



European Observatory
of Service-Learning
in Higher Education

2020

Research Report



A REVIEW OF SERVICE-LEARNING IN
EUROPEAN HIGHER EDUCATION

A REVIEW OF SERVICE-LEARNING IN EUROPEAN HIGHER EDUCATION

Asociación de Aprendizaje-Servicio Universitario (ApS-U)
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SUMMARY

The [European Observatory of Service-Learning in Higher Education](#) (EOSLHE) aims to enhance and disseminate knowledge on service-learning (hereafter S-L) in European tertiary education as an educational approach that enhances students' civic engagement and brings them closer to different social realities while allowing them to develop professional skills in a real environment.

It is a pleasure to present EOSLHE's first Research Report. It is organized into three main sections:

- 1) Background of the Observatory and the Research Report
- 2) Analysis of S-L in European higher education institutions
- 3) Inquiry into scientific literature on S-L in higher education

S-L is a relatively new method in European higher education, and as yet there are no official institutions providing organized and easily accessible data on S-L. This is one reason why [EOSLHE](#) decided that there was an urgent need to bring together existing experiences and review the literature in the field.

There is a widespread and growing concern regarding the social commitment of higher education institutions. S-L is gaining recognition as an innovative methodology that responds to such a challenge. Besides disseminating information on S-L, EOSLHE also draws on extant data to carry out research on the main characteristics of S-L in Europe.

The main results of this research have shown that Europe has its own idiosyncrasies regarding S-L. European higher education is playing an active role in this increasingly global phenomenon. Society demands social responsibility and civic commitment from tertiary education institutions, and S-L not only meets this requirement but also strengthens teaching and research.

THE EUROPEAN OBSERVATORY OF SERVICE-LEARNING IN HIGHER EDUCATION

The [European Observatory of Service-Learning Higher Education](#) (hereafter EOSLHE) was established in 2019 as a project of the Spanish Association of S-L in Higher Education (Asociación de Aprendizaje-Servicio Universitario, 2019) in collaboration with European partners. It adopts the definition of S-L provided by [Europe Engage](#), which describes Service-Learning (S-L) as *an innovative pedagogical approach that integrates meaningful community service or engagement into the curriculum and offers students academic credit for the learning that derives from active engagement within the community and work on a real world problem*. Reflection and experiential learning strategies underpin the learning process and the service is linked to the academic discipline of students' degrees. (Europe Engage, 2015).

One objective of EOSLHE is to collect evidence-based practices and literature in order to systematize the information available and develop a well-structured and constantly updated repository of S-L models and experiences across Europe.

In 2014, the European Union funded "Europe Engage", an Erasmus+ KA2 Strategic Partnership in Higher Education project that ended in August 2017. Once the project concluded, it was agreed by all partners to convert Europe Engage into the European Network of Service-Learning in Higher Education, an informal network open to all those interested in the field. The network was launched in Galway in September 2017. Its goal was to create an intersectoral, international and multicultural network of European professionals to promote S-L in Europe in a collaborative manner. In 2018, during the 9th Spanish and 1st European Conference of Service-Learning in Higher Education, the Network agreed that it would become a legal entity. In December 2018, the Spanish Association of S-L in Higher Education received a grant from a private source for the creation of EOSLHE, which was launched in January 2019. Consequently, in September 2019, during the 2nd European Conference of Service-Learning in Higher Education in Antwerp (Belgium), EOSLHE was launched. Since then the Observatory has worked closely with the European association, and it is expected that in 2022 it will be fully integrated into it.

EOSLHE taps into a wide variety of data for different purposes. From primary to secondary data, scientific literature to grey literature, these materials are organized and enhanced in order to facilitate access and dissemination to a broad variety of publics. The main data sources consist of:

1) **S-L experiences** from a short online self-administered questionnaire. The information collected is published as an interactive map that shows evidence of the implementation of S-L experiences across Europe at a glance. By hovering over each pin, users can obtain basic data on the experiences. The 'more details' pop-up window shows the user the full post of the experience.

2) **Good S-L practices** through a lengthier self-administered online form that gathers more qualitative data. Its purpose is to systematize contents by applying quality criteria. The results of S-L good practices research are available in EOSLHE website portfolio.

3) **Workshops and seminars** coordinated with European experts, members of the Academic Committee, and American specialists. The information gathered is analysed and published in EOSLHE Newsletters.

4) **References from Internet:** The Observatory has developed a database that combines information on scientific literature, grey literature, power point presentations, and links to YouTube videos regarding S-L in higher education.

5) **Systematic literature review** of peer-reviewed articles to analyze research on the effects of S-L. This research work has been submitted to a scientific journal and is currently under review.

The "Service-Learning Resources Library" was developed on the website of EOSLHE with the aim of facilitating the search for a range of materials. The Resources Library is based on a multi-material database of S-L in Higher Education. Its search engine includes different types of references: academic citations, grey literature, S-L experiences, and good S-L practices.

OBJECTIVES OF THE RESEARCH REPORT

S-L is a relatively new methodology in European education. Two years ago, in 2018, the first European international conference on S-L in higher education was held, with two hundred attendees. There is currently a wide variety of S-L projects under way in European tertiary education, although it may yet be premature to talk about a specifically European approach to S-L in higher education (Alonso et al., 2020). It is essential to form a general picture of S-L in a continent as rich and culturally diverse as Europe.

S-L projects are sometimes carried out as isolated experiences within institutions, as institutionalization processes are not particularly common. This situation evidences the need to connect and share S-L experiences across countries, especially those with similar characteristics, for example those with common learning objectives. Networking improves the development and implementation of service-learning projects.

In this context, EOSLHE has prepared this Research Report, which includes two studies with the following general objectives:

- 1) To analyse the characteristics of S-L experiences in European higher education institutions
- 2) To review the characteristics of scientific literature related to S-L in tertiary education, with special emphasis on Europe

STUDY 1: CHARACTERISTICS OF SERVICE-LEARNING IN EUROPEAN HIGHER EDUCATION

Ana Cayuela, Pilar Aramburuzabala, Alzbeta Gregorová, Janine Bittner, Carlos Ballesteros

Research on S-L has been carried out primarily on its influence on students' cognitive development and commitment and on psycho-social factors (Cayuela et al., 2020, under review; Celio et al., 2011; Conway et al., 2009; Kozeracki, 2000; Rutti et al., 2016; Salam et al., 2019; Yorio & Ye, 2012). There is a lack of studies contributing to a better understanding of S-L as a global phenomenon and explaining different aspects of its practice, especially across Europe. This indicates the need for international studies focusing on S-L projects themselves as the object of study rather than a target population defined by a specific profile, as is common in the social sciences (Geraldi & Söderlund, 2018). It should be noted that empirical studies on S-L often involve high costs and require flexible methodologies.

Research on S-L faces various challenges. One of them is that S-L is a highly contextualized practice. Each S-L project can adopt a variety of arrangements regarding the learning, the service, the institution hosting the S-L experience and the country in which it is carried out. It is well known that characteristics of an S-L experience such as the scope, size of the student group, type of community partners, duration, etc., can influence what is good practice and the likelihood of success.

A crucial background variable is the type of institution. For example, religious institutions have been leaders in the teaching of civic responsibility, moral values and solidarity, concepts also present in the philosophy of S-L. The literature shows that Christian colleges are prone to design S-L courses and programs (Schaffer, 2004). Their faith-based mission can be linked to the curriculum through S-L pedagogy in ways that may create different S-L patterns when compared to secular institutions.

Another important contextual variable is the type of course students are enrolled on. There is controversy regarding project achievement when volunteer activities are mandatory and whether lack of motivation is counterproductive for the intended goals, especially in the long term. Previous research on S-L has shown the importance of student motivation and how it is especially linked to opportunities for applying students' academic knowledge in practical endeavours (Winans-Solis, 2014; Cloyd, 2017), but whether the type of course is related to other characteristics of S-L is not yet known.

Thus it seemed necessary to conduct this research by using data collected by EOSLHE in the mapping of S-L experiences in European higher education institutions. The specific objectives of this study were:

- 1) To describe the participants that completed the questionnaire and the institutions hosting the S-L experience
- 2) To describe the technical characteristics of the S-L experiences
- 3) To describe the service perspective of the S-L experiences
- 4) To assess differences in characteristics of S-L experiences by type of institution (secular or faith-based)
- 5) To assess differences in the characteristics of S-L experiences by type of course students were enrolled on

Material and methods

Study design

This is an exploratory descriptive study of the S-L experiences carried out in European higher education institutions. For the purposes of this study, an S-L experience was defined as a description of a specific S-L practice that took place within one semester or academic year, in which participating students shared common service and learning goals and evaluation activities (S-L experiences may occur at the same time and within the same class or subject).

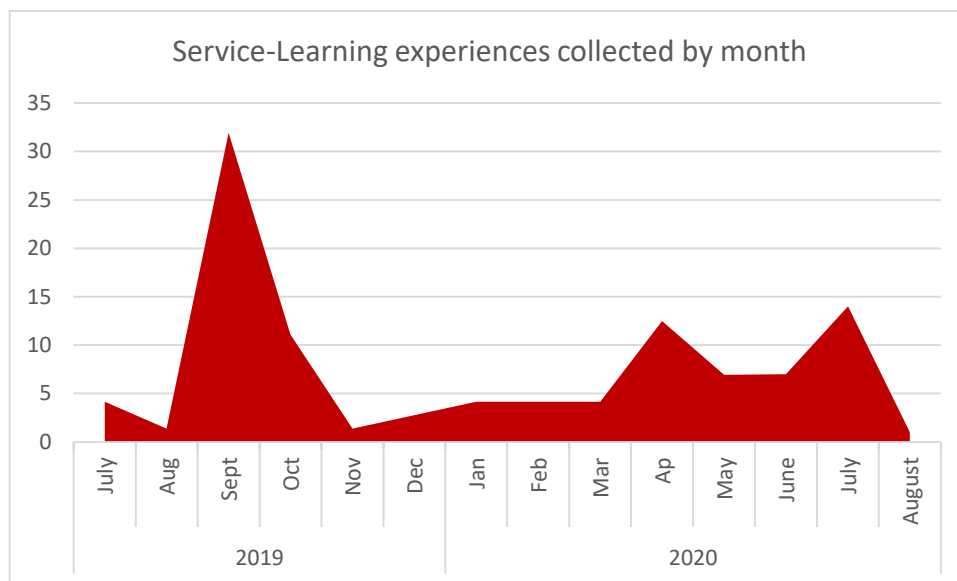
The study was based on an online survey, which was conducted through the website www.eoslhe.eu for wider diffusion. Full anonymity was maintained and the completion of the survey was voluntary and unrestricted. Non-probabilistic techniques were used for selection. Three different main approaches were applied: the convenience technique, the snowball system, and capture in target places. A list of e-mail addresses was compiled and the link to the survey was distributed. Members of the Academic Committee of EOSLHE also filled out the survey regarding their own S-L experiences and disseminated the questionnaire link through their own contact networks, thus operating as satellites across different regions of Europe. International conferences also worked as target places. During the 2nd European Conference on Service-learning in Higher Education (Antwerp, Belgium, September 19-21 2019) a workshop was devoted to collecting experiences. With the outbreak of the Covid-19 pandemic

the necessary adjustments and behavioural rules have had multiple effects on public and scientific life. The Third European Conference on Service-Learning in Higher Education was finally held on July 14-15 2020 as a virtual conference. In this event, one online workshop was exclusively devoted to the collection of experiences. Also, a link to the questionnaire was included in the footer of the conference webpage.

