

Teacher's transformation in Service-Learning training and experience: a Review of Literature

La trasformazione dei docenti mediante la formazione e l'esperienza del service-learning: una revisione della letteratura

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Abstract

This paper presents a review of literature researched with the aim to highlight the relationship between the educational proposal of Service-Learning and teachers and educators, in terms of personal and professional transformation. This review took place during the first explorative part of a doctoral study. The research was conducted using four different databases (Eric, Web of Science, Scopus and the university of Florence library system, SBA Unifi). The software used for it was Endnote. The 58 full-text papers included (60 studies), show three categories detected: the most numerous is the category of future teachers (n=49); few studies concern in-service teachers (n=4), while seven studies concern both the two categories. Educators are totally absent by the results. Analyzing the main findings of each study, the transformative potential of SL is in evidence.

Keywords: service-learning; teachers; educators; transformation; transversal skills.

Sintesi

Questo contributo presenta una revisione della letteratura, effettuata allo scopo di evidenziare la relazione tra la proposta educativa del Service-Learning (SL) e docenti e educatori, in termini di trasformazione personale e professionale. La revisione si colloca nella prima fase esplorativa di un progetto di dottorato. La ricerca è stata effettuata utilizzando quattro differenti database (Eric, Web of science, Scopus, e il portale del sistema bibliotecario di ateneo, lo SBA dell'Università di Firenze) mediante l'utilizzo del software Endnote. I 58 articoli esaminati, contenenti 60 studi, mostrano tre categorie di studi: la più numerosa riguarda studi su futuri docenti (n=49); pochi studi hanno riguardato docenti in servizio (n=4), mentre sette studi hanno riguardato entrambe le tipologie di docenti. Gli educatori risultano assenti dai risultati della revisione. Analizzando i principali risultati di ogni singolo studio, si evidenzia la potenzialità trasformativa del SL.

Parole chiave: apprendimento-servizio; insegnanti; educatori; trasformazione; competenze trasversali.

1. Introduction

The purpose of this paper is to document a review of literature concerning the relationship between Service-Learning (SL) and in-service, or future, teachers and educators. According with the literature (Furco, 2005), no many studies were activated about teachers or educators, in service or in training. Researches were most concentrated on the impact of SL on students or community¹. Studying the effects of SL on students was, naturally, one of the main topic related to this approach (Eyler, 2000; Warren, 2012; Simons & Cleary, 2006). Nowadays, even if students are still taken in big consideration (Folgueiras, Aramburuzabala, Opazo, Mugarra, & Ruiz, 2020; Holmes, Webb, & Albritton, 2022), the direction of the researches are more open, including new fields such virtual SL (Culcasi, Russo, & Cinque, 2022). and the social dimension, such as social justice (Santiago-Ortiz, 2019) and sustainability (Lozano, Barreiro-Gen, Lozano, & Sammalisto, 2019). To situate this study within the literature, this article begins with a brief analysis of theoretical framework, and with a very brief review of the Italian SL development. The Review started with 1229 articles and reported 58 articles (60 studies), eligible for the full text analysis. Data collection was divided in three clusters: teachers, pre-teachers and both teachers and pre-teachers. Only one articles named educators but, considering the context of use, the term is exchangeable with teacher. Results indicate the potential of SL in personal and professional transformation and suggest to explore deeper the Italian situation².

2. Theoretical Background

Service-Learning (SL), in Italian *Apprendimento-Servizio*, is an educational approach developed in US and south America for a long time. It is characterized for the connection between school learnings and community service. In the Ministerial document titled *Una via italiana per il Service Learning* (MIUR, 2018), we found a definition of SL by Andrew Furco and Shelley H. Billig (2002), two of the greatest north-American scholars. SL is the pedagogy that “[...] seeks to engage students in activities that both combine community service and academic learning” (p. 25). Ines Tapia (2009), the first author publishing in Italian, defines SL “[...] a mix of projects or programs of supportive service with the aim to satisfy a real need of a territory, (working with, and not only for, the community) with a large participation of students as main heroes, from the first step of diagnosis to the final assessment, intentionally connected with the content of learnings [...]” (p. 21). Fiorin (2016), one of the firsts Italian pedagogist interested in SL, considers Paulo Freire as an unavoidable pedagogical reference. In the book, *Pedagogy of the oppressed*, Freire (1970) reflects deeply about social system: the oppressed, to free himself must realize to be inside a system that aim to transform him in a new oppressor. He needs to “free both himself and the oppressor” (ivi, p. 49). It may happen through a kind of problematic pedagogy, in which educator and pupil co-share an educational process, into a relationship that builds the

¹ “Alrededor del 80 por ciento de los estudios realizados se concentran en investigar el impacto del aprendizaje-servicio en los estudiantes, que son los que brindan el servicio. Pero en los últimos años ha habido un creciente interés por la investigación del impacto en los docentes, en su relación con los alumnos y también en relación con su comprensión acerca de la comunidad en la que viven los estudiantes [...]” (Furco, 2005, p. 20).

² A part of the results of this study is summed up into a poster published in a book chapter (Kulberg Taub, 2022). The aim of this article is to describe the entire review.

knowledge. Dewey's pedagogical activism (1938/2014) and its motto *learning by doing*, is one of the major references for SL, together with Freire and for the Italian background, the pedagogist Don Milani (1967/2017). Considering the current European framework, it should be mentioned that SL has been included in the international document of UNESCO (2021) as a pedagogy that "has the potential to enlist solidarity as a central principle to problem-solving pedagogies [...]" (p. 52). The European Association on Service-Learning in Higher Education (EASHLE) stands as a point of contact and comparison between European Universities dealing at multiple levels with SL.

2.1. Service-learning in Italy

SL approach started in Italy in 2011, by Professor Italo Fiorin and his students, future primary and pre-primary teachers. After that experience, SL was tested in every school degrees. In 2018, the Ministry of Education, University and Research (MIUR) published a document called *The Italian way to Service-Learning*. In that document, it was described the first ministerial experimentation, in 2016, with the project *3Regioni* (3Regions). In 2020, the movement of educational vanguards still considered SL as an innovative approach for Italy (Chipa, Giunti, & Orlandini, 2020). In Italy, many other Scholar are still working on SL in different fields, including the institutionalization of SL in the Universities (Bornatici, 2020; Silva, 2018; Zani & Albanesi, 2019).

