

Developing Teaching Competences With Service-Learning Projects

Andresa Sartor-Harada, Juliana Azevedo-Gomes, and Ester Torres-Simón

Abstract

Service-learning (SL) is an active methodology built onto reciprocal learning that combines social responsibility and academic learning. Changes in students' profiles and the evolving interaction between educational institutions and society have encouraged the use of similar participative methodologies in diverse contexts, including higher education. Although the focus of these projects usually centers on student learning, SL experiences enable a holistic construction of knowledge that also affects instructors. This study analyzes instructors' perceptions on developing teaching competences in SL projects and overcoming difficulties. The current research, based on a mixed paradigm, collected answers to a semistructured questionnaire from university instructors ($n = 34$) in 12 Ibero-American countries with experience in SL. The results show how instructors rate positively their acquisition of teaching competences (socioemotional, organizational, and technical competences) when organizing SL projects; however, they experience a lack of training in this specific methodology.

Keywords: service-learning, teaching competences, higher education



Service-learning (SL) is, broadly, an experiential education approach built onto the concept of reciprocal learning. Despite calls that go back decades for narrowing the definition—see, for example, Sigmon (1979)—the lack of agreement on its indispensable features has not led to consensus. As Puig et al. (2007, p. 17) pointed out, there is a varied collection of definitions, since their essential features are present in different methodologies, such as civic education, project-based learning, knowledge integration, or community services. These definitions share, however, the view of SL as a pedagogical approach that values learning in collaborative networks.

On the whole, SL projects build upon a participatory goal supported by students. The action must effectively meet the needs of the community and, at the same time, integrate predefined learning objectives. Therefore, SL projects simultaneously commit to community necessities and educational quality.

In Sigmon's (1979) words, SL focuses on "those who served and were being served" (pp. 9–10). In this way, SL offers a combined professional and social approach that provides fresh nuances and meanings to academic knowledge and encourages the acquisition of new values such as respect, commitment, and solidarity (Tapia, 2006).

Given these benefits, SL practices have developed extensively within the Latin American context since its early adoption in the 1980s, especially in countries such as Argentina, Chile, and Uruguay. Furthermore, values like solidarity with the participating communities have been added to what was initially only a "service," that is, an intervention. "Service-learning" became known as "solidarity service learning." The creation in 2002 of the Latin American Center for Service Learning (CLAYSS, Centro Latinoamericano de Aprendizaje y Servicio Solidario), based in Buenos Aires, was a decisive milestone in the establishment of the methodology in Latin America. In

the European context, the first formal SL initiatives were related to the organization of several forums and conferences, such as the Civic-Educational Forum in Madrid in 2005 or the international conferences in SL for teacher training held in Belgium in 2007 and in Ireland in 2008 (Folgueiras Bertomeu et al., 2013). SL was encouraged in the early 21st century, as it helped address challenges posed by the creation of the European Higher Education Area (Arco et al., 2012; Marquès, 2014). This expansion has shown that, in higher education, the support and participation of institutions are decisive for the success of SL proposals and projects.

Extensive research has been performed to understand the foundations and implications of SL in higher education. Often, the focus of these projects has been on student learning (da Silva & Araújo, 2019; Deeley, 2010; Folgueiras Bertomeu et al., 2013; Rusu et al., 2014), even on reluctant learners (Chan et al., 2019). However, SL builds an overall knowledge that impacts the development of teaching competences just as intensely as it does students' skills acquisition (Rodríguez, 2014). In this sense, universities can invest in the development of civic and social competences of students and teachers to ensure education in life values (Priegue Caamaño & Sotelino Losada, 2016; Torney-Purta et al., 2015). Certainly, research has also tackled task design (Gerholz et al., 2018), the act of teaching, and the necessary teaching competences for making these types of projects happen (Meaney et al., 2008). However, beyond defining the teaching competences that this methodology requires—and there is general agreement on the need for specific competences—little research has been performed on how teachers perceive development of their own competences during SL projects. In this sense, this study pursues two goals: on the one hand, analyzing and describing how teachers perceive their own process of acquisition within the framework of SL projects in higher education; and, on the other, detecting the main difficulties encountered during this process.

Theoretical Framework

The transformation of the informative and communicative scenario (Rodrigues et al., 2018) has permeated educational processes. The contents of this scenario have been transformed into portable, personalized,

and participative pieces, with students demanding greater prominence in their education. Therefore, service-learning resurfaces within a socioeducational context characterized by the desire to provide greater agency to students via projects that enable them to acquire knowledge from various areas. SL is thus an active methodological option that encourages the construction of collective knowledge with the creation of a final product that is beneficial for the community.