In the process of cleaning the database, those records that did not meet the definition of an S-L experience were excluded from the study. Missing data were recaptured as far as possible by enquiring again with interviewees or searching for additional information on the Internet. A first version of the questionnaire was used until February 2020. It served as a pilot study and included a total of 43 S-L experiences (50%). Thanks to this it was possible to refine the quality of the content and improve the understanding of the questions.

The data on S-L experiences used for this research report represent fieldwork carried out from 1st July 2019 to 15th September 2020. Figure 1 shows how contextual factors deriving from society as a whole have influenced data collection. The graph represents the number of S-L experiences by date. July 2019 saw the launch of the www.eoslhe.eu website. August was taken up by the summer vacation. In September the 2nd European Conference of Service-Learning in Higher Education gave EOSLHE the opportunity to collect the largest number of experiences, also the most diverse so far in terms of countries and institutions. Since then, from November 2019 to March 2020, an average of two experiences per month were registered. In March of this year, the pandemic crisis erupted, and all scheduled conferences had to be canceled. The collection of experiences increased in April 2020 due to an extra effort made by EOSLHE. However, multiple cancellation of events has seriously affected the compilation of S-L experiences.

Figure 1. Survey data collection of Service-Learning experiences in European higher education institutions. EOSLHE, 2020.



Survey instrument

An online questionnaire was designed to map S-L experiences across Europe. The software used to administer the questionnaire through the EOSLHE website was Gravityforms, a WordPress form plugin for creating contact forms. This online questionnaire was self-administered and collected basic information about the characteristics of the S-L experience. It was composed of 32 questions. The title of the project and an abstract were the only two open questions yielding purely qualitative data. The majority of questions were close-ended. Most compiled nominal data, while a small number collected ordinal data. Many items required a one option response, whereas a few allowed for multiple choices.

For the creation of the variable “academic discipline” several classifications were compared, among them the Joint Academic Classification of Subjects (UK HESA), the U.S. Department of Education National Center for Education Statistics (NCES) and Clarivate Analytics: Citation Index Expanded - subject categories. Finally the classification found in Wikipedia was chosen, but including the category of “education” due to its importance (https://en.wikipedia.org/wiki/Outline_of_academic_disciplines). The academic disciplines were re-grouped for further analysis, as shown in table 1. A variable related to the service areas was developed based on the UN Sustainable Development Goals (United Nations, 2019).

Table 1. Classification of academic discipline variables. EOSLHE, 2020.

TWO DIGIT CLASSIFICATION		ONE DIGIT CLASSIFICATION	
CODE	LABEL	CODE	LABEL
11	Arts	1	Humanities
12	Performing Arts		
13	History		
14	Languages and Literature		
15	Law		
16	Philosophy		
17	Theology		
20	Information and communication	2	Social Sciences
21	Anthropology		
22	Archaeology		
23	Business Studies		
24	Economics		
25	Human geography		
26	Political science		
27	Psychology		
28	Sociology		
29	Education		
31	Biology	3	Natural sciences
32	Chemistry		
33	Earth sciences		
34	Space sciences		
35	Physics		
41	Computer Science	4	Formal sciences
42	Mathematics		
43	Statistics		
51	Engineering and technology	5	Applied sciences
52	Medicine and health		

The time required to complete the survey was estimated at less than 10 minutes, although participants could save their responses to continue at a later time. Figure 2 shows the questionnaire in paper format. This questionnaire document can be requested in a higher resolution at contact@eoslhe.eu.

The S-L experiences collected across Europe can be seen at a glance in an interactive map on the website www.eoslhe.eu.

Figure 2. Basic questionnaire for mapping Service-Learning in higher education. Paper version. EOSLHE, 2020.

Basic Questionnaire for mapping Service-learning experiences (1)

This questionnaire was designed to collect basic information about service-learning (S-L) experiences in Europe. A S-L experience is a description of a specific S-L practice that took place during 1 academic year. All students participating in the S-L experience share common service and learning goals, reflection, dissemination, and evaluation activities. All students participate in the experience in a specific time frame (i.e., a semester or an academic year), even though they can be doing the service at different social entities. The basic questionnaire has been developed by the European Observatory of Service-Learning in Higher Education (EOSLHE) with the support of the European Network of S-L in higher education. It is mainly composed of closed-ended questions. To fill in this template should take less than 10 minutes.

Title of the Service-Learning experience*

Please note: if this Service-Learning experience has taken place along more than one academic year, please when providing the description keep it the data to the last academic year which took place.

You can copy and paste here from another document

Brief summary of the Service-Learning experience (300-500 words):*

Please, remember to mention the social partner, service and learning objectives and the reflection process NOTE: Do not hesitate to use Google Translator.

Higher Education Institution*

Please, add a logo or image:

It is very important to include an image because it will be created a post to publish the S-L experience

Drop files here or
Select files

Country of the Higher Education Institution that hosts the S-L experience:*

Albania	Greece	Poland
Andorra	Hungary	Portugal
Armenia	Iceland	Romania
Austria	Ireland	Russia
Azerbaijan	Italy	San Marino
Belarus	Kazakhstan	Serbia
Belgium	Kosovo	Slovakia
Bosnia and Herzegovina	Latvia	Slovenia
Bulgaria	Liechtenstein	Spain
Croatia	Lithuania	Sweden
Cyprus	Luxembourg	Switzerland
Czech Republic	Malta	Turkey
Denmark	Moldova	Ukraine
Estonia	Monaco	United Kingdom
Finland	Montenegro	Vatican City
France	Netherlands	Other
Georgia	North Macedonia	
Germany	Norway	

Please specify:

Date of the last academic course in which the S-L experience took place:*

2019-2020		2005-2006		1991-1992	
2018-2019		2004-2005		1990-1991	
2017-2018		2003-2004		1989-1990	
2016-2017		2002-2003		1988-1989	
2015-2016		2001-2002		1987-1988	
2014-2015		2000-2001		1986-1987	
2013-2014		1999-2000		1985-1986	
2012-2013		1998-1999		1984-1985	
2011-2012		1997-1998		1983-1984	
2010-2011		1996-1997		1982-1983	
2009-2010		1995-1996		1981-1982	
2008-2009		1994-1995		1980-1981	
2007-2008		1993-1994		Previous to 1980	
2006-2007		1992-1993			

In that specific academic year, how many students took part in this specific S-L experience?*

Number of students approx. per academic year

Full name of person completing form:*

Title/position

Leadership/Management	
Academic Staff	
Researcher	
Other	

Please specify:

Email:*

Enter Email

Confirm Email

Phone number with international code or Skype contact user name

Are you the person in charge of the S-L experience?

Yes	
No	

Name of the person in charge:

Email of the person in charge:

Does your institution provide support with the design, implementation, or evaluation of the S-L experience?

Yes	
No	
Other	

Please specify:

How did the students interact with the final beneficiaries of the S-L experience?*

Face-to-face	
Virtual	
Mixed	
Other	

Please specify:

To what academic degree is the S-L experience linked?

(Choose as many as you think adequate)

Undergraduate	
Master	
PhD	
Other	

Please specify:

What is the first main discipline area of the S-L experience in representativeness or importance?*

First choice

Arts	
Performing Arts	
History	
Languages and Literature	
Law	
Philosophy	
Theology	
Anthropology	
Archaeology	
Business	
Economics	
Human geography	
Political science	
Psychology	
Sociology	
Biology	
Education	
Chemistry	
Earth sciences	
Space sciences	
Physics	
Computer Science	
Mathematics	
Statistics	
Engineering and technology	
Medicine and health	
Open to different disciplines	
Other	

Please specify: ↓

What is the second main discipline area of the S-L experience in representativeness or importance?

Second choice

Arts	
Performing Arts	
History	
Languages and Literature	
Law	
Philosophy	
Theology	
Anthropology	
Archaeology	
Business	
Economics	
Human geography	
Political science	
Psychology	
Sociology	
Biology	
Education	
Chemistry	
Earth sciences	
Space sciences	
Physics	
Computer Science	
Mathematics	
Statistics	
Engineering and technology	
Medicine and health	
Open to different disciplines	
Other	

Please specify: ↓

What is the third main discipline area of the S-L experience in representativeness or importance?

Third choice

Arts	
Performing Arts	
History	
Languages and Literature	
Law	
Philosophy	
Theology	
Anthropology	
Archaeology	
Business	
Economics	
Human geography	
Political science	
Psychology	
Sociology	
Biology	
Education	
Chemistry	
Earth sciences	
Space sciences	
Physics	
Computer Science	
Mathematics	
Statistics	
Engineering and technology	
Medicine and health	
Open to different disciplines	
Other	

Please specify: ↓

How is the S-L experience configuration?

Part of a subject	
A S-L course	
Other	

Please specify:

How is student's enrolment?

Voluntary	
Mandatory	
Other	

Please specify:

How is student's instruction?

Online	
In-person	
Mixed	
Other	

Please specify:

Type of higher education institution:*

University	
Academic & College	
University of applied sciences	
Teacher and training colleges	
Other	

Please specify:

What is the ownership of the higher education institution?*

Public	
Private	
Other	

Please specify:

Is the Higher Education Institution faith based?*

Yes	
No	
Other	

Please specify:

What are the main service areas in representativeness or importance?

First choice

No poverty	
Zero hunger	
Good health and well-being	
Quality education	
Gender equality	
Clear water and sanitation	
Affordable and clean energy	
Decent work and economic growth	
Industry, innovation, and infrastructure	
Reducing inequalities	
Sustainable cities and communities	
Responsible consumption and production	
Climate action	
Life below water	
Life on land	
Peace, justice, and strong institutions	
Partnership for the goals	
Historic /Cultural preservation	
Diversity	
Not Apply	

What are the main service areas in representativeness or importance?

Second choice

No poverty	
Zero hunger	
Good health and well-being	
Quality education	
Gender equality	
Clear water and sanitation	
Affordable and clean energy	
Decent work and economic growth	
Industry, innovation, and infrastructure	
Reducing inequalities	
Sustainable cities and communities	
Responsible consumption and production	
Climate action	
Life below water	
Life on land	
Peace, justice, and strong institutions	
Partnership for the goals	
Historic /Cultural preservation	
Diversity	
Not Apply	

What are the main service areas in representativeness or importance?

Third choice

No poverty	
Zero hunger	
Good health and well-being	
Quality education	
Gender equality	
Clear water and sanitation	
Affordable and clean energy	
Decent work and economic growth	
Industry, innovation, and infrastructure	
Reducing inequalities	
Sustainable cities and communities	
Responsible consumption and production	
Climate action	
Life below water	
Life on land	
Peace, justice, and strong institutions	
Partnership for the goals	
Historic /Cultural preservation	
Diversity	
Not Apply	

Type of community partner(s)

Choose as many you think adequate

Church or confessional	
Non-profit organization	
Educational centre	
Foundation	
Association	
Civic centre	
Sanitary centre	
Penitentiary institution	
Public administration	
Other	

Please specify:

Approximate number of final beneficiaries:

Estimation of total final beneficiaries

Will this S-L experience be implemented next year?

