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Expanding Assessment Perspectives in Service-Learning

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Abstract
Internationally, universities have progressively incorporated service-learning as a methodology to strengthen social commitment, but there is a lack of validated instruments for evaluating its impact on the community. The objective of this study is to cross-culturally adapt and validate the *Community Impact Feedback Questionnaire* (CIFQ) by Lau and Snell (2021, 2023), originally developed for community partner representatives, for university teachers. The adapted scale was applied to 147 teachers at nine Spanish universities (eight public, one private) who implemented service-learning. The collected data were subjected to exploratory factor analysis (EFA) and confirmatory factor analysis (CFA), evaluating the scale's internal consistency. The resulting version of the scale comprised 20 items in five factors, with reasonable indices of fit ($\chi 2$ / df = 2.99; GFI =.77; CFI = .78; RMSEA = .117; SRMR = .07). This is the first European adaptation of the CIFQ, providing a useful tool for evaluating the community impact of service-learning from the teachers' perspective.

Keywords: *community, impact, partnerships in education, scales, service-learning, social responsibility, teachers, validity*

Validación del Community Impact Feedback Questionnaire (CIFQ) con profesorado universitario español

Ampliando las perspectivas de evaluación en el aprendizaje-servicio.

Mar Lorenzo-Moledo, Rosa M. Rodríguez-Izquierdo, José Luis González-Geraldo, África María Cámara Estrella, y Ana Vázquez-Rodríguez

Resumen
A nivel internacional, las universidades han incorporado progresivamente el aprendizaje-servicio como metodología para fortalecer el compromiso social, si bien carecemos de instrumentos validados para evaluar su impacto en la comunidad. El objetivo de este estudio es adaptar transculturalmente y validar el *Community Impact Feedback Questionnaire* (CIFQ) de Lau y Snell (2021, 2023), desarrollado originalmente para representantes de socios comunitarios, para su aplicación al profesorado universitario. La escala adaptada se aplicó a 147 docentes de nueve universidades españolas (ocho públicas, una privada) que implementan aprendizaje-servicio. Los datos recogidos fueron sometidos a un análisis factorial exploratorio (AFE) y a un análisis factorial confirmatorio (AFC), evaluando la consistencia interna de la escala. La versión resultante de la escala quedó compuesta por 20 ítems agrupados en cinco factores, con índices de ajuste razonables (χ^2 / gl = 2.99; GFI =.77; CFI = .78; RMSEA = .117; SRMR = .07). Esta es la primera adaptación europea del CIFQ, y ofrece una herramienta útil para evaluar el impacto comunitario del aprendizaje-servicio desde la perspectiva del profesorado.

Palabras clave: *comunidad, impacto, alianzas en educación, escalas, aprendizaje-servicio, responsabilidad social, profesorado, validez*

Editors' Note: Translation provided by the authors

Introduction

In recent years, universities have faced growing demands to redefine their social role and forge stronger ties with their surroundings, improve knowledge transfer and, in short, improve the impact of their activities on society (Santos-Rego et al., 2021). This is an especially strategic challenge if faced from the purely educational sphere of what universities do. That impact—understood as a quantitative or qualitative, direct or indirect change, beyond mere participation, as noted by Sandy and Holland (2006)—is not one-dimensional. Instead, it leads necessarily to an improvement, or improvements, for the agents involved in the educational process in various complementary dimensions: academic performance, motivation, critical thinking, attitudinal well-being, and, of course, among other benefits, efficient, or at least effective, solutions to real problems.

Along these lines, Saltmarsh et al. (2009) advised that the impact should not be limited to immediate effects, but rather should be understood as a transformative process that affects relationships, knowledge practices, and civic capacities. This perspective reinforces the idea, upheld in the present study, that within the term *impact*—just like other constructs such as intelligence and transfer—it is worth paying particular attention to the details that allow its different manifestations to be seen, and to ask ourselves what is achieved, who achieves it, and with what reach (both in terms of time and of propagation and consolidation). In short, it involves understanding the university's social impact beyond the transfer of science and knowledge, because it is also important for students to have educational connections to the community that open up opportunities to be more active, participative members of society from a democratic perspective (Coelho & Menezes, 2021).

It is in this context that service-learning is presented as a methodology that can strengthen the social dimension of university education, given the possibilities it opens up to situate learning processes in community settings. More specifically, it is defined as:

> a pedagogical approach aimed at seeking specific ways of involving students in the day-to-day life of the communities, neighbourhoods, and institutions around them. It is conceptualized within experiential education, and is characterised by: a) students being the protagonists; b) dealing with real needs; c) connection to curricular objectives; d) execution of service projects; and e) reflection. (Naval et al., 2011, p. 88)

This definition gives us a clear indication of what makes it different. It is a strategy that not only promotes overall student development from an experiential perspective, but also provides a way for universities to comply with their public mission through interventions that respond to concrete needs in their surroundings (Rodríguez-Izquierdo, 2020). However, for this to be a reality, the community needs to be at the center of the learning process, considered as another educational agent rather than merely the setting in which learning is acquired (Santos-Rego et al., 2023). The community is not just a physical place or a symbolic entity where service is performed; it is more than merely being a receiver of whatever help the university offers. In high-quality service-learning projects, the community is a fundamental actor, co-responsible for multiple aspects of the educational process (Patsarika & Townsend, 2022). In any case, we also have to focus on who or what the community is, highlighting the dichotomy between the community as an agency acting in partnership, or the community as the people on the receiving end of the service (Lau & Snell, 2021).

