

RECIBIDO EL 2 DE SEPTIEMBRE DE 2023 - ACEPTADO EL 1 DE DICIEMBRE DE 2023

INTERDIGITALES: UNA EXPERIENCIA DE APRENDIZAJE-SERVICIO (APS) INTERGENERACIONAL INTERDIGITALES: AN INTERGENERATIONAL SERVICE-LEARNING EXPERIENCE

76

Facal David¹

Diz López María Julia²

Gutiérrez Moar María del Carmen³

Universidad de Santiago de Compostela (USC)

¹ Professor Faculty of Psychology
Rúa Xosé María Suárez Núñez, s/n
Department of Developmental and Educational Psychology
david.facal@usc.es

Orcid: 0000-0001-6230-0090

² Assistant Professor Faculty of Education Sciences

Rúa Prof. Vicente Fraiz Andón, s/n
Department of Pedagogy and Didactics
mariajulia.diz@usc.es

Orcid: 0000-0003-1422-7479

³ Associate Professor Faculty of Education Sciences

Rúa Prof. Vicente Fraiz Andón, s/n
Department of Pedagogy and Didactics
mdelcarmen.gutierrez@usc.es

Orcid: 0000-0001-8437-7160

Universidad de Santiago de Compostela (USC)

Resumen

El proyecto de aprendizaje-servicio (ApS) «Actividades INTERgeneracionales para el Desarrollo de Competencias DIGITALES de los Adultos Mayores -INTERDIGITALES» fue implementado entre los meses de marzo y mayo de 2022 en el Centro Sociocultural de Fontiñas (Santiago de Compostela), participando personas mayores de 65 años (n=8), usuarias del centro, alumnado de 1º (n=10) y de 4º (n=6) del Grado de Pedagogía de la Universidad de

Santiago de Compostela, el y las docentes responsables de las materias (n=3) y miembros de la organización no gubernamental Acción Solidaria de Galicia (ASDEGAL) (n= 2).

Los objetivos de la experiencia fueron: (1) Promover las competencias digitales en las personas mayores, (2) Contribuir al enriquecimiento del tejido social y (3) Potenciar una perspectiva del ciclo vital que sirva para entender y despatologizar los cambios a lo largo de la adultez y de la vejez.

La evaluación del proyecto por parte de alumnado del Grado de Pedagogía ha mostrado un elevado grado de satisfacción con la experiencia (media de 8,81 sobre 10), la adquisición de competencias comunicativas (8,88), el trabajo en equipo (9,06), el impacto del ApS en su aprendizaje (9,06), así como, para trabajar con personas de edades diferentes (9,50). En cuanto al colectivo senior se mantiene una alta satisfacción (media de 9,13 sobre 10) en lo relativo a participar en la experiencia y en cuanto a los contenidos desarrollados indicaron que obtuvieron mejores actitudes hacia la tecnología (más curiosidad 9,12; más confianza 9,00), mayor conocimiento (rango de 9,12 en servicios de música y vídeo a 8,75 en recursos de ocio y tiempo libre), y mejores competencias para trabajar con personas de diferentes edades (9,50). La experiencia nos ha servido para confirmar que el ApS constituye una metodología de intervención apropiada para la educación intergeneracional.

Palabras clave: Aprendizaje-Servicio (ApS), Aprendizaje a lo Largo de la Vida, Intergeneracionalidad, Formación Senior, Formación en Pedagogía, Competencias Profesionales.

Abstract

The service-learning project «INTERgenerational Activities for the Development of

DIGITAL Competences of Older Adults» (INTERDIGITALES) was implemented between March and May 2022 at the Fontiñas Sociocultural Center (Santiago de Compostela), with the participation of people over 65 years old (n=8), users of the center, students of the 1st (n=10) and 4th (n=6) year of the Pedagogy Degree of the USC, teachers responsible for the courses (n=3) and members of the non-governmental organization Galician Solidarity Action (ASDEGAL) (N= 2).

The objectives of the experience were: (1) To promote digital skills in old adults, (2) To contribute to the enrichment of the social networks and (3) To promote a perspective of the lifespan useful to understand and depathologize changes throughout adulthood and old age.

The evaluation of the project by students of the Degree in Pedagogy has shown a high degree of satisfaction with the experience (mean of 8, 81 out of 10), the acquisition of communication skills (8.88), teamwork (9.06), the impact of ApS on their learning (9.06), as well as working with people of different ages (9.50). Regarding the senior group, high satisfaction is maintained (mean of 9.13 out of 10) in relation to participating in the experience and in terms of the content developed, they indicated that they obtained better attitudes towards technology (more curiosity 9.12; more confidence 9.00), greater knowledge (ranging from 9.12 in music and video services to 8.75 in leisure and free time resources), and better skills to work with people of different ages (9.50). Experience has served us to confirm that S-L constitutes an appropriate intervention methodology for intergenerational education.

