

INFLUENCE OF UNIVERSITY SERVICE-LEARNING ON PROFESSIONAL COMPETENCE IN STUDENTS FROM PHYSICAL ACTIVITY AND SPORT DEGREES

INFLUENCIA DEL APRENDIZAJE-SERVICIO UNIVERSITARIO SOBRE LA COMPETENCIA PROFESIONAL EN ESTUDIANTES DE TITULACIONES DE ACTIVIDAD FÍSICA Y DEPORTE

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ABSTRACT

The aim of this study is to examine the perception of the professional competence of students who are attending Physical Activity and Sport (PAS) related degrees, participating in University Service-Learning (USL) projects, according to their sex and age, as well as the profile of the target group of these projects. 211 students from seven Spanish universities participated in the study (male = 88, female = 123). Their age was between 19 and 35 and all students participated in PAS USL projects with nine different vulnerable groups. The instrument used to determine the professional learning and effects of USL in PAS was the scale "Service-Learning in Physical Activity" (S-LPA, E-ASAF in Spanish). Six dimensions form S-LPA: learning, pedagogical value, social impact, professional development, professional skills, and opinion. With regard to the relationship between the characteristics of the students and the results, gender (men and women), age range (<20 years, 21-24 years and >25 years), and type of target group in this study (functional, social, and cultural/religious diversity) were studied. Statistical analyses were carried out using a multivariate analysis of variance (MANOVA). All

dimensions of the scale were significant except the social impact and professional skills. Gender, age range, and type of target group showed significant differences regarding the dimensions of the S-LPA scale. In addition, the interaction between type of target group/gender and type of target group/age range showed a relationship with the dimensions of pedagogical value and professional development. In conclusion, this study shows the relationship of the USL with the consolidation of curricular content and the perception of professional learning in PAS students, as well as the relationship with factors such as gender and age of the students and the type of target groups.

KEYWORDS

Professional learning, physical education, discrimination, student attitude, educational method

RESUMEN

El presente estudio tiene por objetivo examinar la percepción de la competencia profesional del alumnado que cursa titulaciones universitarias del ámbito de la Actividad Física y el Deporte (AFD) participante en proyectos de Aprendizaje-Servicio Universitario (ApSU), en función de su sexo y edad, así como del perfil del colectivo receptor de dichos proyectos. En el estudio participaron 211 estudiantes (alumnos=88, alumnas=123) de siete universidades españolas, con edades comprendidas entre 19 y 35 años, que se implicaron en proyectos de USL en PAS con nueve colectivos vulnerados diferentes. El instrumento usado para determinar el aprendizaje profesional y los efectos del ApSU en AFD fue la escala "Aprendizaje-Servicio en Actividad Física" (E-ASAF), compuesta por seis dimensiones: aprendizaje, valor pedagógico, impacto social, desarrollo profesional, competencias profesionales y opinión. Respecto a la relación de las características del alumnado con los resultados, se estudió el sexo (hombre y mujer), rangos de edad (≤ 20 años, 21-24 años y ≥ 25 años) y tipos de colectivos receptores participantes en los proyectos (diversidad funcional, social y cultural/religiosa). Los análisis estadísticos fueron llevados a cabo mediante un análisis multivariante de la varianza (MANOVA). Todas las dimensiones de la escala fueron significativas excepto el impacto social y las competencias profesionales. El sexo, rango de edad y tipo de colectivo receptor vulnerado presentaron efectos significativos en sus diferencias respecto a las dimensiones de la escala. Además, la interacción entre colectivo vulnerado receptor/sexo y colectivo vulnerado receptor/rango de edad presentó una relación con las dimensiones de la escala de valor pedagógico y desarrollo profesional. En conclusión, este estudio muestra la relación del ApSU con el afianzamiento de contenido curricular y la percepción de aprendizaje profesional en estudiantes de AFD, así como las relaciones existentes entre factores como el sexo, la edad del alumnado participante y la tipología de los colectivos receptores.

PALABRAS CLAVE

Aprendizaje profesional, educación física, discriminación, actitud del alumno, método educativo

INTRODUCTION

University Service-Learning (USL) can be understood in the field of Physical Activity and Sport (PAS) as an activist and transformative pedagogical model, which provides a service to the community while learning the contents of the curriculum (Chiva-Bartoll & Fernández-Río, 2021). At the same time it helps students develop critical professional perspectives and a sense of social justice (García-Rico, Martínez-Muñoz, Santos-Pastor, & Chiva-Bartoll, 2021; Miller, Roofe, & García-Carmona, 2019). USL establishes the necessary conditions for students to act autonomously and face possible deficiencies when administrations lack the resources to act (Giné-Garriga et al., 2019).