Nonetheless, for this relationship to be truly transformative, it needs to be reciprocal, which means that it must adhere to the principles of respect, trust, genuine commitment, balance of power, shared resources, and open communication between the university and community groups or bodies (Jacoby, 2015). The path toward more reciprocal, bi-directional service-learning brings with it a set of clear principles: objectives are no longer specific to the university but shared, complementary, and agreed by both parties; the university's and the community's commitments are not fixed, but should be generative and should evolve along with the project; the university must have a deep understanding of the community, doing academic work with it rather than for it; boundaries and limits should be blurred, without ending up working in a disjointed way; decision-making is shared between agents, rather than

just being determined by the students (Bennett, 2018; Henry & Breyfogle, 2006; Saltmarsh et al., 2009; Santos-Rego et al., 2023).

Far from being one-way thinking where the university acts as the only broadcaster of knowledge, good-quality service-learning involves recognizing community knowledge and joint construction of solutions before, during, and after the experience (Santos-Rego et al., 2025). This means that service must be thought of as a collaborative relationship between equals, where all parties learn and benefit, making it clear that—ethical dilemmas apart (González-Geraldo & Ortega-López, 2023)—service-learning is actually at the service of all social actors involved without exception.

For such relationships to be sustainable, there needs to be a comprehensive analysis of the benefits and results delivered to the actors involved in the shared work associated with service-learning projects. This means a view that transcends the traditional idea of it as an academic methodology that must involve improvements in student performance. That cannot be ignored, of course, as the leitmotif of higher education. However, while this strategy brings with it the consideration of the community as an agent in the educational process, strengthening the social dimension of university education, it is also useful to understand service-learning as an instrument for developing civic and social skills, as well as a facilitator of benefits in the groups and bodies that participate in the projects (Chika-James et al., 2022; Compare et al., 2022).

Although the relationships are a central, defining dimension of this methodology, achieving them effectively is a concern shared by many higher education institutes. Sincere, honest construction of these alliances, cemented by professional yet explicitly human treatment, is still a complex task that produces much tension. Perhaps this is why most studies have focused on students—how much more, or how much better, have they learned (Santos-Rego et al., 2020), and what competencies have benefited (Ruiz-Montero et al., 2022; Santos-Rego et al., 2021)—and, to a lesser extent, on the impact on the community in terms of services offered, highlighting a gap in the research addressing this aspect (Lau & Snell, 2021, 2023). Although there are some studies in the English-speaking world (Bringle & Hatcher, 2002; Chupp et al., 2021; Mtawa & Fongwa, 2020), studies in the Spanish and European contexts have not usually addressed teachers' perceptions or self-perception (López-de-Arana et al., 2020) of the impact of service-learning initiatives. This lack of attention may be because academia has prioritized student development, but may also be due to the lack of standardized, reliable tools available (Lau & Snell, 2021).

With communities, studies have been more interested in their satisfaction with results, or looking at factors driving, limiting, or hindering their involvement (Chika-James et al., 2022; Compare et al., 2022; Van Rensburg et al., 2019). This has been done using information collected from collaborating entities, especially using qualitative instruments (interviews or discussion groups) and small samples.

However, analyzing the impact of service-learning on the community involves more than just a set of indicators allowing us to determine whether these educational practices produce benefits or not. Holland (2001) proposed five aspects to explore:

- The ability to achieve the mission. If there are new approaches in the organization's activities, new services, or increased capacity to offer more products and services.
- Economic impact. If there are new routes of funding or reduced, or increased, costs.
- Perceived reciprocity. The organization designs its role in the project, proposes objectives for the partnership, or participates in defining objectives for the university and the students.
- Sustainability of the partnership. There are criteria for success, a perception of mutual trust between the organization and the university, or there are suggestions for change and improvement.
- Satisfaction. The intention to continue with the collaboration, the ability to establish both positive and negative feedback, or hiring students who participated in the project.

For Gelmon et al. (2001), evaluating the community in service-learning means paying attention first to the results experienced by the community organization, and second to the nature of the relations that have been established. They noted the following dimensions with regard to the organization:

- The ability to deal with their mission. Reflected in the type of service provided by the students, the number of people targeted and students involved, the variety of activities undertaken, and the way in which needs are met.
- Social benefits. Creation of new networks or contacts, the number of volunteers the organization can count on, or the impact the project has had in affected communities.
- Economic benefits. Related to identification of new funding opportunities for the organization, the impact on resource use, or gaining new personnel.

Looking at the variables related to the partnership between the community and the university, those authors suggest the following points for evaluation:

- The nature of the relationships (the partnership itself). Creation and maintenance of solid partnerships, the types of activities that are done, or the aspects that help or hinder the relationship.
- Nature of the community–university interaction. Participation in the other parties' activities, how communication is established, and the awareness each party has of the others' activities and initiatives.
- Satisfaction with the relationships. How reciprocity is perceived and the willingness to offer feedback.
- Sustainability of the partnership. Reflected in how long it lasts and how it changes over time.

On similar lines, Clarke (2003) created the three "i"s model for organizations, focusing on the dynamic nature of the impact of service-learning programs on the community: a) the indicators of the service; b) the initiative of community service; and c) the community impact of the service, including the results achieved for the community.

Lau and Snell (2021) analyzed community impact in the literature and highlighted some common themes: the nature of the collaboration between the community and the university; the sustainability of the collaboration; satisfaction with the collaboration; the perceived impact on the organization's capabilities; the level of help to promote the organization's mission and values; and the level of increased awareness of the role of the university. They also added two additional aspects of possible community impact in their model: the organizations and the community may benefit from the transfer of knowledge from the university, given its knowledge-enhancing role; and the organizations may be better able to identify professional profiles through their interaction with students.

They developed a conceptual framework to capture the principal areas of community impact produced by service-learning that covered two components: the organizations and the final beneficiaries who received direct or indirect services. They identified three areas of impact for the organizations: increased capacity; promotion of objectives and values; and acquisition of knowledge and new perspectives. They identified two areas for the ultimate beneficiaries: satisfaction of needs and improved quality of life.