Yes	
No	
Maybe	

Please, add any further comments:

If you have any material that you would like to be published, like photos, videos, or documents in any language, please feel free to upload it:

Browse...

I give my consent to use my personal information to be available in the eoslhe.eu website:

Full name	
Email address	

Privacy Policy Agreement | These data will be used for research purposes and dissemination in the website.*

I have read and agree to the [Privacy Policy](#)

SEND

[SAVE AND CONTINUE LATER](#)

Analysis

A descriptive statistical analysis of the variables defining the characteristics of the S-L experiences was carried out. In variables with missing values, the percentages were calculated and the values excluded from the total. The Chi square test was applied to assess statistical differences between groups. For the variable "discipline", responses from "Open to different disciplines" or "Other" were re-encoded either in the second or third response option or based on the abstract provided. All statistical analyses were performed using Excel for Windows, Version 2008, and Stata 12.

Findings

A total of 82 S-L experiences were included after cleaning the database. Table 2 shows their descriptive characteristics. Half the participants in this mapping stated that they were Academic Staff (52.4%). 67.5% of participants completing the questionnaire were in charge of the S-L experience. A high percentage (81.3%) said that they had received support from their higher education institution to design, implement or evaluate the S-L experience. By type of higher education institution, the vast majority (86.6%) were universities. From this total more than half were state-owned (61%) and less than half faith-based (36.6%). The S-L experiences were hosted in institutions in 18 different European countries. The countries with the highest numbers of projects in the sample were Spain (39.8%) and Belgium (13.2%).

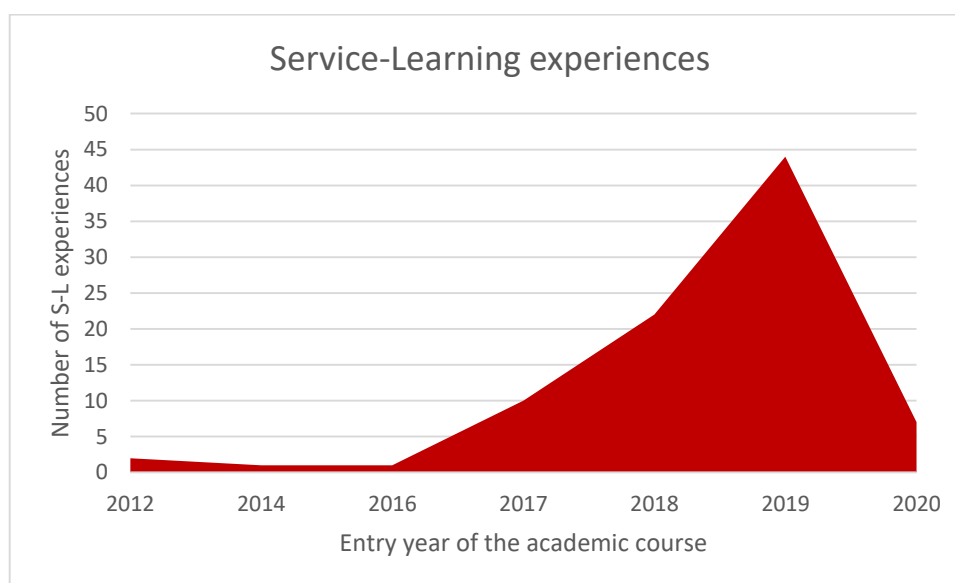
Table 2. Characteristics of the participants who filled out the questionnaire and institutions hosting the S-L experience. EOSLHE, 2020.

Characteristics	Frequency	Percentage
<i>Participant position/title</i>		
Leadership/Management	14	17.1
Academic Staff	43	52.4
Researcher	8	9.8
Other	17	20.7
<i>Whether person in charge of S-L experience</i>		
Yes	55	67.9
No	26	32.1
<i>Institutional support for S-L experience</i>		
Yes	61	81.3
No	11	14.7
Other	3	4.0
<i>Continuity of S-L experience in following year</i>		
Yes	62	77.5
No	6	7.5
Maybe	12	15.0
<i>Type of higher education institution</i>		
University	71	86.6
Academic & College	1	1.2
University of applied sciences	2	2.4
Teacher and training colleges	2	2.4
Other	6	7.3
<i>Ownership</i>		
State	50	61.0
Private	32	39.0
<i>Secular/faith-based institution</i>		
Faith-based institution	30	36.6
Secular institution	52	63.4
<i>Country</i>		
Albania	1	1.2
Austria	2	2.4
Belgium	11	13.4
Bosnia and Herzegovina	1	1.2
Croatia	2	2.4
Finland	1	1.2
Germany	7	8.5
Ireland	2	2.4
Italy	7	8.5
Lithuania	1	1.2
Netherlands	2	2.4
Portugal	2	2.4

Romania	1	1.2
Slovakia	1	1.2
Spain	33	40.2
Switzerland	1	1.2
Ukraine	1	1.2
United Kingdom	6	7.3
Total S-L experiences collected		
Total	82	100.0

The S-L experiences compiled took place in 56 different European higher education institutions and involved 39,148 students and 1,098,126 final beneficiaries. Figure 3 shows the year in which the S-L experiences were carried out, with 2019 representing half of the total.

Figure 3. Service-Learning experiences in European higher education by the last academic course in which the experience took place (entry year). EOSLHE, 2020.



The distribution of technical characteristics of the S-L experiences is shown in Table 3. More than half of the students interacted with the community directly or face-to-face (55.6%). An overall number of 68 S-L experiences (85%) involved undergraduate students, exclusively or combined with other degree levels (see Annex). As Table 3 shows, 20 experiences (25.3%) were carried out jointly across several academic degrees. The discipline with the greatest presence in S-L was Education, with 22 experiences (27.5%), followed by Business Studies with 15 (18.8%). In European S-L there was an over-representation of Social Sciences (75%) (see Annex). The proportional distribution was similar in the configuration of S-L both as part of a

subject (45.7%) and as part of a specific S-L course (40.7%). S-L was a voluntary option for 51.3% of the students. More than half of the students received in-person instruction (58.8%).

Table 3. Technical characteristics of the Service-Learning experiences in higher education. EOSLHE, 2020.

Characteristics	Frequency	Percentage
<i>Student-Community interaction</i>		
Face-to-face	45	55.6
Virtual	6	7.4
Mixed	29	35.8
Other	1	1.2
<i>Academic degree</i>		
Undergraduate	49	62.0
Master	10	12.7
Undergraduate & Master	16	20.3
Undergraduate, Master & PhD	4	5.1
<i>Discipline area</i>		
Languages and Literature	4	5.0
Law	4	5.0
Theology	1	1.3
Information and communication	1	1.3
Business Studies	15	18.8
Economics	3	3.8
Human geography	1	1.3
Psychology	10	12.5
Sociology	8	10.0
Education	22	27.5
Earth sciences	2	2.5
Computer science	1	1.3
Statistics	2	2.5
Engineering and technology	4	5.0
Medicine and health	2	2.5
<i>Configuration</i>		
Part of a subject	37	45.7
S-L course	33	40.7
Other	11	13.6
<i>Type of enrolment</i>		
Voluntary	41	51.3
Mandatory	37	46.3
Other	2	2.5
<i>Instruction</i>		

Online	2	2.5
In-person	47	58.8
Mixed	31	38.8
<i>Student group size</i>		
1 - 10	22	28.2
11 - 20	11	14.1
21 - 30	9	11.5
31 - 40	7	9.0
41 - 50	5	6.4
> 50	24	30.8
<i>Total S-L experiences collected</i>		
Total	82	100.0

Table 4 shows the distribution of characteristics from the service perspective. With regard to the Sustainable Development Goals, the main service area was related to reducing inequalities (20.5%). European S-L in higher education is carried out with different kinds of community partners. In the experiences collected, partnerships were mainly with non-profit organizations (69.1%). The original variables on the type of community partners are shown in the Annex.

Table 4. Characteristics related to the service among S-L experiences. EOSLHE, 2020.

Characteristics	Frequency	Percentage
<i>Service areas</i>		
No poverty	5	6.4
Health and well-being	12	15.4
Quality education	14	17.9
Gender equality	5	6.4
Clean water and sanitation	1	1.3
Decent work and economic growth	3	3.8
Reducing inequalities	16	20.5
Sustainable cities and communities	4	5.1
Climate action	1	1.3
Life in water	1	1.3
Life on land	1	1.3
Peace, justice and strong institutions	3	3.8
Partnership for goals	3	3.8
Cultural diversity	4	5.1
Not applicable	5	6.4
<i>Type of community partner</i>		
Church or confessional	19	23.5
Non-profit organization	56	69.1

Educational centre	33	40.7
Foundation	21	25.9
Association	35	43.2
Civic centre	20	24.7
Sanitary centre	7	8.6
Penitentiary institution	2	2.5
Public administration	23	28.4
<i>Total S-L experiences collected</i>		
Total	82	100.0

Table 5 shows differences in S-L characteristics between faith-based and secular institutions. Face-to-face interaction was reported in more than half of the cases (64.7%) in secular institutions, although mixed interaction was also fairly frequent in both types of institutions. Also notable was the high prevalence of undergraduate students and Social Science disciplines. Percentages varied according to the configuration of the subject, voluntary or compulsory enrolment in the project, and the type of instruction. More than half the S-L experiences in faith-based institutions were linked to a specific S-L course (55.2%), while in secular institutions more than half were integrated into curricular subjects (58.5%). In faith-based institutions S-L was mainly mandatory (60.7%), while in secular institutions it was mainly voluntary (60%). A significant percentage of faith-based institutions offered a mixed type of instruction (51.7%). The only statistically significant difference between the groups was related to the institutional support variable. All S-L experiences hosted in faith-based institutions received support from the academic institution for design, implementation or evaluation.

Table 5. Characteristics of Service-Learning experiences in European faith-based and non-religious higher education institutions. EOSLHE, 2020

Characteristics*	<i>Secular-faith based higher education institutions</i>				p
	Faith-based		Secular		
	Frequency	Percentage	Frequency	Percentage	
<i>Student-Community interaction</i>					0.078
Face-to-face	12	41.4	33	64.7	
Virtual	4	13.8	2	3.9	
Mixed	13	44.8	16	31.4	
<i>Academic degree</i>					0.229
Undergraduate	21	72.4	28	56.0	
Master	2	6.9	8	16.0	
Undergraduate & Master	6	20.7	10	20.0	
Undergraduate, Master & PhD	0	0.0	4	8.0	

Discipline area					0.306
Humanities	5	17.2	4	7.8	
Social Sciences	21	72.4	39	76.5	
Natural Sciences	0	0.0	2	3.9	
Formal Sciences	2	6.9	1	2.0	
Applied Sciences	1	3.4	5	9.8	
Configuration					0.258
Integrated in a curricular subject	13	44.8	24	58.5	
Specific S-L course	16	55.2	17	41.5	
Enrolment					0.079
Voluntary	11	39.3	30	60.0	
Mandatory	17	60.7	20	40.0	
Instruction					0.162
Online	1	3.4	1	2.0	
In-person	13	44.8	34	66.7	
Mixed	15	51.7	16	31.4	
Institutional support for the S-L experience					0.007
Yes	26	100.0	35	76.1	
No	0	0.0	11	23.9	
Total					
Total	30	63.4	82	36.6	

*Response categories "Other" were excluded from this analysis, in addition to missing values.

