

Creating inclusive materials: A university Service-Learning experience

Creare materiali inclusivi: un'esperienza universitaria di Service-Learning

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Abstract

This paper presents a service-learning experience at the University of Extremadura (Spain). Its objective has been to develop an educational experience using service-learning in which students acquire curricular learning, adapting awareness-raising materials and evaluating the importance of providing, also, a quality inclusive educational response to individual needs. A total of 75 university students participated in the experience. An observation record, a report preparation and a satisfaction questionnaire are used as a method for evaluation. The results obtained are presented in relation to three issues: (a) the project, finding a positive evaluation by the students of participation, collaboration, interest and involvement; (b) learning, noting that the qualification has improved in terms of curricular learning, but also in relation to soft skills; and (c) the service, promoting awareness values among the educational community towards inclusion and sustainability. In conclusion, it is highlighted that the use of this type of methodology favours the motivation and involvement of students in the development of their learning, not only in relation to academic issues but also commitment and social responsibility.

Keywords: service-learning; methodologies; university; inclusive education; sustainability.

Sintesi

L'obiettivo di questa esperienza è stato quello di sviluppare un'esperienza educativa utilizzando l'apprendimento di servizio in cui gli studenti acquisiscono l'apprendimento curricolare, adattando materiali di sensibilizzazione e valutando l'importanza di fornire una risposta educativa inclusiva di qualità anche ai bisogni individuali. All'esperienza hanno partecipato complessivamente 75 studenti universitari. Come metodo di valutazione vengono utilizzati strumenti qualitativi (registrazione delle osservazioni e redazione del rapporto) e strumenti quantitativi (questionario di soddisfazione). I risultati ottenuti sono presentati in relazione a tre temi: (a) il progetto, riscontrando una valutazione positiva da parte degli studenti di partecipazione, collaborazione, interesse e coinvolgimento; (b) l'apprendimento, osservando che la qualifica è migliorata in termini di apprendimento curricolare, ma anche in relazione alle competenze trasversali; e (c) il servizio, promuovendo valori di consapevolezza tra la comunità educativa verso l'inclusione e la sostenibilità. In conclusione, si evidenzia che l'uso di questo tipo di metodologia favorisce la motivazione e il coinvolgimento degli studenti nello sviluppo del loro apprendimento, non solo in relazione alle questioni accademiche ma anche all'impegno e alla responsabilità sociale.

Parole chiave: service-learning; metodologie; Università; educazione comprensiva; sostenibilità.

1. Introduction

Current education faces the challenge of promoting learning in which students play a more proactive role, offering meaningful and motivating educational experiences. In other words, to make the students participate in their own learning process and whose training benefits their integral development. In the university context, we would be talking about training in which they learn the knowledge of their profession, but also experiences, values and attitudes that allow them to exercise a more ethical and responsible citizenship (Alcalá del Olmo et al., 2020).

Under these premises, this work presents an experience of innovative educational intervention that arises from the need to provide students participants with different means that help them generate new ideas creatively, to acquire skills adapted to the demands of the labour market and to learn to give adequate response to the demands that may arise in the contexts of their future profession (Fernández-Piqueras et al., 2020).

1.1. Theoretical argument

The literature review presents numerous studies that highlight the changes that have occurred in recent years in university classrooms. Didactic, methodological, curricular and technological changes that entail new formulas for understanding the teaching-learning process in this context and the role that both teachers and students play in it (Alcalá del Olmo et al., 2020; Jiménez et al., 2020; Peralta et al., 2020).

Also, there are numerous works that sets out the need for new educational models that adjust to the demands that the Society claims, promoting meaningful, experiential and cooperative learning, in which students are the protagonists of the teaching-learning process (Fernández -Piqueras et al., 2020) and, in the specific case of the University, that it complies with accountability and its third mission, demanding a greater connection between training, research, knowledge transfer and the social dimension (García-Gutiérrez & Ruiz-Corbella, 2022; Martínez-Usarralde, Gil-Salom, & Macías, 2019; Ruiz-Corbella & Fuentes, 2022). The assumption of University Social Responsibility as the third institutional mission, from a critical perspective, must be based on reciprocity, getting involved in community processes of collaboration in a position of equality, mutual aid and knowledge construction from critical action based on shared needs between the institution itself and the community of which it is a part (García-Romero & Lalueza, 2019, García-Romero et al., 2021). To be, therefore, a “Committed University to the Common Good” (García-Romero et al., 2021, p.24) and not simply a University *ready-to-serve* for the common good (García-Romero & Lalueza, 2019, p.56).