There is no doubt that teachers play a fundamental role in designing, implementing, and evaluating service-learning projects, acting as a bridge between the needs of the community and the competencies specified in the study plans. Understanding how teachers experience this, along with their perceptions of the impact and the challenges that come up, is essential for thoroughly examining and improving the integration of service-learning in teaching practice and strengthening the relationship between the university and the community (Lorenzo-Moledo et al., 2019). Their understanding of the meaning and scope of the community and their ability to facilitate collaboration are indispensable to the success of both current and future projects.

The literature merely notes the necessary involvement of teachers as a key to successful service-learning projects, understanding that such involvement means applying professional, transversal, and subject-specific skills and facilitating empathic, thoughtful practices (Tuohy et al., 2025). Or it refers to the effects of service-learning on university teaching practice, such as teachers' abilities to adapt to active methodologies requiring commitment (Espinosa-Zárate et al., 2023). Other teacher-focused studies on university service-learning demonstrate that putting such initiatives into practice involves reorganizing

subjects and internal processes while also promoting collaboration and participation of the teaching team and the community (Tolozano-Benítez et al., 2025). Complementary studies have also indicated that there are benefits for the universities and the social setting where the projects are undertaken, raising the profile of the university and awareness of students' commitment to social initiatives (Santos-Rego et al., 2021). Other studies have also noted analysis of variables that explain the addition of this methodology to teaching activity (Lorenzo-Moledo et al., 2019), concluding that teachers' social involvement is the variable that best predicts the likelihood of using it.

Nevertheless, because teachers' participation in service-learning has not been examined in relation to the perceived community impact, but rather mainly from aspects related to teaching, that avenue of research needs to be explored. This will shed light on teachers' involvement and perceptions, allowing for new ideas, resources, and techniques to be created, while also encouraging new initiatives and reciprocal networking with the organizations involved in the projects.

Another need that has been recognized internationally is for standardized, validated instruments for evaluating service-learning. Lau et al. (2024) noted that the absence of validated tools made longitudinal or inter-institution comparisons difficult, limiting how far research could advance on the impact of this methodology. These authors' rigorous focus on validating instruments in multiple cultural contexts, specifically in Asia, served as the model for our adaptation in the European and Spanish contexts, which exhibit many similarities and differences in their educational traditions and priorities.

In this sense, despite the prevalence of theoretical or aspirational accounts regarding the transformative potential of service-learning, significant empirical efforts have attempted to evaluate its impact through validated measurement tools. On the one hand, established work such as that by Reeb et al. (2010) has evaluated service-learning outcomes by focusing on students, utilizing tools like the Community Service Self-Efficacy Scale (CSSES) to measure students' confidence in their ability to make meaningful community contributions. On the other hand, studies such as Shek et al. (2021) have taken a crucial step toward the community perspective by validating subjective outcome evaluation scales aimed at service recipients, providing empirical evidence on perceived benefits and client satisfaction. Nevertheless, while existing research has frequently measured student developmental outcomes or immediate client satisfaction, there remains a scarcity of validated instruments that systematically assess the broader organizational, relational, and systemic impact on the community from the perspective of university teachers acting as mediators. The shortage of such standardized measures highlights the clear need for validated tools to rigorously capture the multidimensionality of community impact in higher education at an international level.

Given these gaps, the objective of the present study is to conduct a cross-cultural adaptation and psychometric validation of the *Community Impact Feedback Questionnaire* (CIFQ), a scale that was originally developed and validated by Lau and Snell (2021, 2023) in the Asian context to evaluate the impact of service-learning from the perspective of partner-organization representatives (PORs). Our study proposes a version that is specifically adapted for university teachers in the Spanish and European context (Santos-Rego et al., 2017) for evaluating the impact of service-learning on the community, understood as the partner organization and as the people the service targets.

This validation goes beyond a mere linguistic translation and involves conceptual, functional, and cultural adjustment (Beaton et al., 2000; International Test Commission, 2017; Muñiz et al., 2013), given the differences in regulations, pedagogical practice in service-learning, and the dynamics of university–community collaboration between Asia and Europe (Snell & Lau, 2020). In addition, it is also an innovation in terms of the target population, because while the original CIFQ was designed for PORs, our adaptation is aimed at university teachers as key agents in the mediation between university and community (Bringle & Hatcher, 2002), whose voice has not been sufficiently represented in evaluations of community impact (Gelmon et al., 2001).

Hence, this study investigated whether the factor structure of the CIFQ intended for professionals of social organizations in Asian societies remains relevant to a European context, such as Spain. It examined the internal consistency of the scale items within this specific cultural context.

As we will see, only from a philosophy of mutual benefit and respect for community knowledge can a socially committed, transformative university be created, where service-learning—along with other complementary methodologies—can and must play a vital role. The results of this study will allow us to produce an instrument, validated in the European context, aimed at understanding the impact of this experiential methodology on the community from the teachers' perspective.

Method

Participants

The sample was made up of 147 teachers at nine Spanish universities (eight public, one private) that used the service-learning methodology: University of Castilla-La Mancha (10.9%), University of A Coruña (13.6%), University of Jaén (2.7%), UNED (9.5%), University of Navarra (9.5%), University Pablo de Olavide (3.4%), University of Santiago de Compostela (30.6%), University of Valencia (7.5%), and the University of Vigo (12.2%). Almost three-quarters (72.79%) of the service learning was done with a community partner. Teachers mostly worked in social and legal sciences (56.6%) or healthcare sciences (12.2%), while a smaller proportion were in engineering and architecture or arts and humanities (7.5% each). Two-thirds (66%) were women; their ages ranged from 31 to 72 years (M = 50.25; SD = 9.30). Almost all (97.3%) had been trained in service-learning and used the methodology mainly for results in student learning. They had permanent positions as civil servants (49%) or statutory staff (25.9%). They had around 20 years' teaching experience on average (M = 18.7; SD = 9.83), and most (85%) had participated in training courses on teaching innovation. In addition, 71.4% had collaborated, or were collaborating with, civic-social organizations.