Key words: Service-Learning (S-L), Lifelong Learning, Intergenerationally, Senior Training, Pedagogy Training, Professional Competences

Resumo

O projeto de aprendizagem-serviço (ApS) «Atividades INTERgeracionais para o Desenvolvimento das Competências DIGITAIS dos Idosos» (INTERDIGITALES) foi implementado entre os meses de março e maio de 2022 no Centro Sociocultural Fontiñas (Santiago de Compostela), com a participação de pessoas com mais de 65 anos (n=8), utentes do centro, alunos do 1.º (n=10) e 4.º (n=6) da Licenciatura em Pedagogia da USC, os docentes responsáveis pelas disciplinas (N=3) e os membros por parte da organização não governamental Solidário da Galiza (ASDEGAL) (N= 2).

Os objetivos da experiência foram: (1) Promover competências digitais nos idosos, (2) Contribuir para o enriquecimento do tecido social do bairro e (3) Promover uma perspectiva do ciclo de vida que sirva para compreender e despatologizar as mudanças durante toda a vida adulta e velhice.

A avaliação do projeto pelos alunos da Licenciatura em Pedagogia revelou um elevado grau de satisfação com a experiência (média de 8,81 em 10), a aquisição de habilidades de comunicação (8,88), trabalho em equipe (9,06), o impacto do ApS na aprendizagem (9,06), além de trabalhar com pessoas de diferentes idades (9,50). Relativamente ao grupo sénior mantém-se elevada satisfação (média de 9,13 em 10) em relação à participação na experiência e ao nível dos conteúdos desenvolvidos, indicaram ter obtido melhores atitudes face à tecnologia (mais curiosidade 9,12; mais confiança 9,00), maior conhecimento (variando de 9,12 em serviços de música e vídeo a 8,75 em recursos de lazer e tempo livre) e melhores habilidades para trabalhar com pessoas de diferentes idades (9,50). A experiência serviu-os para confirmar que o ApS constitui uma metodologia de intervenção adequada para a educação intergeracional.

Palavras chave: Aprendizagem-Serviço (ApS), Aprendizagem ao Longo da Vida, Interxeracionalidade, Formação Sénior, Formação Pedagógica, Competências Profissionais.

1. Introduction

This paper is focused on the Service-Learning (S-L) methodology and describes an experience called “INTERgenerational Activities for the Development of DIGITAL Competences of Older Adults” (*INTERDIGITALES* in its Spanish acronym) that was developed and implemented during the 2021-2022 academic year in the University of Santiago de Compostela (USC) with the participation of the non-governmental organization ASDEGAL in the Sociocultural Center of the Fontiñas, in Santiago de Compostela.

From an educational and behavioral sciences perspective, we defend that gerontology must settle in a concept of aging and old age centred in lifespan and lifespan perspective. The human development is not completed at adulthood but that it extends across the entire lifespan (Baltes Staudinger, & Lindenberger, 1999), and learning can therefore occur at any time in the life cycle. Aging should not be considered negative since it is a natural and intrinsic process to the human being. It is a highly variable phenomenon, influenced by genetic and epigenetic factors; an also a socio-historical phenomenon, loaded with affections, emotions, and feelings, and mediated by culture and social relations. In the conceptualization of old age, we must consider different points of view: organic-biological, psychological, functional, labor, demographic or population and social (Gutiérrez, 2010).

From a gerontological perspective, S-L projects are a valuable tool to promote and develop intergenerational relationships from learning and social commitment. S-L can also be a methodological tool to prepare for social

innovation in the context of longevity (Facal et al 2021). Intergenerational S-L projects have those innovative methods of teaching and learning that integrates into academic curricula an organized set of community services focused on the interactions of older adults and younger generations (Liu, Chang and Chao, 2015). Through intergenerational ApS projects, the following is sought: 1) To bring two generations together in a socio-community context and to project a positive image of old age away from myths and ageist stereotypes; 2) To create spaces of coexistence and intergenerational relationships that teach young people to age and involve the old adults in active aging, also creating greater social cohesion (intergenerational solidarity) from the implementation of a two-way teaching-learning process ; 3) To involve young people in University Social Responsibility (USR) that returns to the community the knowledge acquired in their training process.