For one reason or another, the truth is that in recent years, methodologies that could be considered innovative and, of course, more active, have gained momentum and have been incorporated into classrooms, such as problem or project-based learning, flipped classroom, gamification, cooperative learning or service-learning, among others. Teaching methods that require clear, rigorous planning, involvement on the part of the teaching staff, as well as adequate initial and ongoing training to be able to carry them out (Alcalá del Olmo et al., 2020).

Precisely one of these methods or strategies to implement in the classroom form the basis of this innovative educational experience: Service-Learning (SL), because it is one of these relevant and effective pedagogical proposals to achieve the acquisition of knowledge and citizen awareness through of reflexive social action (López de Arana et al., 2020). As Bringle, Brown, Hahn, & Studer (2019) show SL is a pedagogy that can achieve civic

competences for learners to participate effectively in culturally diverse democratic societies. Higher education institutions, through SL, are able to accept the challenge of training responsible citizens and improving community participation habits that contribute to the public good (Bringle et al., 2019; Smith-Tolken & McKay, 2019).

2. Service-Learning

Service-Learning (SL) is part of educational discourses and practices at all stages, in which experiences can already be found supported by this methodology based on action, experience, social commitment and learning in values that allows promote contact between students and society (Martínez-Usarralde et al, 2019).

The SL is described as a complex and polyhedral practice, defined as a pedagogical philosophy that combines in a single activity or project the learning of content, skills and values with community service tasks (Puig, Martín, & Rubio, 2017) or as a teaching methodology that seeks the development of academic content while providing a service to the community that responds to a social need.

Morillo, Menacho, Fuster, & Tamashiro (2023) define the SL as “a practical experience of reflection and action, where students apply theoretical content, develop skills and solve real problems, fostering and promoting social awareness” (p. 240). In other words, community service is integrated with teaching and reflection.

In addition, this philosophy or way of understanding the teaching task contributes to developing all the missions associated with the University, aligning its three pillars in the same direction: teaching, research and knowledge transfer. As García-Gutiérrez & Ruiz-Corbella (2022) explain:

On the one hand, it collaborates in de-centring higher education from discourses based on employability, placing it on broader and less instrumental horizons, thus connecting with the social responsibility of universities, as we have already exposed; and, on the other, it helps teachers to develop knowledge transfer actions with social value (p. 170).

Morillo et al. (2023) collect in their study that the SL offers a mutual benefit, both for the community and for the students, this being the characteristic that differentiates these projects from experiential activities. These authors describe positive results linked to the application of SL programs or projects in relation to academic and cognitive development (developing conceptual knowledge and skills); civic development (greater participation and concern for social problems); vocational and professional development (related to leadership skills, teamwork, conflict resolution, etc.); ethical and moral development and personal development (which encompasses the empowerment of students) and, finally, social development (expressed in the improvement of social skills, empathy, community skills and the social projection of their career).

The review of the literature shows several studies that reflect this idea. For example:

- the work of Ma & Law (2019) shows that SL had a positive impact on student learning and community engagement;
- Castanheira et al (2022) found that students gain both personal and social benefits and academic skills when academic learning is integrated with the community experience. They also develop leadership and communication skills and critical awareness on the one hand and the management of time and resources and the

ability to adapt and respond to challenges from the real world on the other, all seen as beneficial for the transition to the labour market;

- Garwood et al. (2023) found that the interventions involving a SL project aimed at helping students with disabilities, because often motivating opportunities to learn and apply a wide range of academic and functional life skills are abundant in service-learning;
- or Compare & Albanesi (2022) who found the strengths and challenges of implementing social justice-oriented service-learning experiences. They point to the effects of S-L experiences in
 - fostering a significant improvement in students' social justice beliefs,
 - stimulating significant changes in students' attitudes regarding the development of altruistic behaviours and their commitment to social justice, and
 - increase students' critical understanding by triggering questioning processes related to personal assumptions of inequalities.