Instrument

Within the framework of the research project, a questionnaire was designed to identify the meaning and scope of community participation in university service-learning projects. The questionnaire included categorical variables about the teacher, identification of the project, and the partners, along with four Likert-type scales. It focused on the cross-cultural adaptation of the *Community Impact Feedback Questionnaire* (CIFQ) by Lau and Snell (2021, 2023), which was originally developed in Hong Kong using the Delphi method with PORs in order to evaluate the impact of service-learning projects on the community—in our case from a teacher's perspective.

The original *Community Impact Feedback Questionnaire* (CIFQ) had 20 items in five dimensions: relationship between the service-learning project and the organization's mission (five items); increased organizational resources (five items); acquisition of knowledge, ideas, and techniques (five items); impact on those the service targeted (two items); and overall evaluation (three items; Lau & Snell, 2021, 2023). Responses were given on a 10-point Likert scale from "very little" to "a great deal," except the last two items, which used "completely disagree" to "completely agree." The scale also allowed one additional item indicating not applicable.

Because there are no validated instruments in the European context allowing the community impact of service-learning to be assessed from the teachers' perspective, we made a cross-cultural adaptation, following the international recommendations for translating and adapting instruments (Beaton et al., 2000; International Test Commission, 2017; Muñiz et al., 2013). This process involved an initial review of the construct. While the original scale assessed the direct impact on the community organization according to those working in it, the adapted version assumes that teachers act as mediators between the university and the community, with an indirect, albeit informed perception of the impact on the partner organizations and ultimate recipients of the service (Bringle & Hatcher, 2002). This construct-level review was accompanied by a translation process and item-level adjustments, described below.

To ensure the conceptual and linguistic equivalence of the instrument, a translation procedure was followed. A translation of the original instrument (CIFQ; Lau & Snell, 2021, 2023), developed in an

Asian context, into Spanish was carried out by an accredited professional translator, a native speaker of American English, who was instructed not to produce a literal translation, but to prioritize conceptual equivalence, taking into account the characteristics of the target population (Spanish university teachers). This preliminary version was subsequently examined by the research team of the University of Santiago de Compostela (USC) and the project coordinators, resulting in a conceptual and functional translation of the instrument. This version was then reviewed by a committee made up of four experts in service-learning and research methodology, who assessed the items based on criteria of content validity, clarity, relevance, and cultural equivalence.

The result of this cross-cultural adaptation process was the scale, *Impact of university service-learning projects on the community from a teacher perspective (Service-learning Impact Scale-Teachers: SIST)*. It comprised 20 items in the same five dimensions as the original, with minor modifications:

- In the "Acquisition of knowledge, ideas, and techniques," the item, "It transferred organizational knowledge to the university," was added in line with the bi-directional, reciprocal approach of service-learning in the European context. The original item, "It helped to improve our working techniques," was amended to "It allowed research projects to be undertaken in the organizational setting."
- In addition, in the overall evaluation dimension, the item "I would recommend participating in service-learning to other community organizations" was removed, as it did not make sense from a teacher perspective.

The original 10-point Likert response scale was transformed into a 5-point scale in order to simplify the response process and improve the interpretability of the data obtained. Methodological evidence suggests that five-category scales offer an adequate balance between psychometric sensitivity and ease of use for respondents, reducing the cognitive load associated with discriminating between a large number of categories and avoiding an apparent precision that, in wider-range scales, may not correspond to real differences in the perception of the construct being assessed. This modification also facilitates comparability of results with other instruments commonly used in the field of service-learning and higher education, which predominantly employ 5-point scales.

We also considered that this change in response alternatives does not alter the objectives of the measurement instrument, given that it is an opinion scale in which the category quantifier remains unchanged, continuing to assess agreement or disagreement with the statements (items) of the original scale, while also preserving the summative nature of the scale. Furthermore, regarding reliability as a criterion, Cicchetti et al. (1985), among others, established that it increases as the number of response categories rises, but beyond seven categories, the gains become trivial. In addition, Morales (1988) argues that the traditional model, ranging between five and six response options, can be considered sufficiently well-founded empirically to be used in scales of this type.

The final solution uses a 5-point Likert scale, from 1 = "completely disagree" to 5 = "completely agree," keeping the "Don't know" option to ensure the quality of the responses. This adaptation is the first European cross-cultural validation of the CIFQ and the first version of the scale designed specifically for university teachers, expanding its usefulness as an evaluation tool based on the reciprocity in the service-learning framework.

Procedure

Following approval for the study from the Bioethics Committee of the University of Santiago de Compostela (USC Code 45/2023), the questionnaire was applied during the second semester of the 2023–2024 academic year (between March and June) in nine Spanish universities. A database of teachers using service-learning was created by analyzing innovative education project proposals, publications, and participation in conferences on the subject. The survey was sent to the teachers via SurveyMonkey software—following authorization from the data protection delegate at the University of Santiago de Compostela—along with an introductory letter, and they completed it individually, online.

Data Analysis

To confirm the internal structure of the evaluation instrument, descriptive statistics were calculated for the sample, analyzing the item properties. Following that, exploratory factor analysis (EFA) was performed using the IBM SPSS 29 package, using principal components extraction with Varimax rotation. Then, each item's reliability was calculated using Cronbach's α coefficient. Lastly, confirmatory factor analysis (CFA) was performed using maximum likelihood in order to assess the fit of the model (IBM-SPSS AMOS 29). In addition, to assess the internal consistency of the final version of the scale and its components, Cronbach's α coefficient was calculated.