The context of university is not oblivious to the leading role that university students must develop for the needs of the community. Higher education has a task to train competent people and professionals that are connected to today's society. In recent years, scholars have argued for PAS university education to have a more critical and social approach (Walton-Fisette & Sutherland, 2018). USL allows future PAS professionals to develop greater social responsibility and be sensitive to the social inclusion of disadvantaged groups (Chiva-Bartoll, Ruiz-Montero, Leiva-Olivencia, & Grönlund, 2021).

In light of the effects caused by USL, university students' personal characteristics or perception when learning through this approach should not be ignored (Santos-Pastor, Cañadas, Martínez-Muñoz, & García-Rico, 2020). The characteristics of the students that take part in USL programs may vary, causing effects on learning that could be substantially different. Some of the most outstanding characteristics to take into account regarding the aforementioned educational, professional, personal, or social benefits of the students are age, gender, and the type of USL target group (López-de-Arana Prado, Aramburuzabala Higuera, & Opazo Carvajal, 2020; Santos-Pastor et al., 2020). For this reason, the present work aims to analyze the relationship between these variables in students participating in USL programs within the scope of PAS.

In terms of gender, there are diverse theories about social behaviors and interests when cooperating with other people (Balliet, Li, Macfarlan, & Van Vugt, 2011). These authors carried out a meta-analysis in which it was suggested that there were no differences between men and women when it came to cooperating and showing social actions towards others. In the field of USL there are hardly any studies in this regard. The main result of a study carried out with female university students who participated in USL showed that they opted for this methodology to gain extra experience in their field of

study. This suggests that although helping other people was important, it was still a secondary motive (Matusovich, Oakes, & Zoltowski, 2013).

Another characteristic that could affect university students who participate in USL during higher education is age. To begin with, there are several studies developed with university students in which age does not appear as a limiting factor when offering a service or developing prosocial and cooperative attitudes towards other people. As an example, there is research carried out with first-year university students in which USL seems to give meaning to their comprehensive training, insofar as they experience more social interactions and develop positive attitudes towards others (Maples et al., 2020). Other studies have been conducted during the intermediate stage of university, suggesting that students experience a strong development of prosocial attitudes, as well as an increase in their perceived happiness when implementing USL with vulnerable groups (Chiva-Bartoll, Ruiz-Montero, Capella -Peris, & Salvador-García, 2020). Furthermore, USL interventions in the last years and with older adults showed that USL helped break down negative stereotypes and build positive experiences regarding disadvantaged groups with whom they had previously had no contact (Ruiz-Montero, Chiva-Bartoll, Salvador-García, & González-García, 2020).

A key aspect that can mark the effect of the USL intervention on university students is the profile of the group receiving the service, given that important personal interactions and close ties of empathy are generated when they interact (Lleixà & Nieva, 2020; Lleixà & Ríos, 2015). For the present research, the various target groups will be specifically grouped into three, according to diversity type: functional, social, and cultural/religious.

According to a systematic review by Chiva-Bartoll et al. (2019) on USL in university degrees related to PAS, the functional diversity group is the one most university students interact with through USL interventions. The characteristics of this group require that students pay absolute attention to their specific needs (Capella-Peris, Gil-Gómez, & Chiva-Bartoll, 2019; Chiva-Bartoll, Maravé-Vivas, Salvador-García, & Valverde, 2021).

There is a diverse range of USL interventions carried out by university students in terms of the social diversity target group (Gine-Garriga et al., 2019; Maples et al., 2020). Among all the types of subgroups, university students from different areas participate in a large number of USL experiences with older adults and dependent people (Bullock, 2017; Chen, 2018; Neal et al., 2017; Ruiz-Montero, Chiva-Bartoll, Salvador-

García , & Martín-Moya, 2019), and more specifically, so do PAS students (Howell, Redmond, & Wanner, 2021; Martín, Warner, & Das, 2016). In this area, youths can also be a vulnerable group, and even more so if they are young people deprived of freedom (Nichols & Sullivan, 2016).