In the words of Martínez-Usarralde et al., (2019), the proposals of the SL projects are formulated to give more social meaning to academic learning and train university students in social responsibility. In this sense, according to the literature review, the SL methodology provides benefits for students, faculty members and community members (Salam, Awang-Iskandar, Ibrahim, & Farooq, 2019). Like Salam et al. (2019) explain:

Higher education institutes are motivated to incorporate service-learning pedagogy for achieving their institutional goals by contributing their resources for the betterment of the local community. Further, service-learning pedagogy is found to be very beneficial for course instructors as well, because it offers a unique opportunity for conducting action research, which can be useful for validating proposed theoretical frameworks in a real-life scenario. Likewise, as an active member of service-learning project, students can groom their understanding of practical field and civic engagement. Similarly, as a recipient of service in a service-learning project, community members reap a number of benefits, in terms of technical, emotional and cognitive support, for resolving their real-life problems (p. 588)

In this regard, when this type of learning is built from reflection on one's own practical experience to allow connection with theoretical knowledge, as well as awareness and positioning in the social environment (García-Romero and Lalueza, 2019; García-Romero et al., 2021). However, we would be talking about civic learning; as the work of Bringle & Clayton (2021) shows, a *sine qua non* aspect of SL, because since this methodology promotes the development of competences related to the social responsibility, knowledge and skills for democracy, clarification of values, moral development, public good, citizenship, democratic competencies, sense of solidarity, ubuntu, commitment to and capacities to promote social justice, civic identity, cosmopolitan citizenship, life purpose, and world citizenship.

These issues support the development of the experience described below.

3. Experience description

The experience is part of a teaching innovation project, developed at the Faculty of Education and Psychology of the University of Extremadura to promote inclusive

education in the university environment, assuming as a challenge not only the learning of curricular contents linked to the subject Inclusive School, but also the development of soft skills and the acquisition of values. Specifically, the following objectives are proposed:

1. Acquire curricular learning through the collaborative experience between University-Educational Contexts to enable meaningful learning and its transfer to real situations.
2. Adapt awareness-raising materials on cooperation for sustainable development and education for global citizenship to individual differences and the educational needs of early childhood and primary school students.
3. Evaluate the importance of providing a quality inclusive educational response to individual needs and the adequacy of the implementation of universal learning design (ILD) models.

The project is carried out over three months, in the first semester of the 2022/2023 academic year, with the participation of a total of 75 students from the Primary Teacher Education Degree (Therapeutic Pedagogy Mention), a teacher and a technician from the *Entreculturas Foundation*. Specifically, this service is of an indirect type (Capella-Peris, Zorrilla-Silvestre, & Gil-Gómez, 2018; Resch & Knapp, 2020) since the students collaborate with the entity without coming into direct contact with the infant and primary school students. The work sessions were 6 with a duration of two hours each.

The design and implementation phases have been as follows:

3.1. Initial phase: presentation to students of the project

The experience is presented to the students in mid-September as practical work on the aforementioned subject. In this first session, the *Entreculturas Foundation*¹ with which the service will be developed is presented. This foundation describes its activities to students, which are linked to issues such as cooperation for development or education for global citizenship. Students are explained the relationship of these actions with the 2030 Agenda and the sustainable development goals (SDGs) and, within these, with which the activity to be carried out is linked (Objective 4: Education for all).

In this session, what SL consists of is also explained and what will be the curricular learning that will be worked on using this method and what will be the service to be developed (Figure 1).