Results

Descriptive Indices

Before starting the psychometric analysis of the scale, it is important to note that the teachers felt that they had sufficient knowledge to assess the impact of their projects. Only a small percentage of teachers ticked the "Don't Know" boxes. The greatest number of "Don't Know" responses was in item 5, "It allowed the organization to deal with more users," indicating that teachers did not have the knowledge to answer this question (see Table 1).

Table 1.

Percentages of "Don't Know" Responses in the Service-Learning Impact Scale-Teachers

Item	*n*	%
1. It helped drive the organization's mission forward	13	11.3
2. It produced useful results for the organization	6	5.2
3. It improved the organization's quality of service	11	9.6
4. It helped promote the organization's image	11	9.7
5. It allowed the organization to deal with more users	23	20
6. It provided the organization with additional human resources	13	11.5
7. It was worth the effort the organization put in	9	8
8. It produced economic benefits for the organization	17	15
9. It helped promote a positive work culture	15	13.2
10. It expanded the organization's networks	18	15.8
11. It provided new ideas, knowledge, and strategies	10	8.7
12. It facilitated a review of usual working practices	17	14.9
13. It transferred knowledge from the university to the organization	4	3.5
14. It transferred knowledge from the organization to the university	7	6.2
15. It allowed the organization to acquire new experience	12	10.5
16. It allowed execution of research projects related to the organization's area of work	18	15.9
17. It benefitted the final recipients	3	2.7
18. It improved recipients' well-being	11	9.6
19. In general, the service-learning project had a positive impact on the organization	3	2.7
20. In general, the service-learning project encouraged them to keep working with the university	6	5.5

The results of the descriptive analysis are shown in Table 2. The values for asymmetry and kurtosis were acceptable, as values above 2.00 indicate extreme asymmetry and lower values indicate normality, while values between 8.00 and 20.00 would suggest extreme kurtosis. The sample demonstrates a normal distribution, justifying the use of parametric tests.

Table 2.

Descriptive Statistics and Indices of Asymmetry and Kurtosis for the Service-Learning Impact Scale-Teachers

Item	*N*	*M*	*SD*	*As*	*SE As*	*K*	*SE K*
1	115	4.40	0.91	−0.16	0.23	−0.32	0.45
2	115	4.33	0.75	−0.10	0.23	−0.02	0.45
3	115	4.19	1.01	−0.29	0.23	−0.08	0.45
4	113	4.46	0.93	−0.66	0.23	0.41	0.45
5	115	3.86	1.71	−0.42	0.23	−1.10	0.45
6	113	3.73	1.60	−0.40	0.23	−1.12	0.45
7	113	4.59	0.75	−1.03	0.23	2.44	0.45
8	113	2.50	1.88	0.80	0.23	−0.94	0.45
9	114	4.48	1.04	−0.98	0.23	1.82	0.45
10	114	4.22	1.23	−0.52	0.23	−0.07	0.45
11	115	4.50	0.89	−0.60	0.23	0.30	0.45
12	114	4.29	1.29	−0.90	0.23	0.50	0.45
13	115	4.47	0.85	−1.28	0.23	2.41	0.45
14	113	4.24	1.13	−0.89	0.23	0.18	0.45
15	114	4.50	0.94	−0.76	0.23	0.95	0.45
16	113	3.86	1.65	−0.43	0.23	−1.08	0.45
17	111	4.58	0.65	−0.92	0.23	1.57	0.45
18	114	4.39	0.99	−0.61	0.23	0.23	0.45
19	113	4.58	0.63	−0.71	0.23	0.11	0.45
20	112	4.69	0.71	−1.38	0.23	2.31	0.45

Note. As = Asymmetry, SE As = Asymmetry Standard Error, K = Kurtosis, SE K = Kurtosis Standard Error.

As can be seen in Table 2, items 5, 6, 8, and 16 show the lowest mean scores on the scale, although they remain above the mean, with the exception of item 8, whose mean score falls below it. This item refers to the economic benefits for the partner organization; teachers' relative disagreement with this statement indicates that, in their perception, service-learning does not generate direct economic effects for the organization. However, teachers do perceive that participation in the projects allowed them to serve a larger number of users, provided additional human resources, and enabled the development of research projects related to the organization's work. For these four items, standard deviation (*SD*) values are also the highest on the scale. These results may reflect the heterogeneity of the projects analyzed, in terms of factors such as the type of service provided (direct or indirect) or the nature of the university–organization relationship (one-off or long-standing).

In addition to the descriptive analysis, item-total correlations and the correlations between items were examined using the Pearson coefficient. The correlation matrix between the different items (see Table 3) shows that all of the item-total correlations, and most of the correlations between items, were significant.

Table 3.

