (Kirk, 2013). In recent decades, there has been a steady growth of socially critical research exploring how PE might contribute to, and be shaped by, cultural, social and political forces (Fitzpatrick, 2018). This socially critical work has not only established links between PE and wider social problems but

has also encouraged social action and emancipation (Devis-Devis, 2006). It has made considerable arguments that empowerment and emancipation are important goals of PE, where the agents involved should work together to create a more just and equitable society (O'Sullivan, 2018). In this vein, SL seems to be capable of contributing to current PETE requirements since it shares similar objectives, principles and working methods.

This article combines these viewpoints on SL and socially critical research on PE. We demonstrate a case study of an SL programme among PETE students in the culturally diverse context of Melilla and research the experiences of the participating students in terms of their perceived effects of the programme and their learning. We start by contextualizing our case study with an introduction to culturally diverse contexts as fields of learning, and previous research on the subject matter. After this, we present the theoretical framework of the analysis based on Butin's conceptual model (Butin, 2003). Then we describe the methodology and report our results, discussing them from the perspective of Butin's conceptual model. Finally, we provide a series of considerations and recommendations for future practice.

## The multicultural context of the case study

The term multiculturalism represents a complex notion with different implications and meanings depending on the social, political and disciplinary approach (Wieviorka, 2010). Therefore, it is necessary to explain how we understand it in this work, since the challenges of cultural diversity are many and complex. Beyond the idealized concept of multiculturalism that existed at the beginning of the millennium, what we propose here is a transformative and critical pedagogical approach focusing on preventing a perpetuation or increase of the inequities derived from economic, political, social and cultural aspects underlying the current process of globalization (Fitzpatrick, 2018; O'Sullivan, 2018).

Our case study took place in Melilla, a city on the north coast of Africa that is surrounded by the waters and territory of Morocco but is legally part of Spain. One of the elements that makes Melilla a case worth studying is its delineated location, since it presents a very particular cultural and social scenario (Yin, 2009) that makes it a practical and historical unit (Thomas, 2011). With approximately 86,000 inhabitants, Melilla represents the border between two distinct social, religious and cultural worlds in North Africa. Melilla has a multicultural society featuring, above all, two culturally different communities: citizens of Indo-European descent and those of Berber origin. This unique geographical location with great cultural diversity means that Melilla has several groups that are at risk of social exclusion. Particularly, in the SL programme analysed, there were different recipient groups who participated in the service provided by the PETE students, such as unaccompanied foreign minors, migrants and refugees, adults with autism spectrum disorders, women in conditions of social exclusion, ex-drug addicts and vulnerable older people.

The challenge for culturally diverse cities such as Melilla is not the diversity itself, but the social management and opportunities such diversity represents. As this case study aims to show, higher education institutions are in a particularly good position to respond to these challenges, but they also face significant obstacles. In some ways, such culturally diverse cities represent a new paradigm for inclusion and social cohesion. Therefore, in order to promote the evolution from a reality based on the mere cohabitation of different cultural groups towards one based on active and equitable interaction, it is necessary to examine the process by which intercultural educational approaches are developed (Kastoryano, 2018).

Contexts with cultural diversity represent one of the most widely used options for the application of SL (Chiva-Bartoll et al., 2020b; Peralta et al., 2016). SL promotes interaction between teacher education students and populations of diverse cultures while encouraging them to reflect on their role as cultural beings (Chang et al., 2011; Palpacuer-Lee and Curtis, 2017). To date, research in teacher education has determined that SL is a pedagogical model that allows the development of skills related to inclusion (Carrington and Saggers, 2008; Carrington et al., 2015) and cultural diversity (Chang et al., 2011; Peralta et al., 2016). Thus, SL seems to promote opportunities for students to face their own cultural beliefs and prejudices (Peralta et al., 2016).