CURRICULAR COMPETENCIES/LEARNING	SERVICE
Basic competencies	<p>Know how to transmit information, ideas, problems, and solutions to a specialised or non-specialised public.</p> <p>Develop the necessary skills to undertake future professional actions with a certain degree of autonomy and critical thinking</p>
	<p>Prepare materials to work in the classrooms of different stages in an inclusive way.</p> <p>These materials correspond to those used by the Foundation in relation to the issues it addresses:</p>

¹ To learn more about the Entreculturas Foundation, access: <https://www.entreculturas.org/es/home>


	Present ideas, problems and solutions publicly	A sustainable world: https://redec.org/publicaciones/un-mundo-sostenible/
Transversal competencies	Use social and interpersonal skills in relationships with other people and work cooperatively in multidisciplinary groups	A world in equality: https://redec.org/app/uploads/2021/07/un_mundo_en_igualdad_0.pdf
General competencies	Develop attitudes of respect, tolerance and solidarity towards different social and cultural groups. Design and arrange learning spaces in contexts of diversity with due respect for gender equality, equity and human rights to make up the values of citizen education.	A world in motion: https://redec.org/app/uploads/2021/08/un_mundo_en_movimiento.pdf
	Identify the problems that may arise in the school environment, taking individual differences into account.	A world at peace: https://redec.org/app/uploads/2022/09/Un-mundo-en-Paz.pdf
Specific competencies	Respond to the educational needs of students ensuring quality education	Birthday story of za and zo: https://www.entreculturas.org/sites/default/files/cuento_de_mellizos_el_cu_mpleanos_de_za_y_zo.pdf The plush bear story: https://www.entreculturas.org/sites/default/files/cuento_felpa_la_gran_familia_de_felpa.pdf

Figure 1. Summary of learning competency objectives and service objectives.

3.2. Intermediate phase: implementation

In this phase, the students, in the classroom sessions, begin the design of the materials. To do this, a person from the Foundation presents each working group with a real situation of a classroom in which they usually work (different educational levels, number of students, context, and even geographical setting) in which there is a student who has educational needs. They are also assigned the Foundation's educational material with which they usually work in the classroom. In this way, each team has a different case that must be solved by creating educational resources with which to work on these issues in the assigned classroom in an inclusive way (an example is shown in Figure 2).

They are also requested that the elaboration of said materials must be done in a sustainable way; that is to say, recycle to the greatest extent possible using cardboard, plastic, packaging, fabrics or any other material to which they can give a second life.



APS EDUCACIÓN INCLUSIVA PARA LA CIUDADANÍA GLOBAL

Nombre del equipo:
El último empujón.

Equipo:

1. Helena Hernández Gallardo.
2. Eugenia Lechón Sánchez.
3. Abby Coulibaly.
4. José María Larios Gómez.
5. Telesa Natalia Antoniadi.

Temática:
Interculturalidad/ Movilidad humana.

Necesidad educativa:
Trastorno del espectro autista.

Material Educativo a trabajar:
Cuento: La osa felpa.

Nivel educativo:
Primer ciclo de primaria.

Información sobre alumna/o:
Miguel es un niño de 6 años vive en Zurbarán un pequeño pueblo rural extremeño. Está en el CRA la Espiga. Este año han llegado unos compañeros migrantes de América Latina y África y su profesor quiere trabajar con todo el grupo la interculturalidad.

Recomendaciones:

- Contacto con organizaciones locales que trabajen la temática y nos asesoren.
- Generar un material inclusivo.
- Tener en cuenta el DUA (Diseño Universal de Aprendizaje)
- Descolonizar la educación (cualquier persona del planeta se debe sentir cómoda)
- Los materiales deben ser lo más manipulativos posibles.
- No cohartéis vuestra imaginación.




Figure 2. Guidance sheet for the development of the materials by the students.

3.3. Final phase: reflection, preparation of the report and presentation of the materials

The students' report in which they present the development and procedure followed in the construction of the materials. In addition, they must include a final section in which the work of reflection on the experience is developed.

In addition, in the last week of class, to give rise to the celebration that every service-learning project should entail, an exhibition of the materials produced is held, in which each team presents its creation and explains how to use it in the classroom. Said exhibition is carried out openly, and any student of the Faculty can attend. Representatives of the collaborating Foundation and representatives of the Faculty and University are invited.

Reflection is a key element in SL projects and will determine its quality and results. Thus, as indicated by Lorenzo-Moledo, Sáez-Gambín, Ferraces Otero, & Varela Portela (2021):

This reflection, understood as reasoning about the entire experience, must be defined and structured to maximise the students' cognitive and non-cognitive learning options. For this reason, the teaching staff must be aware that this must be a continuous process, which is why they must take time for reflection during its development, must involve

all the actors, from the university to the community, and must have an objective. clear to establish links between the service and the academic content of the subject, otherwise this could lead to a volunteer action. Reflection in SL should not be improvised or left to chance (p. 12).