Correlation Matrix for the Items in the Service-Learning Impact Scale-Teachers

Item	ITC	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	.62**	-																			
2	.56**	.48**	-																		
3	.69**	.68**	.47**	-																	
4	.59**	.35**	.42**	.53**	-																
5	.63**	.40**	.29**	.48**	.42**	-															
6	.58**	.34**	.31**	.40**	.27**	.51**	-														
7	.60**	.48**	.29**	.44**	.54**	.34**	.38**	-													
8	.61**	.32**	.34**	.38**	.35**	.47**	.37**	.19*	-												
9	.47**	.40**	.36**	.43**	.39**	.20*	.34**	.51**	.31**	-											
10	.66**	.27**	.42**	.43**	.55**	.47**	.48**	.47**	.40**	.33**	-										
11	.67**	.52**	.51**	.60**	.53**	.40**	.24**	.35**	.31**	.48**	.28**	-									
12	.62**	.37**	.30**	.42**	.29**	.41**	.33**	.22*	.38**	.33*	.36**	.53**	-								
13	.61**	.43**	.35**	.45**	.37**	.24*	.21*	.29**	.28**	.17	.36**	.59**	.44**	-							
14	.58**	.28**	.38**	.40**	.38**	.32**	.43**	.41**	.35**	.23**	.52**	.33**	.39**	.45**	-						
15	.54**	.37**	.22**	.41**	.45**	.25**	.19	.49**	.24**	.25**	.42**	.50**	.48**	.52**	.34**	-					
16	.60**	.25**	.30**	.32**	.36**	.40**	.35**	.31**	36**	.12	.40**	.40**	.45**	.37**	.39**	.42**	-				
17	.54**	.47**	.35**	.38**	.39**	.30**	.33**	.56**	.13	.30**	.22*	.42**	.19*	.35**	.24*	.28**	.19*	-			
18	.60**	.41**	.41**	.43**	.26**	.35**	.38**	.47**	.26**	.33**	.44**	.37**	.46**	.30**	.35**	.41**	.33**	.65**	-		
19	.60**	.50**	.50**	.55**	.43**	.20**	.27**	.61**	.29**	.37**	.36**	.55**	.31**	.46**	.49**	.43**	.25**	.58**	.54**	-	
20	.49**	.38**	.32**	.29**	.32**	.20*	.16	.43**	.19	.12	.40**	.25**	.21*	.22*	.35**	.48**	.38**	.18	.31**	.60**	-

Note. The table shows corrected item-total correlations (ITC) and correlations between items (Pearson coefficient).

*p <.05. **p <.01

As shown in Table 3, the exploratory factor analysis (EFA) was conducted using orthogonal rotation, meaning that items not loading on the same factor are not necessarily expected to correlate with one another. This is the case, for example, of item 6 (Factor II), whose correlations with items 15 (Factor III), 16 (Factor III), and 20 (Factor V) did not reach statistical significance—a result that is consistent with the factor structure obtained through orthogonal rotation, given that no meaningful association would be expected between items belonging to different factors. In the remaining cases, most inter-item correlations, although low, were statistically significant, in most cases at $p < .001$.

Dimensionality

The results of the exploratory factor analysis (EFA) allowed determination of the dimensionality of the scale. It produced the following descriptive statistics: Kaiser-Meyer-Olkin (KMO) = .78; $\chi^2(190) = 981{,}121$; $p < .001$. The initial extraction produced five significant factors explaining 63.91% of the variance. The first and second factors each had five items, the third had six, while the fourth and fifth each had two (Table 4). These results confirm the grouping of items reported by Lau and Snell (2021).

Table 4.

Rotated Factor Loadings, Communality, and Variance Explained by Each Factor in the Service-Learning Impact Scale-Teachers

Item	Factor I	Factor II	Factor III	Factor IV	Factor V	h^2
3	.86					.62
1	.79					.56
2	.72					.46
4	.72					.68
5	.67					.58
10		.77				.74
7		.73				.72
6		.73				.67
9		.70				.52
8		.61				.53
11			.77			.80
13			.77			.64
12			.75			.73
15			.74			.72
16			.68			.56
14			.64			.45
18				.91		.77
17				.91		.71
20					.89	.62
19					.89	.72
% Variance explained	36.28	8.76	6.97	6.53	5.37	63.91

Factor I, "Relationship between project objectives and the organization's mission," included: improving service quality (item 3), advancing its mission (item 1), delivering useful results (item 2), promoting its image (item 4), and dealing with more users (item 5). Factor II, "Organizational resources," included: expanding networks (item 10), usefulness of organizational effort (item 7), providing additional human resources (item 6), promoting positive working culture (item 9), and producing economic benefits (item 8). Factor III was about "Knowledge, ideas, and techniques," comprising: providing new ideas,

knowledge, and strategies (item 11); transfer of knowledge from university to the organization (item 13); reviewing working practices (item 12); gaining new experience (item 15); and doing research projects (item 16). Factor IV, "Recipients of the service," included two items focused on benefits (item 17) and well-being (item 18). The final factor, Factor V, "Overall evaluation," included item 19, about the positive impact on the organization, and item 20, about whether the organization wanted to continue working with the university.

Reliability

Looking at construct reliability, analyzing the 20 items produced a Cronbach's alpha of .89, indicating high internal consistency, which did not improve by eliminating items. Table 5 shows the index of homogeneity and the alpha coefficient for each item in the scale. Examining each item's internal consistency, all of the items in Factor I had an α coefficient of .77, indicating good reliability. The value of α for the items in Factors II, III, IV, and V was .72, .80, .75, and .74, respectively. In addition, there were no improvements to alpha on eliminating items, with the exception of item 5, which would raise it to .79. We decided not to remove the item, as the difference was small, and the content, "It allowed the organization to deal with more users," was pertinent to the study.

Table 5.