University S-L projects are an innovative and inclusive practice that promotes higher quality to university education, favors the acquisition of essential competencies for higher education (Francisco and Moliner, 2010; Santos, Sotelino and Lorenzo , 2015) and that contribute to the employability of the student body (Gutiérrez and Moreno, 2018). Indeed S-L also makes possible to relate theoretical-practical learning to concrete realities and experiences, thus achieving the unification of academic and social values, fostering both personal and professional development (Martínez-Usarralde et al., 2019). In relation to the learning acquired by and for the professional development of pedagogues, it is worth highlighting the consolidation of knowledge acquired through the degree, that is, interrelating knowledge that has been learned in different subjects (Alonso Saez et al., 2013). It starts from a theoretical framework, progressing towards a socio-educational praxis committed to the ability of people to change the environment, producing improvements through the

performance of tasks. For this reason, according to Santos, Lorenzo and Mella (2020), the ApS is methodologically consolidated in the field of education with the introduction of the culture of social responsibility and civic commitment in the university. In short, the specialists in the ApS maintain that the student body carries out autonomous, comprehensive, interdisciplinary and collaborative learning, associated with the contexts where they will be able to develop their future professional work.

The S-L project *Interdigitales* seeks to promote the training of students in the Pedagogy degree, designing and implementing workshops focused on the development of digital skills with older adults. Its innovative character is motivated to guarantee an intergenerational practice in the training of the student body and for the old users of the Sociocultural Center of the Fontiñas neighborhood (Santiago de Compostela, Galicia, NW of Spain). Likewise, the students were able to coordinate themselves and create a team, despite having different levels of knowledge (1st and 4th year), creating a space for personal and professional relationship with the group of older users through technical-professional actions shared between the Faculty of Educational Sciences and Psychology in the field of gerontological intervention (Facal, Gutiérrez and Diz, 2022). The objectives proposed in the INTERDIGITALES Project are: (1) To promote digital skills in old adults, (2) To contribute to the enrichment of the social networks and (3) To promote a perspective of the lifespan useful to understand and depathologize changes throughout adulthood and old age.

2. Methodology

This paper describes a S-L project developed by the USC -Faculty of Educational Sciences and Faculty of Psychology- and the non-governmental organization Galician Action Solidarity (ASDEGAL) (<https://www.asdegal.org>, accessed on 12/18/2022) during the 2021-

2022 academic year. This project was supported by the VI Call for Educational Innovation projects in Service-Learning USC in modality A: Emerging projects. Call by the Center for Learning Technologies (CeTA) (<https://www.usc.gal/en/servizos/ceta/index.html>, accessed on 12/18/2022) to institutionalize the S-L. As the project belonging to the emerging modality, both professors and students receive specific training on S-L by the University Participation and Integration Service (SEPIU) (<https://www.usc.gal/en/servizos/sepiu/index.html>, accessed on 12/18/2022) and the GI-1790 School of Culture Research Group (ESCULCA) (<https://www.usc.gal/esculca/>, accessed on 12/18/2022).

Between March and May 2022, on Mondays from 6:00 p.m. to 8:00 p.m., the INTERDIGITALES Project is launched at the Sociocultural Center of the Fontiñas. The USC team was made up of students and teachers of the Pedagogy degree. Professor David Facal, coordinator of the project, and teacher of the 1st year subject G3081108-Psychology of Development as a basic training to be developed in the 2nd semester with 6 ECTS credits; and the teachers María Julia Diz López and M^a del Carmen Gutiérrez Moar, teachers of the 4th year subject G3081452-Lifelong Education as optional training of the 2nd semester with 4.5 ECTS credits. Among the 16 USC students, 10 were 1st-year students (6 females and 4 males) and 6 were 4th-year students (6 females). A volunteer and the entity's technical coordinator participated on behalf of ASDEGAL. They were in charge of coordinating with the Fontiñas Sociocultural Center, as well as the recruitment and management of participating older adults. A group of 8 old adults (7 women and 1 man) was recruited.

For the USC pedagogy degree students, participation in the S-L project is justified by the contribution of the INTERDIGITALES Project in the acquisition of competencies. For the subject G3081108-Developmental

Psychology, theoretical-practical knowledge was promoted in relation to the psychological development in old age, working the following skills regarding educational intervention with older adults: Knowing and understanding the academic and scientific foundations of the field; Knowing, understanding and comprehensively analyzing educational situations in different contexts; Promoting and developing actions of educational support with different people and/or groups through the use of adequate means and resources; Support to individuals and/or groups in educational and training processes. Likewise, with respect to transversal competences, the following were developed: Communicative competences, Team work, and Self-critical attitudes about working with old adults. For the subject G3081452-Education throughout Life in the 4th year, the competencies are: Promoting and developing educational support actions with different persons and/or groups through the use of appropriate means and resources; Establishing that Gerontological Pedagogy as a specialized and specific knowledge in Educational Science that, due to the evolution of educational knowledge, responds to the educational needs of the old adults; and, Relate to other persons and groups, with special emphasis on teamwork and interdisciplinary collaboration.