Table 6 shows differences between groups calculated according to whether the S-L project was compulsory or not. The sharpest variation in percentages was in student-community interaction. In voluntary S-L, the majority featured face-to-face interaction (68.3%), while in mandatory S-L, most involved mixed interaction (48.6%). A similar distribution was found for academic degree, discipline area, nature of instruction, and institutional support. The most frequent type of degree was undergraduate (53.8% for voluntary S-L, 70.3% for mandatory S-L). Social sciences were overrepresented, as the discipline was linked to S-L in both types of project (75.6% and 77.8% respectively). On-site instruction had the highest rate (63.4% and 54.1%). S-L received institutional support independently of the type of project: voluntary (81.1%), and mandatory (87.9%). When S-L was compulsory, more experiences were found to be integrated in curricular subjects (59.4%), and when voluntary, percentages were similar for both S-L integrated in subjects and specific S-L courses.

Table 6. Characteristics of Service-Learning experiences in European higher education by the type of students. EOSLHE, 2020

Characteristics*	Voluntary/mandatory*				p
	Voluntary		Mandatory		
	Frequency	Percentage	Frequency	Percentage	
Student-Community interaction					0.089
Face-to-face	28	68.3	16	45.7	
Virtual	3	7.3	2	5.7	
Mixed	10	24.4	17	48.6	
Academic degree					0.467
Undergraduate	21	53.8	26	70.3	
Master	6	15.4	4	10.8	
Undergraduate & Master	10	25.6	5	13.5	
Undergraduate, Master & PhD	2	5.1	2	5.4	
Discipline area					0.357
Humanities	6	14.6	2	5.6	
Social Sciences	31	75.6	28	77.8	
Natural Sciences	0	0.0	2	5.6	
Formal Sciences	2	4.9	1	2.8	
Applied Sciences	2	4.9	3	8.3	
Configuration					0.438
Integrated in a curricular subject	18	50.0	19	59.4	
Specific S-L course	18	50.0	13	40.6	
Instruction					0.700
Online	1	2.4	1	2.7	
In-person	26	63.4	20	54.1	
Mixed	14	34.1	16	43.2	
Institutional support for the S-L experience					0.435
Yes	30	81.1	29	87.9	
No	7	18.9	4	12.1	
Total					
Total	41	52.6	37	47.4	

*Response categories "Other" were excluded from this analysis, in addition to missing values.

Discussion

Online surveys were used in this exploratory study to contribute to a better understanding of the S-L phenomenon across Europe, although this did not lead to conclusive results. The descriptive findings indicate that out of 82 S-L experiences analyzed, the majority were carried out in state-owned, non-religious universities from Spain and Belgium and receiving institutional support. Students were mostly undergraduates, in the field of education, voluntarily enrolled in S-L projects that were integrated in curricular subjects, receiving on-site

instruction, and with direct contact with community partners. The main objective of the S-L experiences was to reduce inequalities, and the community partners were non-profit organizations. Differences between groups were statistically significant in the institutional support for the S-L experience, according to whether the university was religious or not. Students' enrolment in the S-L experience (voluntary/mandatory) showed very similar distributions for all the characteristics.

In recent times, Europe has witnessed rapid growth in higher education thanks to its equitable access system, which has resulted in a wider diversity of student backgrounds, thanks to the greater presence of public universities in most countries. Despite this accessibility, at the beginning of this century higher education institutions began to question their role as social agents (European Observatory of Service-Learning in Higher Education, 2020; OECD, 2012). The larger number of public universities in Europe may explain the satisfactory representativeness of our results of the mapping of S-L experiences. The study had a high level of response with regard to S-L in a considerable number of European countries, and specifically institutions in Belgium and Spain (Aramburuzabala et al., 2019; European Observatory of Service-Learning in Higher Education, 2020). Results of the study suggest that institutional processes are crucial to this type of pedagogy, which would clarify why it is easier for some institutions and countries to participate in this type of study than others (Aramburuzabala et al., 2015). Future studies could focus on isolated S-L experiences carried out by people without institutional support.

The higher the level of studies, the lower the number of students involved. The highest number of students in tertiary education is at the undergraduate level (OECD, 2012). There may be a proportional trend explaining our results in S-L, since the higher the educational level, the lower the number of S-L experiences, and consequently the number of students participating is also lower. Although S-L is multidisciplinary, in our results there was an over-representation of the area of education, which may be explained by greater knowledge and acceptance of S-L pedagogy in the field. It is to be expected that, as its practice progresses, there will be a significant increase of S-L in other disciplines, as has occurred in regions with a longer tradition in the use of this methodology. Given the importance that humanities and social sciences have in European tertiary education, an over-representation of S-L and other innovative methodologies in these areas seems logical (Pedersen, 2016). Face-to-face interaction of students with members of the community is one of the essential elements of S-L (Furco, 1996). Further studies should analyze the impact that COVID-19 preventive measures are having on experiential learning.

Statistically significant differences were found for institutions only on the basis of institutional support and the non-religious/faith-based divide. Coincidences between S-L values and

religious beliefs may explain these results, in addition to awareness of the institution's importance in assuring the success of this type of initiative by providing appropriate back-up. In a previous study (Schaffer, 2004), it was found that 100% of the Christian colleges interviewed had institutional support.

With regard to the previously highlighted controversy on compulsory service activity, in this study no statistically significant differences were found in the characteristics of the S-L projects.

Limitations

Results of this survey should be interpreted with caution given the limitations of a convenience and snowball sample. Moreover, the effect of the global Covid-19 pandemic on the survey should be taken into consideration, as it has acted as barrier to recruiting participants through S-L conferences, all of which were either cancelled or held online due to the pandemic. In the experience of the EOSLHE researcher, response is lower for electronic surveys.

It should be taken into account that a third of informants were not the leaders of their projects. Further investigations should be carried out to determine if this can have effects on the results or on the missing values of the survey. The health crisis caused by Covid-19 has adversely affected classroom activity and, therefore, the implementation of S-L projects; and this exceptional situation has impacted on the initial forecasts for the development of the study.

STUDY 2: CHARACTERISTICS OF THE SCIENTIFIC LITERATURE ON SERVICE-LEARNING IN HIGHER EDUCATION BY REGION

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Research is necessary to firmly establish the value of S-L both pedagogically and socially. The practice of S-L is conditioned by many contextual factors that have to be taken into account when reviewing scientific literature (Aramburuzabala et al., 2019; Furco & Root, 2010). In order to obtain reliable evidence in this field, it is important to consider confounding variables. Geographical and institutional factors, such as country or region, history, culture and the mission of the university, may influence research on the prevalence and features of S-L.

When analysing scientific literature on European S-L it is important to bear in mind that it has been influenced by research conducted in the United States, which is the country where S-L started and which has produced most of the studies on the topic. While higher education institutions were first established in Europe in the 11th century, this continent was the last region in the world to integrate S-L into university programmes. The term *Service Learning* was first coined in 1967, but it was not until the 1990s that S-L in higher education was consolidated (European Observatory of Service-Learning in Higher Education, 2020; Kenny & Gallagher, 2002). In Europe S-L is a relatively new methodology, and it was only two years ago, in 2018, that the first European international conference on S-L in higher education was held (Alonso et al., 2020; European Observatory of Service-Learning in Higher Education, 2020). Although there has been great progress in its institutionalization in tertiary education, much remains to be achieved (Aramburuzabala et al., 2019). Historical differences between North America and Europe lead us to think that the production of scientific literature on S-L in higher education has been mostly based on studies carried out in the USA, not only because they have the longer tradition, but also because the leading scientific and academic publishers are English-language and many of them are located in Anglo-Saxon countries.

The integration of S-L into different academic disciplines is another contextual factor that may influence the specificities of research on S-L. It may even be that certain institutional traditions and philosophies associated with a geographical region result in a greater presence of specific disciplines linked to the S-L experiences. However, despite the fact that S-L is a multidisciplinary practice, the most prolific published work is related to education (Aramburuzabala et al., 2019; European Observatory of Service-Learning in Higher Education, 2020; Furco & Root, 2010; Kenny & Gallagher, 2002; Salam et al., 2019). In study 1 of this Research Report, it was found

that in European S-L experiences in tertiary education there was an over-representation of the area of education (27.5%), followed by business studies (18.8%). However, in other regions, such as in the United States of America, there is a greater prevalence of S-L carried out in medical sciences, nursing and engineering, for example.

There is a large amount of grey literature regarding S-L, but it is often lacking in the detail necessary to enable other researchers to follow the steps described in order to obtain similar and comparable results within the margins of experimental error. The research approach and instruments used are of vital importance in developing reproducible research. One challenge in scientific literature is producing comparable evidence. S-L is a pedagogical tool, but it is also multidisciplinary, as it can be carried out in any discipline or faculty. Therefore the variety of research topics and questions can be unlimited. Scales or questionnaires are usually validated for their use within a particular cultural environment, but there is a need for a general picture of the knowledge and research designs used in previous studies in order to facilitate the identification of potential new knowledge and to produce “possible evidence” and “strong evidence” (Furco & Root, 2010).

The specific objectives of this study were:

- 1) To identify where research of peer-review articles was carried out and published, and the academic disciplines involved
- 2) To identify the specific instruments used in peer-reviewed articles on S-L in higher education by country
- 3) To describe the research characteristics and objectives of peer-reviewed articles on European S-L in higher education by country

Material and methods

Study design

This is a descriptive study based on a systematic review previously carried out by EOSLHE (Cayuela et al. 2020, under review). The database employed was built using a detailed protocol drawing from national and international scientific databases. The search strategy focused on peer-reviewed articles focused on the effects of S-L in higher education from all over the world, with no restriction on the date of publication.

It should be noted that this database only included information that was accessible to the EOSLHE research team. This means, for example, that articles written in Chinese or Korean were excluded (when China and Korea have a considerable amount of scientific production on S-L in higher education). Only articles accessible to the authors' institutions were included.

