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Special Issue: Towards a transformative Physical Education: the role of Service-Learning

Experiences of Service-Learning in the initial training of physical education teachers”

Experiencias de Aprendizaje-Servicio en la formación inicial del profesorado de Educación Física

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Abstract

The initial training of PE teachers is an ideal setting in which to apply Service-Learning. The purpose of this work is to study the satisfaction of carrying out activities that help people with some kind of physical and/or psychological deficiency and the improvement of interpersonal relationships in the initial training of PE teachers through Service-Learning. In this research, a qualitative and exploratory methodology was used in which interviews were conducted with three university teachers and two focus groups with nine students participating in Service-Learning projects. The results show satisfaction with the projects in which the participants' citizenship training and social commitment are developed while physical activity is promoted as a means of promoting healthy habits. It is concluded that the Service-Learning projects constitute an unquestionable learning opportunity for students in initial teacher training, as they learn to develop their work in different contexts, while favouring dialogue and communication between the university and the community, promoting the development of civic values from the social commitment that arises for their implementation.

Keywords: Service-learning; physical activity; higher education; social engagement; initial teacher education.

Resumen

La formación inicial del profesorado de EF se emplaza como un ámbito ideal en el que aplicar el ApS. El propósito de este trabajo es estudiar la satisfacción por realizar actividades que ayudan a personas con algún tipo de carencia física y/o psíquica y la mejora de las relaciones interpersonales en la formación inicial del profesorado de EF a través del ApS. En esta investigación se ha empleado una metodología de carácter cualitativo y exploratorio a través de la cual se han realizado entrevistas con tres profesores universitarios y dos grupos focales con nueve estudiantes participantes en proyectos de ApS. Los resultados muestran la satisfacción con los proyectos en los que se desarrollan la formación ciudadana y el compromiso social de los participantes mientras se potencia la actividad física como medio para la promoción de hábitos saludables. Se concluye que los proyectos ApS constituyen una indudable oportunidad de aprendizaje para los estudiantes en la formación inicial del profesorado, con los que aprenden a desarrollar su labor en diferentes contextos, mientras se favorecen el diálogo y la comunicación entre la universidad y la comunidad, promoviendo el desarrollo de unos valores cívicos desde el compromiso social que se plantea para su realización.

Palabras clave: Aprendizaje-servicio; actividad física; educación superior; compromiso social; formación inicial del profesorado.

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Introduction

The continuous changes occurring in society at the economic, political, social and cultural levels demand a change of pedagogical paradigm in the initial training of physical education (PE) teachers (García-Rico et al., 2021; Maravé-Vivas et al., 2021). These changes, together with the search for quality preparation for future PE teachers, have led to the fact that in recent years in the field of Higher Education the competences to be achieved are linked to real contexts in which students' learning is facilitated while offering a service to the community (Chiva-Bartoll & Fernández-Río, 2022; Gutiérrez et al., 2019).

In this search, Service-Learning (SL) is understood as a pedagogical model through which learning is transferred and applied to a community context to respond to a social need (Buchanan et al., 2002; Chiva-Bartoll et al., 2020). In this sense, it is noted that with the application of SL in an environment that presents attentional demands, a community commitment is acquired (Capella-Peris et al., 2020; Cervantes & Meaney, 2013; Cress, 2005; Furco, 2001; Watson et al., 2002); and, consequently, it favours the formation of citizens committed to achieving a more supportive world involved in social justice (García-Rico et al., 2021). Therefore, this educational method has positioned itself as an ideal training model to respond to the professional needs of future teachers in a real and authentic context (Daum et al., 2022), since it promotes social and civic responsibility, as well as a guarantee of training in values (Dharamsi et al., 2010; Santos-Pastor et al., 2018).