4. Evaluation

The evaluation is, in the words of Fernández & Ponce de León (2016), one of the most decisive moments since it allows to objectively verify if the proposed goals have been achieved. For this, the evaluation requires systematisation and methodological rigour. In this experience, these aspects are specified using a mixed methodology for the evaluation of learning results and satisfaction. We take the example of the rubric developed by Puig et al. (2017) (Figure 3) to analyse the educational quality of service-learning, which, as the authors point out, pursues three purposes:

The first is to facilitate the self-assessment of service-learning experiences that were already working, opening spaces for debate on its pedagogical characteristics and considering the context and conditions in which these experiences are carried out. Secondly, favour the global or partial optimization of activities that have been carried out and that the educational teams wish to replicate, adapt and improve. And, finally, encourage the design and implementation of new activities, from educational centres or social entities that do not have to have a tradition in service-learning (p. 125).

The self-assessment rubric is organised into different dynamisms and levels (as shown in the Figure 3). The dynamisms (a total of 11) are pedagogical elements that, organised and interrelated, present a global vision of service-learning experiences. In addition, in order to favour the analysis of service-learning experiences, grouped into three sections: basic, pedagogical and organisational. In addition, each dynamism has different levels that show their degree of pedagogical development. In addition, the results obtained with the scores achieved by each dynamism allow the construction of a graph with a “spider web” format that helps to visualise these results.

DYNAMICS		LEVELS			
BASIC	Needs	1	2	3	4
	Service				
	Sense of Service				
	Learning				
PEDAGOGICAL	Participation				
	Team work				
	Reflection				
	Recognition				
	Assessment				
ORGANISATIONAL	Partnership				
	Consolidation				

Figure 3. Service-learning self-assessment rubric (Puig et al., 2017).

To obtain the information, a mixed methodology is used, supported by qualitative (observation and discussion group) and quantitative (questionnaire) instruments, allowing us to obtain information at the beginning, during and at the end of the project, establishing

levels of achievement of objectives, detecting weaknesses. and strengths (Figure 4). In addition, these information collection techniques and the informants have been triangulated in order to increase validity, allowing multiple comparisons of a single phenomenon, as well as obtaining other information not provided at a first level of reading reality (Pérez, 2011).

List of informants and instruments			
	OBSERVATION	DISCUSSION GROUP	QUESTIONNAIRE
Students		X	X
Social entity	X	X	
Teachers	X	X	

Figure 4. List of informants and evaluation instruments.

4.1. Observation

This technique is considered a rigorous process for research that allows describing situations and/or testing hypotheses (Fernández & Ponce de León, 2016; Pérez, 2011). Passive participant observation is chosen (since the observer is immersed in the situation to be observed and remains in the place where the action takes place, although he interacts as little as possible) and systematised. In this case, the observation, as shown in figure 4, is carried out by the teacher and the collaborator of the social entity, both of them collecting the information during the practical sessions dedicated to the construction of the materials using a rubric that allows information to be collected at the beginning, during and at the end of the project (period 1 record and notes, period 2 record and notes and period 3 record and notes, also noting date and time (Figure 5). It is completed with information obtained through the reflective classroom diary and field notes.

PERIOD:	DATE AND TIME:
Notes from direct observation	Organization of the teams Work environment Behaviours/attitudes
Interpretative notes	Motivation Contrast of opinions Leadership and collaboration. Role of the participants
Personal notes	Sensations perceived by the teacher in relation to the work being developed

Figure 5. Record of information in the observation (Suárez y Castillo, 2019).

4.2. Focus group

This technique is defined as a group conversation with a purpose (Albert, 2009). In our case, what the teacher intends with this technique is to obtain a series of opinions more or less influenced by their emergence in a group context. The aim is to confront different points of view on the project carried out, reflect on the perceptions that each participant has felt and compare them in a group, allowing us to obtain new points of view and a new understanding of the situations experienced. Its application allows us to complement and complete the information collected with the other instruments. As can be seen in the figure

4, in the focus group participate the teacher and the collaborating person from the institution with which the service is carried out (as facilitators) and the students who participated in the educational experience.