The last group in question is that of cultural and religious diversity. Contexts with cultural diversity represent a very common option when implementing USL (Palpacuer-Lee & Curtis, 2017). USL with multicultural groups and with religious diversity promotes the understanding of multiple social perspectives in PAS students and, at the same time, encourages the development of interpersonal skills and conflict resolution in the target groups (Chiva-Bartoll et al., 2021).

Taking into account all the above, the objectives of this study are: a) to analyze the relationship of the university students' gender and age with the group receiving the USL programs; b) examine the connection between the perception that university students have of their own professional learning (in the different dimensions) with their gender and age; and c) explore the relationship between the perception of university students about their own professional learning (in the different dimensions) with the type of group receiving the USL programs in which they intervene.

METHOD

Participants

The study sample consisted of students belonging to seven Spanish universities that participated in educational projects with a USL approach during the 2018/19 and 2019/20 academic years. The selection criteria for the universities were: (1) belonging to the PAS Service-Learning Research Network for social inclusion (RIADIS); (2) have had PAS USL experiences for at least three years.

The sample of students who participated in the study consisted of 211 people: 88 men (31.5%) and 123 women (68.5%) who were between 19 and 35 years of age. When collecting information about gender, they were offered the possibility to select "other" for people who did not identify as either men or women, but no one selected this option. Regarding age, 21.3% were under 20; 69.2% were between 21 and 24; and 9.5% were over 25.

USL intervention programs

The USL programs in PAS included in the framework of this research had different approaches but one single purpose: to meet the needs and demands of groups at risk of social exclusion through the practice of PAS. The tasks carried out included social-sports events and meetings, recreational workshops, movement games sessions for minors, physical sports, and recreational sessions.

The USL target groups were divided into three groups: 1) people with functional diversity (minors, young people, adults and older adults with mental health problems and/or intellectual, sensory and/or motor disabilities); 2) people with social diversity (older adults, young people at risk of exclusion, women in disadvantaged situations, and people deprived of freedom) and; 3) people with cultural/religious diversity (unaccompanied minors with foreign nationality and migrants/refugees).

Instruments

The scale “Service-Learning in Physical Activity and Sports” (S-LPA) (Santos-Pastor et al., 2020) was used. It is composed of seven dimensions that try to collect concrete information on the effects of the SL-PAS projects: (1) Learning (Experiential learning. Applying and understanding the contents of the curriculum in real contexts. Responsibility and leadership); (2) Pedagogical Value (Active participation and predisposition to learning. Self-concept and self-esteem. Self-efficacy. Empathy); (3) Social Impact (Contribution to the community. Adapting to the needs of the groups, solving real problems, quality service, social commitment, civic responsibility); (4) Professional Development (Adapting to the real needs of a specific group. Quality intervention. Skills to plan and communicate. Knowledge of the curriculum and teaching strategies. Working in teams and considering disadvantaged contexts); (5) Professional Competence (Adapting to the real needs of a specific group. Quality intervention. Skills to plan and communicate. Knowledge of the curriculum and teaching strategies. Working in teams and considering disadvantaged contexts); and (6) Opinion (Personal domain effects while developing transversal competences (social and civic). Reflection and awareness about social justice. Opportunity to transform society).

The scale consists of a total of 42 items and the questions are answered with a 5-point Likert scale, being 1- Totally disagree and 5- Totally agree (except for the first dimension, as it is contextual information). The psychometric properties of the questionnaire obtained an excellent reliability index, with a Cronbach's Alpha of $\alpha = .95$ and an adequate internal consistency for the different dimensions, with a good reliability

index, the values being between .63 and .86. All the elements correlated positively and with good values with the total scale.

Procedure

The S-LPA scale was digitized (Santos-Pastor et al., 2020) and distributed among the teaching staff responsible for the educational programs so that they could administer it to the participating students. This instrument was administered at the end of each program once the final evaluation had been carried out. The answers were anonymous, sent *online*, and collected independently in a database to be processed using the SPSS 21 software. The research followed the regulations of the Ethics Committee of the Autonomous University of Madrid (CEI-UAM, 2013), as well as the protocols of the Ethics Committee of the University of Granada (Code: 1732 / CEIH / 2020).