This relationship between academia and civic development is attached to the paradigm of complexity (Morin, 2007), which considers that education transcends curricular content and must integrate knowledge from various areas. In this respect, SL simultaneously addresses pedagogical and civic development of the involved participants (Tapia, 2006; Zabalza, 2004; Zaitseva et al., 2017). As Furco (2005) stated, SL has the capacity to integrate community and academia and therefore the potential to be key in effective learning. Service-learning seeks to engage individuals in activities that combine community service and academic learning. Since service-learning programs are usually integrated into formal education, the service activity is usually based on the contents of the curriculum being taught (p. 25).

In this way, education becomes a process of committing to a common good with altruistic intention. Proposals must combine projects that are designed to develop suitable dynamics in the host community and likewise foster social responsibility among participants. Thus, participants' work must address the real needs of the context of intervention with the key objective of improving it (Puig et al., 2007).

The profile of the higher educational community has also changed. Currently, institutions cater to a wider range of diverse and multicultural student populations. The development of technology has progressively enabled people to access a university education at different times in their lives. That is, a growing percentage of the population does not pursue their university studies right after graduating from secondary education, as was the rule in earlier decades, but after a period in the job market (Barsky & Dávila, 2002). A growing number of students combine studies and work or simply attend university courses, considering them lifelong continuous education. University students

are now a wider representation of starting ages. In this sense, higher education institutions became ready to welcome this new student population, with their different objectives and expectations (De Miguel, 2005; Schuurman et al., 2016). Academic proposals of SL in higher education respond to the new educational model of universities, which promotes the need to combine academic learning, social responsibility, and training for the general public (Dolgon et al., 2017; Larrán-Jorge & Andrades-Peña, 2015; Rodríguez, 2014; Vallaeys, 2014). Knowledge and skills developed by SL projects respond to the competences established by the Latin American Tuning Project (González et al., 2004), which incorporates civic commitment, sociocultural safeguarding, and environmental preservation as the main bases for improving collaboration between higher education institutions.

These bases have been addressed extensively within SL. For Santos Rego et al. (2018), SL projects are an opportunity for learning in a controlled environment (“for a riskless change”; p. 7), although it requires compromise from universities to address educational challenges, which are not just a few in a connected world, but in a context where in-depth learning will be key in social and individual transformation (p. 7). Social responsibility requires acting for the benefit of society at large, which, in turn, requires training in the emotional aspects of social relations: engagement and compromise, but also empathy and belonging. In this sense, SL projects are “an opportunity to train on a holistic dimension, since they enable us to embrace sensitiveness and emotions, even achieving the same awareness of future graduates as eminently social beings” and therefore go beyond just “preparing students for effective democratic engagement” (Wall et al., 2018, p. 166). Civic engagement favors social repercussion and impact at the community level (Kaye, 2004; Puig et al., 2007). The Latin American Tuning Project defends further benefits for higher education: SL also promotes quality development, effectiveness, and transparency (González et al., 2004). In general, people involved in SL projects see the service as a response to the real needs of a society they have already integrated into—and this applies to teachers as much as to the previously mentioned new university student population. Incidentally, Priegue Caamaño and Sotelino Losada (2016) identified the acquisition of civil-social skills and the

development of sensitivity to the needs of the hosting community as the fundamental skills developed by instructors. Therefore, participants emphasize the preservation and restoration of the working environment as a necessary measure in this space of reciprocal collaboration. There is a wide range of possibilities, such as the recovery of cultural heritage, support from educational establishments, collaboration with special needs social groups, or the promotion of awareness campaigns, among others (Gelmon et al., 2018; Puig et al., 2007).

The teaching staff is a key component of effective SL implementation. Marquès (2014) listed “implication and support of teaching staff” as Step 5 of 16 in a proposal for a framework of integration of SL in higher education (pp. 14–15). Undoubtedly, instructors play an active role in SL and thus develop teaching competences. Remarkably, competences are not just a set of knowledge, attitudes, and skills that relate to and enable professional development but also hold a recurrent character with continuous growth; that is, nobody “is” competent forever (Cano, 2008, p. 6). In this regard, SL allows personal growth by addressing a wider purpose: investing an academic, personal, and technical background in the construction of more humane social structures (Villa & Poblete, 2008, p. 12). Navarro et al. (2016) added that a good teacher is capable of reflecting on their own performance and evaluating their level of integration of knowledge, attitudes, and skills to respond to any given pedagogical situation.

Teachers’ analysis of their own performance and the identification of the competences acquired in their educational action establish bridges between existing and new knowledge (Bergsmann et al., 2015; Canquiz, 2010). In the case of SL, teachers must be equally aware of the competences they develop as they are of the competences that students could acquire. Therefore, university professors’ perception of the competences acquired during SL projects is a decisive aspect of the whole educational process.