The phases followed by the INTERDIGITALES Project were the following: a) Initial design of the Workshop between USC and ASDEGAL teachers, creation of the poster and logo; b) Presentation of the INTERDIGITALES Project in the first and fourth grade classrooms for students recruitment; c) Selection and involvement of older participants, in collaboration with ASDEGAL and the Fontiñas Sociocultural Center, as well as the selection and involvement of students in the subjects Developmental Psychology (1st) and Lifelong Education (4th). In the first year, a selection of candidates had to be made whereas in the fourth year it was no necessary; d) Design of sessions in weekly collaborative workshops,

through small, intergenerational working groups (2-4 students from 1st year, 2-3 students from 4th year and 2-3 older people); e) Monitoring of the development of the workshops through weekly assessment and improvement sessions (from 7:30 p.m. to 8:00 p.m. in the Sociocultural Center) and weekly monitoring of the preparation of the sessions through a WhatsApp group and institutional email from USC; f) Creation of specific and online training actions (Microsoft Teams) about the aging process and learning in old age, S-L, social innovation and intergenerational relations.

8 sessions were set up: Session 1 - Presentation of the participants, the S-L project and collection of the preferences and interests of the old in relation to technologies, in order to develop the following sessions; Session 2 - News services; Session 3 – E-mail services; Session 4 – Video conferencing services; Session 5 - Music and video services; Session 6 - Electronic Administration I (Treasury) and Leisure I (Cinema and concert tickets); Session 7 - Electronic Administration II (Health) and Leisure II (Travel); Session 8 - Closing workshop about photography and video resources.

Didactic worksheets were created for each of the activities designed in the workshop sessions, and tutorials were developed step by step to use the contents through the sessions. Through which the intergenerational groups implemented the tasks required for each session on their phones and tablets.

The evaluation of the USC students participating in the project was carried out as follows: for the 1st year students, the participation in the project meant the validation of the interactive session 5 of the subject, about adult development and ageing. This activity was presented to the rest of the 1st year class group (the experience was voluntary and limited to a small number of students). The 4th grade students completed a portfolio about

the S-L methodology, together with the design and development of the programmed activities (sheets and tutorials) and their contextualization. All the activities were designed and implemented by the students with the support of the teaching staff. The results of evaluation refer to the fact that the project has provided a formative opportunity for the participating students with great educational success.

On the other hand, the project was evaluated by the students. To this aim, a simple assessment questionnaire was prepared, with a Likert-type scale of 1-10 (1 I strongly disagree and 10 I totally agree), which has allowed to gather information on the following dimensions: satisfaction with the experience, acquisition of technical-professional skills and attitudes towards intergenerational actions. It consists of 17 items and an open question about how the S-L experience (see Supplementary materials). The questionnaire was completed by all the students (n=16).

Finally, for the evaluation of the project by the 8 old adults, an evaluation questionnaire was designed and completed in the last session. It consists of 10 items that are assessed on a Likert-type scale (1-10, value 1: I do not agree at all and value 10: I totally agree), structured around 3 dimensions: satisfaction with the participation in the program, acquisition of intergenerational knowledge, and attitudes. An open question is added that allows the overall S-L experience (see Supplementary materials). All the older participants (n=8) completed the questionnaire. A descriptive analysis of the data has been carried out with calculation of means and standard deviations.

Results

The 4th year students who participated in the S-L project obtained an average qualification of 9.78 (SD 0.25) in the subject G3081452-Lifelong Education, whereas the 1st year students who participated in the project obtained an average

qualification of 8.56 (SD 0.75) in the subject G3081108-Developmental Psychology.

Table 1

Descriptive data of the qualifications obtained by the students participating in the INTERDIGITALES project. Course 2021-2022

| | N | Minimum | Maximum | Sum | Mean | Deviation |
|------------------|----|---------|---------|-------|------|-----------|
| 4th year | 6 | 9.30 | 10.00 | 58.70 | 9.78 | 0.248 |
| 1st year | 10 | 7.00 | 9.50 | 85.60 | 8.56 | 0.755 |
| n valid per list | 5 | | | | | |

The project has been valued very positively by the students, highlighting the high degree of satisfaction with the experience (average score of 8.81 out of 10). Regarding the acquisition of competences, the communicative competences

(8.88), teamwork (9.06), the impact of the ApS on their learning (9.06), as well as, to work with people of different ages (9.50) are empathized (see Table 2).