Statistical analysis

The characteristics of the sample (gender and age range) and the differences between the types of target groups were analyzed with descriptive statistics using the chi-square test. The differences and respective interactions between the dimensions of the S-LPA according to participant's gender and age, as well as the type of target group, were analyzed using a multivariate analysis of variance (MANOVA). The bootstrap simulation method based on a resampling of 5000 simulated samples was used to approximate the distribution of the statistics. Statistically significant differences found in both main effects and subsequent interactions were analyzed using ANOVA analysis of variance and *post hoc* tests. A Tukey test was used for inter-group differences, and a Bonferroni correction test was used for the interaction differences between groups.

The MANOVA tests of normality through the equality of covariance matrices (Box M test) and the absence of collinearity assumptions (correlation matrix, VFI and eigenvalues) were tested using the STATA program. The analysis showed the absence of multicollinearity given that the correlation values in the matrix coefficients were medium-low (between -.34 and .64). The VFI values were between 1.14 and 2.43, and the eigenvalues were adequate, with all the conditions of the numbers close to 7 and always below 15. Therefore, the values obtained followed the recommendations of the scientific literature (Montgomery, Peck, & Vining, 2001). Finally, the equality of covariance matrices was observed using the Box M test by means of a chi-square test ($\chi^2 = 104.24$; $p = .67$).

All analyses were performed with the SPSS 23 statistical package for social sciences (IBM SPSS for MAC 23.0, Armonk, NY).

RESULTS

The type of target group with which the university students carried out their USL interventions was categorized into three groups: functional diversity, social diversity, and cultural/religious diversity. In addition, each of these groups included other groups, all of them summarized in Table 1.

Table 1
Type of target group affected by the gender and age range of participating university students.

Type of target group	Gender				Age range (years)						Total	
	Male (N=88)		Female (N=123)		≤20 (N=45)		21-24 (N=146)		≥25 (N=20)		(N=211)	
	N	%	N	%	N	%	N	%	N	%	N	%
Functional diversity	34	31.5	74	68.5	26	24.1	71	65.7	11	10.2	108	51.2
<i>Autism Spectrum Disorder</i>	7	13.5	45	86.5	1	1.9	45	86.5	6	11.5	52	24.6
/												
<i>Mental health problems</i>	3	42.9	4	57.1	0	0	4	57.1	3	42.9	7	3.3
<i>Youth population with intellectual and motor diversity</i>	24	49	25	51	25	51	22	44.9	2	4.1	49	23.2
Social diversity	24	34.8	45	65.2	19	27.5	44	63.8	6	8.7	69	32.7
<i>Older adults</i>	14	29.8	33	70.2	14	29.8	31	66	2	4.3	47	22.3
<i>Youth population at risk of exclusion</i>	4	40	6	60	2	20	5	50	3	30	10	4.7
<i>Women in disadvantaged situations</i>	6	75	2	25	1	12.5	7	87.5	0	0	8	3.8
<i>Persons deprived of freedom</i>	0	0	4	100	2	50	1	25	1	25	4	1.9
Cultural/religious diversity	30	88.2	4	11.8	0	0	31	91.2	3	8.8	34	16.1
<i>Unaccompanied minors with foreign nationality</i>	20	90.9	2	9.1	0	0	20	90.9	2	9.1	22	10.4
<i>Migrants/refugees</i>	10	83.3	2	16.7	0	0	11	91.7	1	8.3	12	5.7
Statistical indicators	X ² (8) 57.86***				X ² (2) 36.28***							

Note. *** $p < .001$

The main effects of a multivariate analysis in this study did not show significant results in terms of gender (Wilks' $\Lambda = .948$, $F(6, 191) = 1.74$; $p = .114$; $\eta^2 = .052$), age range (Wilks' $\Lambda = .945$, $F(12, 384) = .913$; $p = .533$; $\eta^2 = .028$), and type of target group (Wilks' $\Lambda = .957$, $F(12, 382) = .705$; $p = .747$; $\eta^2 = .022$). However, regarding the interaction between these variables, there were significant effects between gender and type of target group

(Wilks' $\Lambda = .884$, $F(12, 384) = 2.02$; $p = .022$; $\eta^2 = .061$) and, also between age range and type of target group (Wilks' $\Lambda = .899$, $F(18, 540) = 1.15$; $p = .036$; $\eta^2 = .035$). The relationship established between the cited variables was developed through an ANOVA analysis of variance. Table 2 summarizes the main effects according to the participant's gender, age, and the type of target group, while Table 3 shows the main effects of the interaction between gender, age, and type of target group.