2.2. Previous Reviews on Service-Learning

Limiting the research to the last five years, different sytematic reviews and meta-analyses emerged, containing various topics, but none that could directly relate to the figure of the teacher or educator. In the study by Salam, Iskanda, and Farooq (2019) the focus was on understanding the status of the SL in Higher Education, as well as in the study by Marcus, Atan, Yusof, and Tahir (2020). In 2022, the study by Compare and Albanesi addresses the issue of social justice in SL experiences. The contribution by Filges, Dietrichson, Viinholt, and Dalgaard (2022), seeks to investigate the effect of SL on students in grades K-12, in terms of academic success. Also of students, but this time undergraduates, investigates the meta-analysis by Gordon, Pink, Rosing, and Mizzi (2022), regarding the issue of empathy development.

3. Method

3.1. Research Question

The Research Questions, for the review, are:

- Which is the relationship between SL and teachers and educators, in-service or in training?
- Is SL really transformative, also for teachers, not only for students or the community?

3.2. Research Protocol

This study aimed at analyzing research questions from primary studies, that intended to assess the impact of SL and to understand how to evaluate this impact on the development of personal and professional skills on teachers and educators.

3.3. Inclusion and exclusion criteria

The use of boolean operators (AND/NOT) was designed for the searching of the terms. Started with 1229 articles, initially excluded 279 duplicates, 950 articles were analyzed. In the first selection, based on titles and abstracts, the topic “Service-Learning” was chosen as the first criterion for eligibility/exclusion over “NOT service-learning.” The eligible articles for the inclusion should be, also, journal articles and proceeding papers presenting quantitative, qualitative or mixed method approaches. The search criteria included the terms “Service-Learning” AND “Teachers” AND “Educators”. This selection excluded 695 articles and included 255 articles, followed by a further selection based on title and abstract. 64 articles resulted eligible for a full text selection. Inclusion/Exclusion criteria are showed on Figure 1. Totally, 191 articles, of the 255 articles analyzed in full text, were excluded because they presented different research objectives (n=159, exclusion criteria 1), different population (n=31, exclusion criteria 6) and different language (n=1 exclusion criteria 7). Specifically, the findings were to include studies regarding the impact of SL on teachers and educators, excluding the other two populations that it is used to survey in SL studies, the community and students. Despite the importance of the two actors, the focus of this research is the category of teachers and educators. From the full text analysis were excluded six articles and 58 articles, concerning 60 studies, resulted eligible for the research. The entire inclusion/exclusion process is described on Prisma diagram (Figure 4). This research used four different databases: Web of Science, ERIC, Scopus, e the Florence university library system (SBA). The search string was repeated ten times.

INCLUSION CRITERIA		EXCLUSION CRITERIA
STUDY DESIGN: Empiric primary data (journal articles, proceeding papers)	1	STUDY DESIGN: Not empiric primary data (reviews, meta-analysis, editorial, introductions, recension)
STUDY DESIGN: Quantitative, Qualitative or Mixed	2	
TOPIC: Service-Learning	3	TOPIC: NOT Service-Learning
INTERVENTION: Service-Learning AND teachers AND educators	4	INTERVENTION: NOT service-learning AND community NOT service-learning AND Students
OUTCOME: Teachers/Educators impact, change, transformation, performance	5	OUTCOME: Students/community impact, change, transformation, performance
POPULATION: Teachers/educators; Preservice-teachers/educators	6	POPULATION: Students/community Future healthcare professionals
LANGUAGE: Italian, English, Spanish	7	LANGUAGE: NOT Italian, English, Spanish

Figure 1. Inclusion-exclusion criteria.

The term “Service-Learning” was used with a dash between the words “Service” and “Learning”. For the second term, both words, “Teach*” and “Educator*” were used for the search string. The search string “NOT student* NOT community” was also used because the two terms are not the focus of this research. The Boolean Operators were used both in Italian and in English, as reported on Figure 2.

Service-learning and teach*
Service-learning and teach* not student not community
Service-learning and educator
Service-learning and educator not student not community
Apprendimento-servizio and insegnant*
Apprendimento-servizio and docent*
Apprendimento-servizio and educator*
Apprendimento-servizio and insegnant* not student* not comunita’
Apprendimento-servizio and docent* not student* not comunita’
Apprendimento-servizio and educator* not student not comunita’

Figure 2. Search string with Boolean Operators.

For historical reason, connected with the development of SL in Italy, this research focused on articles edited since 2011 to February 2022. The software Endnote was selected for the management of the articles, especially for the automatic and manually exclusion of duplicates.