4.3. Questionnaire

This technique is one of the most common for collecting information. Albert (2009) defines it as “a structured technique that allows the rapid and abundant collection of information through a series of oral or written questions that the interviewee must answer regarding one or more variables to be measured” (p. 115). For the evaluation of our project, a structured questionnaire has been used.

The questionnaire is created for this experience. It has three sections: the first, in relation to the perception of the students on the support of this methodology for their teaching-learning process (five items), the second on the value of the service provided (five items) and, the third, on satisfaction (three items). In addition, two open questions are incorporated: the first, to indicate the aspects that they liked the most about this experience and, the second, proposals to improve the experience. Response options are presented on a Likert scale with values from one to five, where one = not at all and five = a lot. It is presented to the student in Google Forms format, guaranteeing the anonymity of their responses.

4.4. Learning evaluation

As Montanero (2019) indicates in his review of emerging pedagogical methods, in the case of SL, evidence on learning outcomes is lacking. Therefore, an evaluation was carried out in this line. The students presented a final report where they explained the steps they had followed in the design of the materials. This report was evaluated and qualified by the teachers and the collaborating entity using the rubric prepared for this purpose, which had a scale that went from deficient to excellent and covered the categories of content transmission, organisation, application, design, preparation of didactic material (creativity and originality), images (inclusive, diverse and plural), message and universality (working inclusively in the classroom).

In addition, the presentation made by the students of their materials to the public attending the exhibition was evaluated. These presentations were videotaped for later review and scoring.

5. Results

The results obtained are presented in relation to the project, the learning and the service.

5.1. Project outcomes

The results obtained show a positive evaluation of the project. On the one hand, the teacher's observation has reversed positive data on participation and collaboration, observing, on the part of the students, interest in the project and involvement in its development, especially in the part that involved field work. Verifying that they could

develop educational resources to address the diversity present in the classroom has turned out to be not only a motivating element, but also beneficial for the comprehensive development of students, promoting critical thinking and social responsibility.

The satisfaction questionnaire collects good results. The students have positioned themselves on the scale between notable and outstanding (84% indicate values between 9 and 10 and 16% mark 8, $M=9.4$). The noted observations follow the same line, showing that the design and construction of the resources have been pleasant to them, describing the experience with expressions such as “creating materials with which all students in the classroom can work is not easy. It has forced us to think about things that we did not do before and to consider all the circumstances that a child may have” or “Now I pay more attention to ensuring that resources do not create or promote barriers”.

5.2. Learning outcomes

In relation to the learning of curricular contents associated with the subject, based on the qualifications obtained by the students, they present positive results. Of the 15 created work teams, all of them exceeded a rating of 8.5 (remarkable) and most (12 of these teams) achieved a rating of nine (outstanding).

The results obtained through the observation and the satisfaction questionnaire show that the students have managed to acquire the proposed competences (basic, transversal, general and specific) since they recognize that the activity has helped them to identify problems that occur in the reality of the classrooms and propose solutions that eliminate learning barriers. It is also observed that the participating students have shown interpersonal, dialogue and management skills among their own classmates to solve problems that appeared during the development of the task, make decisions and reach consensus, respecting the opinion of others and have shown ability to communicate with a varied audience and present their ideas during the exhibition held. Direct observation shows that the service development manages to make the participants aware of the value of designing inclusive resources and materials, as well as the importance of removing barriers to provide quality education for all. This awareness is observed in the care that the teams show in the design of materials using various textures, audio, or accessories that allow manipulation by all students. In addition, it is possible to raise awareness of the importance of using recycled materials, responsible consumption. Some examples of the designed resources are shown in Figure 6.