Table 2

Evaluation of the Interdigtales project by the university students of the Pedagogy Degree

| Items | n | Minimum | Maximum | Mean | Deviation |
|--|----|---------|---------|------|-----------|
| I am satisfied with the participation in the workshop | 16 | 7.00 | 10.00 | 8,81 | ,981 |
| I would recommend participation | 16 | 8.00 | 10.00 | 9,56 | ,727 |
| It has improved my ability to identify needs and challenges to address | 16 | 7.00 | 10.00 | 8,63 | 1,088 |
| It has allowed me to develop new ideas and improve my creativity | 16 | 6.00 | 10.00 | 8,50 | 1,37 |
| It has helped me value my ideas and identify ways to use them | 16 | 5.00 | 10.00 | 7,94 | 1,65 |
| It has helped me to appreciate the consequences of my ideas and to act responsibly | 16 | 6.00 | 10.00 | 8,44 | 1,15 |
| It has helped me believe in myself and motivate me to continue training | 16 | 6.00 | 10.00 | 8,50 | 1,41 |
| It has encouraged me to be patient to keep trying to achieve my goals | 16 | 6.00 | 10.00 | 8,94 | 1,29 |
| It has helped me realize what resources are needed and how to manage them | 16 | 5.00 | 10.00 | 8,38 | 1,50 |
| It has increased my ability to communicate with others | 16 | 6.00 | 10.00 | 8,88 | 1,36 |

| | | | | | |
|--|----|------|-------|------|------|
| It has encouraged me to accept challenges and pursue my goals. | 16 | 6.00 | 10.00 | 8,75 | 1,39 |
| It has helped me set goals, define priorities and create action plans | 16 | 6.00 | 10.00 | 8,44 | 1,31 |
| It has helped me deal better with ambiguity or partial information | 16 | 7.00 | 10.00 | 8,44 | 1,03 |
| It has improved my ability to work in a team and cooperate with others | 16 | 6.00 | 10.00 | 9,06 | 1,24 |
| It has shown me the importance of practice in learning | 16 | 6.00 | 10.00 | 8,88 | 1,26 |
| It has improved my ability to work with people of different generations and ages | 16 | 8.00 | 10.00 | 9,50 | 0,63 |
| Interest in Education/Learning throughout life and Gerontological Pedagogy has increased | 16 | 3.00 | 10.00 | 8,19 | 2,14 |
| n valid per list | 16 | | | | |

The analysis of the answers to the open question has allowed us to know the general assessment of the students, and confirms the quantitative data analysis. We highlight the following statements: “It has been a great experience that I would recommend 100% and that I would repeat. I have been pleasantly surprised by how it has developed, because I did not expect that I would have such a good time. I have learned a lot from my classmates and especially from the old adults. In addition, I have completely changed the stereotypes I had towards about ageing”; “It has been a very good way to learn about education and ageing, to raise awareness about lifelong learning, about old adults learning and not only being at home or worried about their grandchildren”; “It was a great experience that will accompany me throughout my learning and throughout my experience and pedagogical implementation”; “It was a very positive experience both for the older adults and for all the students. I believe that we all learned something from each other and that these projects help to foster relationships between different generations in a positive way”; “The greatest learning I could get from

participating in this project was above all on a personal level, breaking down stereotypes and prejudices I had about the digital capabilities of older people. It certainly opened my mind in this regard”; “Very enriching experience. As constructive criticism, I would try to balance the older/younger relationship”.

Regarding the evaluation of the project by the 8 old adults, a questionnaire was also designed and completed in the last session. It consists of 10 items on a Likert-type scale (1-10, value 1: I do not agree at all and value 10: I totally agree), structured around 3 dimensions: satisfaction with the participation in the workshop, acquisition of intergenerational knowledge and attitudes. An open question has been added allowing us to assess the S-L experience globally (see Supplementary materials).

Regarding the assessment and opinions that the old adults made about the S-L project, we can see them reflected in table 3.

Table 3.

Evaluation of the Interdigitales by the older adults participating in the project.

| Items | n | Minimum | Maximum | Mean | SD |
|---|---|---------|---------|------|------|
| Satisfaction with participation | 8 | 6.00 | 10.00 | 9.13 | 1.46 |
| I would recommend participation | 8 | 8.00 | 10.00 | 9.38 | 0.92 |
| Curiosity towards ICTs | 8 | 7.00 | 10.00 | 9.13 | 1.36 |
| Greater confidence in handling the mobile | 8 | 7.00 | 10.00 | 9.00 | 1.31 |
| More knowledge about news services | 8 | 7.00 | 10.00 | 8.88 | 1.36 |
| More knowledge about communication systems | 8 | 7.00 | 10.00 | 9.00 | 1.41 |
| Learn more about video and music services | 8 | 7.00 | 10.00 | 9.13 | 1.36 |
| More knowledge about electronic administration | 8 | 5.00 | 10.00 | 8.88 | 2.10 |
| More knowledge about online leisure and free time resources | 8 | 6.00 | 10.00 | 8.75 | 1.58 |
| Average knowledge about ICTs | 8 | 6.40 | 10.00 | 8.93 | 1.52 |
| Ability to work with people of different ages | 8 | 8.00 | 10.00 | 9.50 | 0.93 |
| n valid per list | 8 | | | | |

The evaluations of the different dimensions analyzed reach high averages. We can highlight the satisfaction of the old participants (average of 9.13 out of 10), they also emphasize better attitudes towards technology (with more curiosity 9.12 and more confidence 9.00), greater knowledge (ranging from 9.12 in music and video services to 8.75 in leisure and free time resources), and better skills to work with people of different ages (9.50).