Through the processes of deliberation and reflection that SL involves, students become active citizens. They identify with vulnerable groups or groups at risk of social exclusion, given that knowledge building must be undertaken in contexts of social need. Indeed, one of the main aims of this educational practice is to combat inequalities and social marginalization. For this purpose, in the particular case of cultural diversity, the essential role of SL in PETE programmes is to raise awareness among students, preparing them to identify and tackle future situations of social injustice, while assuming a critical stance (Capella-Peris et al., 2020).

In PETE-SL direct interaction with the social context is promoted to encourage a transformation that enables the construction of a more just and egalitarian society. In particular, the implementation of PETE-SL interventions in multicultural contexts facilitates the understanding of a multiplicity of social perspectives, while helping the students acquire interpersonal skills. SL programmes promote reciprocal learning among all the participants, so students get involved with the recipients of the service, adapting to diverse realities and developing social awareness that allows them to understand the different social and cultural problems that exist in their community (Chiva-Bartoll et al., 2020a). Horizontal dialogue among members of different cultures encourages reflection, understanding and a change of mentality (Chang et al., 2011). In this vein, previous research in PETE suggests that when students have first-person experiences with social or cultural settings that are different from what they are used to, they try to understand them and redefine their values and beliefs (Chiva-Bartoll et al., 2020a).

## Butin's conceptual model as a framework for interpreting the effects of SL

We argue that PETE students have the agency and capacity to examine their social context and to contest and change unjust realities (Cammarota and Fine, 2008). Thus, there is value in developing pedagogical models that help students see new educational possibilities and to take action. Building on the findings and recommendations of previous research related to SL among PETE students (Carson and Raguse, 2014; Cervantes and Meaney, 2013; Chiva-Bartoll et al., 2019), this case study focuses on the perceived effects and meanings experienced by PETE students in an SL programme implemented in the particular context of Melilla. Our approach focuses on analysing the effects of SL on PETE students through the benchmark of Butin's conceptual model (Butin, 2003; Gil-Gómez et al., 2015). The use of this rationale as a framework will potentially help future teachers gain knowledge and adopt a more active stance regarding equity, diversity and civic engagement (Carrington and Selva, 2010). This model classifies the results derived from the application of SL to provide a comprehensive overview. This theoretical model provides four dimensions that are closely related to the critical approach we assumed to analyse the impact of SL: (1) a 'technical dimension', which refers to purely curricular outcomes related to the acquisition of specific skills; (2) a 'cultural dimension', focusing on comprehending the sociocultural diversity of the social collectives with which students have worked – this concerns understanding the world

and the community in which students live through changes in their social understanding of the world; (3) a 'political dimension' related to understanding the social distribution of power – this promotes the development of critical attitudes and social transformation by listening to collectives that, for various reasons, are silenced; and (4) a 'post-structural dimension' centred on the students' identity – this analyses the acquisition of new values and life attitudes that encompasses a reconstruction and transformation of personal identity, reinterpreting the social and ethical values by which we make sense of society (Butin, 2003). Thus, this study addresses the following research question: how did PETE students experience the effects of the SL programme, considering each of the four dimensions of Butin's conceptual model?

## Methodology

### Design

This research presents a case study in line with the general goals of the *Europe Engage* project, focusing on promoting SL as a pedagogical approach and founding a network in the European Union. This particular case study presents overlapping purposes between the *intrinsic* and *instrumental* types of case study. While an *intrinsic* case study is undertaken because the researcher wants a better understanding of the particular case, an *instrumental* case study is where a particular case is examined mainly to provide insight into an issue or to draw some sort of generalization (Stake, 2005). In this study, the case of Melilla is itself of interest and focuses on a specific and particular social phenomenon, while at the same time aspiring to provide insight into the effects on PETE of SL implemented in similar contexts (Hodge and Sharp, 2016). At a methodological level, the case study follows a qualitative approach based on the hermeneutic-phenomenological method (Barnacle, 2004). The purposes of this approach focus on phenomenology – that is, the meaning of human experience – and hermeneutics, based on the understanding of actions in context (Smith, 2016). Hermeneutic phenomenology is concerned with the living world or human experience as it is lived, with the goal of creating meaning and achieving a sense of understanding. This exploration of lived experience focuses on 'the mode of being human' or 'the situated meaning of a human in the world', considering interpretation as critical to this process of understanding (Laverty, 2003). Specifically, the hermeneutic interpretive process used here focused on the meanings of PETE students' experience and their development and cumulative effects at an individual and social level, through the analysis of written and verbal language (i.e. reflective journals and focus groups). We therefore used this approach relying on interpreting meaningful actions and experiences, aiming to grasp whatever human experience was deemed significant during the SL process. In the 'data analysis' section the specific procedures followed are explained in more detail.