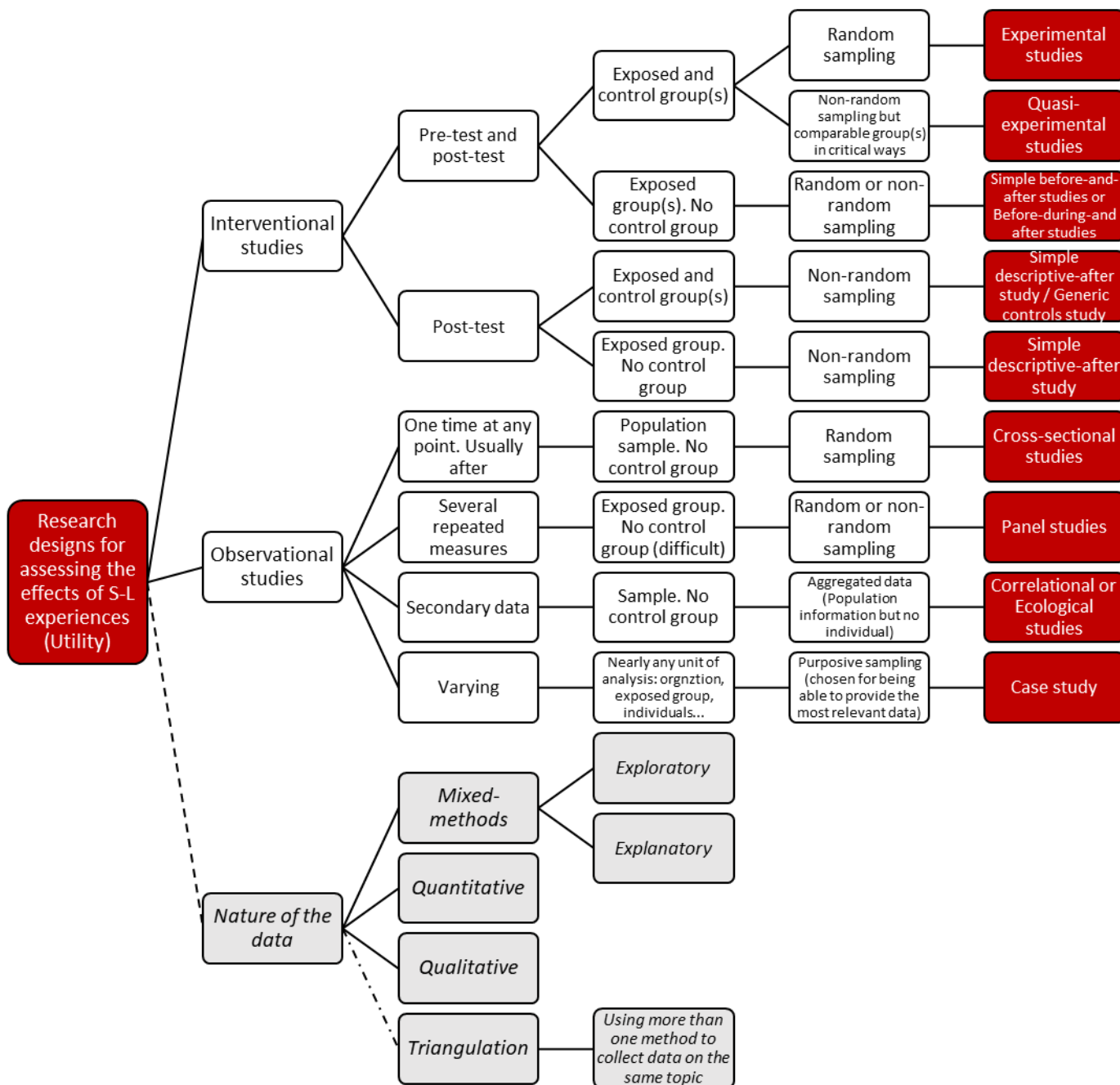
Data extraction

In this study a wide range of data were collected and recoded. The country of publication was obtained by searching on the Internet. The discipline in some cases was based on the type of journal classification, and in others it was found that classification was assigned automatically, as usually occurs in, for example, the Web of Science. To homogenize the variable “academic discipline” several classifications were compared (namely the Joint Academic Classification of Subjects (UK HESA), the U.S. Department of Education National Center for Education Statistics (NCES), and Clarivate Analytics: Citation Index Expanded - subject categories), before it was decided to use a classification based on Wikipedia (https://en.wikipedia.org/wiki/Outline_of_academic_disciplines). The characteristics of this variable can be verified in table 1 of this report.

The rest of the data was extracted by reading the full text of the articles: identification of the country where the study was carried out (country of study), instrument(s) used, research approach, and objective(s) of the study. The “country” variable was re-encoded in a broader region for publishers (region of publication) and for the studies (region of study), based on region name codes from the United Nations Statistics Division.

The research approach variables were encoded as shown in Figure 4. It should be noted that this classification was developed to facilitate the homogenization of the information as a guide, but the possible combinations and methodologies can be innumerable.

Figure 4. Scheme for the homogenization of the classification of research designs in scientific literature on Service-Learning effects. EOSLHE, 2020.



Analysis

A descriptive analysis of the above-mentioned variables included in peer-reviewed articles was carried out. Total values were calculated, and key qualitative information was included. The information was organized using Excel for Windows, Version 2008.

Findings

A total of 62 peer-reviewed articles were included. Of these, more than half (64.5%) were studies carried out in the USA. Eleven (17.7%) were performed in Europe, nine in Asia (14.5%), one in Africa, and one in South America. While the most prevalent publishers were European (51.6%), almost half the studies (46.7%) were published by North American companies. Only one paper was published in Asia (Table 7).

Among studies carried out in Europe, the vast majority were published in European journals (90.9%), as seen in Table 7. Among studies carried out in North America, a smaller percentage (67.5%) were published by a North American publisher, followed by a considerable amount of studies conducted in North America but published by European outlets (32.5%). In the case of studies carried out in Asia, 77.7% were published in European journals.

Table 7. Number of articles by region where the study took place and region of publication. EOSLHE, 2020.

Region of publication	Region of study					
	Africa	Asia	Europe	North America	South America	Total (%)
Africa	0	0	0	0	0	0 (0.0)
Asia	0	1	0	0	0	1 (1.6)
Europe	1	7	10	13	1	32 (51.6)
North America	0	1	1	27	0	29 (46.8)
South America	0	0	0	0	0	0 (0.0)
Total (%)	1 (1.6)	9 (14.5)	11 (17.7)	40 (64.5)	1 (1.6)	62 (100.0)

Over total records, education was the most frequent academic area in the classification of the articles (67.7%), followed by business studies, psychology and medicine and health in the same proportion (6.4% respectively), as shown in Table 8.

Among studies carried out in North America, more than half were classified in education (65.0%), followed by psychology, sociology, and medicine and health in equal proportion (7.5%). Among studies carried out in Europe, 63.6% came under the heading of education, followed by business studies (27.3%). Among Asian studies, the vast majority were classified in education (77.8%).

Table 8. Number of articles by the region where the study took place and the main discipline of the study. EOSLHE, 2020.

Main discipline	Region of study					
	Africa	Asia	Europe	North America	South America	Total (%)
Political science	0	0	0	1	0	1 (1.6)
Business studies	0	0	3	1	0	4 (6.4)
Psychology	0	1	0	3	0	4 (6.4)
Sociology	0	0	0	3	0	3 (4.8)
Education	1	7	7	26	1	42 (67.7)
Biology	0	0	0	2	0	2 (3.2)
Engineering and technology	0	0	1	1	0	2 (3.2)
Medicine and Health	0	1	0	3	0	4 (6.4)
Total	1	9	11	40	1	62 (100.0)

Table 9 shows a total of 46 articles that referred to the instruments used to carry out their research, mainly validated scales and questionnaires. Some are adapted from tools used in previous research, and some could be consulted within the article. More than half were used in studies carried out in the USA (63%).

European articles citing their instruments represented 16.3% of the total. The Belgian article used an adapted questionnaire. Slovak articles used a questionnaire and a translated scale. Spanish studies used four validated scales (one of which was a sub-scale), one questionnaire used in a previous study, and one adapted version of a questionnaire. Five studies used questionnaires originally written in Spanish and Catalan (10.8%).

Studies carried out in Asian countries represented 14.3% of the total, as seen in Table 9. They included five from China (based on two scales, one sub-scale and two adapted scales), one from Korea (adapted scale), one from Syria (adapted questionnaire), and one from Taiwan (questionnaire).

Only one study was carried out in Egypt; in it the researchers explained the scale they used.

Of the 29 articles presenting studies carried out in the USA that described the instrument used, 22 were validated scales (including one sub-scale), two were scales adapted to the study, eight were questionnaires previously used in other studies, and seven were adapted questionnaires from other previous studies. In two articles the researchers designed an ad-hoc questionnaire.

Articles on studies carried out in Europe cited instruments that measured topics focusing on three factors relating to students' education: key competencies and skills, social responsibility and psychological well-being. Asian articles cited instruments that could be grouped by the two topics measured: academic success and changes in civic attitudes. Studies carried out in

the USA cited a large variety of instruments that could be grouped into topics such as (ordered by frequency): social responsibility and civic attitudes (public service motivation, motivation to volunteer, ethno-cultural empathy, racism, believing in a just world, perception of poverty, political involvement), psychological well-being (satisfaction with S-L, self-perception, drinking behaviour), and key competencies and skills (cognitive development, learning outcomes).

Table 9. Research instruments used in scientific articles by country where the study took place. EOSLHE, 2020.

Country of study	Research instrument used in the study
Belgium	Molderez & Fonseca, 2018. Questionnaire developed on the basis of the definitions formulated by Wiek, A., Withycombe, L., Redman, C.L., 2011. Key competencies in sustainability: a reference framework for academic program development. <i>Sustain. Sci.</i> 6 (2), 203e218.
China	One subscale of the Civic Attitudes and Skills Questionnaire (CASQ) developed by Moely et al. (2002). Moely, B. E., McFarland, M., Miron, D., Mercer, S., & Ilustre, V. (2002). Changes in college students' attitudes and intentions towards civic involvement as a function of service-learning experiences. <i>Michigan Journal of Community Service Learning</i> , 9, 18–26.
	12-item Service Learning Benefit scale (SELEB), developed by Toncar, M. F., Reid, J. S., Burns, D. J., Anderson, C. E., & Nguyen, H. P. (2006). Uniform assessment of the benefits of service learning: The development, valuation, and implementation of the SELEB scale. <i>Journal of Marketing Theory and Practice</i> , 14, 223–238.
	Chinese versions of a variety of scales in the existing literature. Scales: Blyt, Berkas & Kielsmeier, 2000; Bringle, Philips & Hudson, 2004.
	Adapted from Chinese versions of a variety of pre-existing scales in the literature. Scales: Blyth, Berkas, and Kielsmeier, 2000; Bringle, Phillips, and Hudson, 2004.
Egypt	Shalabi & Neivin, 2017. Two constructs: Community awareness and interpersonal effectiveness skills (Moely, Furco, & Reed, 2008). The community awareness scale (10 items) measures awareness of community issues. Examples of these items are "I applied things I learned in my service-learning activity to my college course" and "I became more aware of the community of which I am a part." The interpersonal effectiveness scale (7 items) measures interpersonal qualities such as the ability to interact with others and leadership skills. Examples of these items are "I learned how to work with others effectively" and "I practiced my ability to lead and make decisions." The two scales included five-point Likert-type items for which respondents indicated their agreement or disagreement on a scale of 1 = "strongly disagree" to 5 = "strongly agree".