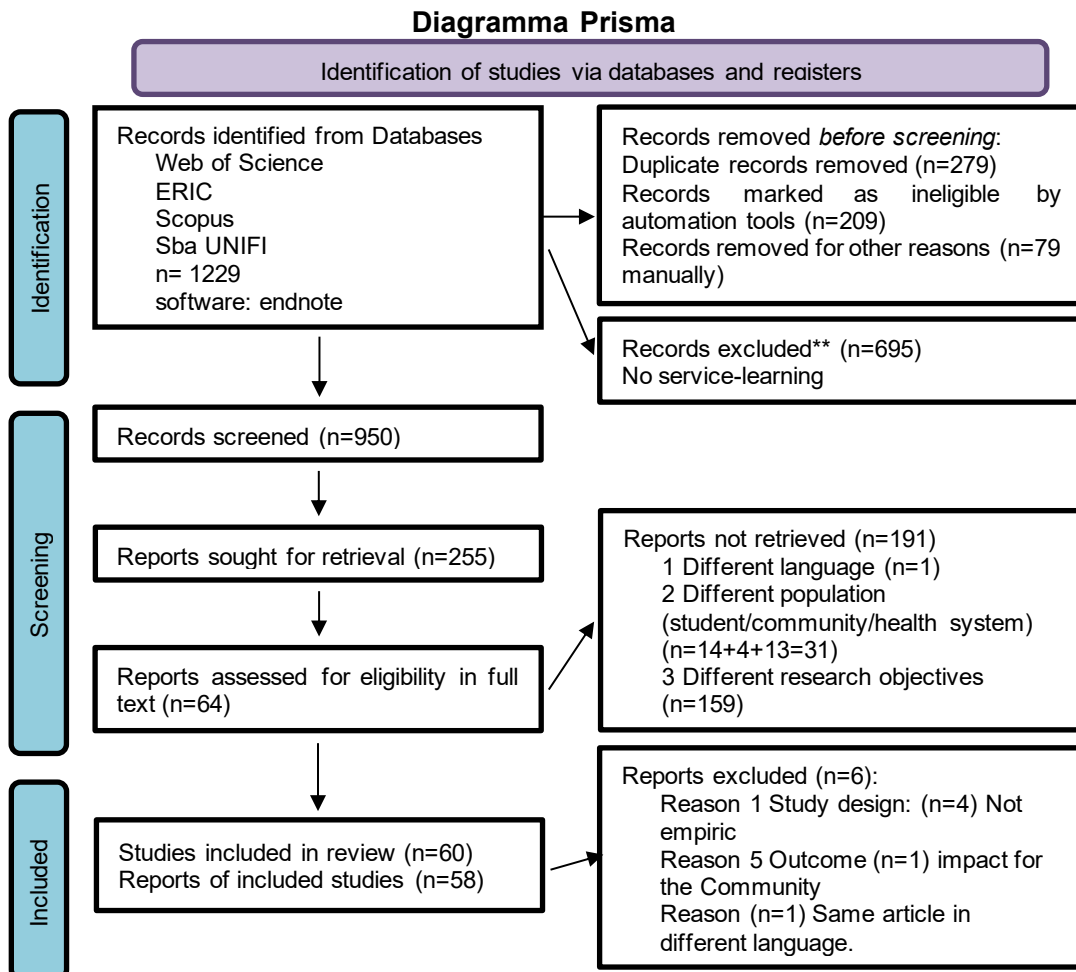


Figure 3. Prisma Statement.

	REFERENCE	SUBJECT
1	Abellán et al. (2021)	Testing the impact of s-l program for future teachers and know opinions about recycled materials
2	Amaro-Jimenez (2012)	Preparing teachers to understand better diverse learners
3	Anderson (2020)	Following up undergraduates who participated in an innovative sl project as part of their teacher preparation program
4	Baecher et al. (2020)	International sl
5	Begogña Martinez et al. (2013)	Description and implementation of sl in basque university
6	Borgerding et al. (2017)	The impact of sl in teachers preparation
7	Capella-Peris et al. (2019)	S-l impact on groups in relation with the improvement of sec social entrepreneurship competency) in pe (physical education) area
8	Capella-Peris et al. (2020)	S-l impact on preteachers teaching competences (tc) in physical education (pe)
9	Capella-Peris et al. (2021)	Analysis of two different modalities of intervention in a s-l program,
10	Christoph (2015)	Testimonio of a sl experience
11	Chiva-Bartoll et al. (2019)	The delivery of a sl programme on the effective personality of primary school pre-service teachers in its application
12	Chiva-Bartoll et al. (2020)	Sl in pete (physical education teacher education) programme contribution
13	Coffey et al. (2015)	Sl contribute to the professional and Personal development of pre-service teachers
14	Del Pozo et al. (2015)	Sl methodology in a children's literature school primary course
15	Drewson et al. (2020)	Sl in pete (physical education teacher education) programs
16	Foran et al. (2017)	International sl experience for preservice teachers
17	Froehlich et al. (2021)	Research methods in teacher education: meaningful engagement through sl
18	Gillanders et al. (2018)	Musical education and sl
19	Gil-Gómez et al. (2015)	The impact of sl on the training of preservice teachers
20	Gil-Gómez et al. (2016)	Development of the social and civic competence
21	Gökmenoglu, (2017)	The impact of an extended s-l experience in transforming thoughts,
22	He Y. Et al. (2014)	Writing project for esl (english as second language) teacher candidate
23	Hernández-Barco et al. (2020)	Good living during university
24	Hildebrand et al. (2015)	Implementing sl in reservice teacher coursework
25	Izgi et al. (2012)	Perception of preservice elementary school teachers
26	Jia et al. (2018)	Benefits and difficulties of a sl project
27	Jonanovic et al. (2013)	Spanish teacher education programs and community engagement
28	Kaiser K., (2017)	Sl project for preservice language teachers
29	Kinloch et al. (2015)	Critical sl project

30	Kucukoglu (2011)	Opinions of pre-service teachers towards community sl experience
31	Kwon et al. (2022)	Sl in adapted physical education sl course
32	Larsen et al. (2017)	International sl experience and critical global citizenship
33	Lasen et al. (2015)	Potential of sl to promote sustainability competences
34	Lavery et al. (2021)	Perception on a sl experience
35	Lenkauskaitė (2020)	Sl in problem solving in the community
36	Losser et al. (2018)	Children's literature course with sl
37	Marquez-Garcia et al. (2020)	Sl experience in andalusian public schools
38	Mclean et al. (2016)	Teaching civics and citizenship
39	Meyer et al. (2017)	Sl in creative art education
40	Mustian et al. (2017)	Developing urban teachers
41	Opazo et al. (2018)	Emotions of student-teachers's change in life
42	Palpacuer-Lee et al. (2017)	Intercultural encounters in a service learning program
43	Palpacuer-Lee et al. (2018)	Pre service teachers intercultural citizenship
44	Park et al. (2019)	Developing preservice teachers' sensitivity and confidence
45	Petersen et al. (2018)	Social justice
46	Power et al. (2015)	Art- based sl
47	Prasertang et al. (2013)	Sl and its influence to pre-service teachers
48	Roberts et al. (2019)	Agricultural education teachers in sl
49	Rottman et al. (2017)	Civi engagement
50	Salgado-Robles et al. (2019)	Community sl and teaching Spanish
51	Salter et al. (2019)	Community engagement
52	Sipacio, (2018)	Sl in higher education curriculum
53	Schulze et al. (2018)	Spatial citizenship and sl
54	Tan et al. (2020)	Sl and development of student teachers in Singapore
55	Tinkler et al. (2016)	Enhancing cultural humility
56	Tseng (2017)	Taiwanese pre service teachers' identity construction
57	Uzum et al. (2014)	Professionalization of sl project
58	Wrench et al. (2021)	Developing of intercultural competence in international sl

Figure 4. List of the 58 articles included in the reviewed.