From this perspective, the initial training of PE teachers is an ideal setting in which to apply SL, given its potential to provide learning from the promotion of physical activity in their training while improving the quality of life and health of those who practise active leisure or use it as a therapeutic tool (Pérez-Pueyo et al., 2019; Santos-Pastor et al., 2020). The programming of SL projects in some subjects of the Education Studies, especially those included in the PE subject area, represents a break with the traditional way of teaching. As an active teaching style, they require student participation in order for them to acquire the skills and knowledge necessary for their professional performance. The relationship that the student has with the different realities to which these SL are directed makes them complete their curricular training and establish personal relationships with the people who receive their actions. Therefore, this service to the community must be integrated as academic content, given that, after detecting the possible needs in the different social contexts, the agents involved (students, teaching staff and public and private entities) will have to collaborate to design and execute actions beneficial to the participating groups and thus try to transform the possible shortcomings of the people involved.

Undoubtedly, the creation of civic responsibility in students, at the same time as they acquire the contents established in the curricula, will encourage them to reflect more critically on areas marked by inequality or physical and psychological disability. Precisely, the assumption of responsibility to generate greater well-being is one of the primary objectives of SL. In order for these projects to be truly effective and have an impact in the medium and long term, they need to be constantly assessed through successive cycles of research-action. The positive assessment of the experience, as well as of the tasks carried out, is related to the benefit produced for the participants and groups involved (Case et al., 2021; Marttinen et al., 2020; Santos-Pastor et al., 2021; Webster et al., 2017; Whitley & Walsh, 2014). In this way, SL is a training model that is not limited exclusively to the development of professional competences, but also seeks the civic training of people, commitment and social responsibility (Santos-Pastor et al., 2020). This involvement with society that is pursued through SL seeks the connection between the needs of society and the university, making the discourse transformative and coherent with action (Santos-Pastor et al., 2020).

In recent years, there has been a special interest in the scientific literature in practices related to SL in teacher training. These have focused on the goodness and benefits of applying this pedagogical model, which contribute positively to their social self-realisation, self-esteem and self-efficacy for problem solving (Chiva-Bartoll et al., 2019). It also serves to improve communication and dialogue between the university and the community, as it enables future teachers to learn to plan interventions and acquire civic attitudes and skills (Chiva-Bartoll et al., 2019; Maravé-Vivas et al., 2022; Webster et al., 2017). In this line, as a result of the participants' social commitment, they acquire greater knowledge

about the groups they work with, as well as greater awareness of diversity and vulnerable groups (An, 2021; Chiva-Bartoll et al., 2020; Marttinen et al., 2020; Resch & Schritteser, 2023; Santos-Pastor et al., 2020). In this way, future PE teachers not only improve their cultural competence (Domangue & Carson, 2008), but also increase their prosocial behaviour (Chiva-Bartoll et al., 2020).

Therefore, through interventions with SL, it is possible to increase the motivation of students, favour the empowerment and interest of the community to practice physical activity and raise the awareness of a student body sensitised to civic responsibility (Sánchez-Matas et al., 2023; Santos-Pastor et al., 2020). Also, as already explained, inclusive education is promoted by working with diverse and vulnerable groups, as it gives them a greater understanding of the needs of the community (Resch & Schritteser, 2023), allows them to better understand their weaknesses and strengths, improves their communication and management skills (Yin & Joy, 2020), and gives them a high level of satisfaction with their participation in experiences of this type. Finally, Ruíz-Montero et al. (2022) and Santos-Pastor et al. (2021) stated that through SL, students become aware of what they learn and need to learn, develop teaching skills and are aware of their contribution to the community based on critical reflection. And, above all, it generates physical activity habits as a parameter of social well-being (García-López et al., 2023; Pérez-Pueyo et al., 2019).

From this frame of reference, the purpose of this paper is to study satisfaction with activities that help people with some kind of physical and/or psychological deficiency and to test the improvement of interpersonal relationships in the initial training of PE teachers through SL. More specifically, it examines the impact of PES projects on the development of citizenship training and social commitment, the potential of physical activity for the promotion of healthy habits, the degree of learning and satisfaction with the development of SL projects and the knowledge of the benefits and limitations of these projects.