Regarding the open question, the comments are in line with the quantitative results: “It was very nice and enjoyable”; “I liked sharing with younger people. My problem with new technologies is the lack of trust and the fear of exposing the data. Very kind everyone”; “Very positive. The future pedagogues are charming”; “I had a great time. I have increased my ability to work with different

technologies. Many thanks to the teachers and students.”

4. Conclusions

Considering the results, we can confirm that the S-L methodology constitutes an appropriate educational intervention tool for intergenerationality. The S-L methodology favors inter-disciplinary collaboration (Gutiérrez; Rodríguez & Diz, 2022) and intergenerational actions to understand aging and old age from the perspective of the lifespan.

Teaching and learning by performing a service in intergenerational teams facilitates the transfer of knowledge from the higher education institutions to the society, with this transfer seen as both an institutional and a social need, the execution of which is both a

productive value and a service (Tourifián 2020). In this line, teamwork, communication skills, time management and adaptability, consensual decision-making between individuals and teams, intergenerational coexistence, direct action in the socio-community environment of Fontiñas, acting autonomously and with initiative, showing mastery of digital technologies, etc. All of them, competences that are expressed and developed in formative and civic spaces by contributing to the resolution of social needs (Santos and Lorenzo, 2018), and to the promotion of active and committed citizenship.

The key ideas that the USC Pedagogy Degree students show are of: (1) Identifying and experiencing the relevance of creating a team (1st and 4th year students, teachers, and members of ASDEGAL) that worked by exercising collaborative management and horizontal coordination of resources, a space with a positive and calm environment to facilitate both personal and professional development based on action and participation (Gutiérrez and Diz, 2021).

(2) Being able to create content and materials on ICT to work with groups of older adults.

(3) Generating intergenerational and bidirectional teaching-learning processes among the participants.

(4) Highlighting the accompaniment of the teaching staff, both in the sessions and throughout the week to prepare them and to develop the materials and resources, as well as in the online training meetings. This approach helped the students feel involved in the process. Complementarily, they worked autonomously and responsibly with the project and the management of the activities, becoming real protagonists of their learning process.

(5) Encouraging this S-R project to be carried out in following editions.

References

- Alonso Sáez, I.; Arandia Loroño, M.; Martínez Domínguez, I.; Martínez Domínguez, B. y Gezuraga Amundarain, M. (2013). El Aprendizaje-Servicio en la innovación universitaria. Una experiencia realizada en la formación de educadoras y educadores sociales. *Revista Internacional de Educación para la Justicia Social (RIEJS)*, 2(2), 195-216. <http://www.rinace.net/riejs/numeros/vol2-num2/art10.pdf>
- Alvarado García A. M. y Salazar Maya, Á. M. (2014). Análisis del concepto de envejecimiento. *Gerokomos*, 25(2), 57-62.
- Baltes, P.B., Staudinger, U.M., & Lindenberger, U. (1999). Lifespan psychology: Theory and application to intellectual functioning. *Annual Review of Psychology* 50, 471–507.
- Facal, D.; Gutiérrez, M^a C. y Diz, M^a J. (2022). Diseño de actividades intergeneracionales para el desarrollo de competencias digitales. Comunicación en formato póster presentada al 62 Congreso de la Sociedad Española de Geriátría y Gerontología y el 23 Congreso de la Sociedad Madrileña de Geriátría y Gerontología, celebrado en Madrid del 22 al 24 de junio de 2022.
- Facal, D.; Rodríguez, R.; Lojo, C. y Gandoy, M. (2021). Innovation and entrepreneurship in gerontology and psychogerontology. The INVENTHEI project. *International Psychogeriatrics*, 33(S1), 53-53.
- Francisco, A., y Moliner, L. (2010). El Aprendizaje Servicio en la Universidad: una estrategia en la formación de ciudadanía crítica. *Revista Electrónica Interuniversitaria de Formación del Profesorado (REIFOP)*,

13(4), 69-77. <https://www.redalyc.org/pdf/2170/217015570006.pdf>

Gutiérrez, M^a C. (2010). Vellez. En J. A. Caride Gómez y F. Trillo Alonso (Dir.) *Diccionario Galego de Pedagogía. Guías A-Z* (pp. 562-564). Xunta de Galicia e Editorial Galaxia.

Gutiérrez, M^a C. y Diz, M^a J. (2021). Democracia, Aprendizaje-Servicio (ApS) e Inclusión. Comunicación presentada al XV Congreso Internacional de Teoría de la Educación. "Democracia y tradición en la teoría y práctica educativa del siglo XXI" (CITE 2020+1) celebrado en Madrid, 15-17 de noviembre de 2021 [En prensa].