4. Results

The eligible articles were divided in three tables, which represent three categories of population (Figure 5):

- in-service teachers;
- both pre-teachers and teachers;
- pre-teachers.

Due to the lack of data available, it was not possible to create the category of educators. Only one article was founded (Roberts, Edwards, & Ivey, 2019.), but the educators were

operating in a school system, so this study was included in the *in-service teachers* category. The quantitative data analysis is reported considering all the articles; the qualitative data are reported considering the three categories.

KIND OF POPULATION IN THE STUDIES	NUMBER OF STUDIES
Teachers	4
Future teachers	49
Both teachers and pre-teachers	7
Educators	0
Total	60

Figure 5. Kind of population and number of studies.

4.1. Population

In general, the main result about the kind of population, reported a large presence of pre-service teachers. The studies concerning only in-service teachers are very poor (Figure 6). About the sample size, from the 58 included articles, only 19 showed researches with more than 50 people. The most of the studies used a qualitative approach: that is why the sample size is often less than 15 (n=18).

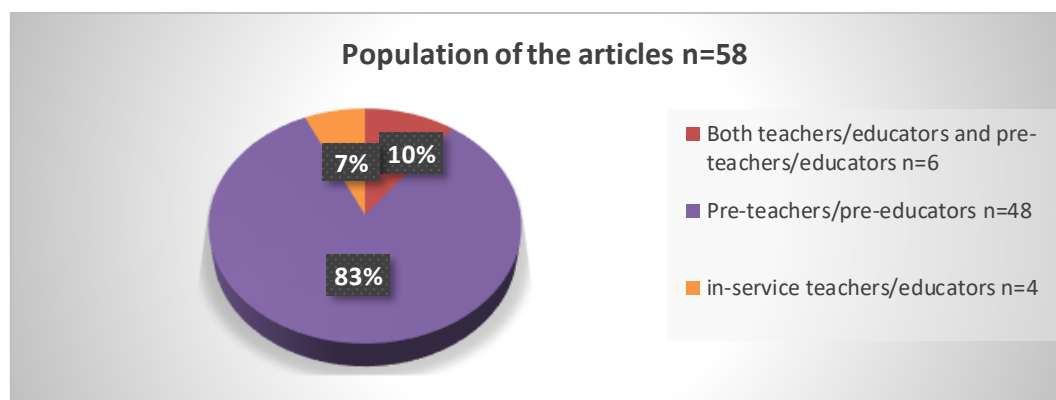


Figure 6. Kind of Population.

4.2. Research approaches

The majority of the 58 articles analyzed, used a qualitative approach (n=39). Only in three articles are recognized a quantitative approach. The mixed method approach was used in 16 studies (Figure 7).

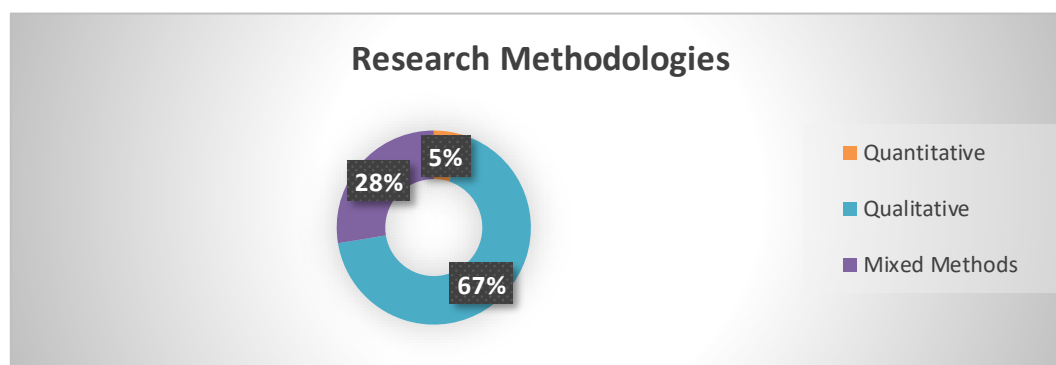


Figure 7. Research Methodologies.

In some study with a qualitative approach, it was used a case study, simple or multiple. The Tools for the data collection, of the primary studies analyzed, were on-line or in-presence interviews; groups of discussion or focus groups; portfolio, diaries, essays and reflective journals; participant observation with field notes (Figure 8).

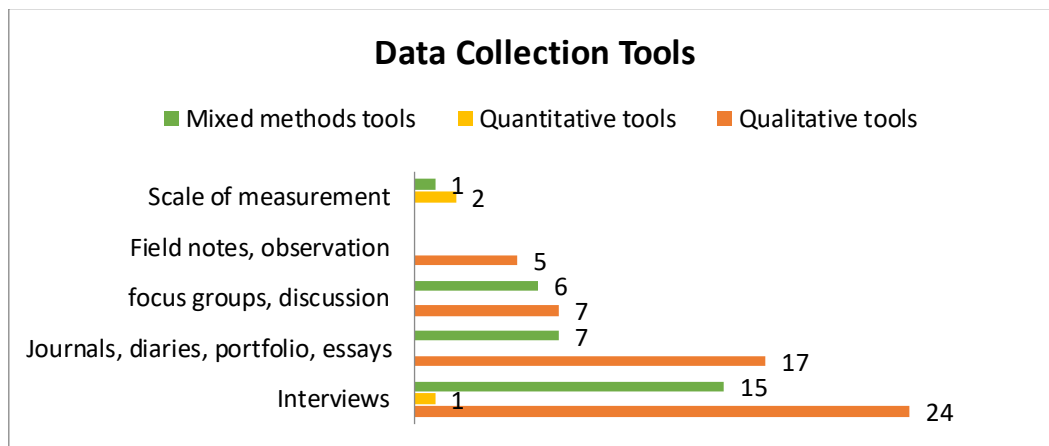


Figure 8. Data collection tools.

In the qualitative studies, three of them used a longitudinal analysis, five used a pre-post survey.

In the studies with a mixed approach, the main tool was the survey, including scale of measurement, such as in the quantitative studies, and open questions.