Method

For this study, a qualitative and exploratory methodology was used (Flick, 2009). Specifically, an intrinsic case study (Stake, 2005, Pérez-Luco et al., 2017) was carried out in order to better understand the reality studied.

Contextualization

The Faculty of Education in Segovia has among its hallmarks the search for connections with the surrounding environment, especially with schools, to promote the training of its students. For some years now, different experiences have been carried out, such as the intergenerational days, the school sports project, the citizenship education days, the nature days, etc., which promote a broader social and citizenship education and which in recent years have been systematised under the model of the SL projects.

The idea is to develop different types of projects. On the one hand, the most common SL are carried out with various social groups of vulnerable people, with particular attention to the elderly and disabled population; and on the other hand, to develop personal projects, in which students offer their services to people close to them to help them improve their quality of life by integrating physical activity into their daily habits in a simple way.

In our study we are going to analyse the SL projects carried out in the subject "Games and Sport", an optional subject in the mention of Physical Education in the Primary Education Degree taught in the third year, and in the subject "Physical Education and Health", also an optional subject in the fourth year of the same degree.

These projects last for one semester, with the aim of enabling trainees to get to know the reality of different contexts of intervention at a social level and thus to value the diversity of possibilities offered by physical activity through meaningful experiences. To this end, the SL projects are structured in the following phases:

1. Contact, analysis of the reality and collection of information.

2. Organisation and design of the observation-implementation.
3. Participant and/or external observation.
4. Implementation of the project.
5. Evaluation and preparation of a final report.
6. Presentation and sharing with the rest of the group.

Participants

For this study, nine participants aged between 20 and 23 years old, four women and five men, were intrinsically selected for the academic years 2022/2023 and 2023/2024, who have studied the subject of PE in the Degree in Primary Education and the Joint Study Programme Degree in Primary Education and Degree in Early Childhood Education at the Faculty of Education in Segovia. On this group, five have participated in the ApS project carried out with sedentary people in the 2023/2024 academic year and four have participated in the ApS project in social centres in the 2022/2023 academic year. The participants in this study also included three university lecturers, who were responsible for the supervision, counselling and development of the ApS interventions. Among the teachers involved in the development of the ApS projects, two of them have more than 20 years of teaching experience in Higher Education and the other teacher has more than five years of university teaching experience.

Table 1

Distribution of informants and main characteristics

Agent	Participant type	Number of participants		Year of participation
		Men	Women	
University students	Degree in Primary Education with a specialisation in PE	3	2	2022/2023
	Double Degree in Early Childhood Education and Primary Education with a specialisation in PE	1	3	2023/2024
Teaching staff	Teaching Staff Education Degrees	3	0	2022/2023 y 2023/2024

Instruments and procedures

Information was collected through the semi-structured in-depth group interview and focus groups with students and teachers participating in the SL projects. The focus groups followed a script consisting of 25 open-ended questions addressing the following dimensions: 1) Students' perceived purpose and initial contact, 2) Decision-making skills, 3) Social and civic responsibility: personal involvement to act on social problems and pro-social leadership, 4) Social sensitivity: empathy, help and collaboration, 5) Learning and ability to get involved in projects to improve society, and 6) Project approach from the academic field.

Two focus groups were conducted with the university students, one focus group with four students who experienced the experience in the 2022/2023 academic year and the other with the five students who experienced the experience in the 2023/2024 academic year, plus three interviews with university teaching staff. In order to carry out the focus groups, the researchers first intentionally contacted the potential participants to find out their willingness and availability to participate in the study and they were presented with an informed consent form in which the purpose of the research was presented, confidentiality and anonymity were assured, as well as the right to leave or stop the focus group at any time and the intention to disseminate the results obtained in scientific documents. Once the agreement of the participants was obtained, a day was agreed upon for each focus group. At the beginning of the session, the researchers explained the objectives of the research and answered any doubts or questions the participants might have. Afterwards, initial questions were asked to break the

ice and then the interview was recorded with two mobile phones so as not to lose any of the valuable information provided and to guarantee the reliability of the research. The focus groups were conducted on the University Campus in a space familiar to the interviewees. The duration of the focus groups ranged from 40 minutes to one hour and 43 minutes, and after their completion, they were transcribed into a word processor for later analysis.