### Participants

A total of 46 PETE students (36 male and 10 female, with an overall mean age of $23.7 + 2.3$) from the School of Education and Sports Sciences of Melilla who completed one of the two SL editions carried out in 2017/2018 (22 participants) and 2018/2019 (24 participants) voluntarily participated in the study. One of the 46 PETE students was Muslim, 37 were Catholic and eight practised no religion. In addition, it is important to highlight that 10 PETE students were local, from Melilla, and the other 36 students were from mainland Spain. The different curricular subjects involved in

**Table 1.** Recipient groups and social entities involved in the SL programme.

| Number of people served | Description of recipient group | Social entity involved | Purposes of the social entities |
|---|---|---|---|
| 30 | Unaccompanied foreign minors coming from the border with Morocco, whose daily life is quite difficult since they have experienced traumatic situations with great physical and emotional deterioration. | Melilla Acoge | Serving minors subject to protective measures dictated by the Administration, providing them with maintenance, assistance and a comprehensive education. |
| 50 | Migrants from sub-Saharan African countries (Cape Verde, Mali, Nigeria, Niger, Sierra Leone and Senegal) and Asian refugees from Syria and Afghanistan. | Temporary Internment Centre for Immigrants | Managing the creation of as many social services as are deemed necessary to improve the lives of groups of people in need. |
| 25 | Older adults living in social residences, whose physical, psychological and social deterioration places them at risk of social exclusion. | Gota de leche | Serving dependent and independent elderly people. |
| 12 | Women in different situations of social exclusion (victims of gender violence, without resources and/or with dependent minor children, etc.). | Gloria Fuertes Farm-School | Managing the creation of as many social services as are deemed necessary to improve the lives of groups of people in need. |
| 11 | Ex-drug addicts attending a detoxification programme. | | |
| 8 | People with autism spectrum disorders who regularly attend social, functional and educational therapy. | Melilla Autism Association | Providing support for people with autism spectrum disorders and their families. |

the SL were 'Body Expression and Games', 'Assessment of Physical Activity and Sports Teaching' and 'Planning and Organization of Sports Activities'.

## Sociocultural context of Melilla and SL programme

To frame this case study in the scenario of the PETE programme in Melilla, it is worth clarifying that one of the most significant defining notes of this Spanish city geographically located in North Africa is the cultural diversity of its population. Muslim and Christian cultures and religions coexist and represent the majority (around 49% of the population each), although the Hebrew, Hindu and gypsy cultures are also established in a smaller percentage (around 2% of the population) (Melilla Ciudad Monumental Foundation, 2021). In such a diverse setting, Table 1 describes the people served and the social entities involved in the SL programme implemented.

All the social entities involved are organizations with a recognized history in Melilla due to the humanitarian work, social commitment and resources they provide to vulnerable groups. In order

**Table 2.** Phases of the service-learning programme implemented.

- (1) Firstly, a stage of concrete experience was carried out, based on establishing the PETE students' initial contact with the groups at risk of social exclusion.
- (2) After that, a second stage of reflection and critical reasoning began in which the students contrasted opinions and proposed an action plan based on the course content. This reflection phase lasted throughout the intervention by means of two systems. On the one hand, group reflections guided by the educator were carried out and, on the other hand, individual reflection by writing a personal reflective journal.
- (3) After making the first contact with the vulnerable groups and defining the specific needs to be met, the project required an examination of the curricular content of the subjects. This abstract conceptualization allowed the students to plan a specific intervention programme based on adapted physical activity tasks.
- (4) Finally, considering the information analysed from the previous phases, the application of the programme was the active experimentation phase.