Korea	<p>Questions are described in the article. Jongho Shin, Myung-Seop Survey. Kim, Hyeyoung Hwang & Byung-Yoon Lee (2018) Effects of intrinsic motivation and informative feedback in service-learning on the development of college students' life purpose, <i>Journal of Moral Education</i>, 47:2, 159-174, DOI: 10.1080/03057240.2017.1419943. Also, Roberts, B. W., & Robins, R. W. (2000). Broad dispositions, broad aspirations: The intersection of personality traits and major life goals. <i>Personality and Social Psychology Bulletin</i>, 26(10), 1284–1296.</p>
Slovakia	<p>Questionnaire V-Skills for Employment (Brozmanová Gregorová – Mračková, 2013, revised 2017); students' written self-reflection</p> <p>Questionnaire V-Skills for Employment (Brozmanová Gregorová – Mračková, 2013, revised 2017); Social and Personal Responsibility Scale (SPRS) (Conrad – Hedin, 1981; Slovak translation Brozmanová Gregorová, 2007); The Community Service Attitudes Scale (Shiarella, McCarthy & Tucker, 2000, Slovak translation Brozmanová, Gregorová – Heinzová, 2015)</p>
Spain	<p>Adapted version of the survey developed recently by Hébert, A.; Hauf, P. Student learning through service-learning: Effects on academic development, civic responsibility, interpersonal skills and practical skills. <i>Act. Learn. High. Educ.</i> 2015, 16, 37–49. [CrossRef]- Likert-type scale was constructed with five response options.</p> <p>Adapted version of the survey by Folgueiras, P.; Escofet, A.; Forés, A.; Graell, M.; Luna, E.; also, J.; Palou, B.; Rubio, L. Oüestionari aprenentatge i Servei. <i>Alumnat</i>. Available online: http://hdl.handle.net/2445/48604 (accessed on 28 January 2017). Close- and open-ended questions. In the article the questions in the survey are listed in Table A1 (see Appendix A).</p> <p>Gismero, E. (2000). <i>Escala de habilidades sociales</i>. [Social Skills Scale]. Madrid: TEA. ; Pintrich, P., Smith, D., García, T., & McKeachie, W. (1991). <i>A manual for the use of the Motivated Strategies for Learning Questionnaire (MSLQ)</i>. National Center for Research to Improve Postsecondary Teaching and Learning. University of Michigan.</p> <p>Psychological Well-being Scale [Escala de Bienestar Psicológico (EBP) (subescala de Bienestar Psicológico Subjetivo) by José Sánchez-Cánovas (Sánchez-Cánovas, 2007)]; Social Adaptation Self-evaluation Scale (SASS) [Escala Autoaplicada de Adaptación Social (Bosc, Dubini & Polin, 1997)]</p> <p>Inventory of study routine [Inventario de hábitos de estudio (6th ed.). Pozar, F. (2002). Madrid: TEA Ediciones]; Gismero, E. (2000). <i>Escala de habilidades sociales</i> [Social skills scale]. Madrid: TEA.</p>
Syria	<p>Joury, 2016. Quality evaluation questionnaire (8 items); ad hoc questionnaire based on Armstrong & Conrad (1995) to explore six areas.</p>
Taiwan	<p>The Common Outcome Measurement Questionnaire (COM) developed by the Higher Education Service-Learning Network (HESLN) to determine students' development in service-learning programmes among universities in Hong Kong. Source: MA, H. K., CHAN, W. F. C., & TSE, P. H. I. (2019). A Common Outcome Measurement for Service-Learning in Hong Kong. <i>Journal of Higher Education Outreach and Engagement</i>, 23(3), 3-19.</p>

USA	<p>McLean et al., 2019. Exploratory open-ended surveys (approximately 15' duration). 11 items organized into three sections: general engineering questions, course experience questions, and demographics. We focused on their responses to the following three questions: (1) Did you enjoy the project for this course? Why or why not? (2) What did you like and/or not like about working with the elementary students as part of this project? (3) Are you (more, less, or equally) confident in your decision to be an engineer after taking this course? Why?</p>
	<p>Flynn et al., 2017. Questions are described in the article. Selected questions from the National College Health Associations (NCHA). Perceptions of drinking behaviour, Actual drinking behaviour (high-risk behaviours), and Protective behaviours (include alternating non-alcoholic with alcoholic beverages, using a designated driver, eating before drinking, and keeping track of how many drinks you are having (Delva et al., 2004))</p>
	<p>The 15-item Empathic Feeling and Expression subscale of the Scale of Ethnocultural Empathy (SEE) (Wang et al., 2003); Self-Perception Profile for College Students (Neemann & Harter, 1986); The Social Acceptance subscale from Neemann and Harter's (1986); Noom's Modified Version of Becker's Scale of Autonomy (Noom, 1999); ad hoc post-programme questionnaire items on perceived peer support.</p>
	<p>Communicative Adaptability Scale (Duran, 1983)</p>
	<p>Survey: demographic; Civic Attitudes Scale (CAS; Mabry 1998); The Community Service Self-Efficacy Scale (CSSES; Reeb et al. 2010; Reeb et al. 1998); Rosenberg's Self-esteem Scale (1989); The Civic Attitudes and Skills Questionnaire (CASQ; Moely et al. 2002)M</p>
	<p>SAIL service-learning evaluation questionnaire (Pillemer & Schultz, 2002)</p>
	<p>Defining Issues Test-2 (DIT-2) (Bebeau & Thoma, 2003; Rest & Narvaez, 1998)</p>
	<p>Adapted items from Beaumont et al.'s (2009) Survey of Political Involvement</p>
	<p>Scales including belief in a just world (Peplau & Tyler, 1975); Survey about Poverty in America (nPr-kaiser-harvard, 2001); and Public Service Motivation (Perry, 1996).</p>
	<p>S. C. Seider, Gillmor, et al., 2011. Attributions for Poverty measure consisted of 13 items adapted from the Poverty in America survey (2001); The "Belief in a Just World" measure was adapted from a scale originally developed by Rubin and Peplau (1973);</p>
	<p>Core Survey (Jernstedt, 1994) includes scales from published resources as well as items developed locally; a four-item scale, based on Berkowitz and Lutterman's (1968) Social Responsibility Scale; three-item measure of the perceived meaningfulness of college life, based on Maddi, Kobasa, and Hoover's (1979); Death Anxiety Scale (Templer, 1970)</p>
	<p>Civic Responsibility Scale (Mayers-Lipton, 1998)</p>

	<p>Scales used in Michigan study of Social responsibility outcomes for students in SL (Markus et al, 1993), some items derived from national college outcomes studies (Pascarella et al, 1988; Astin 19992).</p>
	<p>Boss, 1994. Defining Issues Test (Rest, 1987)</p>
	<p>General Social Survey (David & Smith, 1996)</p>
	<p>Color-Blind Racial Attitudes Scale (CoBRAS) developed by Neville, Lilly, Duran, Lee, and Browne (2000); Volunteer Functions Inventory (VFI), developed by Clary et al. (1998), measures students’ motivations for volunteering. Six subscales are: values (I am concerned about those less fortunate than myself.); understanding (Volunteering allows me to gain a new perspective on things.); esteem (Volunteering makes me feel better about myself.); protective (Volunteering helps me work through my own personal problems.); career (I can make new contacts that might help my business or career.); and social (People I am close to want me to volunteer.)</p>
	<p>Adaptation from The Public Service Motivation measure consisted of five items adapted from Perry’s (1996) Public Service Motivation scale. The Belief in a Just World measure consisted of six items adapted from a scale originally developed by Peplau and Tyler (1975)</p>
	<p>Modern Racism Scale (MRS) McConahay, J. (1986). Modern racism, ambivalence, and the modern racism scale. In J. Dovidio and S. Gaertner (Eds.), <i>Prejudice, discrimination, and racism</i> (pp. 91-126). New York: Academic Press.</p>
	<p>Ad-hoc instrument and using four indicators within each of seven domains of learning outcomes (Furco, 2002b): a Furco rubric on students’ outcomes: Furco, A. (2002b, November). <i>Research findings and issues in K–12 and higher education service-learning</i></p>
	<p>Measure of Epistemological Reflection (MER) to measure students’ cognitive development (Baxter Magolda & Porterfield, 1985). MER is a written instrument designed to assess Perry’s five positions of cognitive structural development. The MER yields a Total Protocol Rating (TPR) both as a categorical score and a continuous score. Baxter Magolda, M. B., & Porterfield, W. D. (1985). A new approach to assessing intellectual development on the Perry scheme. <i>Journal of College Student Personnel</i>, 26, 343–351. Perry, W. G. (1970, 1999). <i>Forms of intellectual and ethical development in the college year: A scheme</i>. San Francisco: Jossey-Bass.</p>
	<p>Plous, S., & White, J. A. (1995). Self-enhancement and social responsibility: On caring more, but doing less, than others. <i>Journal of Applied Social Psychology</i>, 25(15), 1297-1318. Anne Kendall et al., <i>The Journal of Nutrition</i>, Volume 125, Issue 11, November 1995, Pages 2793–2801 Radimer/Cornell Measures of Hunger and Food Insecurity</p>
	<p>Wilder et al., 2013. Modified Higher Education Research Institute (HERI) Life After College Survey (LAC)</p>

	<p>Questionnaire designed for use in the 20th Anniversary Bonner Scholars Survey (Bonner Foundation (2016). Student Impact Survey. Retrieved from http://bonnerwikiv2.pbworks.com/w/page/104743603/Bonner%20Student%20Impact%20Survey%20-%20Overview). Civic-Minded Professional Scale (CMP) https://www.okhighered.org/okcampuscompact/pdf/2019tmce-bonner-civic-minded-scale.pdf. Civic-minded orientations (Steinberg, K., Hatcher, J. A., & Bringle, R. G. (2011). A north star: Civic-minded graduate. Michigan Journal of Community Service Learning) and Civic action (Flanagan, and Wray-Lake (2011), for example, using indicators of civic action such as volunteering, civic organizational involvement, and voting)</p>
	<p>Winston, 2015. Mail Ad hoc questionnaire of 10 different political behaviours (Voted in a national or state election; Voted in a local election; Donated money to a political candidate; Became a member of a social movement organization; Expressed opinion on a community or political issue by signing a petition; Expressed opinion on a community or political issue by contacting a newspaper or magazine (e.g., writing an op-ed article or a letter to the editor); Expressed opinion on a community or political issue by contacting or visiting a public official; Attended a political meeting (e.g., town hall or city council meeting); Not bought something or boycotted it because of the social or political values; Participated in a protest, march, demonstration, or rally)</p>
	<p>Community Service Attitudes Scale (Shiarella, A.H., A.M. McCarthy and M.L. Tucker. 2000. Development and construct validity of scores on the community service attitudes scale. Educational and Psychological Measurement 60: 286-300.); the effectiveness of service learning (Bringle, R.G., M.A. Phillips and M. Hudson. 2004). The measure of service learning: Research scales to assess student experiences. American Psychological Association, Washington, DC.)</p>
	<p>Charity Orientation and Social Change Orientation scales were adapted from those created by Moely and Miron (2005) and previously studied by Moely et al. (2008). Service-learning Course Quality scale described by Moely and Ilustre (2013a)</p>
	<p>Transformational learning: Strauss and Corbin (1998). Mezirow's (1978) original theory of transformational learning; adaptation to the original theory developed by Clark (1991)</p>
	<p>Langhout & Gordon, 2019</p> <p>Schreiner, L. A. (2010). The "Thriving Quotient": A new vision for student success. About Campus: Enriching the Student Learning Experience, 15, 2–10. Langhout, R. D., Gordon, D. L., Rosales, C. E., & López, L. (2019). "Success" in the Borderlands: Measuring success for underrepresented and misrepresented college students. (9-item scale assesses a student's ability to culturally straddle between home and academe and engage in social justice work)</p>
	<p>Novak et al., 2007. Variance-centered method developed by Hunter and Schmidt (1990), student self-reports, faculty testimonials, faculty assessment (i.e., course assignments and projects, and course grades)</p>

Table 10 focuses on European scientific literature on S-L, showing the research characteristics of a total of eleven articles. Seven were conducted in Spain, two in Slovakia, one in Belgium, and one in Turkey. 63.6% were quantitative, 18.2% were qualitative, and 18.2% used mixed methods. 45.4% were quasi-experimental, 27.3% were simple descriptive-after, 18.2% were simple before-and-after studies, and one was a case study.