Table 2

ANOVA for each dimension of the S-LPA scale according to gender, age range, and type of target group involved in the USL.

S-LPA scale dimensions	Gender			Age range (years)			Type of target group					
		Mean (SD)	F	η^2		Mean (SD)	F	η^2		Mean (SD)	F	η^2
Learning	M	4.28 \pm .56	.51	.003	UT	4.36 \pm .50	1.05*	.011	FD	4.36 \pm .57	.84	.009
	F	4.43 \pm .58			FT	4.40 \pm .55			SD	4.44 \pm .57		
					OT	4.17 \pm .81			CRD	4.22 \pm .58		
Pedagogical Value	M	4.24 \pm .58	3.84*	.019	UT	4.37 \pm .57	.16	.002	FD	4.34 \pm .60	.11	.001
	F	4.39 \pm .57			FT	4.32 \pm .57			SD	4.39 \pm .53		
					OT	4.24 \pm .64			CRD	4.15 \pm .57		
Social impact	M	4.14 \pm .48	1.53	.008	UT	4.38 \pm .44	.57	.006	FD	4.16 \pm .55	.36	.004
	F	4.23 \pm .57			FT	4.15 \pm .52			SD	4.31 \pm .56		
					OT	4.07 \pm .77			CRD	4.06 \pm .41		
Professional development	M	3.70 \pm .90	2.61*	.013	UT	3.98 \pm .66	.37	.004	FD	3.91 \pm .78	2.54**	0.25
	F	4.05 \pm .81			FT	3.87 \pm .91			SD	4.07 \pm .91		
					OT	3.96 \pm .87			CRD	3.55 \pm .91		
Professional competence	M	4.14 \pm .45	.01	.000	UT	4.24 \pm .40	.11	.001	FD	4.13 \pm .43	.35	.004
	F	4.17 \pm .48			FT	4.13 \pm .50			SD	4.24 \pm .53		
					OT	4.15 \pm .35			CRD	4.07 \pm .42		
Opinion	M	4.11 \pm .81	4.92**	.024	UT	4.35 \pm .66	.97	.010	FD	4.20 \pm .75	.86	.016
	F	4.36 \pm .76			FT	4.15 \pm .85			SD	4.38 \pm .78		
					OT	4.35 \pm .71			CRD	3.91 \pm .88		

Note. S-LPA: Service-Learning in Physical Activity and Sports; M: Male; F: Female; UT: Under 20 years of age (<20); FT: From 21 and 24 (21-24); OT: Over 25 years old (>25); FD: Functional Diversity; SD: Social Diversity; CRD: Cultural/Religious Diversity. ** p <.01; * p <.05

Table 3

ANOVA for each dimension of the S-LPA scale as a function of the interaction between gender, age range, and type of target group involved in the SL.

S-LPA scale dimensions	Type of target group x Gender				Type of target group x Age range			
	F	df	<i>p</i>	η^2	F	df	<i>p</i>	η^2
Learning	1.88	1,191	.154	.019	1.54	2,382	.203	.023
Pedagogical Value	2.38	1,191	.002	.059	.96	2,382	.411	.015
Social impact	6.18	1,191	.095	.024	.62	2,382	.607	.009
Professional development	1.39	1,191	.249	.014	3.21	2,382	.024	.047
Professional competence	.59	1,191	.553	.006	.47	2,382	.699	.007
Opinion	2.16	1,191	.117	.022	.86	2,382	.460	.013