to complement their services, the PETE-SL programme aimed to improve social inclusion, health and quality of life by promoting physical activity among the recipient groups involved, who were at risk of social exclusion. At the same time, it aimed to eliminate the barriers and discrimination they suffer and promote greater understanding of diversity, avoiding negative stereotypes and increasing the social responsibility of the participants in the experience. To achieve this goal, the SL programme implemented was structured into two 40-minute weekly sessions over 10 weeks.

A number of didactic objectives related to specific PE teaching skills and civic competences were set for the PETE students to achieve. The learning purposes set out in the SL were related to the aforementioned curricular PETE subjects:

- Plan, execute and assess the teaching-learning processes related to physical activity and sport, taking into account the individual and contextual features of the participants.
- Design, develop and assess the performance of dynamics and recreational physical activities.
- Select and use appropriate athletic equipment for each exercise and physical activity.
- Assess physical condition and recommend health-oriented physical exercises.
- Encourage and promote the practice of long-lasting and autonomous physical activities and sports habits among different populations.

While the PETE students only participated in one of the SL editions, the recipients could participate in both of them if they wished. The PETE students were organized into small work groups of between three and five students, and the SL programme followed Kolb's (1984) learning stages: *concrete experience*, *reflective observation*, *abstract conceptualization* and *active experimentation* (Table 2).

Each student group focused on promoting physical activity in a different association, although in the subject classes all of them shared their designs, approaches and reflections. Each week the university professor supervised the physical activities and procedures planned by the students before they were executed at the social entities' facilities. All planned sessions had approximately the same structure, which consisted of 5–10 min of warm-up exercises based on joint mobility, 25–35 min of physical fitness work through body expression activities and recreation dynamics, and 5–10 min of cool-down activities focusing on fostering social interaction and cooperation.

## Materials and procedure

In this case study, we used two different strategies for collecting information. On the one hand, following Butin's advice about the need to increase critical reflection in SL (Butin, 2003), 46 reflective journals were used during and at the end of the SL intervention. Reflective journals are commonly used in this type of research (Kugelmass, 2000; Nolan, 2008) to better understand the personal experiences of PETE students. In this study, the journals followed a semi-structured scheme based on topics related to Butin's conceptual model, including general issues (e.g. 'Social interactions during the SL intervention' or 'Feelings and personal thoughts') and several specific questions (e.g. 'Do you think this experience has made you a different teacher? In what sense?'). They were not graded in order to avoid the concern of being judged, thus encouraging the participants to be honest (Brown and Schmidt, 2016). In any case, to write a reflective journal properly it is necessary to guide students to ensure sufficiently in-depth analyses (Bain et al., 2002). Thus, we chose this procedure since the act of writing helps the students achieve a deeper analysis of the experience by assessing and organizing their personal stories (Pavlovich, 2007). All in all, the use of reflective journals seems one of the best options to stimulate critical thinking while meaningfully describing a personal experience (Abrami et al., 2015; Brown and Schmidt, 2016).

On the other hand, two focus groups, lasting approximately 70 minutes each, were used to complement and triangulate the results obtained in the individual reflective journals from an intersubjective perspective. This technique was used to explore their perceptions about the experience in a relaxed environment. The researcher who conducted both focus groups, which were carried out at the end of each SL edition, had not been present during the SL programme. With respect to sampling, considering that the hermeneutic-phenomenological research aims to select participants who have participated in the experience that is the focus of the study, who are willing to talk about their experience and who are different enough from one another to enhance the possibility of expressing rich personal views of the experience (Laverty, 2003), six students participated in each group and were chosen by the research team using the expert sampling technique (Patton, 2002). Given that the PETE students present very different features in terms of psychological and social maturity, parameters such as loquacity, involvement in the teaching-learning process, gender (parity), predisposition and interest in participating in the study (no student who was interested in participating was excluded) were assessed. The research team assumed that these features would result in a sample that was capable of providing quality information with which to answer the research question. The questions went from open ones relating to the global meaning of the programme, such as: 'What do you think about this SL experience?', towards increasingly specific questions such as: 'From your point of view, has there been any noteworthy academic learning? If so, what?'.