The objectives of the studies carried out in Europe encompass the analysis of curricular development (key competences and skills) and attitude changes in the students related to their S-L experiences (social responsibility). Only one study focused on determining the impact that an international S-L experience had on faculty.

Table 10. Research characteristics of the articles in which the study was carried out in Europe. EOSLHE, 2020.

Country	Research Approach		Objective(s) of the study	Reference
Spain	Quantitative	Quasi-experimental study	(1) To assess the outcomes of S-L on university students based on a self-evaluation questionnaire about how they perceived their improvement in curricular development, professional skills and civic and social responsibility; and (2) to estimate the possible effect of S-L on academic performance; a quasi-experimental design in two paired groups with pre-test and post-test evaluations	Martínez-Campillo et al., 2019
Spain	Quantitative	Simple descriptive-after study	To determine whether there were differences in students' perception of the degree of University Social Responsibility acquisition depending on the methodology used	Cabedo et al., 2018
Belgium	Mixed	Simple before-and-after study	To analyse whether sustainability competences can be effectively developed among students through deep learning activities	Molderez & Fonseca, 2018
Spain	Quantitative	Quasi-experimental study	To explore the effectiveness of the Huelva Educa Program (PHE) in improving social skills and learning and motivation strategies among university students	Hervás Torres et al., 2017

Spain	Qualitative	Simple descriptive-after study	To study the impact of S-L methodology on faculty members implementing the designed material on-site during the second stage of the experience (a qualitative study conducted through in-depth interviews with three collaborating teachers who travelled to Kenya for the first time to implement the project that the students had developed)	Ciesielkiewicz et al., 2017
Slovakia	Mixed	Quasi-experimental study	To study the benefits of S-L in the development of key competences of social work students at Matej Bel University	Gregorová et al., 2019
Slovakia	Quantitative	Quasi-experimental study	To summarize the benefits of S-L in the development of key competences, social and personal responsibility, and attitudes to the community service of students at Matej Bel University	Gregorová et al., 2020
Turkey	Qualitative	Case study	To determine the awareness and acquisitions obtained from service activities by students studying at undergraduate level	Boru, 2017
Spain	Quantitative	Simple before-and-after study	To verify the development of psychosocial competencies among students through an S-L program	Lorenzo Baz & Matallanes February, 2013
Spain	Quantitative	Simple descriptive-after study	To ascertain the opinions of students regarding the S-L experience on issues at a personal and group level	Carrica-Ochoa, 2017
Spain	Quantitative	Quasi-experimental study	(1) To analyse the impact of a peer tutoring program on preventing academic failure and dropouts among first-year students; (2) To identify the potential benefits of this tutoring program on the cognitive and metacognitive learning strategies and social skills of student mentors in their last year of studies or already in a postgraduate program	Martín et al., 2019

Discussion

This review of scientific literature on S-L in higher education yields a picture of the status of published research in the world, with a special focus on Europe. Descriptive findings showed that most of the research had been carried out in the USA, although these studies were published by both American and European publishing houses. European research, however, were almost always published by European publishers.

Education was the major discipline linked to research in S-L throughout the world, but in the case of the USA there was a large amount of S-L research in disciplines close to the health sciences, while in Europe it was frequently related to business studies. The instruments used for research on S-L on higher education were similar on all continents. In Europe and Asia, educational factors among students appeared as a priority. In the USA, research focused on a greater variety of topics, the most prevalent being students' social and civic responsibility. Conducting research with ad-hoc design questionnaires was revealed as not being desirable. With regard to the methods used, quantitative and quasi-experimental studies were the most frequent.

As expected, given that the USA has a longer tradition in S-L, it also had the greatest amount of scientific production on the subject. It should also be taken into account that the majority of publishers were from the USA and that English was their native language. These factors may explain the greater ease with which a study carried out in the USA could be published in other regions of the world. Non-English speakers seemed to have more difficulty publishing outside of their region.

As a non-traditional pedagogy, although it has spread around the globe, S-L is still new and in the process of integration in many countries. Novelty may be one of the factors accounting for the larger amount of studies in the field of education when compared with other disciplines. In the case of European research, the highest frequency was in education, followed by business studies. These results coincide with those of the study on Service-Learning characteristics in European higher education, also presented in this Research Report. However, in the USA, where there is a higher level of instrumentalization of tertiary education, with a more technical or applied approach, our results showed a larger prevalence of S-L carried out in other disciplines, such as medical sciences and nursing. On the other hand, Europe seemed to value a more humanistic perspective in its institutions and there was a greater presence of S-L in degrees in social science and the humanities (Pedersen, 2016).

The wider variety of research topics in the USA may again be due to the larger amount of scientific production, also related to a longer history of S-L. It may also be explained by greater institutional support for research, offering more resources to academics working in S-L. Appropriate definition of instruments and research designs can help other researchers replicate studies and compare results. This finding may also be related to journal standards for publishing high quality research. The greater presence of quantitative and quasi-experimental studies may be linked to the standards required by the majority of journals, as the experimental scientific method still carries much weight in the academic field. Nevertheless, qualitative research on S-L is also necessary, as it has a number of advantages and is both equally valid and complementary to quantitative techniques, especially when investigating processes.

Limitations

The information reported in this S-L scientific literature review should be taken with caution, given the limitations of the records analysed. A large amount of widely varying information regarding S-L appears in the form of grey literature and other formats, which were not included in this study. Additionally, the database developed for this study constructed a small representative sample of what the real sample would be. Moreover, it should be taken into account that the effect of the global Covid-19 pandemic on research may change research into S-L.

Language was another barrier, as in this analysis we only included articles written in languages known to the research team members of EOSLHE (English, Croatian, Czech, German, Italian, Slovak, Spanish and Dutch). The vast majority of the selected research was written in English.

CONCLUSIONS AND RECOMMENDATIONS

S-L is increasingly taking a leading role among pedagogical methods in European higher education. Tertiary education is facing new challenges that require adaptation to the needs of the society in which it is immersed and from which it draws its resources. In this context, S-L represents a tool for addressing these challenges, as well as being an opportunity to generate new knowledge.

Research has been shown to be essential to the value of S-L, both pedagogically and socially (Aramburuzabala et al., 2019; Furco, 1996; Furco & Root, 2010). The scientific production of S-L research in Europe is growing rapidly. Data gathered in this Research Report shows that Europe is the second largest producer of scientific works in this field. For this Report, EOSLHE carried out two studies: the first based on its own primary data collected across Europe from S-L practitioners, and the second on secondary data available from various scientific databases. Our analysis of this information yielded an overall picture of research on S-L in European higher education.

The main results show that Europe has its own peculiarities. S-L in European higher education is concentrated in the social sciences, especially education and business studies. Academics feel that they have institutional support for running S-L projects, especially practitioners in religious institutions.

Research on S-L in higher education is not as widespread in Europe as it is in the USA. This may be related to the longer tradition of the use of this methodology in North America. In content, topics and domains, research is similar for all regions of the globe analyzed, but the amount and variety are considerably higher in the USA. To date, European research has focused on how S-L improves educational factors and students' social responsibility. Further research is necessary, for which EOSLHE makes tools and practical information available through this Research Report.

The information available in the methods section may be useful to future research projects focusing on analysing the effects of S-L. It is recommended to follow an established research design (Figure 4) and to ensure that other researchers will be able to follow the same steps when attempting to replicate it. Already existing research instruments can be a starting point for researchers aiming to compare results (Table 9). The main findings in both studies in this research report endeavour to elicit new research hypotheses and identify less explored fields in S-L in European higher education. For example, the main results show that there are no

significant differences in the characteristics of S-L experiences in faith-based and secular institutions. Likewise, mandatory or voluntary enrolment of students does not produce differences. Other contextual factors that may have an influence on the effects of S-L would need to be explored in this regard.

An international, longitudinal/panel study of all stakeholders involved in S-L, allowing access to more disaggregated data enabling us to answer deeper questions, is required. The high cost of this type of study can be a barrier, but good results based on smaller evidence-practices can be achieved in the near future.

... [E]vidence is secured when the effects of an educational intervention are tested under certain research conditions. [...] [F]uture investigations must incorporate the kinds of research design that can raise the status of service learning as an evidence-based practice (Furco & Root, 2010).

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Statement of independence

EOSLHE strives to meet the standards of integrity and quality in its research and analyses. We consider that operating consistently with the values of independence, rigor, and transparency is essential to maintaining those standards. EOSLHE does not take positions on issues that can be interpreted from its work. Funders do not determine our research findings or the insights and recommendations of our experts, which are expected to be objective and follow the evidence wherever it may lead.

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ANNEX

Tables not included in findings

Table 11. Frequency calculations in the multichex variable "To what academic degree is the S-L experience linked?". EOSLHE,2020.

```

. tab undergrad
14_A_UNDERG |
  RAD |      Freq.    Percent    Cum.
-----+-----
    No |         12     15.00     15.00
    Yes |         68     85.00    100.00
-----+-----
  Total |          80    100.00

. tab master
14_B_MASTER |      Freq.    Percent    Cum.
-----+-----
    No |         49     61.25     61.25
    Yes |         31     38.75    100.00
-----+-----
  Total |          80    100.00

. tab phd
  14_C_PHD |      Freq.    Percent    Cum.
-----+-----
    No |         76     95.00     95.00
    Yes |          4      5.00    100.00
-----+-----
  Total |          80    100.00

. tab other
  14_D_OTHER |      Freq.    Percent    Cum.
-----+-----
    No |         77     96.25     96.25
    Yes |          3      3.75    100.00
-----+-----
  Total |          80    100.00
    
```

Table 12. Recodification of disciplines in bigger branches. EOSLHE, 2020.

```

. tab discipline_r
  discipline_r |      Freq.    Percent    Cum.
-----+-----
  Humanities |          9     11.25     11.25
  Social Sciences |         60     75.00     86.25
  Natural Sciences |          2      2.50     88.75
  Formal Sciences |          3      3.75     92.50
  Applied Sciences |          6      7.50    100.00
-----+-----
  Total |          80    100.00
    
```