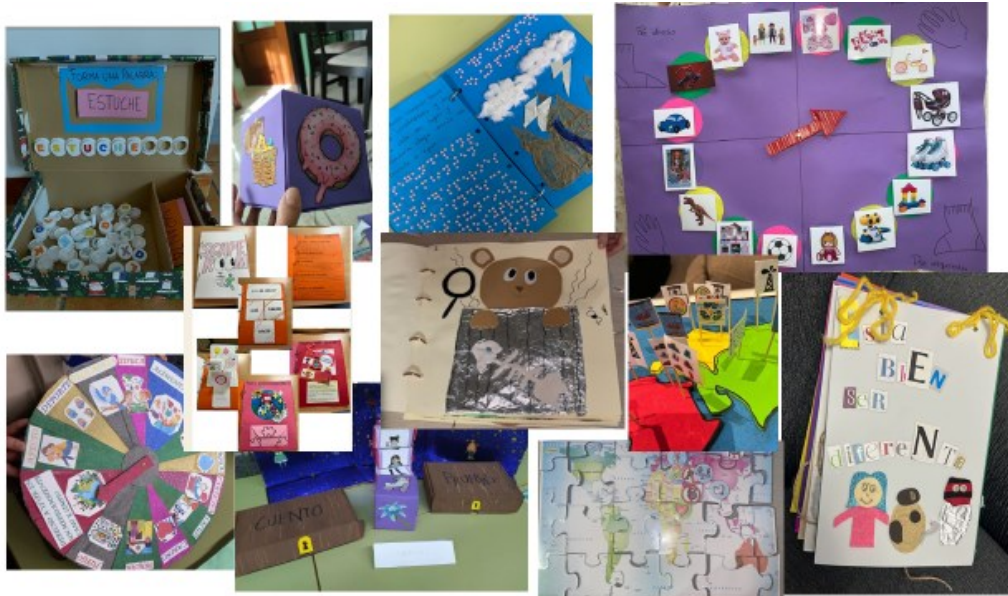


Figure 6. Examples of materials made by the students.

5.3. Service outcomes

Based on the self-assessment rubric of Puig et al. (2017), taken as a reference, the different dynamisms analysed present acceptable levels of achievement:

- social needs, which have been taken as a starting point, have guided the action of the students towards social problem solving, assuming a role of change agents;
- the service has promoted the involvement of students in an altruistic way, providing a solution to the detected need (creation of materials) in a sustainable way;
- the sense of service or impact of the activity has been relevant for all participants, recognizing the importance of inclusive education and training in responsible citizenship;
- the observed learning achievement has been useful and innovative, acquiring the required skills and, in addition, their motivation and involvement in the project;
- participation, group work, reflection, recognition and evaluation have been continuous, reciprocal, productive, joint and integrated.

An exception is partnership (since collaboration with other institutions is not ensured) and consolidation, since in this case service-learning is known in an incipient way and has been carried out at the initiative of teachers, being, therefore, a punctual activity (Figure 7).

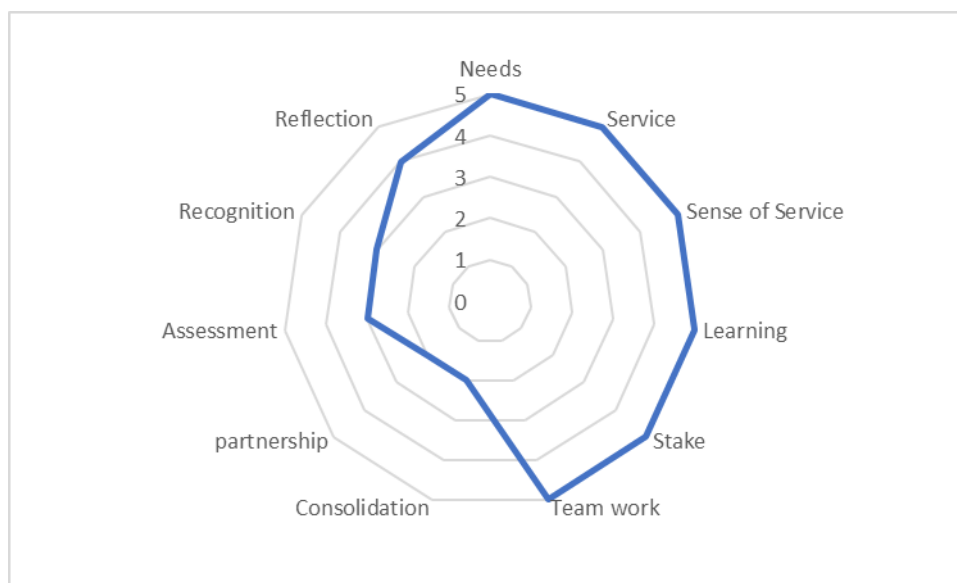


Figure 7. Results applying evaluation according to Puig et al. (2017)