Homogeneity Index (HI) for the Service-Learning Impact Scale-Teachers

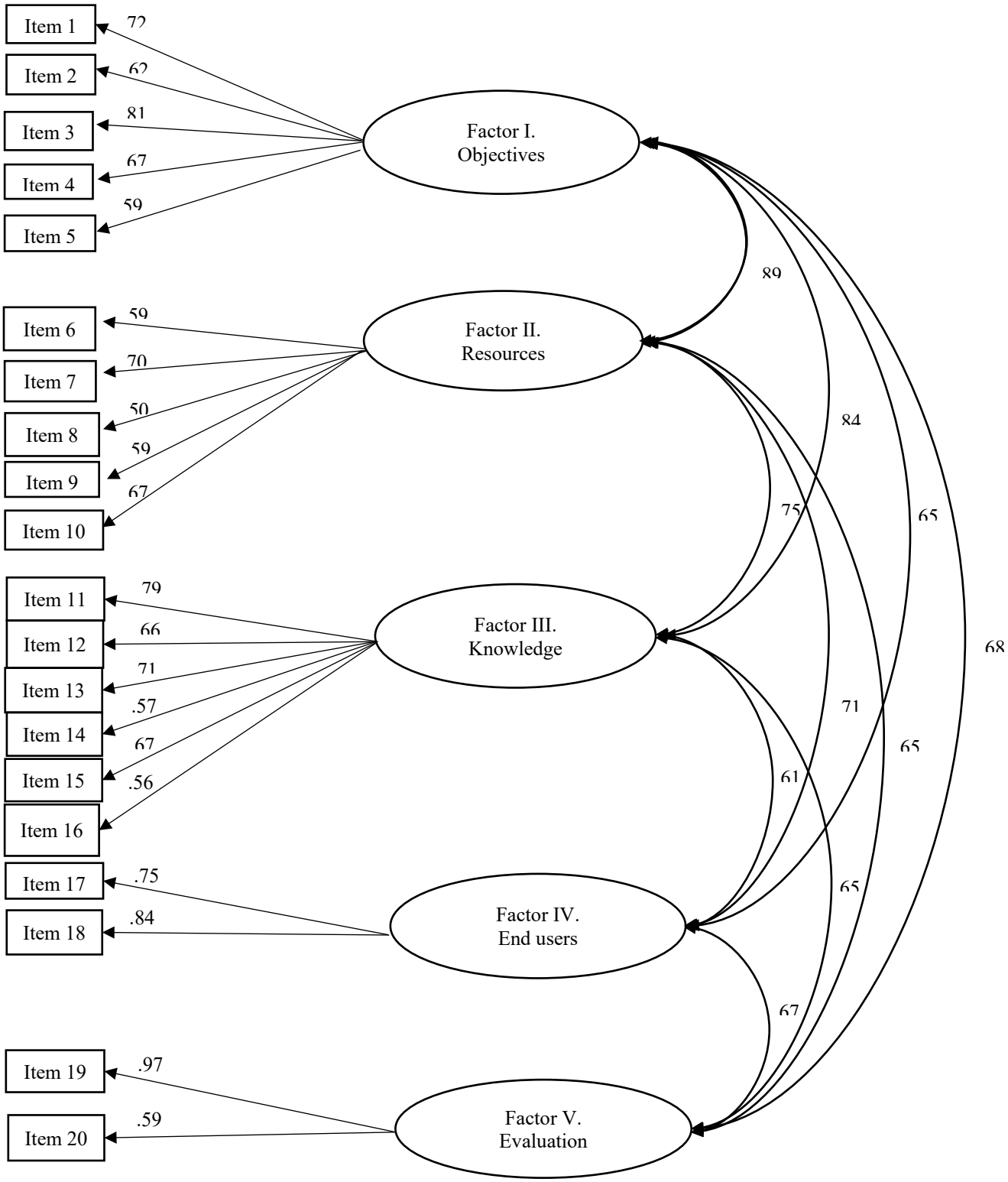
Factor	Item	HI	α if item removed
I	1	.57	.71
	2	.52	.74
	3	.65	.67
	4	.54	.72
	5	.54	.79
	6	.50	.64
II	7	.52	.68
	8	.50	.71
	9	.41	.68
	10	.60	.63
III	11	.63	.76
	12	.55	.75
	13	.56	.76
	14	.53	.78
	15	.49	.76
	16	.51	.79
IV	17	.50	---
	18	.54	---
V	19	.57	---
	20	.44	---

Estimation of Parameters and Evaluation of Fit

Finally, a confirmatory factor analysis (CFA) was performed to test the fit of the five-factor model. The model is shown in Figure 1, which indicates the standardized regression loadings and the covariances (p <.01).

Figure 1.

CFA Model for the Service-Learning Impact Scale-Teachers



To assess the acceptability of the fit indices of the confirmatory factor analysis, two statistics were primarily considered: χ^2, which reflects the distance between the sample and the hypothesized variance/covariance matrices and constitutes the main fit index in this type of analysis, with a value equal to or below 3 considered adequate, although it is a statistic highly sensitive to sample size, tending toward statistical significance with $n \geq 200$ (Bentler & Bonett, 1980); and SRMR (standardized root mean square residual), whose value should be equal to or below .08 (Hu & Bentler, 1999). Both indices showed an adequate model fit. The remaining indices were used in a complementary manner, particularly in cases where the χ^2 value exceeds 3: GFI (Tanaka & Huba, 1985), CFI (Bentler, 1990), and RMSEA (Steiger, 1990).

Table 6 shows the indices of fit. They show that the model is suitable for explaining the impact of service-learning projects on the community. It is consistent with the theoretical structure that guided the creation of the scale and the items.

Table 6.

Indices of Fit for the Initial and Final Models of the Service-Learning Impact Scale-Teachers

χ^2	df	p	χ^2 /df	GFI	CFI	RMSEA [IC]	SRMR
470.32	157	.000	2.99	.769	.784	.117 [.105–.129]	.07

Discussion and Conclusions

The objective of this study was to carry out a cross-cultural adaptation and psychometric validation of the *Community Impact Feedback Questionnaire* (CIFQ) by Lau and Snell (2021, 2023), which was originally developed for representatives of community partner organizations. The adaptation was made so that it could be used with university teachers in the Spanish context within the European Higher Education Area framework. Service-learning has become particularly important in this regard as a methodology for strengthening universities' social commitment, but there is a dearth of validated instruments for evaluating its impact on the community from the teachers' perspective.

The study applied the adapted version of the CIFQ (the *Service-learning Impact Scale-Teachers: SIST*) to a sample of teachers from nine Spanish universities who had experience of implementing service-learning projects. The final version of the scale comprised 20 items grouped into five factors. The indices of fit (χ^2/df = 2.99; GFI = .77; CFI = .78; RMSEA = .117; SRMR = .07) for the model were reasonable, considering its novelty and the cross-cultural suitability.