Table 13. Frequency of each type of community partner in the mapping of S-L experiences. EOSLHE, 2020.

```

. tab church
27_A_CHURCH |      Freq.      Percent      Cum.
-----+-----
      No |          62       76.54       76.54
      Yes |          19       23.46      100.00
-----+-----
      Total |          81      100.00

. tab nonprofit
27_B_NONPRO |
      FIT |      Freq.      Percent      Cum.
-----+-----
      No |          25       30.86       30.86
      Yes |          56       69.14      100.00
-----+-----
      Total |          81      100.00

. tab educ
27_C_EDUC |      Freq.      Percent      Cum.
-----+-----
      No |          48       59.26       59.26
      Yes |          33       40.74      100.00
-----+-----
      Total |          81      100.00

. tab found
27_D_FOUND |      Freq.      Percent      Cum.
-----+-----
      No |          60       74.07       74.07
      Yes |          21       25.93      100.00
-----+-----
      Total |          81      100.00

. tab association
27_E_ASSOCI |
      ATION |      Freq.      Percent      Cum.
-----+-----
      No |          46       56.79       56.79
      Yes |          35       43.21      100.00
-----+-----
      Total |          81      100.00

. tab civic
27_F_CIVIC |      Freq.      Percent      Cum.
-----+-----
      No |          61       75.31       75.31
      Yes |          20       24.69      100.00
-----+-----
      Total |          81      100.00

. tab sanitary
27_G_SANITA |
      RY |      Freq.      Percent      Cum.
-----+-----
      No |          74       91.36       91.36
      Yes |           7        8.64      100.00
-----+-----
      Total |          81      100.00

. tab peniten
27_H_PENITE |
      N |      Freq.      Percent      Cum.
-----+-----
      No |          79       97.53       97.53
      Yes |           2        2.47      100.00
-----+-----

```

```

Total |      81      100.00
. tab public
27_I_PUBLIC |      Freq.      Percent      Cum.
-----+-----
      No |      58      71.60      71.60
      Yes |      23      28.40      100.00
-----+-----
Total |      81      100.00
.
    
```

Table 14. Statistical analysis by religion of the institution.

```

. tab interact faith if ( interact!=4), col chi2

+-----+
| Key |
+-----+
| frequency |
| column percentage |
+-----+

      13_INTERACT |      23_FAITH
                   |      No      Yes |      Total
-----+-----+-----+
Face-to-face |      33      12 |      45
                   |      64.71   41.38 |      56.25
-----+-----+-----+
Virtual |      2      4 |      6
                   |      3.92   13.79 |      7.50
-----+-----+-----+
Mixed |      16      13 |      29
                   |      31.37   44.83 |      36.25
-----+-----+-----+
Total |      51      29 |      80
                   |      100.00  100.00 |      100.00

      Pearson chi2(2) = 5.1137 Pr = 0.078

. tab grad_r faith, col chi2

+-----+
| Key |
+-----+
| frequency |
| column percentage |
+-----+

      grad_r |      23_FAITH
              |      No      Yes |      Total
-----+-----+-----+
Undergraduate |      28      21 |      49
              |      56.00   72.41 |      62.03
-----+-----+-----+
Master |      8      2 |      10
              |      16.00   6.90 |      12.66
-----+-----+-----+
Undergraduate & Maste |      10      6 |      16
              |      20.00   20.69 |      20.25
-----+-----+-----+
Undergraduate & Maste |      4      0 |      4
              |      8.00   0.00 |      5.06
-----+-----+-----+
Total |      50      29 |      79
              |      100.00  100.00 |      100.00

      Pearson chi2(3) = 4.3232 Pr = 0.229

. tab discipline_r faith, col chi2

+-----+
| Key |
+-----+
    
```

```

| frequency |
| column percentage |
+-----+

                23_FAITH
discipline_r |      No      Yes |      Total
-----+-----+-----+
Humanities |      4      5 |      9
           | 7.84  17.24 | 11.25
-----+-----+-----+
Social Sciences |     39     21 |     60
           | 76.47  72.41 | 75.00
-----+-----+-----+
Natural Sciences |      2      0 |      2
           | 3.92   0.00 | 2.50
-----+-----+-----+
Formal Sciences |      1      2 |      3
           | 1.96   6.90 | 3.75
-----+-----+-----+
Applied Sciences |      5      1 |      6
           | 9.80   3.45 | 7.50
-----+-----+-----+
Total |     51     29 |     80
      | 100.00 100.00 | 100.00

Pearson chi2(4) = 4.8261 Pr = 0.306

. tab config faith if (config!=3), col chi2

+-----+
| Key |
+-----+
| frequency |
| column percentage |
+-----+

                23_FAITH
18_CONFIG |      No      Yes |      Total
-----+-----+-----+
Part of a subject |     24     13 |     37
           | 58.54  44.83 | 52.86
-----+-----+-----+
An S-L course |     17     16 |     33
           | 41.46  55.17 | 47.14
-----+-----+-----+
Total |     41     29 |     70
      | 100.00 100.00 | 100.00

Pearson chi2(1) = 1.2811 Pr = 0.258

. tab enrol faith if (enrol!=3), col chi2

+-----+
| Key |
+-----+
| frequency |
| column percentage |
+-----+

                23_FAITH
19_ENROL |      No      Yes |      Total
-----+-----+-----+
Voluntary |     30     11 |     41
           | 60.00  39.29 | 52.56
-----+-----+-----+
Mandatory |     20     17 |     37
           | 40.00  60.71 | 47.44
-----+-----+-----+
Total |     50     28 |     78
      | 100.00 100.00 | 100.00

Pearson chi2(1) = 3.0887 Pr = 0.079

. tab instruct faith, col chi2

+-----+

```

```

| Key
|-----|
| frequency
| column percentage
|-----+
20_INSTRUC |      23_FAITH
  T |      No      Yes |      Total
-----+-----+-----+
  Online |      1      1 |      2
        |      1.96    3.45 |      2.50
-----+-----+-----+
  In-person |     34     13 |     47
        |     66.67   44.83 |     58.75
-----+-----+-----+
  Mixed |     16     15 |     31
        |     31.37   51.72 |     38.75
-----+-----+-----+
  Total |     51     29 |     80
        |    100.00  100.00 |    100.00

      Pearson chi2(2) = 3.6406 Pr = 0.162

. tab support faith if (support!=3), col chi2

+-----+
| Key
|-----|
| frequency
| column percentage
|-----+
12_SUPPORT |      23_FAITH
  No |      No      Yes |      Total
-----+-----+-----+
  No |     11      0 |     11
    |     23.91    0.00 |     15.28
-----+-----+-----+
  Yes |     35     26 |     61
    |     76.09  100.00 |     84.72
-----+-----+-----+
  Total |     46     26 |     72
    |    100.00  100.00 |    100.00

      Pearson chi2(1) = 7.3386 Pr = 0.007
    
```

Table 15. Statistical analysis by type of enrolment of the students. EOSLHE, 2020.

```

. tab interact enrol if (interact!=4 & enrol!=3), col chi2

+-----+
| Key
|-----|
| frequency
| column percentage
|-----+
13_INTERACT |      19_ENROL
  Voluntary  Mandatory |      Total
-----+-----+-----+
Face-to-face |     28     16 |     44
              |     68.29   45.71 |     57.89
-----+-----+-----+
  Virtual |      3      2 |      5
          |     7.32     5.71 |     6.58
-----+-----+-----+
  Mixed |     10     17 |     27
        |     24.39   48.57 |     35.53
-----+-----+-----+
  Total |     41     35 |     76
        |    100.00  100.00 |    100.00

      Pearson chi2(2) = 4.8440 Pr = 0.089

. tab grad r enrol if (enrol!=3), col chi2
    
```

```

+-----+
| Key |
+-----+
| frequency |
| column percentage |
+-----+

          19_ENROL
grad_r | Voluntary  Mandatory | Total
-----+-----+-----+
Undergraduate |      21      26 |      47
              | 53.85    70.27 | 61.84
-----+-----+-----+
Master |      6      4 |      10
        | 15.38    10.81 | 13.16
-----+-----+-----+
Undergraduate & Maste |      10      5 |      15
                    | 25.64    13.51 | 19.74
-----+-----+-----+
Undergraduate & Maste |      2      2 |      4
                    | 5.13     5.41 | 5.26
-----+-----+-----+
Total |      39      37 |      76
      | 100.00    100.00 | 100.00

Pearson chi2(3) = 2.5477 Pr = 0.467

. tab discipline_r enrol if (enrol!=3), col chi2

+-----+
| Key |
+-----+
| frequency |
| column percentage |
+-----+

          19_ENROL
discipline_r | Voluntary  Mandatory | Total
-----+-----+-----+
Humanities |      6      2 |      8
           | 14.63    5.56 | 10.39
-----+-----+-----+
Social Sciences |      31      28 |      59
               | 75.61    77.78 | 76.62
-----+-----+-----+
Natural Sciences |      0      2 |      2
                 | 0.00     5.56 | 2.60
-----+-----+-----+
Formal Sciences |      2      1 |      3
                | 4.88     2.78 | 3.90
-----+-----+-----+
Applied Sciences |      2      3 |      5
                 | 4.88     8.33 | 6.49
-----+-----+-----+
Total |      41      36 |      77
      | 100.00    100.00 | 100.00

Pearson chi2(4) = 4.3797 Pr = 0.357

. tab config enrol if (config!=3 & enrol!=3), col chi2

+-----+
| Key |
+-----+
| frequency |
| column percentage |
+-----+

          19_ENROL
18_CONFIG | Voluntary  Mandatory | Total
-----+-----+-----+
Part of a subject |      18      19 |      37
                  | 50.00    59.38 | 54.41
-----+-----+-----+
An S-L course |      18      13 |      31

```

```

-----+-----+-----+
|          | 50.00  40.63 | 45.59
-----+-----+-----+
Total |          36          32 | 68
|          100.00    100.00 | 100.00
-----+-----+-----+

Pearson chi2(1) = 0.6003 Pr = 0.438

. tab instruct enrol if (enrol!=3), col chi2

+-----+
| Key |
+-----+
| frequency |
| column percentage |
+-----+

20_INSTRUC |          19_ENROL
T | Voluntary Mandatory | Total
-----+-----+-----+
Online |          1          1 | 2
|          2.44    2.70 | 2.56
-----+-----+-----+
In-person |          26          20 | 46
|          63.41    54.05 | 58.97
-----+-----+-----+
Mixed |          14          16 | 30
|          34.15    43.24 | 38.46
-----+-----+-----+
Total |          41          37 | 78
|          100.00    100.00 | 100.00
-----+-----+-----+

Pearson chi2(2) = 0.7127 Pr = 0.700

. tab support enrol if ( support!=3 & enrol!=3), col chi2

+-----+
| Key |
+-----+
| frequency |
| column percentage |
+-----+

12_SUPPORT |          19_ENROL
Voluntary Mandatory | Total
-----+-----+-----+
No |          7          4 | 11
|          18.92    12.12 | 15.71
-----+-----+-----+
Yes |          30          29 | 59
|          81.08    87.88 | 84.29
-----+-----+-----+
Total |          37          33 | 70
|          100.00    100.00 | 100.00
-----+-----+-----+

Pearson chi2(1) = 0.6085 Pr = 0.435

```

Mapping of the Service-Learning Experiences in Higher Education across Europe



Country	# Experiences shared
Albania	1
Austria	2
Belgium	11
Bosnia and Herzegovina	1
Croatia	2
Finland	1
Germany	7
Ireland	2
Italy	7
Lithuania	1
Netherlands	2
Portugal	2
Romania	1
Slovakia	1
Spain	33
Switzerland	1
Ukraine	1
United Kingdom	6
	82

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