In the semi-structured in-depth interviews with the teaching staff, a script was used in which the following dimensions were addressed: the teaching role, the service-learning process, the relationship with the organisations, the social impact and feelings, perceptions and satisfaction. Anonymity and confidentiality were assured through informed consent. They were also carried out in spaces on the University Campus and after their completion they were transcribed.

Analysis of the information

For the analysis of the information collected, it was first organised, coded and categorised in the qualitative analysis programme Atlas.ti version 7.5.4. After the transcription of the interviews and focus groups, they were assigned a coding for their identification (Table 2). Once the information was coded and categorised inductively, a content analysis was carried out (Abela, 2002; Miles et al., 2018), based on the deductively established dimensions (Massot et al., 2004): the development of citizenship training and social commitment; the enhancement of the potential of physical activity for the promotion of healthy habits; the assessment of the degree of learning acquired; and the level of satisfaction and knowledge of the benefits and limitations of the PSA projects. This led the researchers to identify networks and relationships in the participants' discourses. Following this, a second round of analysis was undertaken through a process of constant comparison of the information in order to draw conclusions and inferences that allowed for the explanation of the information analysed.

Table 2

Coding established for the identification of interviews and focus groups

Interview/Focus group	Identifier number	Participants
EN	From 1 to 5	Teaching Staff (P) University students (E)

Note. Example of coding an interview: EN2P-2= Interview 02 to teachers - page two.

Results and discussion

The most significant results of the study are presented in the following lines:

- Development of citizenship education and social engagement

One of the main values of SL projects is their ability to put schools in contact with the community context in which they are located, projecting the social function of physical activities from the work carried out by students. The idea of Capella-Peris et al. (2020), Cervantes & Meaney (2013), Cress, (2005), Furco (2001), and Watson et al. (2002), who allude to the importance of students having a "community engagement", is therefore corroborated.

The teaching staff see this commitment from the connection with diverse social contexts and it is used as a strategy to "*Promote the development of projects and actions in which they learn about different social realities and can participate in diverse experiences with groups in which they learn that they can contribute their bit to improve reality*" (ENP2-2). Moreover, the SL projects stand out for bringing the university closer to society through the social commitment of the students, as they get to know and understand realities that are close to them, but sometimes unknown to them. They are contexts where they develop their work not only on a social level, but also professionally, with a very interesting vision of how participating in the projects is positive for all the people involved. On the other hand, the projects can serve to recognise the importance of personal relationships, by dedicating time to others, an action that is valued as necessary and appropriate:

It has allowed me to see the importance of time, working, studying, but now I see the importance of dedicating time for the family and exercising together, you realise that if you don't do it now, when are you going to do it? (E1E-11).

- The potential of physical activity for the promotion of healthy behaviours

From the practical action in the PES projects, students become aware of the potential of physical activity to promote health and active leisure, along the lines indicated by Pérez-Pueyo et al. (2019) and Santos-Pastor et al. (2020). In some cases, due to the proximity of the context, students can follow up the process in the people and entities they contact, and they value that not only the improvement of physical skills is important, but also the general personal well-being that physical practice entails, particularly when social interaction is fostered.

I have had a double objective: to contribute to improving my father's physical health and on the other hand, to spend time with him, which has been very good for him, as he has repeated in the interviews I have had with him, he comes home more at ease, he is in better spirits and we have created a bond that is the one we had before, he was the one who passed on to me the love of sport and it is a way of giving it back to him when he is not so well in terms of his spirits. (EN1P-3)

It is very interesting to note how they internalise the idea of health from a global perspective, which is not limited to the absence of illness or physical fitness, and they state that the positive nature of the projects cannot be obscured if they do not subsequently have the desired continuity, as the experience has remained there, since *"Not everything is idyllic, but the advances, even if they are small, are significant, there are no negative effects for the people who participate in the project, as it will not even be negative, even if it does not have continuity"*. (EN1E-12).