According to the main effects of the analyzed variables, statistically significant differences were found according to gender regarding the dimensions of the S-LPA (Table 2). However, these differences were small because the explained variance was close to zero; the partial eta square of the dimensions of pedagogical value, professional development (both, $p < .05$), and opinion ($p < .01$) were 1.9%, 1.3%, and 2.4% respectively. Regarding the S-LPA dimensions, female university students obtained significant values and with higher means than their male counterparts, although with little difference. The mean results of the S-LPA dimensions for age were compared between the three ranges (≤ 20 years, 21-24 years, ≥ 25 years) with significant differences for the learning dimension ($\eta^2 = 11\%$). The Tukey *post hoc* test showed differences in ≤ 20 -year-olds and 21–24-year-olds regarding the learning dimension ($p < .05$). Finally, a significant difference was also observed in the professional development dimension depending on the type of target group involved in the USL. For the dimension of professional development, the partial eta squared when the three types of groups with diversity were compared explained a variance of 25%. The Tukey *post hoc* test showed differences between the university students participating in USL programs with the groups of social diversity and cultural/religious diversity ($p < .01$). Regarding the interactions between gender/type of target group and age range/type of target group, both presented significant effects (Table 3). The first interaction showed a significant difference in the pedagogical value dimension ($p < .01$) which explained 5.9% of the variance. In the case of the second interaction, the significant difference was obtained in the professional development dimension ($p < .05$) with an effect size of 4.7% in terms of explained variance. Both interactions are illustrated in the figures below. Regarding the interaction between age range/type of target group, Figure 1 shows that the ≤ 20 -year-olds and ≤ 25 -year-olds tend to experience greater professional development when USL programs include a socially diverse collective. However, professional development in these two age ranges does not improve when a USL is carried out with groups that present cultural/religious diversity, especially for those under 20 years of age. However, the ≤ 20 -year-olds and 21-24-year-olds showed a significant difference in the professional development dimension ($p < .05$) calculated through a Bonferroni *post hoc* test interaction.

Figure 2 shows the interaction of the mean value between gender and type of target group for the pedagogical value dimension. The *post hoc* Bonferroni correction test was used to establish the significant difference in the university students' pedagogical value

dimension for the groups of social diversity and cultural/religious diversity ($p < .05$) (Figure 2). Female university students obtained higher results in the groups of social diversity and cultural/religious diversity. On the other hand, male university students obtained higher results when the USL program worked with groups of functional diversity.

Figure 1
Interaction of age and type of target group for professional development (S-LPA dimension).

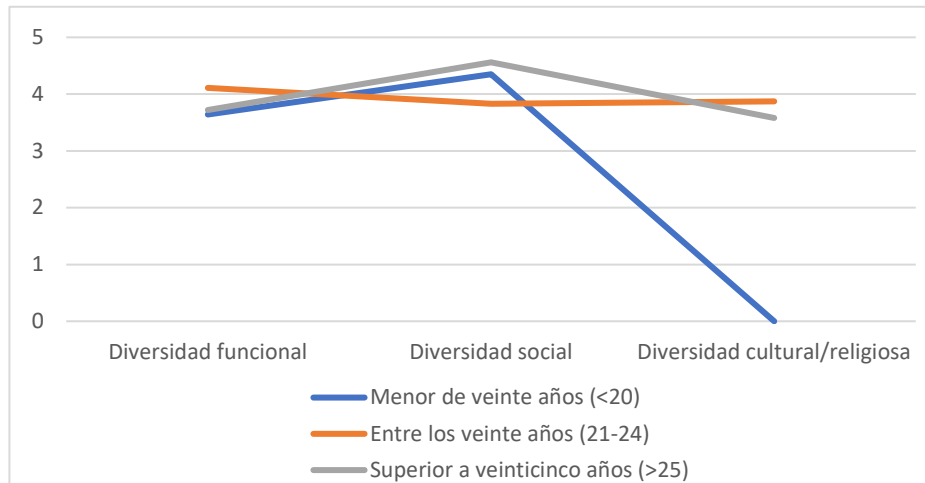
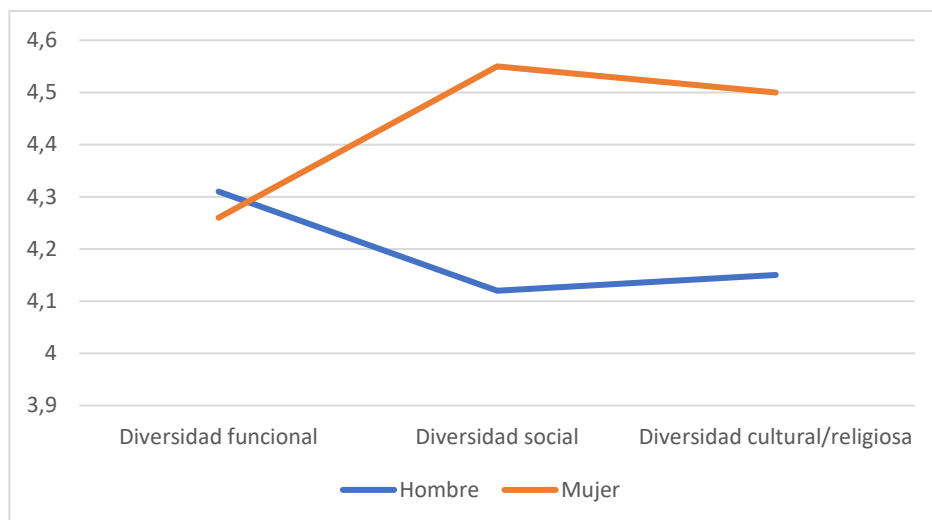