## Data analysis

The 396 pages obtained from the transcription of the reflective journals and focus groups were analysed with the hermeneutic-phenomenological methodology using a multiphase approach based on an initial open-coding phase and a subsequent axial coding phase. Considering the potential of Computer-Assisted Qualitative Data Analysis (Odena, 2013), NVivo software (version 12) was used to explore, organize and analyse the collected data. The procedure was as follows: the researchers coded the information from the reflective journals and focus groups, searching for meanings related to the theoretical categories of Butin's conceptual model. Firstly, the codes were

produced through a circle of readings and interpretations by going backwards and forwards between the different datasets. Subsequently, refined codes were assigned to the four dimensions related to the theoretical framework involved in the research question. Thus, throughout the process we moved from inductive reasoning, when reading and coding the data in an initial open-coding phase, to deductive reasoning in an axial phase that consisted of organizing the codes in relation to the theoretical framework (Flick, 2014). Three researchers were involved during the analysis process and constantly discussed their interpretations until a moment in time when they were free from inner contradictions (Laverty, 2003). Finally, relevant quotations were selected in order to produce and support well-documented category reports.

### Trustworthiness

To ensure the trustworthiness of the findings in terms of credibility, transferability, confirmability and dependability, several procedures were adopted (Smith and Sparkes, 2016). Regarding the credibility of the results, we used multiple analyst triangulation, as the data analysis was discussed among the members of the research team. In relation to transferability, the research design adopted in this investigation was the case study, so the research interest focused on the meaning of the experience developed in the specific context, offering a situational vision (Smith, 2016). Furthermore, as Flyvbjerg (2006) indicates, one can gain some general insights on the basis of a single case in a naturalistic way, without aspiring to a formal generalization as a necessary source of social and educational knowledge development. According to Tracy (2010) and Hodge and Sharp (2016), transferability in this methodological approach is achieved when the researchers provide enough contextual information so that readers can decide for themselves whether the findings are likely to be transferable to their own contextual situations. Regarding confirmability, to prevent possible researcher bias skewing the participants' interpretation, a member-checking process was carried out to ensure the researchers had interpreted what the PETE students meant. Finally, dependability was addressed in this case study by presenting enough information to repeat the study.

### Ethical considerations

To ensure fidelity and responsible investigation in relation to the PETE students and the recipients of the service, the study was approved by an Ethics Committee (no. 983/CEIH/2019). We tried to minimize researcher bias, although it should be clarified that one of the members of the research team participated as a teacher in the programme. Before participating in the study, each student was informed of its purpose and written informed consent was obtained from all participants.

## Results and discussion

The findings are organized around the four categories proposed in Butin's conceptual model: 'technical', 'cultural', 'political' and 'post-structural' (Butin, 2003). Relevant quotations were selected in order to produce well-documented reports illustrating these categories within the particular context analysed. Regarding coding, the reflective journals are identified by the acronym RJ and the number of the PETE student (1–46). For the focus groups, the acronym used is FG followed by the number of the SL edition (1–2) and the number of the participant (1-6).