The psychometric validation of the scale showed high overall reliability (α = .89), with good indices of internal consistency in each of the five factors identified through exploratory factor analysis (EFA), where α values ranged between .72 and .80. There was a five-factor solution for the structure that was consistent with the theoretical model proposed by Lau and Snell (2021, 2023), explaining 63.91% of the total variance. The distribution of the items was normal, and they exhibited significant item-total correlations, supporting internal homogeneity. The confirmatory factor analysis (CFA) confirmed the five-dimension structure, with acceptable indices of fit (χ^2/df = 2.99; SRMR = .07) suggesting a reasonable fit to the original model.

These findings support the validity of the construct and the reliability of the scale for use in educational contexts with teachers involved in service-learning projects. It is the first European adaptation of the CIFQ (Lau & Snell, 2021, 2023) and is an important tool for evaluating the community impact of service-learning from the teachers' perspective.

Beyond its psychometric properties, the availability of this scale opens up various possibilities for application and knowledge transfer. From a practical perspective, research on service-learning has

focused predominantly on student learning, while the impact on the community as an essential pillar of this pedagogical methodology has received comparatively little attention. The validation of this instrument with university teachers contributes directly to filling this gap. Furthermore, given its simplicity and brevity, it extends application beyond representatives of partner organizations (PORs) to teachers themselves. This is particularly advantageous for reaching university teachers, a population traditionally difficult to engage in survey research due to the number of requests they receive every day about different studies demanding their attention.

In terms of its structural contributions, the instrument developed for this study allows analysis of the impact of service-learning on the community through five complementary dimensions, which is a key contribution to future studies about how relevant this methodology is in the framework of innovation and university learning processes.

The findings are consistent with previous studies, which have shown the need for instruments that allow teachers to evaluate the community impact of service-learning from their role as mediators between the university and society (Furco, 2002; Gelmon et al., 2001). In addition, the multidimensional structure, which considers aspects such as the relationship between project objectives and community organizations' missions, the knowledge generated, the effects on those ultimately receiving the service, and the overall assessment, fulfills the recommendations made by Bringle and Hatcher (2002) and Lau and Snell (2021, 2023), who reiterated the need to go beyond approaches that solely focused on the direct benefit of the service to recognize the various organizational, symbolic, and relational impacts. At the same time, the cross-cultural adaptation of the instrument from the Asian to the European context carries an interest that transcends mere linguistics. As noted by Adarlo et al. (2025), cross-cultural validations of such scales are necessary given the underlying philosophical, cultural, and social differences in how service-learning is conceived across regions.

Having a validated European version not only facilitates local application but also enables robust cross-cultural comparisons between Western and non-Western settings, thereby expanding international service-learning research. Furthermore, this validation builds upon the trajectory suggested by Lau and Snell (2023), who highlighted the need to triangulate perceptions of community impact across multiple stakeholders. Future studies could combine this instrument with student self-reports and direct feedback from community beneficiaries to better understand mutual benefits and contributions.

Overall, this scale brings substantial value to various groups within higher education. For researchers, it advances underexplored lines of inquiry in Europe, including cross-national and cross-cultural comparisons of community impact across diverse project typologies. For university teachers, it offers a systematic and user-friendly tool to reflect on the tangible impact of their projects on partner organizations, moving beyond informal, ad hoc evaluations. Finally, for educational policymakers, having systematic evidence on community impact supplies solid arguments for institutional recognition and the consolidation of service-learning as a core pedagogical strategy in higher education.

In any case, validating the measurement model opens up new avenues toward other studies into how teachers see the impact of service-learning, and allows exploration of mediating variables such as the level of involvement in the community or comparison between teachers' perceptions and what community partners and agents involved in the projects think. Similarly, in the future it would be interesting to explore the effects of service-learning longitudinally, especially in relation to the sustainability of the links between the community and the university and the potential to consolidate processes of social transformation and educational innovation.

The present study also has some limitations. The first is the self-reported nature of the data, based solely on teachers' perceptions. While this is the study's main strength, it may also introduce social-desirability bias or overestimation of impact. Secondly, the sample was not probabilistic, or necessarily representative of all teachers involved in service-learning projects, which may limit how generalizable the results are. Finally, one of the significant limitations of the cross-cultural validation of the CIFQ with Spanish university teachers is the challenge of ensuring full equivalence with the original instruments. Although the cross-cultural adaptation process rigorously followed international recommendations, it is possible that some items may not capture exactly the same constructs.

Nonetheless, it is worth remembering that, despite the cultural and interpretive nuance that may affect some items, the validation did confirm the original structure of the scale (Lau & Snell, 2021, 2023), which does point to conceptual equivalence and the relevance of the adaptation for evaluating the community impact of service-learning in the European context in general and in Spain in particular. Finally, although the adapted scale demonstrates clear potential and strong overall reliability, its structural fit indices (CFI and RMSEA) fall somewhat short of the most stringent psychometric standards. As this represents the first cross-cultural adaptation and validation of the instrument in a European higher education context, future studies with larger and more diverse samples should continue to refine its factor structure and optimize its overall fit.

Despite all of this, one cannot dispute the fact that, given the scarcity of studies addressing the relationship between service-learning and its impact on the community to date, our study may help improve understanding of the quality of networking as a fundamental element in learning from the experience of working together (Clayton et al., 2010). This understanding could allow those responsible, teachers and community agents, to reinforce the institutionalization of service-learning and ensure the sustainability of the collaboration.

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Declaration of Competing Interests

The authors declare that they have no conflict of interest.

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Generative AI tools were not used for literature search, data analysis, interpretation of results, or generation of scientific content. AI was used strictly to improve the grammar of specific passages in the final version of the manuscript. The authors reviewed and edited all AI-assisted text and take full responsibility for the content, accuracy, and integrity of the manuscript.

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