Gutiérrez, M^a C.; Rodríguez, C. L. y Diz, M. J. (2022). Biblioteca Inclusiva: Taller Afectivo-Emocional: Una experiencia de Aprendizaje-Servicio (ApS) en la USC. Comunicación presentada al XX Congreso Internacional de Investigación Educativa (AIDIPE 2022). Celebrado en Santiago de Compostela del 15, 16 y 17 de junio de 2022 [En prensa].

Gutiérrez, M. y Moreno, P. (2018). El aprendizaje servicio como metodología para la formación integral de los estudiantes universitarios. *Edetania*, 53, 185-202. <https://dialnet.unirioja.es/descarga/articulo/6581958.pdf>

Liu, H. Y., Chang, C. C., y Chao, S. Y (2015). Constructing and Evaluating an Intergenerational Academic Service-Learning Curriculum in Gerontology. *Creative Education*, 6(8), 753-761.

Martínez-Usarralde, M. J.; Gil-Salom, D. y Macías-Mendoza, D. (2019). Revisión sistemática de Responsabilidad Social Universitaria y Aprendizaje Servicio. Análisis para su institucionalización.

Revista Mexicana de Investigación Educativa, 24(80), 149-172. <http://www.scielo.org.mx/pdf/rmie/v24n80/1405-6666-rmie-24-80-149.pdf>

Rodríguez Gallego, M. R. (2014). El aprendizaje-servicio como estrategia metodológica en la universidad. *Revista Complutense de Educación*, 25(1), 95-113.

Santos, M. A., Sotelino, A. y Lorenzo, M. (2015). *Aprendizaje-servicio y misión cívica de la universidad. Una propuesta de desarrollo*. Octaedro.

Santos, M. A., y Lorenzo, M. (Eds.) (2018). *Guía para la institucionalización del aprendizaje-servicio en la universidad*. SPIC-USC.

Santos, M. A., Lorenzo, M. y Mella, I. (2020). *El aprendizaje-servicio y la educación universitaria. Hacer personas competentes*. Octaedro.

Solís, M^a G. y Galán, M^a J. (2021). Una experiencia intergeneracional de aprendizaje-servicio en la formación profesional en Extremadura: #apdintergeneracional". *Campo Abierto*, 40(1), 45-60.

Touriñán, J. M. (2020). *Pedagogía. Competencia técnica y transferencia de conocimiento. La perspectiva mesoaxiológica*. Andavira Editora SL [2^a Edición].



Supplementary materials

Taller INTERDIGITALES

Cuestionario alumnado de la USC

Estimado alumnado del Grado de Pedagogía de la Universidad de Santiago de Compostela (USC),

Muchas gracias por haber participado en el Proyecto de Aprendizaje-Servicio (ApS) Interdigitales. Es importante para nosotros, el equipo docente, saber cómo ha resultado vuestra experiencia, para poder mejorarla en el futuro (nuevas ediciones del Proyecto Interdigitales).

Por favor elegid, para cada afirmación, la valoración que más corresponda con vuestra opinión, siendo la numeración 1 no estoy nada de acuerdo y la 10 estoy totalmente de acuerdo.

Es muy importante que seáis sinceros/as.

SATISFACCIÓN

a) Estoy satisfecho/a con la participación en el taller.

1 2 3 4 5 6 7 8 9 10

b) Recomendaría el taller a otro alumnado de la USC en próximas ediciones.

1 2 3 4 5 6 7 8 9 10

COMPETENCIAS

c) Participar en ApS Interdigitales ha mejorado mi capacidad para identificar necesidades y desafíos a abordar en la intervención educativa (psicopedagógica) con personas mayores.

1 2 3 4 5 6 7 8 9 10

d) Participar en ApS Interdigitales me ha permitido desarrollar nuevas ideas y mejorar mi creatividad para responder a las necesidades de aprendizaje de la materia y de las personas mayores.

1 2 3 4 5 6 7 8 9 10

e) Participar en ApS Interdigitales me ha ayudado a valorar mis ideas e identificar formas de aprovecharlas al máximo.

1 2 3 4 5 6 7 8 9 10

f) Participar en ApS Interdigitales me ha ayudado a valorar las consecuencias de mis ideas en mi propio aprendizaje y en el aprendizaje de las personas mayores, para actuar responsablemente.

1 2 3 4 5 6 7 8 9 10

g) Participar en ApS Interdigitales me ha ayudado a creer en mí mismo/a y a motivarme para seguir formándome personal y profesionalmente.

1 2 3 4 5 6 7 8 9 10

h) Participar en ApS Interdigitales me ha animado a ser paciente para seguir tratando de lograr mis objetivos en el campo de la Pedagogía.