4.3. Countries and languages of the articles

Figure 9 shows the diffusion of SL around the world. The main provenience is of course from English-speaking areas, as USA, but also Australia, where SL is used to improve the cooperation with the aboriginal population and also in two international projects. In Lasen, Tomas, and Hill (2015), for example, Australia cooperated with Ireland on a project about sustainability. Wrench, Neill, and Diamond (2021), developed an interesting project in a rural area of Fiji involving future Australian teachers.

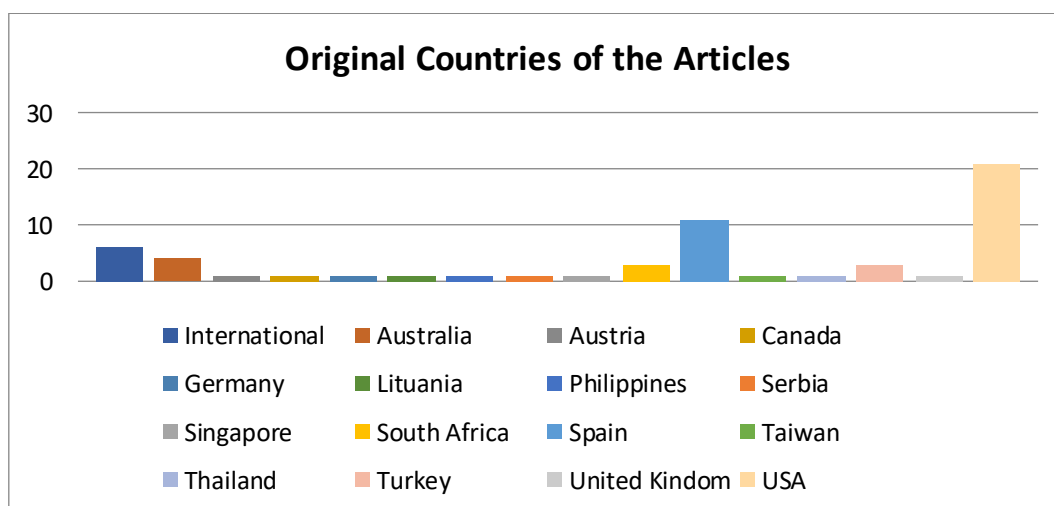


Figure 9. Countries of the articles.

The majority of Spanish speaking articles come from Spain, probably due to the topic of the research. SL results developed in Asia and in Africa where all the studies founded come from South Africa (Kaiser, 2017; Meyer & Wood, 2017; Petersen & Henning, 2018) .

In Europe the majority of the articles comes from Spain, probably for the languages chosen included for the review (Italian, English and Spanish). Any articles written in Italian were included in this Review. One article in Turkish was excluded because the language was unknown to the researcher.

4.4. Teaching Degrees

The majority of the studies considered, developed in university's contexts, analyzing pre-teachers. In Baecher and Chung (2020), for example, in US, primary and secondary school English teachers were involved in an international SL Project. University offered a Spanish language class. In the research of He and Prater (2014), that involved both expert teachers and future teachers, SL has been developed during a training class, concerning teaching English as second language (ESL). In the study of Salgado-Robles and Lamboy (2019), the empirical step interested a Post-Secondary Institute of New York. Froehlich, Hobusch, and Moeslinger (2021), involved both teachers and training teachers in two different studies. University collaborated with middle schools, where in service teachers worked in. In Losser, Caldarella, Black, and Pate (2018), both in-teachers and future teachers attended an academic course focused on SL.

4.5. Studies on teachers: qualitative findings

In her narrative biography, named *testimonio*, Christoph (2015), argues that the experience in civic engagement helped her to improve as a university professor³. She renewed her academic curriculum and had a professional transformation. On the human side, Christoph declared a relevant personal change. Sipacio (2018), highlights how personal satisfaction is one of the motivational elements of SL. Professional growth was detected through greater autonomy in didactic choices. Baecher et al. (2020), declared: “[...] the participants felt they had gained a tremendous amount of professional and personal learning as a result of working alongside local EFL (*English as foreign language. E.n.*) teachers in this global context” (p. 42). This study referred, particularly, to five main transformations concerning personal and professional skills: rethinking curriculum, reconsidering native and non-native teachers; reflecting about personal limits; connecting teaching theories with practice; embracing new relationships.

4.6. Studies on both teachers and future teachers: qualitative findings

Only six articles included in this study, are about this kind of population. Froehlich, Hobusch, and Moeslinger, (2021), indicated, in the results, that the planned *Teacher Clinic* was useful for the development of professional changes, especially the acquisition of new methodologies and research competences. It was also detected a personal enrichment. Martínez, Martínez, Alonso, and Gezuraga (2015), noted that teachers reached their professional competences thanks to SL, especially innovative didactic strategies. Finally, by a SL methodology course, a new network was activated. The understanding of the value

³ A cluster concerning university Professors, coming from this systematic review, was presented in an international conference on SL in Barcelona (<https://www.apsu11.cat/>).

of a writing course in ESL, and the importance of the role as teacher and a high level of reflection, are the main findings from the research by He and Prater (2014). In Losser, Caldarella, Black, and Pate (2018), emerged critical aspects: the necessity to support SL with an academic structure, because of the SL characteristics, which requests time and an accurate planning. Teachers stated to be changed from a motivational profile, declaring themselves more opened to the others, in general. In the study of Kaiser (2017), the exchange, between future and in-service teachers, generated empathy. Future teachers had the perception of an improvement in professional skills and as researchers. They also felt a personal growth, especially in leadership abilities and consciousness about the complexity of diversity. In Gillanders, Torres, and Perez (2018), some reflection emerged about professional competence that revealed an improvement in musical and didactic knowledges.

4.7. Studies on future teachers/educators: qualitative findings

In every article analyzed, the research questions studied the impact of SL on future teachers but, time by time, focusing on different personal and professional aspects. This research shows a growth of personal and professional competences. For example, in Anderson, Pierce, and McNamara (2020), it is highlighted how the experience of SL for future math teachers, contributed to change their mind about teaching. Teachers developed new pedagogic strategies and improved their personal self-esteem. Uzum, Petró, and Berg (2014), founded an improved preparation in affording new different educational contexts, even if linguistically deprived, and an increase in critical thinking. On the side of personal growth, Capella-Peris, Cosgrove, Piquer, and Santagueda-Villanueva (2019) describes improvement in pre-teachers about self-confidence, motivation, risk-taking, cooperation and other social competences. In Lasen, Tomas, and Hill (2015), the research focused in assessing competences in the field of sustainability, through a social participation project. Results showed an improvement in civic engagement, because: “SL enables a participative and critically reflective human agency, through the promotion of competencies such as problem-solving, project planning, implementation and evaluation, and capacity for cooperation, empathy, motivation of self and others and reflection” (ivi, p. 357).