6. Discussion

It is considered that the choice of the work methodology has promoted close collaboration among the students among the team participants, but also between teams when it comes to sharing how the barriers that were found have been overcome. These results are similar to those obtained in the study by Granados, Vargas, & Vargas (2020) or Puga & Jaramillo (2015) who explain that collaborative work develops comprehensive training, promoting the participation of students in the construction of their knowledge. Along the same lines, authors such as Avello & Martín (2016) or Vargas, Yana, Pérez, Chura, & Alanoca (2020) highlight that this model develops student solidarity, camaraderie, and academic friendship.

The educational experience developed shows that it has fulfilled the mission that is expected of the University and the learning that should be promoted in them, supporting the idea put forward by Perdomo, Pirela, & Rodríguez (2023) when they indicate that the university is committed to training people who go directly to occupy a position in the labour market, so they must not only acquire the learning of the profession, but also commit themselves and make contributions to society.

The results obtained fit with the proposal Martínez-Usarralde et al. (2019) insofar as the university has the challenge of promoting values and an ethical sense in its student body, thereby fostering a fairer and more equitable perception of it towards the society to which it is due, contributing to protect and consolidate the values this. The experience has accepted the invitation launched from the University to implement pedagogies that allow not only to train and graduate professionals, but also to do so from a more social perspective, where greater contributions and benefits to society are achieved. In this sense, the experience has allowed students to acquire social skills and attitudes, which can be put into practice in daily life.

This confirms that the choice of the methodology to be applied in the project has been appropriate, given that the results are in line with those presented by Alcalá del Olmo et al. (2020), García-Gutiérrez & Ruiz-Corbella (2022) or Martínez-Usarralde et al. (2019) when

they point out that service-learning contributes to the acquisition not only of curricular learning, but also of social and civic competencies with which to exercise citizenship in a more ethical and responsible way.

7. Conclusions

An educational activity is worthwhile when it meets one of the following criteria: the evaluation of the results is positive, the development process is a rich experience for the protagonists and, finally, the activity is inspired by principles that are valued positively. In this sense, the development of the project confirms the achievement of good learning results, in addition to achieving the development of other skills or competencies required by the profession, as well as the awareness and appreciation of the importance of working inclusively in the classroom, guaranteeing quality education for all students.

We can point out, in the first place, the achievement of the objectives set with the innovation, resorting to different strategies to keep the students in a work experience, complying with the premise that the teaching conceptions determine the approaches of this and these, to in turn, have a great influence on student learning outcomes. The choice of service-learning has promoted the involvement and motivation among the participating students, both in the project and in their learning not only of purely curricular aspects, but also of values, sustainability and social responsibility.

Secondly, highlight the involvement and commitment of the students, recognized in a high level of satisfaction with the project, considering the structuring of the project, the field work and having to get involved to resolve situations positively as elements that have been motivating in real life.

Thirdly, to recognize that the experience has meant an intense activity of the students and the teacher, thus enriching the interpersonal relationships between teacher-student and student-student, favouring moments of communication, dialogue and debate.

Finally, it is true that the results found show the benefits that the implementation of the experience has brought, but difficulties or aspects to be overcome must also be recognized, such as the time required by the teacher for planning, monitoring and evaluation of this type. of actions, as well as the coordination, follow-up, orientation and evaluation of a high number of students, although they have been distributed in work groups, to facilitate this issue.

For all the above and as a conclusion, the development of the experience has made it possible to become aware of the importance of developing active, useful and participatory learning, which although it takes time in planning and training by the teacher to be able to be implemented in the classroom, confirm the need to change the methodologies to teach the professional knowledge that students will need, but also the skills, abilities and values that make them responsible and socially committed citizens.

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