## Technical dimension

The construction of the 'technical dimension', based on academic learning, focuses on the effectiveness of SL as a pedagogical model – that is, the capacity of the SL implemented to achieve the specific learning objectives of the PETE subjects involved. In this regard, the PETE students appeared to show improvements in their specific curricular subjects, likely due to the close theory–practice relationship facilitated by the SL programme:

> I have learned, above all, that you can only adapt the contents and activities proposed if you master them by complementing theory and practice. (RJ12)

> We based our proposals on different strategies and activities we had looked at previously in the theoretical lessons, but only real experience taught me to make decisions on the spot and propose appropriate variants. (RJ31)

The narratives clearly show the way PETE students understood that when curricular content is acquired through real and meaningful experiences, such as the one described here, the learning can be much more applicable in real contexts – that is, rather than acquiring mere theoretical content, the educational context provided by the SL experience in Melilla helped them develop competencies related to their future professional performance:

> It is one thing to plan exercises on paper, but it is quite another to apply them in real contexts. They are completely different things. (RJ5)

> I have realized that when I learnt something in the practical sessions, later I remembered it very easily if I had to apply it again in similar situations. (FG1-2)

Moreover, the experience of leading PE sessions with such diverse people (unaccompanied foreign minors, migrants, refugees, victims of gender violence, etc.) made them understand the possibilities that PE provides for social and cultural inclusion, thus achieving some of the learning outcomes of the curricular subjects involved:

> This SL experience has helped us be aware of the need to adapt the proposed activities to the students. It is just as important to know the people you work with as the specific content to apply. Since everyone has different conditions and interests, adaptation is a key process for inclusion. (FG1-1)

Therefore, concerning curricular knowledge, it is important to point out the PETE students' capacity to develop an inclusive approach in their PE sessions, understanding that inclusion requires changing the concept of diversity, moving it towards a more comprehensive and global proposal focusing on social justice and understanding (Carrington et al., 2015). Recent research indicates that SL promotes the acquisition of knowledge related to inclusive education and social values, arguing that it is very useful for students, as it helps them imagine their professional future and arouses curiosity about working with different groups in their closest social context (Kassabgy and El-Din, 2013). In fact, as we have argued, it seems that such knowledge has been developed thanks to the implementation and adaptation of teaching strategies theoretically discussed in the subjects, which allowed students to self-assess in real-life situations. Therefore, it is inferred that real-world experiences, like those of this SL experience in Melilla, may play a decisive role in the development of professional skills (Bright and Brown, 2017; Capella-Peris et al., 2020).

Nevertheless, we should note that not all SL experiences stimulate professional abilities in the same way. Some studies indicate that this improvement depends on the factual connection between the subjects' curriculum and the service provided (Segal-Engelchin et al., 2017). Therefore, the relationship between academic content and the SL programme must be well designed to maximize the pedagogical benefits. In this sense, our results support the design and implementation of the described SL intervention (Jacoby, 2015).

## Cultural dimension

This category refers to the PETE students' capacity to know about, be sensitive to and empathize with the sociocultural reality of the different collectives they worked with, thus creating a truly inclusive community. In this particular study focusing on the sociocultural context of Melilla, the SL experience made it possible to increase students' understanding about the meaning of cultural and social diversity. In this sense, the PETE students showed an unexpected impression of the reality they encountered: 'I realized they were not only different from us (PETE students). In many cases, they were also different from one another. This made me understand, in turn, that everyone was afraid of everyone else' (RJ29).

These findings are consistent with those obtained by Lim et al. (2017) and Warren (2012), who report an increase in social awareness of students who learned through SL:

> I participated with the idea that, since they were a group of young people all coming from the south border, they would have a lot of things and interests in common. However, I discovered that each one had very different expectations. (FG1-6)

> The same thing happened to me and my work team. We talked about their (served group) different expectations and educational level in the after-class reflections and we concluded that actual education has to be much more inclusive. (FG1-5)

These findings show the sociocultural understanding of PETE students in Melilla. They specifically show the PETE students' willingness to contribute to civic improvement and to promote more inclusive PE. Somehow, SL enhanced the students' social responsibility, leading them to a tangible projection of their teaching role, which is consistent with previous research (Anderson et al., 2017; Carrington et al., 2015; Cho and Gulley, 2017; Engberg and Fox, 2011; Fredericksen, 2000).