Mixed methods researches, as in Lavery and Sandri (2021), highlights the personal growth in quantitative data, and show *how* in the qualitative results: changing in values, including prosocial attitude and the acquisition of teaching abilities. The improvement in values is pointed out in the study of Lenkeasukaitè (2020), who showed the upgrade of reflective capabilities, as in Amy, Rottman, and Salena, (2017). This study shows the personal growth through the lens of social justice. Wrench, Neill, and Diamond (2021) founded new intercultural competences earned through the improvement of emotional, cognitive and behavioral skills.

4.8. Main findings

In the 60 primary studies analyzed, the research questions had the aim to investigate the changes on teachers who practiced SL. The studies used different approaches and instruments, such as autobiography or on-line surveys, for example. Results show a teacher’s growth, in personal or professional competences. In Anderson (2020), as written before, the SL experience in future math teachers helped their vision of teaching, not only developing new pedagogical techniques, but increasing their self-efficacy. Regarding civic engagement, in Palpacuer-Lee and Curtis (2017), and in Palpacuer-Lee, Hutchison Curtis, and Curran (2018) the transformative dimension is connected to the cultural mediation and

the renegotiation of differences, such as in Park, Lee and Hoot or in Power and Bennett (2015), where emerges a change of mentality, the development of empathy and the reflection.

5. Discussion

This review aimed to understand if SL could develop personal and professional skills in teachers, in service or in training. From the analysis of the studies, it is possible to find out some results and considerations. First of all, SL has generated a great transformation in every teacher who has experienced it (Baecher and Chung, 2020; Del Pozo & Estebanez, 2015; Gil-Gomez, Chiva-Bartoll, & Marti-Puig, 2015). The change, in the population analyzed, happened in two ways: on one hand, the professional growth is reached through the acquisition of new methodological knowledges and competences, connected with subjects, and, also, the proximity to unusual contexts. On the other hand, the improvement of character aspects and emotional skills is considered an important prerequisite for teaching. (McLean & Truong-White, 2016). The 83% of the articles analyzed, has future teachers as studied population. It means that there are too low numbers of studies regarding in-service teachers. The reason is probably that researchers reach more easily students in training than in-service teachers. We must add that, probably, the few data available concerning in-service teachers, should orient future researches in that way. The role of Educator, as said, is almost absent in this systematic review. The majority of the studies use a qualitative or a mixed methodology (Amaro-Jmenez, 2012; Chiva-Bartoll, Gil-Gomez, & Zorrilla-Silvestre, 2019). Pure quantitative studies represent the less part of the total (Abellán & Hernández-Martínez, 2021; Kwon, Park, & Kim, T. 2022; Opazo, Aramburuzabala, & Ramirez, 2018). That choice shows that qualitative or mixed studies highlights the transformative aspects of SL pedagogy better than quantitative studies. One limit is the area of the studies which consider a small population, fact that will not allow to a generalization of the results. The results of the review can be considered relevant to address future researches, in the field of impact of SL on teachers, by exploring the use of larger sample size and mixed methods methodologies, especially in the Italian contest, due to the absence of similar studies.

6. Conclusions

The review analyzed an international framework of researches concerning the relationship between SL and teacher's transformation. The research questions in the primary studies are useful to understand in which way this transformation is evaluate in personal and professional growth. A limitation of this work consists in the lack of a double check procedures, due to the kind of study, related to a doctoral path. Excluding the categories of student and community to select teachers and educators as topics of the research, represent of course, a limitation. From the review it is possible to conclude that it could be interesting explore the Italian framework, both for in service and in training teachers, to fill the gap existing nowadays. It should be interesting, also, to explore a mixed method investigation with a larger number of population available to put the research into a meso-area and to avoid the problem of the generalization of the result, as underlined in the discussion.

Reference list

- Abellán, J., & Hernández-Martínez, A. (2021). Service-learning and homemade equipment within initial training of pre-service physical education teachers. *Revista interuniversitaria de formación del profesorado*, 35(1), 147–162. <https://doi.org/10.47553/RIFOP.V96I35.1.83261> (ver. 25.05.2023).
- Amaro-Jimenez, C. (2012). Service learning: preparing teachers to understand better culturally and linguistically diverse learners. *Journal of Education For Teaching*, 38(2), 211–213. <https://doi.org/10.1080/02607476.2012.656448> (ver. 25.05.2023).
- Amy, R., & Salena, R. (2017). Higher Education Teacher Training: An Exploration of Civic Engagement Beyond the Classroom. *Northwest journal of teacher education*, 12(2). <https://doi.org/10.15760/nwjte.2017.12.2.1> (ver. 25.05.2023).
- Anderson, K. L., Pierce, M. E., & McNamara, K. M. (2020). NUMB3Rs Revisited: Long-Term Impacts of Reimagining Service Learning. *The Journal of experiential education*. <https://doi.org/10.1177/1053825920973692> (ver. 25.05.2023).
- Baecher, L., & Chung, S. (2020). Transformative professional development for in-service teachers through international service learning. *Teacher Development*, 24(1), 33–51.
- Begoña Martínez, D., Isabel Martínez, D., Israel Alonso, S., & Monike Gezuraga, A. (2015). Learning-service, an opportunity to advance in educational innovation within the university of the country basque. *Tendencias pedagógicas*, 21, 99–118.
- Borgerding, L. A., & Caniglia, J. (2017). Service Learning Within a Secondary Math and Science Teacher Education Program: Preservice MAT Teachers' Perspectives: Service Learning in Teacher Education. *School science and mathematics*, 117(1-2), 63–75. <https://doi.org/10.1111/ssm.12210> (ver. 25.05.2023).
- Bornatici, S. (2020). *Pedagogia e impegno solidale. A scuola di service-Learning*. Vita e Pensiero: Milano.
- Capella-Peris, C., Cosgrove, M., Piquer, M., & Santagueda-Villanueva, M. (2019). Service Learning in Training Physical Education Pre-service Teachers: Analysis of a proposal in the North American context. *Revista Publicaciones*, 49(4), 49–67. <https://doi.org/10.30827/publicaciones.v49i4.11728> (ver. 25.05.2023).
- Capella-Peris, C., Gil-Gomez, J., & Chiva-Bartoll, O. (2020). Innovative Analysis of Service-Learning Effects in Physical Education: A Mixed-Methods Approach. *Journal of Teaching in Physical Education*, 39(1), 102–110. <https://doi.org/10.1123/jtpe.2019-0030> (ver. 25.05.2023).
- Capella-Peris, C., Gil-Gómez, J., Chiva-Bartoll, Òscar, & Salvador-García, C. (2021). Contraste de dos modalidades de Aprendizaje-Servicio en la formación de profesorado de Educación Física. *Profesorado, Revista De Currículum Y Formación Del Profesorado*, 25(2), 367–388. <https://doi.org/10.30827/profesorado.v25i2.9381> (ver. 25.05.2023).
- Chipa, S., Giunti, C., & Orlandini, L. (Eds.). (2020). *Il service learning per l'innovazione scolastica: le proposte del Movimento delle avanguardie educative*. Carocci: Roma.
- Chiva-Bartoll, O., Baena-Extremera, A., Hortiguela-Alcalá, D., & Ruiz-Montero, P. J.