Methodology

The current research aims to understand the beliefs of university professors regarding the development of competences, and to identify the difficulties faced during their participation in SL projects. We opted for

a descriptive research design with a mixed and ex post facto approach. In line with the qualitative and quantitative aspects that drive this study, a semistructured questionnaire was chosen for data gathering. The questionnaire included open-ended and closed-ended questions and sought to determine the profile of each of the participating teachers and identify their beliefs about the competences acquired and the difficulties met in the SL project. The questionnaire was therefore designed on a three-dimensional approach: acquired professional competences, population profile, and reported difficulties.

Following the structural basis of the Latin America Tuning Project, the questionnaire initially addressed the following issues: (a) initial training field of lecturers; (b) previous knowledge or training in roles and work distribution of SL projects; (c) competences developed in SL projects; and (d) considerations on social responsibility, civic commitment, and environmental preservation contemplated in implemented SL projects. These indicators helped design a 20-question survey, which has been the main methodological tool. The methodological proposal includes dichotomous closed-ended questions for the most defined topics on the developmental degree of the competences foreseen in SL projects.

The questionnaire content was validated by a professor from the area of teacher training and a professor from the area of research methodology. Both the Portuguese and Spanish versions were pretested. After reviewing and adjusting the design, we sought to define the sample. We proposed an open approach in order to reach an intercultural sample with a wide variety of profiles. This sample would provide contrasting points of view from different professional environments. Therefore, the population was selected on the basis of responses to a post on the LinkedIn social network, which sought teachers who (1) were active in higher education or (b) had participated in a SL project within a university environment.

A post with the survey and the definition of the target population was published in December 2018 on LinkedIn, in Spanish and Portuguese, with the aim of reaching professionals from all Latin American countries, Spain, and Portugal. The online questionnaire was built with Google forms, and it remained open from January to March 2019.

The sample consisted of 34 teaching staff: 23 university professors from Spanish-speaking countries and 11 university professors from Portuguese-speaking countries. Specifically, the research involved professors from Brazil (8), Ecuador (2), Honduras (1), Argentina (6), Peru (2), Paraguay (1), Guatemala (1), Uruguay (4), Colombia (2), Mexico (1), Spain (3), and Portugal (3). Thematic categorization was chosen for the treatment of information and analysis. Content analysis (Bardin, 1991) was applied to identify the respondents' discourse on those competences they believed they had acquired, as well as the difficulties encountered during their participation. Experts came from social science (10 participants, 30% of the total sample), arts and humanities (9, 26%), pure science (9, 26%), and health science (6, 18%).

The research used a hybrid work methodology based on a matrix survey that cross-checked quantitative questions with open questions, enabling more qualitative work in the reading and interpretation of the answers (Creswell & Plano Clark, 2017). We used Atlas-Ti (Version 8) software for this second stage of content analysis. Quantitative data have been analyzed based on frequencies and percentages. The bottom-up analysis of the answers defines three main categories of competences developed by teachers during the execution of SL projects: technical, socioemotional, and organizational.

Results and Discussion

The acquired competences were defined bottom-up following the responses of the participants. They fell into three categories: socioemotional competences (SC), organizational competences (OC), and technical competences (TC). In addition, each category was divided into further subcategories (see Table 1). The examples in the following subsections demonstrate how each category is interpreted. Participants' statements were originally in Spanish or Portuguese and have been translated by the authors.

If we break down the responses by field of specialization, we notice some differences in the reported competences (see Table 2).

Given the extent of the sample, we cannot talk about significance in diversity, but it is notable that all the respondents in the Social Science group stressed the importance of

Table 1. Reported Competences Acquired by Teaching Staff

| Category | SC | | OC | | TC | |
|-------------|-----------------------|-----|--|-----|--|-----|
| Subcategory | Emotional competences | 35% | Support and monitoring projects in general | 41% | Development of theoretical-practical knowledge | 15% |
| | Community awareness | 12% | Teamwork and leadership | 21% | Specific technical knowledge | 26% |
| | Empathy | 21% | | | | |

Table 2. Reported Competences by Field of Specialization of Teaching Staff

| | SC | OC | TC |
|-------------------------------------|------|-----|-----|
| Social Science (<i>n</i> = 10) | 100% | 70% | 20% |
| Arts and Humanities (<i>n</i> = 9) | 67% | 44% | 56% |
| Pure Science (<i>n</i> = 9) | 33% | 78% | 56% |
| Health Science (<i>n</i> = 6) | 50% | 50% | 50% |

SC, in comparison to only a third of participants in Pure Science. On the other hand, TC seems to be relevant to a low number of participants in the Social Science field in comparison to other fields. Finally, OC are key in Pure Science and Social Science alike. The results cannot address whether those competences are perceived as unnecessary within the field and therefore not acquired or necessary and thus acquired earlier in the training process.