Figure 2
Interaction of gender and type of target group for pedagogical value (S-LPA dimension).



DISCUSSION

We will now proceed to discuss the results according to the research objectives previously established. First of all, the analysis of the data shows the impact that the three types of target groups have on the people participating in the present study, especially for

female university students. Regarding the S-LPA dimensions, female university students show closer relationships with individuals from functional and social diversity groups while the relationships of male students show more closeness when they work with people from the cultural/religious diversity group. Working on awareness about functional diversity with university students of both genders tends to be very useful for acquiring key learning values (Cortés-Amador, Faubel, Marqués-Sulé, Aguilar-Rodríguez, & Sempere-Rubio, 2018). These authors carried out a similar study in which no differences were observed between both genders regarding the influence of developing awareness. However, studies carried out with socially vulnerable groups and groups with cultural/religious diversity reported male university students being more likely to develop respect and breaking away from negative stereotypes than female students, measured both by personal perception and opinion and in terms of the number of participants (Chiva-Bartoll et al., 2020; Ruiz-Montero, Díaz Rosado, & López Belmonte, 2020). All these studies highlight the value of the results from this research, given that it is not easy to find USL studies that address contact with vulnerable target groups and their relationships according to the gender of the students.

Another important factor to discuss, although not widely used in the literature, is the age of the students and the effect that this may have depending on the vulnerable target group involved in the USL. Many experiences of university students with vulnerable target groups, such as older people, migrant groups, young people at risk of exclusion, or people with functional diversity, agree that the majority of the participating students are usually between the ages of 20 and 24 (Chiva -Bartoll et al., 2020; Newsham, Schuster, Guest, Nikzad-Terhune, & Rowles, 2021; Ruiz-Montero, Corral-Robles, García-Carmona, & Belaire-Meliá, 2019). This fact coincides with the results of the present study, given that the range of 21-24 years, followed by the range ≤ 20 years, is the one showing more developed relationships during USL with various vulnerable groups. According to the Ministry of Universities (2020), 25.6% of the total Spanish university population in the 2018-2019 academic year was between 22 and 25 years old and 51.5% was less than 21 years old, with an average age below 25 years for in-person degrees. If all of the above is added to the leading role that USL has acquired as an active methodology in initial training in recent years, we obtain an age of participation of university students which is in accordance with the USL literature (Álvarez-Castillo, Martínez-Usoralde, González-González, & Buenestado-Fernández, 2017).

Regarding the S-LPA dimensions, female university students obtain higher pedagogical value scores than male students when they carry out USL interventions. Previous studies have shown that female students acquire a solid foundation of pedagogical values when using sport and physical activity as a socializing instrument through USL with vulnerable groups (Capella-Peris et al., 2019; Marttinen, Daum, Banville, & Fredrick, 2020). They also experience high pedagogical development when working in real situations and adequately connecting with the vulnerable target groups through proper behavior management during interventions. Likewise, when they have the option, female university students usually choose this methodology because they feel that they do something good for society and, at the same time, obtain personal and professional satisfaction through their experiences with others (Matusovich et al., 2013). Regarding pedagogical value in the PAS university students, empathy towards others stands out, which is based on an active participation and predisposition to learning when working with vulnerable groups (Chiva-Bartoll et al., 2020), be it for social (Newsham et al., 2021) or for cultural/religious reasons (Ruiz-Montero et al., 2020). In our study, female university students also perceived that, by participating in USL, empathy had a considerable effect on their professional development. In this sense, the study by Matusovich et al. (2013) with a sample of female university students who participated in USL concluded in the same way, highlighting the importance given to the professional nature of an intervention with vulnerable people without neglecting its social character.