- Learning and satisfaction

The SL experiences are rated very positively by the students and teachers participating in them, who show a high degree of satisfaction with their learning at all levels, in line with what Asún (2014) explains and which the students underline very well when they explain what is achieved by participating in the projects: *Learning beyond what classroom work is, as we are only used to seeing PE classes* (EN2E-1). For their part, the teachers corroborate the positive assessment of this type of experience: *"After reviewing the project, the evidence and the assessments made by the participants, we can say that the proposal is very satisfactory"* (EN1P-7).

Students explain that their participation in the project brings them interesting benefits for their professional learning related to programming or assessment. Thus, they state that through SL they are more aware of their learning, they value that the experiences are very well connected with significant learning for their training, highlighting in this line the ability to adapt to the context as one of the most valuable and relevant learning.

Adapt to different people taking into account that everyone has a different rhythm and we are going to see this with children as well and as we have seen with older people, not everyone can follow the same learning rhythm. (EN2E-6).

This ability to adapt is undoubtedly a transferable learning to different contexts, since *"After this, which are like private lessons, when we go to schools we will have answers to work with children with problems and/or unmotivated"* (EN1E-8). These reflections of the participants are in line with what Ruíz-Montero et al. (2022) and Santos-Pastor et al. (2021) consider in relation to the adequate development of teaching competences by students and highlight the potential that the development of collaborative actions in this type of contexts has for fostering shared learning. In addition, the positive feeling that accompanies the development of this type of projects, particularly when working with older people, is very remarkable, thanks to a positive socio-emotional connection.:

You go with an idea that you are going to do something, but you see that you do more, the person and the group you have worked with have many benefits, apart from those mentioned, such as feeling accompanied. Personally, you get a feeling of happiness inside (EN2E-7).

In this line, they also emphasise the importance they attach to the personal and social bonding that this type of project generates, as they believe that physical activity can be a very appropriate tool for good socialisation, which is so necessary nowadays.:

[...] you saw the older people as if you were their granddaughter. A. and I would talk and they would say to us: "you have to study a lot" and they would see us and smile, it was like they knew that new people were coming to work with them and you feel the responsibility not only of motor skills but also of getting a smile out of them that day (EN2E-3).

From the teachers' perspective, SL projects are also a great resource to train critical and committed teachers and to generate socially inclusive experiences:

SL enables students to think critically about their work as teachers and as members of a society that they can help to improve and change in a positive way. It is necessary to go beyond the classroom context to learn about other realities. The curricular knowledge acquired must be put into practice not only in the teacher's field of action but also in other realities and situations. In this way, everyone will benefit (EN2P-2).

All disadvantaged groups should have equal opportunities to live in society. Sometimes their conditions do not allow them to have access to certain services that can be guaranteed through PES projects. (EN1P-1).

- Benefits and limitations of SL projects

SL training experiences are generally considered beneficial by their protagonists. In this sense, they consider that they have an impact on different aspects, such as students learning to plan activities in different contexts, adapting their proposals to the people they are going to work with, regardless of their motor skills, or the development of social and moral values. Interpersonal contact is favoured as it is carried out in a community context, promoting a special sensitivity towards the most socially vulnerable groups, in particular the disabled and the elderly. In this line, the empathy that is generated with the participants in the project is very remarkable. The students try to generate good experiences in the people they are with, given that the objectives are essentially set more linked to the social sphere, rather than to the motor aspects of the project.

[We tried to] make them feel better, accompanied and seeing people coming in from outside helps them to socialise, because after all they see the people there every day. They were motivated to socialise, to tell us things (EN2E-4).