Socioemotional Competences

Socioemotional competences encompass those that stress the importance of teacher involvement, the need to integrate several agents in the SL project, and interactions and problem-solving through ethical action (Goodman et al., 2015). Some 68% of the participants reported having acquired this type of competence. The following competences stand out in this category.

Emotional Competences

SL project work requires the teacher's involvement in the context and with the participants. Challenging and working with people beyond the classroom is highlighted as an acquired learning outcome by 35% of the participants. Moreover, as initiators of the process, or at least supervisors of a participant, teachers often have to take on the role of coordinators. Not everyone is used to the emotional part of this role.

Creating the project tests us in every sense, both emotionally, theoretically, and in relation to others. Above all, one learns to overcome uncertainty and to build a shared goal together. (P12)

In addition, teachers confirm that the practical nature of the project triggers a significant change in perception of their direct connections (their own students and children) and a renewed responsibility toward them.

Preventing our children from becoming easy prey and so ending in the world of crime, in gangs, teenage pregnancy, and so on, since such is the environment in communities like ours. Violence has triggered a change in my vision and attitude toward teenagers in my center. (P3)

Visualizing students as part of the community leads to increasing perception of the situation of that given community.

Community Awareness

Reflecting upon the needs of the community is the starting point for a SL project. For 12% of the participants, the process had modified the way they perceived their communities and realities. Given the effort

to start such a project, participants were already aware of community problems when they started the project but not always of the extent of the problems.

You think you know the center and the community. But it is not like that. When we started, I was not aware of the struggles my students were going through. When we began to work in the topic of oral hygiene, so many problems arose that it is impossible not to get involved. This was my first Service Learning project and, undoubtedly, the most striking. It moved me so much that, now, my main task is to seek support from institutions that can take part in the projects and contribute, at least a little bit, to this community. (P5)

Teaching staff also concurred in pointing out the high degree of personal satisfaction resulting from their participation in the project. This aspect is directly related to the benefits perceived to have been provided to the community and their institution.

I think it was very positive, especially because the teachers who participated acquired greater knowledge and awareness about the economic and social situation in rural communities. But also, because we were useful to the community and gained skills for the direct interaction with humble people from our region. (P17)

One of the benefits that I saw reflected in the community was the project's final product, with the tree planting carried out in conjunction with the families. The rest of the teaching staff became interested with this project, and I'm happy to have participated in this first step. (P26)

In some cases, awareness led to empathy.

Empathy

Contact and involvement with other people's problems can sometimes make us imagine ourselves in somebody else's shoes and understand what others represent (Rockquomore & Harwell Schaffer, 2000). The teaching staff become involved in a

proposal and interact with the community through SL, leading to 21% stating that empathy was one of the developed competences in the projects.

I already had sensitivity and social commitment before participating in this experience, but knowing the situation and the way of life of poor rural communities first hand, my intention of trying to solve their problems was reaffirmed; from then on, I've always tried to do the different works that I've been through, considering the social and economic context my country is living and trying to sensitize the people with whom I have interacted, so that together and from what each person does, we may contribute to the world's transformation. (P16)

Other participants specify changes in attitude derived from their development of empathy and emphasize how academics also become better perceived by the hosting community.

The approach intends to understand people's perspectives, with mutual learning being a great apprenticeship during the process. (P30)

I felt like an agent in charge of transforming realities and I felt that the community also envisioned this. (P12)

Organizational Competences (OC)

Organizational competences refer to resource management (i.e., school resources), organization, and coordination (potential of human capital). Planning, organizing, managing, and leading are necessary actions in SL projects. Teaching staff recognize that they have performed organizational tasks within different periods of the project: In fact, 62% of the teaching staff believe they have acquired organizational competences in their experience with SL projects.

General Project Monitoring and Support

Up to 41% of the participants claimed that they developed different competences related to organization and management, like communication.

Knowledge, organization and

Pedagogical Guidance in nonconventional environments (Hospital Contexts—Hospital Pedagogy). (P16)

It has improved my skills in communication, organization, task assessment, teamwork or management. (P4)

The management, coordination, group guidance, research and the approach of the theoretical framework necessary to sustain the practice and rigor in the organization. All this I developed. (P9)

Teamwork and Leadership

Leadership, as a set of managerial skills to influence a work group, is often different in a SL project than in a classroom. For these skills, 21% of the participants acquired competences related to people management.