Furthermore, a study with PAS students between the ages of 20-24 years, which implemented USL with various vulnerable groups and whose purpose was for students to acquire competences related to the objectives of sustainable development, showed that both genders improved their social skills, critical attitude, and professional skills (García-Rico et al., 2021). Therefore, although our results show a greater impact of professional development in young women (close to 20 years of age), the benefit of USL in PAS students of both genders seems clear and supported by various previous studies.

This same dimension is also related to the group receiving the service, especially socially diverse groups. PAS students who are involved in USL during their university education not only acquire professional skills that will prepare them for their future profession, but also develop a commitment to social transformation when working with vulnerable groups of different types (Chiva-Bartoll et al., 2020; Santos-Pastor et al., 2020).

Groups with social diversity can deeply move students who are involved in USL programs because of the closeness this group can have to people within their own context (Ruiz-Montero et al., 2019). This could be due to having shared characteristics that other vulnerable groups might not pose due to cultural differences, language, or physical limitations, among others which could help students acquire a more direct, rooted, and meaningful concept of professional development during the USL. As a consequence, university students could develop closer, more understanding and empathetic relationships with older adults, young people, or women at risk of exclusion. Both the functional diversity and cultural/religious groups have also helped to promote the professional development of the participating students, especially in young people or those over 25 years of age. These two groups present different characteristics from the social diversity group and entail possible difficulties when carrying out USL interventions (Ruiz-Montero et al., 2020). But it is precisely this peculiarity that could be behind a direct relationship with the professional and competence development of PAS students, given that objectives that are difficult to achieve during USL can play a motivational role and more committed participation (García-Rico et al., 2021).

Regarding experiential learning and the understanding of the contents of the curriculum in real contexts, the students in this study achieve responsibility and leadership scores similar to those of other studies with the same characteristics (Chiva-Bartoll et al., 2020; Marttinen et al., 2020; Ruiz-Montero et al., 2020). However, the differences regarding age should be noted, where the 21-24 age range is the one that experiences the most direct learning, although close to that of students under 20 years of age. Previous studies that have analyzed methodologies and approaches similar to the present work have shown a solid assimilation of curricular and professional content in university students, both under 21 years of age and older. In the case of Brown & Bright (2017), USL developed a greater awareness of the students involved, a better evaluation of the contents and tasks developed, and improvements in collaboration and communication between participants, favoring a greater acquisition of learning and a better use of theoretical content in practice. In her study, An (2021) perceived greater learning by PAS university students regarding content related to diversity and responsibility in a study carried out with university students between 20-25 years of age and a target group with functional diversity.

Learning the contents of the curriculum which are linked to USL is related to the perception of personal development in social and civic competences throughout the

learning process (Santos-Pastor et al., 2020). In addition, working with various vulnerable groups offers reflection and awareness about social justice and is an opportunity that enables both men and women to positively transform society (García-Rico, Carter-Thuillier, Santos-Pastor, & Martínez-Muñoz, 2020). In this regard, the perception of social usefulness that the USL program casts on the university curriculum is usually more notable in women than in men and is accompanied by a more committed vision toward the vulnerable groups and society in general (Newsham et al., 2021). In another study carried out with healthcare and PAS university students, a social reflection caused by USL is observed especially in women (Leary & Sherlock, 2020).

In conclusion, the main results of the present study prove the relationship of the USL in the consolidation of curricular content and perception of professional learning in PAS students. In addition, the results contribute to understanding the interaction of the gender and age of the participants, and the target groups according to the dimensions of the S-LPA scale during the USL intervention. To our knowledge, after reviewing the literature, no previous study has carried out a similar analysis or addressed the same dimensions and variables as those in the present work.

However, these results must be carefully interpreted due to the various limitations that we now specify. This study is cross-sectional and, therefore, we cannot establish causal relationships that would allow us to categorically state that the differences obtained are due to the effects of gender, age, or target group. The results could also eventually be conditioned by the contextual and cultural profile of the participants, or the subjects involved in the USL. Therefore, future studies could address this issue in order to confirm and reinforce the results presented here.

Finally, it should be noted that this study can be very useful to guide university teachers on how to work on active and experiential methodologies applied in real contexts, such as USL, taking into account the different profiles and characteristics of the participants. Consequently, the results provide relevant information that can guide teachers when designing USL programs, taking into account variables such as gender, age, or target group, among others.

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