- (2020). Contributions of service-learning on PETE students' effective personality: A mixed methods research. *International Journal of Environmental Research and Public Health*, 17(23), 1–15. <https://doi.org/10.3390/ijerph17238756> (ver. 25.05.2023).
- Chiva-Bartoll, O., Gil-Gomez, J., & Zorrilla-Silvestre, L. (2019). Improving the effective personality of pre-service teachers through service-learning: a physical education approach. *Rie-Revista De Investigacion Educativa*, 37(2), 327–343. <https://doi.org/10.6018/rie.37.2.303331> (ver. 25.05.2023).
- Christoph, N. (2015). Learning Through Service: A testimonio on the Pedagogical and Scholarly Benefits of Service Projects Conducted by Teachers of Spanish. *Hispania-a Journal Devoted To the Teaching of Spanish and Portuguese*, 98(2), 346–355. <https://doi.org/10.1353/hpn.2015.0061> (ver. 25.05.2023).
- Coffey, A., & Lavery, S. (2015). Service-learning: a valuable means of preparing pre-service teachers for a teaching practicum. *Australian Journal of Teacher Education*, 40(7), ARTN 7.
- Compare, C., & Albanesi, C. (2022). Belief, attitude and critical understanding. A systematic review of social justice in Service-Learning experiences. *Journal of Community & Applied Social Psychology*, 33(2), 332–355.
- Culcasi, I., Russo, C., & Cinque, M. (2022). E-Service-Learning in Higher Education: Modelization of Technological Interactions and Measurement of Soft Skills Development. *Journal of Higher Education Outreach and Engagement*, 26(3).
- Milani, L. (2017). *Scuola di Barbiana. Lettera a una professoressa*. Milano: Mondadori (Original work published 1967).
- Del Pozo, M., & Estebanez, D. (2015). Literary education: a service learning opportunity for the integral formation of future teachers. *Profesorado-Revista De Curriculum Y Formacion De Profesorado*, 19(1), 350.
- Dewey J., (2014). *Esperienza e educazione*. Milano: Raffaello Cortina (Original work published 1938).
- Drewson, S., & Lackman, J. (2020). Leveraging Service Learning in PETE Programs: Training Preservice Teachers on the Afterschool Component of CSPAP. *Journal of Physical Education Recreation and Dance*, 91(3), 17–25. <https://doi.org/10.1080/07303084.2019.1705209> (ver. 25.05.2023).
- Eyler, J. S. (2000). What Do We Most Need To Know about the Impact of Service-Learning on Student Learning? *Michigan journal of community service learning*, Special Issue, 11–17.
- Filges, T., Dietrichson, J., Viinholt, B. C., & Dalgaard, N. T. (2022). Service learning for improving academic success in students in grade K to 12: a systematic review. *Campbell Systematic Reviews*, 18(1), e1210.
- Fiorin, I. (2016). *Oltre l'aula. La pedagogia del Service Learning*. Milano: Mondadori.
- Foran, A., & Robinson, D. (2017). Mollenhauer's Representation: The Role of Preservice Teachers in the Practices of Upbringing. *In Education*, 23(2), 3–24.
- Freire, P. (1970). Pedagogy of the oppressed. In *Toward a Sociology of Education* (pp. 374–386). London: Routledge.