Learning how to work with the communes, which are groups of neighborhoods in my country, understanding that they participate through their leaders, in decisions such as how the money assigned to them by the mayor's office for their projects is to be invested. (P20)

The main challenge (and acquired novel learning) for teaching staff is the involvement of other stakeholders, such as family members and community members, who hold different roles that have a direct impact on the project. Leadership is key. Community involvement stands out as a difference between a common thematic project and a SL project.

Working with people outside the school demanded much more from me, because they were not in my charge, but simply helped us with the garbage collection process around the school. I had to learn to manage not only the project planning, but the people at all times. (P14)

What I learned the most was how to manage different groups with the same objective. This is a lesson that I will take to other projects, because it cost me a lot at the beginning, and now I see myself more capable.

(P28)

Negotiations of agency and space helped teaching staff develop competences related to teamwork.

It's just that I had to get involved and direct and think about everyone involved. It went far beyond what I was used to doing in my classroom. Now I feel much more capable of working with groups. (P2)

Technical Competences (TC)

Technical competences are those related to specific knowledge and skills for the development of the SL project. In SL projects, they have an outstanding importance, since new learning is constructed by integrating existing learning (Villa & Poblete, 2008). In our study, 41% of the teachers believed they had developed technical competences during SL projects.

Development of Theoretical-Practical Knowledge

Some participants (15%) highlighted having learned about the specific topics worked on in the projects. They especially emphasized the importance of experiencing practical outcomes of their theoretical knowledge.

I gained new knowledge, especially in social and nutritional commitment, because not only is the child taught to value what is produced in the community, but also how to promote the production and consumption of natural products to improve our health. In addition, they also teach marketing to children and how to improve the family economy. (P28)

I learnt about writing linkage projects and how to support agricultural producers, including training and encouraging productivity, topics I did not have personal experience in until the time. (P9)

Specific Technical Knowledge

Other teachers (26%) emphasized some of the technical and pedagogical skills acquired, which are lessons that will facilitate their teacher's work in the future, although these are less related to the project itself.

The use of technological equipment in municipal tasks is also something brand new for me, since it was required by the subjects I was in charge of. (P7)

I have acquired competence in learning how to write student reports in a concise and accurate way, respecting students as they are, avoiding projecting myself onto them, and allowing them to be themselves. (P9)

Reported Challenges

Participants identified three main challenges in the implementation of SL projects: first, lack of specific training for the development of SL projects; then, lack of support from their institution; last and to a lesser extent, challenging access to potential communities.

The lack of specific training has been identified as a problem by more than 63% of the participants. Although generally the participation was branded as very positive, and there is wide reporting on developing new competences, participants wished they had had previous access to training.

If we had received some prior training on how to organize all the phases of the project, we would have finished earlier and with better results. I felt responsible for the stagnation I experienced with my students from nutrition. (P2)

The lack of training, since there is no school that prepares us as managers for the communities, our development is carried out by personal interest and student integration to an area that attracts the communities, where they can work as part of their social service. The university believes we are prepared to deal with these more organizational aspects, but that is not the case—it was difficult for me. (P21)

Because SL should be of great interest for universities in their role of integrating academic learning for the general population (Larrán-Jorge & Andrades-Peña, 2015), these institutions would be expected to shoulder the burden of promoting and supporting SL projects. However, 57% of the

participants reported a lack of institutional support, especially financial or logistical support. Often, participants felt that further support would have encouraged wider intervention.

Lack of resources for student transportation, sometimes lack of producer collaboration. Lack of technical teaching tutors. (P1)

The biggest problem was the lack of financial and logistical support on the part of the university to which we belonged. Project logistics and budget were limited, as everything was covered by the students' own economic resources and those of the local farming communities. It took more preparation in terms of teaching materials that could have been designed and brought to the farmers. (P33)

Likewise, working with communities also offers challenges, as mentioned by 10% of participants.

The contexts of intervention, in some cases, had restrictions of access. (P5)

Given the reported challenges, we could argue that universities had been expected to take over certain organizational aspects, but they did not. Therefore, teaching staff had to develop or felt they had developed OC. Those also would be necessary, to a certain extent, to access novel contexts, another reported challenge.

In general, the answers from the participants point to a greater acquisition of OC and SC. Both closely link to teamwork and project management and to developing empathy with the community (similarly reported as a necessary competence in Priegue Caamaño & Sotelino Losada, 2016). Overall, the acquisition of TC ranks lower in the report. This could be expected if we consider transmitting knowledge as one of the functions of higher education: Participants might believe that they had the theoretical and scientific knowledge covered.

Conclusions

This research aimed to identify the perception of university professors about the acquired competences and the difficulties

found in service-learning projects. The results show a positive vision of acquired competences; participants also reported on institutional support. We now present the resulting conclusions.