They also report that it is positive to help participants discover different alternatives linked to the practice of physical activity, which are considered to be beneficial, although sometimes costly to achieve (Chiva-Bartoll et al., 2020; Maravé-Vivas et al., 2022; Webster et. al., 2017). In particular, we highlight that students underline the potential of working several teachers together in ApS experiences, in line with Zarzuela et al. (2018) when they explain the learning benefits of "pedagogical partnerships". Furthermore, they consider the experiences to be "enriching", generating "fulfilment" or "happiness" and making them feel "proud" of what they have achieved.

I really benefited from a class session in which we had to tell each other in pairs the idea we had of programming, as someone else sees it from the outside and we gave each other feedback. That session was key for me to be able to see my project from the outside and how to improve it. (EN1E-6).

In terms of limitations, the main one mentioned by the students is the difficulty of making the experiences compatible with the academic demands of the subjects. As for the teaching staff, they say that it is difficult to monitor the projects when they are carried out in different contexts. When looking for solutions, the teaching staff at the Faculty of Education in Segovia expressed their intention to develop a coordinated project for the implementation of SL projects in several courses and in different contexts, which would have a positive impact on the training of students and on the possibility of developing a collective project with the involvement of several teachers.

On the other hand, the dilemma arises as to whether to consider SL as a voluntary activity or to include it as a compulsory activity with an academic load. The students recognise that it is positive that

everyone should try the experience, even if it is compulsory, because of the benefits it brings, otherwise many would not take part, as one participating student put it very well:

If people see that it is compulsory, they will do it because it is your turn and they will not have that illusion, but if you really do it, you will realise that you will do it with illusion because it comforts you as a person. There is a debate (EN2E-10).

We can finish by affirming that the difficulties and limitations are not an insurmountable obstacle, as demonstrated by the fact that the students value the potential of this type of action, both in terms of training and in terms of the people with whom they work, with the idea of "symbiosis" that is produced in the activity. This is described in a very interesting way by a student.

[Is this type of action necessary?] Yes, first for ourselves to create experiences in different contexts and for the person who is with you to increase knowledge, quality of life, self-esteem, perception... It is a relationship of symbiosis. (EN1E-9)

Conclusions

The study carried out corroborates that SL projects constitute an unquestionable learning opportunity for students in initial teacher training, who learn to develop their work in different contexts. On the other hand, and no less important, these projects favour dialogue and communication between the university and the community, promoting the development of civic values based on the social commitment that is proposed for their implementation.

We would like to underline how participation in this type of projects has an unquestionable contribution to the promotion of positive attitudes linked to citizenship training and social commitment, from the creation of links between the people who participate in the actions of the projects, highlighting the special connection that arises when working with vulnerable groups, in particular with the elderly.

The impact of these APS experiences has led the Faculty of Education in Segovia to carry out an interdisciplinary training project that aims to contribute to enriching the training of its students through significant training experiences that seek to promote personal and social development. The purpose is to carry out actions linked to diverse contexts that allow for the establishment of significant socio-emotional connections relevant to the students' learning and to generate joy and happiness in the groups with which they work. In addition, as the teachers point out, it is an opportunity to generate formative processes that will be used as a reference in the future.

With regard to the limitations encountered in the development of ApS projects with university students, there are difficulties in making students' timetables compatible for the development of projects in different contexts, given the difficulty involved in adjusting teaching timetables and those for attending internships; the viability of the projects depends on the exhaustive dedication of the teachers, who must contact the organisations, agree on timetables and the development of the different projects, tutor and prepare the sessions with the students, review reports and reflections, etc. Moreover, it is difficult for teachers to monitor all the projects in depth on a continuous basis due to the dispersion of projects in different entities and timetables. Another of the limitations encountered corresponds to the coordination of several teachers, since, although it facilitates the development of the projects, it is not always easy to achieve this aspect given the difficulty often encountered when it comes to making timetables and activities compatible. Another limitation is the importance of sharing students' experiences in order to promote collaborative learning, but on many occasions it is difficult to find moments for collective reflection and analysis of the experiences; as well as the need to give a greater voice to the entities with which the projects are developed in order to enrich and adjust them to the interests of the people with whom the activities are carried out.

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