1 2 3 4 5 6 7 8 9 10

i) Participar en ApS Interdigitales me ha ayudado a darme cuenta de qué recursos son necesarios para convertir las ideas en acción, y a cómo obtener y gestionar recursos con finalidades educativas y de aprendizaje.

1 2 3 4 5 6 7 8 9 10

j) Participar en ApS Interdigitales ha aumentado mi capacidad de comunicación con los demás (compañeros/as, profesorado y personas mayores) para conseguir sus apoyos y alcanzar las metas establecidas en el ApS.

1 2 3 4 5 6 7 8 9 10

k) Participar en ApS Interdigitales me ha animado a aceptar desafíos y perseguir mis metas.

1 2 3 4 5 6 7 8 9 10

l) ApS Interdigitales me ha ayudado a establecer metas, definir prioridades y crear planes de acción en las diferentes sesiones.

1 2 3 4 5 6 7 8 9 10

m) ApS Interdigitales me ha ayudado a manejar mejor en la ambigüedad o con información parcial y convertirla en conocimiento para ser enseñado-aprendido.

1 2 3 4 5 6 7 8 9 10

n) ApS Interdigitales ha mejorado mi capacidad de trabajar en equipo y cooperar con otr@s (compañeros/as, profesorado) desarrollando ideas y convirtiéndolas en acción.

1 2 3 4 5 6 7 8 9 10

ñ) ApS Interdigitales me ha mostrado la importancia de la práctica en el aprendizaje (desarrollo personal y servicio a la comunidad) y de aprender tanto de los aciertos como de los errores.

1 2 3 4 5 6 7 8 9 10

o) Participar en ApS Interdigitales ha mejorado mi capacidad para trabajar con personas de distintas generaciones y edades (acciones intergeneracionales y compañeros/as de primer y cuarto curso del Grado en Pedagogía).

1 2 3 4 5 6 7 8 9 10

p) Participar en ApS Interdigitales ha aumentado vuestro interés por la educación/aprendizaje a lo largo de toda la vida y los ámbitos de la Gerontología y la Pedagogía Gerontológica.

1 2 3 4 5 6 7 8 9 10

INDICA AQUÍ CUALQUIER COMENTARIO QUE QUIERAS COMPARTIR CON RESPECTO A VUESTRA EXPERIENCIA EN APRENDIZAJE-SERVICIO (ApS).

¡GRACIAS POR FERRANCHAR CON NOSOTROS!



INTERDIGITALES

Cuestionario de Evaluación de Participantes Senior

Estimado participante,

Muchas gracias por haber completado con el alumnado y profesorado de la Facultad de Ciencias de la Educación de la USC el Proyecto de Aprendizaje-Servicio (ApS) Interdigitales. Es importante para nosotros cómo ha resultado tu experiencia, para poder mejorarla en el futuro.

Por favor elige, para cada afirmación, la valoración que más corresponda con tu opinión, siendo la numeración 1 no estoy nada de acuerdo y la 10 estoy totalmente de acuerdo. Es muy importante que seáis sinceros/as.

SATISFACCIÓN

a). Estoy satisfecho/a con mi participación en el taller.

1 2 3 4 5 6 7 8 9 10

b). Recomendaría el taller a un familiar o amigo/a.

1 2 3 4 5 6 7 8 9 10

FORMACIÓN/CONOCIMIENTO

c). Tengo más curiosidad que antes hacia las TIC.

1 2 3 4 5 6 7 8 9 10

d). Siento que tengo más confianza a la hora de manejar el teléfono móvil.

1 2 3 4 5 6 7 8 9 10

e). He aumentado mi conocimiento sobre servicios de noticias (p.ej. Google News, Periódicos Españoles).

1 2 3 4 5 6 7 8 9 10

f). He aumentado mi conocimiento sobre sistemas de comunicación (p.ej. WhatsApp, Zoom).

1 2 3 4 5 6 7 8 9 10

g). He aumentado mi conocimiento sobre servicios de vídeo y música (p.ej. YouTube, Spotify, Shazam).

1 2 3 4 5 6 7 8 9 10

h). He aumentado mi conocimiento sobre el acceso a la administración electrónica (p.ej. Agencia tributaria, SERGAS).

1 2 3 4 5 6 7 8 9 10

i). He aumentado mi conocimiento sobre recursos online de ocio y tiempo libre (p.ej. compra de entradas, itinerarios de viaje).

1 2 3 4 5 6 7 8 9 10

ACTITUDES INTERGENERACIONALES

j). He aumentado mi capacidad para trabajar con personas de distintas generaciones y edades.

1 2 3 4 5 6 7 8 9 10

INDICA AQUÍ CUALQUIER COMENTARIO QUE QUIERAS COMPARTIR CON RESPECTO A TU EXPERIENCIA EN APRENDIZAJE-SERVICIO (ApS):

¡GRACIAS POR FERRANCHAR CON NOSOTROS!