First, motivation and conscience about the benefits of applying SL in higher education were common positive results for all the participants. That is, in itself, reassuring and encourages working on or starting similar projects.

Participants also reported having developed socioemotional, organizational, and technical competences and having improved as teachers thanks to their participation in SL projects. We would like to note that this bottom-up categorization seems to be in line with other classifications for competences acquired by SL participants, though probably adapted to a different stage of personal development. That is, Rodríguez (2014) discussed curriculum-related learning, personal development, and social development as key competences; these competences parallel Folgueiras Bertomeu and Martínez Vivot's (2009) classification of learning as conceptual, personal, and civil learning; Priegue Caamaño and Sotelino Losada (2016) discussed the acquisition of academic and personal skills, with the latter encompassing civil learning. In a wider vision, there is content learning and professional/emotional development. The collective responses indicate that for teaching staff, emotional development parallels that of participants; the acquisition of technical competences could be understood as content learning; and organizational competences that go beyond the previous could be understood as specific professional skills. Given teachers' involvement in the design of the proposals, their civic competence is expected to have been high. All in all, divergence on what type of competences had been acquired depending on the field might relate to previous perceptions of what competences are necessary or have already been mastered.

However, participants highlighted the need for specific training in methodology, especially in the educational and organizational aspects. Although teaching staff possess technical knowledge in their specializations, they sometimes lack training in educational methodology to export it to a hands-on project with their students. Pedagogical educational and lifelong training is already a prerequisite for other educational levels,

but not all experts in higher education have received training in didactics. Participants perceived a lack of institutional support; such support could extend to include involvement in the analysis of educational needs and the promotion of teaching skills for university staff. In this way, SL projects must be part of the university's educational mission, not just an isolated individual's proposal (as Torres Márquez, 2015 also concluded).

Previous results reflect a widely reported lack of institutional support in similar projects. University social responsibility remains relevant in these types of initiatives, as Ramos-Monge et al. (2019), among others, confirmed. If the institution does not support a formative vision based on civic responsibility and social collaboration, this methodology becomes one of many sporadic individual innovations, limiting the spread of potential benefits to the community. These results indicate that this lack of support is a relevant obstacle during project fulfillment, so stakeholders need to be informed that institutional awareness and access to resource management are required for the projects to generate the expected results.

All in all, participants recognized the lack of specific training for planning and managing SL projects. Therefore, if the university wants to integrate this methodology (and, in general, other innovative methodologies), they must understand that training the staff is crucial. Universities must provide tools and resources that could be difficult for the staff to obtain or develop by themselves.

Incidentally, this training could be developed within a community of practice. A controlled observation of the participants' self-reported efficacy in these competences (before and after the training) could provide valuable input for training design. We envision how some of the acquired competences and educational needs reported in this research might provide guidelines for designing training for teaching staff and other stakeholders. Systematic and in-depth analysis of the statements collected in this research could be a starting point for developing a multi-item scale measuring these competences. Such a tool could enhance the potential for success of future SL projects.

In conclusion, SL projects must be conceived as an institutional proposal beyond the

initial motivation of an individual (teacher or student). In this framework, interventions would be more successful, actually encourage the knowledge transfer

integrated in its theoretical and method-ological guidelines, and it would benefit all stakeholders: community, students, teaching staff, and the university itself.



About the Authors

Andresa Sartor-Harada, Ph.D., is a professor at the Universidad Internacional de la Rioja (Spain).

Juliana Azevedo-Gomes, Ph.D., is an adjunct professor at the Universidad Internacional de la Rioja (Spain).

Ester Torres-Simón, Ph.D., is a Serra-Húnter lecturer at the Universitat Autònoma de Barcelona (Spain).