Similarly, it seems that empathy and mutual understanding also developed between the students and the socially vulnerable groups with whom they worked. For example, the PETE students described feelings of empathy that made them realize how similar they were:

> We should all remember that sometimes it is necessary to help people who need it without expecting anything in return. (RJ14)

> During this experience, they (served groups) have taught us (PETE students) that it isn't necessary to have a lot in common; we can help each other in many ways, such as spending time together, sharing our fears and worries, supporting each other when we feel down, etc. (RJ39)

Concrete interaction with such diverse groups showed the PETE students first-hand some of the day-to-day difficulties experienced by the people in their close environment. In this sense, several

studies indicate that SL is an appropriate experience for acquiring greater cultural understanding (Carrington et al., 2015; Cervantes and Meaney, 2013; Delano-Oriaran, 2014; Galvan and Parker, 2011; Konukman and Schneider, 2012; Warren, 2012). For all these reasons, the results obtained in the SL experience of Melilla make us optimistic about future programmes of this type, showing the possibilities of SL as a pedagogical model capable of raising cultural, social and even political awareness (Butin, 2006; Gil-Gómez et al., 2015; Seban, 2013).

### Political dimension

The 'political dimension' focuses on questioning the dominant social norms that determine the knowledge and power of certain social groups over others (Butin, 2003). In this regard, the SL experience allowed the PETE students to better understand the particular political reality in which they live in Melilla: 'I was aware of the great cultural diversity we had in Melilla, but until now I had never thought carefully about the substance of the matter. Many groups act in a discriminatory manner, maintaining injustices even inadvertently' (FG2-2).

Hence, the political dimension shows how the interaction focusing on the need to solve real situations helped PETE students broaden their views and concerns about the reality of populations at risk of social exclusion, overcoming many predetermined stereotypes caused by the lack of previous interaction with them (Augustin and Freshman, 2015; Gil-Gómez et al., 2015). For example, the PETE students understood that some of the defiant attitudes and behaviours they observed in some individuals of the groups they worked with could be due to mistrust and fear caused by past experiences: 'Knowing the story behind each person we worked with made me understand why they were so elusive and defiant. . . . You have to know the context and personal background very well before judging people' (RJ24).

This suggests that many of these behaviours may have more to do with their fragile self-confidence than with a characteristic or personal trait. In this sense, the results show how the SL experience helped the PETE students understand social inequalities and unjust social situations, as reported by Boyle-Baise and Langford (2004):

> Knowing all these personal problems and situations has made me reflect a lot. When I used to study teaching manuals, I always imagined myself applying them in homogeneous groups of physical education students. Now I know that it makes no sense. (RJ24)

> In Melilla, although regular groups of students in schools are not as diverse as the groups we served, current education should promote overall respect between different cultures and social differences. (FG2-1)

These findings, in turn, suggest that the PETE students learned to understand education from a political point of view, assuming educational responsibilities concerning inequality. Furthermore, the PETE students showed attitudes that demonstrate willingness to help ensure future PE focuses on social justice, deconstructing and reconstructing their way of viewing education: 'In terms of inclusive education, I really think Melilla could be a laboratory for the world. We could be a good example of intercultural education' (FG2-5).

Thus, due to their participation in the SL experience, the PETE students were able to learn about different groups that make up the particular reality of Melilla.

## Post-structural dimension

The 'post-structural dimension' focuses on the creation of personal and professional identities as a result of the SL experience (Butin, 2003). For instance, the discourse of the PETE students illustrates how this SL experience changed the way they conceive what/who is different and what/who is normal. This implies that the PETE students were able to change their thoughts, understanding that everyone is different in their own way:

> After chatting with one of the refugees, my vision of who is normal and who is different changed. I understood that perhaps normality doesn't exist. We are all different . . . (FG1-4)

> One of the older adults also made me see that we take for granted many things that we should value more: we eat daily, we have doctors who heal us when we are sick, free education . . . Things are not that easy for everyone. (FG1-1)

Considering these comments, it appears that the PETE students may have reformulated their own identity thanks to the SL experience, seeing themselves as privileged and well-off. It also seems that recognizing themselves as privileged beings also helped the PETE students identify and overcome many of the social prejudices and stereotypes they previously held:

> Even though we had discussed it in class, none of the people I worked with was as I expected. They are in a very fragile situation, but they are normal people, wanting to feel good and do many different things. Exactly as we all do. (RJ45)

> During the SL intervention, I often put myself in their shoes and understood that in their situation I would have acted the same way . . . Any of us could find ourselves in similar situations any time. (RJ16)

Likewise, these findings suggest that, through the SL experience, the PETE students overcame and disconfirmed previous stereotypes and negative categorizations against the recipient groups, in line with the studies of Chiva-Bartoll et al. (2020c) and Yorio and Ye (2012). In this regard, the students also reported gains in understanding of challenges and empathy with the vulnerable populations they served (Capella-Peris et al., 2020), so this study reinforces SL as an appropriate pedagogical model for acquiring professional and personal comprehension of vulnerable collectives (Cervantes and Meaney, 2013; Galvan and Parker, 2011).

In addition, an important outcome learned by the PETE students through this SL experience was to deal with the uncertainty of PE situations and the importance of getting used to solving unforeseen difficulties:

> At first, I was very frustrated every time exercises did not go as planned. But little by little, with the experience and reflections that we did after the sessions, I learnt to deal with my frustration by overcoming every small setback. (FG2-2)

The findings suggest that frustration and concern struck them at the beginning of the SL intervention, although by the end they could overcome it: 'Almost the same thing happened to me, . . . Now I know that although everything doesn't go as planned, it isn't a problem. Overcoming these kind of troubles makes me feel better trained!' (FG2-5).

In summary, during the process they learnt to cope with their fears and insecurities, which is a fundamental lesson for them personally but also as future teachers.

## Conclusions

On the basis of the results, it can be concluded that SL goes further than the current PETE approach, offering real and different educational scenarios and providing an empowering approach to inclusive education. Our findings reinforce socially critical research exploring how PE might help counteract wider social problems. This case study focuses on the particular social and cultural diversity of Melilla, providing an SL experience that generated outcomes in PETE students related to the four dimensions of Butin's conceptual model (Butin, 2003): 'technical', 'cultural', 'political' and 'post-structural'.

Analysing the impact of SL in local curricular programmes is a significant challenge faced by educational researchers today, particularly in initial teacher education. In this sense, we conclude that implementing SL programmes in such culturally and socially diverse contexts (e.g. Melilla) not only reinforces PETE students' understanding of sociocultural diversity but is an effective way of managing and promoting social cohesion and helping students develop their own identity.

### Recommendations for future practice

Given the increasing number of international settings and border areas with diverse cultural groups at risk of social exclusion, we provide some useful strategies so that other PETE programmes and social collectives can benefit from this study, highlighting some features that helped us make the programme effective. Considering the particular case study of Melilla, we suggest that PETE educators should provide students with opportunities to put themselves in the place of vulnerable individuals in order to see the reality from their perspective. This means contacting social organizations and arranging outings to observe the community's particularities. Another recommendation is that the teacher should set reflective tasks about the events experienced, helping students and community participants to guarantee that none of the individuals involved are neglected. In addition, it is also important that the PETE students keep in mind the meaning of the service and its connection with the PE curriculum throughout the programme. Finally, considering these recommendations endorsed by the results of this case study, we encourage all teacher educators who want to move beyond theoretical approaches to adopt a more pragmatic and active position and give SL a chance.

### Strengths and limitations

The strengths and advantages of the case study presented in this paper include providing an in-depth, detailed, comprehensive, holistic examination of the particular case of Melilla and the consequent possibility of making naturalistic generalizations (Tracy, 2010; Yin, 2009). However, there are various limitations and potential weaknesses that should be considered, which inevitably limit the formal or categorical generalizability of the findings. In any case, future research is needed to increase our understanding of SL programmes in PETE students. Furthermore, our research focused solely on the students' learning and experiences. The viewpoints and experiences of the social entities and especially the participants representing vulnerable groups should also be studied in further research.

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