References

- Arco, J. L., Fernández, F. D., Morales, P. J., Miñaca, M., & Hervás, M. (2012). Service learning within a Spanish context from teaching to knowledge transfer. In L. McIlrath, A. Lyons, & R. Munck (Eds.), *Higher education and civic engagement* (pp. 157–171). Palgrave Macmillan.
- Bardin, L. (1991). *Análisis de contenido*. Ediciones Akal.
- Barsky, O., & Dávila, M. (2002). *Las transformaciones del sistema internacional de educación superior* [Working paper]. Universidad de Belgrano, Área de Estudios de Educación Superior.
- Bergsmann, E., Schultes, M. T., Winter, P., Schober, B., & Spiel, C. (2015). Evaluation of competence-based teaching in higher education: From theory to practice. *Evaluation and Program Planning*, 52, 1–9. <https://doi.org/10.1016/j.evalprogplan.2015.03.001>
- Cano, E. (2008). La evaluación por competencias en la educación superior. *Profesorado: Revista de Currículum y Formación del Profesorado*, 12(3). <https://revistaseug.ugr.es/index.php/profesorado/article/view/20503>
- Canquiz, L. (2010). Evaluación de competencias profesionales en los currículos universitarios. In *Investigación en Ciencias Humanas* (pp. 130–142). Universidad del Zulia – Astro Data.
- Chan, S. C., Ngai, G., & Kwan, K. P. (2019). Mandatory service learning at university: Do less-inclined students learn from it? *Active Learning in Higher Education*, 20(3), 189–202. <https://doi.org/10.1177/1469787417742019>
- Creswell, J. W., & Plano Clark, V. L. (2017). *Designing and conducting mixed methods research*. Sage Publications.
- da Silva, M. A. M., & Araújo, U. F. (2019). Aprendizagem-serviço e fóruns comunitários: Articulações para a construção da cidadania na educação ambiental. *Ambiente & Educação: Revista de Educação Ambiental*, 24(1), 257–273. <https://doi.org/10.14295/ambeduc.v24i1.8157>
- Deeley, S. J. (2010). Service-learning: Thinking outside the box. *Active Learning in Higher Education*, 11(1), 43–53. <https://doi.org/10.1177/1469787409355870>
- De Miguel, M. (2005). Cambio de paradigma metodológico en la Educación Superior. *Cuadernos de Integración Europea*, 2: 16–27.
- Dolgon, C., Mitchell, T. D., & Eatman, T. K. (2017). *The Cambridge handbook of service learning and community engagement*. Cambridge University Press.
- Folgueiras Bertomeu, P., Luna González, E., & Puig, G. (2013). Aprendizaje y servicio: Estudio del grado de satisfacción de estudiantes universitarios. *Revista de Educación*, 362, 159–185.
- Folgueiras Bertomeu, P., & Martínez Vivot, M. (2009). El desarrollo de competencias en la Universidad a través del Aprendizaje y Servicio Solidario. *Revista Interamericana de Educación para la Democracia (RIED)*, 2(1), 55–76.
- Furco, A. (2005). Is service-learning really better than community service? In A. Furco & S. Billig (Eds.), *Service-learning: The essence of the pedagogy* (pp. 23–49). Information Age Publishing.
- Gelmon, S. B., Holland, B. A., & Spring, A. (2018). *Assessing service-learning and civic engagement: Principles and techniques*. Stylus Publishing.
- Gerholz, K. H., Liszt, V., & Klingsieck, K. B. (2018). Effects of learning design patterns in service learning courses. *Active Learning in Higher Education*, 19(1), 47–59. <https://doi.org/10.1177/1469787417721420>
- González, J., Wagenaar, R., & Beneitone, P. (2004). Tuning-América Latina: Un proyecto de las universidades. *Revista Iberoamericana de Educación*, 35(1), 151–164.
- Goodman, A., Joshi, H., Nasim, B., & Tyler, C. (2015). *Social and emotional skills in childhood and their long-term effects on adult life*. Institute of Education.
- Kaye, M. A. (2004). *The complete guide to service learning: Proven, practical ways to engage students in civic responsibility, academic curriculum & social action*. Free Spirit Publishing.

- Larrán-Jorge, M., & Andrades-Peña, F. J. (2015). Análisis de la responsabilidad social universitaria desde diferentes enfoques teóricos. *Revista Iberoamericana de Educación Superior*, 6(15), 91–107. <https://doi.org/10.22201/issue.20072872e.2015.15.144>
- Marquès, M. (2014). La dimensión docente de la responsabilidad social universitaria: La institucionalización del aprendizaje servicio en la Universitat Rovira i Virgili. *I Jornadas Internacionales sobre Responsabilidad Social Universitaria* (pp. 1–21). Universidad de Cádiz.
- Meaney, K. S., Bohler, H. R., Kopf, K., Hernandez, L., & Scott, L. S. (2008). Service-learning and pre-service educators' cultural competence for teaching: An exploratory study. *Journal of Experiential Education*, 31(2), 189–208. <https://doi.org/10.1177/105382590803100206>
- Morin, E. (2007). *Introducción al pensamiento complejo*. Gedisa.
- Navarro, S. B., Zervas, P., Gesa, R. F., & Sampson, D. G. (2016). Developing teachers' competences for designing inclusive learning experiences. *Journal of Educational Technology & Society*, 19(1), 17–27. <http://www.jstor.org/stable/jeductechsoci.19.1.17>
- Priegue Caamaño, D., & Sotelino Losada, A. (2016). Service-learning and the construction of a multicultural citizenship: The PEINAS Project. *Foro de Educación*, 14(20), 361–382. <https://doi.org/10.14516/fde.2016.014.020.018>
- Puig, J. M., Batlle, R., Bosch, C., & Palos, J. (2007). *Aprendizaje servicio: Educar para la ciudadanía*. Octaedro.
- Ramos-Monge, E., Llinàs Audet, F. J., & Barrena Martínez, J. (2019). Catalysts of university social responsibility into strategic planning by thematic analysis and deductive coding. *International Journal of Entrepreneurship and Innovation Management*, 23(4), 327–355. <https://www.inderscience.com/info/inarticle.php?artid=100806>
- Rockquemore, K. A., & Harwell Schaffer, R. (2000). Toward a theory of engagement: A cognitive mapping of service-learning experiences. *Michigan Journal of Community Service Learning*, 7(1), 14–25. <http://hdl.handle.net/2027/spo.3239521.0007.102>
- Rodrigues, M. W., Isotani, S., & Zárata, L. E. (2018). Educational data mining: A review of evaluation process in the e-learning. *Telematics and Informatics*, 35(6), 1701–1717. <https://doi.org/10.1016/j.tele.2018.04.015>
- Rodríguez, M. R. (2014). El aprendizaje-servicio como estrategia metodológica en la universidad. *Revista Complutense de Educación*, 25(1), 95–113. https://doi.org/10.5209/rev_RCED.2014.v25.n1.41157
- Rusu, A. S., Bencic, A., & Hodor, T. I. (2014). Service-learning programs for Romanian students—an analysis of the international programs and ideas of implementation. *Procedia—Social and Behavioral Sciences*, 142, 154–161. <https://doi.org/10.1016/j.sbspro.2014.07.632>
- Santos Rego, M. Á., Lorenzo Moledo, M. M., & Sotelino Losada, A. (2018). Sostenibilidad e institucionalización cautelosa del aprendizaje-servicio en la universidad. In XXXVII Seminario Interuniversitario de Teoría de la Educación. Universidad de La Laguna. <http://riull.ull.es/xmlui/handle/915/11671>
- Sigmon, R. L. (1979). Service-learning: Three principles. *Synergist*, 8(10), 9–11.
- Schuurman, D., De Marez, L., & Ballon, P. (2016). The impact of living lab methodology on open innovation contributions and outcomes. *Technology Innovation Management Review*, 6(1), 7–16. <https://doi.org/10.22215/timreview/956>
- Tapia, M. N. (2006). *Aprendizaje y servicio solidario: En el sistema educativo y las organizaciones juveniles*. Ciudad Nueva.
- Torney-Purta, J., Cabrera, J. C., Roohr, K. C., Liu, O. L., & Rios, J. A. (2015). Assessing civic competence and engagement in higher education: Research background, frameworks, and directions for next-generation assessment. *ETS Research Report Series*, 2015(2). <https://doi.org/10.1002/ets2.12081>
- Torres Márquez, M. (2015). Coordenadas para un mapa de ruta de la responsabilidad social de la universidad en el siglo XX. In E. Aponte Hernández (Ed.), *La responsabilidad social de las universidades: Implicaciones para la América Latina y el Caribe* (pp. 131–144). UNESCO

- International Institute for Higher Education in Latin America and the Caribbean. <https://unesdoc.unesco.org/ark:/48223/pf0000244270>
- Vallaes, F. (2014). La responsabilidad social universitaria: Un nuevo modelo universitario contra la mercantilización. *Revista Iberoamericana de Educación Superior*, 5(12), 105–117. <https://doi.org/10.22201/iisue.20072872e.2014.12.112>
- Villa, A., & Poblete, M. (2008). *Aprendizaje basado en competencias*. Universidad de Deusto.
- Wall, T., Giles, D. E., & Stanton, T. (2018). Service learning and academic activism: A review, prospects and a time for revival. In S. Billingham (Ed.), *Access to success and social mobility through higher education: A curate's egg?* (pp. 163–176). Emerald Publishing. <https://doi.org/10.1108/978-1-78743-836-120181013>
- Zabalza, M. (2004). *Guía para la planificación didáctica de la docencia universitaria en el marco del EEES (Guía de guías)* [Working paper]. Universidad de Santiago de Compostela.
- Zaitseva, N. A., Larionova, A. A., Gornostaeva, Z. V., Malinina, O. Y., Povalayeva, V. A., Vasenev, S. L., & Ersozlu, A. (2017). Elaboration of the methodology for assessing the development of managerial competences in university students taught with the use of case-technologies. *Eurasia Journal of Mathematics, Science and Technology Education*, 13(11), 7339–7351. <https://doi.org/10.12973/ejmste/79609>