- Froehlich, D., Hobusch, U., & Moeslinger, K. (2021). Research Methods in Teacher Education: Meaningful Engagement Through Service-Learning. *Frontiers in Education*, 6, 680404. <https://doi.org/10.3389/feduc.2021.680404> (ver. 25.05.2023).
- Folgueiras, P., Aramburuzabala, P., Opazo, H., Mugarra, A., & Ruiz, A. (2020). Service-learning: A survey of experiences in Spain. *Education, Citizenship and Social Justice*, 15(2), 162–180.
- Furco, A., & Billig, S. H. (Eds.). (2002). *Service learning: The essence of the pedagogy*. Charlotte, NC: IAP.
- Furco A., (2005). Impacto de los proyectos de aprendizaje-servicio. *Actas 7º Seminario International Ayss, Clayss, Bueos Aires*.
- Gil-Gomez, J., Chiva-Bartoll, O., & Marti-Puig, M. (2015). The impact of service learning on the training of pre-service teachers: Analysis from a physical education subject. *European Physical Education Review*, 21(4), 467–484. <https://doi.org/10.1177/1356336X15582358> (ver. 25.05.2023).
- Gil-Gomez, J., Moliner-Garcia, O., Chiva-Bartoll, O., & Garcia Lopez, R. (2016). A service-learning experience in future teachers: development of the social and civic competence. *Revista Complutense De Educacion*, 27(1), 53–73. https://doi.org/10.5209/rev_RCED.2016.v27.n1.45071 (ver. 25.05.2023).
- Gillanders, C., Torres, A., & Perez, L. (2018). Music education and service-learning: a case study in Primary Education teacher training. *Revista Electronica De Leeme*, 42, 16–30. <https://doi.org/10.7203/LEEME.42.12329> (ver. 25.05.2023).
- Gokmenoglu, T. (2017). More than just another course: Service learning as antidote to cultural bias. *Issues in Educational Research*, 27(4), 751–769.
- Gordon, C. S., Pink, M. A., Rosing, H., & Mizzi, S. (2022). A systematic meta-analysis and meta-synthesis of the impact of service-learning programs on university students' empathy. *Educational Research Review*, 100490.
- He, Y., & Prater, K. (2014). Writing together, learning together: teacher development through community service learning. *Teachers and Teaching*, 20(1), 32–44. <https://doi.org/10.1080/13540602.2013.848512> (ver. 25.05.2023).
- Hernández-Barco, M., Sánchez-Martín, J., Blanco-Salas, J., & Ruiz-Téllez, T. (2020). Teaching Down to earth-service-learning methodology for science education and sustainability at the university level: A practical approach. *Sustainability*, 12(2). <https://doi.org/10.3390/su12020542> (ver. 25.05.2023).
- Hildenbrand, S., & Schultz, S. (2015). Implementing Service Learning in Pre-Service Teacher Coursework. *Journal of Experiential Education*, 38(3), 262–279. <https://doi.org/10.1177/1053825915571748> (ver. 25.05.2023).
- Holmes, A. F., Webb, K. J., & Albritton, B. R. (2022). Connecting students to community: Engaging students through course embedded service-learning activities. *The International Journal of Management Education*, 20(1), 100610.
- UNESCO. International Commission on the Futures of Education (2021). *Reimagining our futures together: a new social contract for education*. Paris: UNESCO.
- Izgi, U., Hakverdi-Can, M., Arcak, S., Sozudogru-Ok, S., Gelbal, S., Baskan, G., . . . Ozcan,

- D. (2012). Examine preservice elementary school teachers' perceptions about soil science during community service learning. *4th World Conference on Educational Sciences (Wces-2012)*, 46, 2068–2072. <https://doi.org/10.1016/j.sbspro.2012.05.429> (ver. 25.05.2023).
- Jia, X., Jung, J., & Ottenbreit-Leftwich, A. (2018). Learning Technology Integration From a Service-Learning Project: Connecting Preservice Teachers to Real-World Problems. *Journal of Experiential Education*, 41(3), 261–276. <https://doi.org/10.1177/1053825917738269> (ver. 25.05.2023).
- Jovanovic, A., & Filipovic, J. (2013). Spanish Teacher Education Programs and Community Engagement. *Hispania-a Journal Devoted To the Teaching of Spanish and Portuguese*, 96(2), 283–294. <https://doi.org/10.1353/hpn.2013.0056> (ver. 25.05.2023).
- Kaiser, K. (2017). Surviving in the multilingual jungle - a collaboration between pre-service language teachers and in-service content teachers to promote academic literacy. *Journal For New Generation Sciences*, 15(1), 108–122.
- Kinloch, V., Nemeth, E., & Patterson, A. (2015). Reframing Service-Learning as Learning and Participation With Urban Youth. *Theory Into Practice*, 54(1), 39–46. <https://doi.org/10.1080/00405841.2015.977660> (ver. 25.05.2023).
- Kucukoglu, A. (2011). Opinions of Pre-Service Teachers towards Community Service-Learning Experiences. *Perspectives in Education*, 29(2), 80–89.
- Kulberg Taub, M. (2022). L'impatto del Service-Learning su docenti e educatori. In *Esercizi di ricerca. Dottorato e politiche della formazione*, (pp. 231-234). FUP-Firenze University Press.
- Kwon, E. H., Park, J., & Kim, T. (2022). Investigating the impact of adapted physical education service-learning projects on preservice teachers' attitudes toward individuals with disabilities. *Journal of exercise rehabilitation*, 18(1), 74–78. <https://doi.org/10.12965/jer.2142654.327> (ver. 25.05.2023).
- Larsen, M., & Searle, M. (2017). International service learning and critical global citizenship: A cross-case study of a Canadian teacher education alternative practicum. *Teaching and Teacher Education*, 63, 196–205. <https://doi.org/10.1016/j.tate.2016.12.011> (ver. 25.05.2023).
- Lasen, M., Tomas, L., & Hill, A. (2015). Potential of service-learning to promote sustainability competencies in pre-service teachers: a case study. *Teaching Education*, 26(4), 341–365. <https://doi.org/10.1080/10476210.2015.1018157> (ver. 25.05.2023).
- Lavery, S., & Sandri, S. (2021). Pre-service primary and early childhood teachers' perceptions of a service-learning experience. *Issues in Educational Research*, 31(4), 1101–1120.
- Lenkauskaite, J. (2020). Service-learning in problem solving in the community: pre-service teachers' reflection on their experience. *Social Welfare Interdisciplinary Approach*, 10(1), 67–81. <https://doi.org/10.21277/sw.v1i10.523> (ver. 25.05.2023).
- Losser, J., Caldarella, P., Black, S., & Pate, P. (2018). Factors affecting service learning implementation: a comparison of novice and veteran teachers. *Teachers and Teaching*, 24(6), 659–672. <https://doi.org/10.1080/13540602.2018.1464906> (ver. 25.05.2023).

25.05.2023).

- Lozano, R., Barreiro-Gen, M., Lozano, F. J., & Sammalisto, K. (2019). Teaching sustainability in European higher education institutions: Assessing the connections between competences and pedagogical approaches. *Sustainability*, *11*(6), 1602.
- Marcus, V. B., Atan, N. A., Yusof, S. M., & Tahir, L. (2020). A systematic review of e-service learning in higher education. <https://www.learntechlib.org/p/216478/> (ver. 25.05.2023).
- Marquez-Garcia, M., Kirsch, W., & Leite-Mendez, A. (2020). Learning and collaboration in pre-service teacher education: Narrative analysis in a service learning experience at Andalusian public schools. *Teaching and Teacher Education*, *96*, 103187. <https://doi.org/10.1016/j.tate.2020.103187> (ver. 25.05.2023).
- McLean, L., & Truong-White, H. (2016). Toward self-authoring a civic teacher identity: service-learning in teacher education. *Mcgill Journal of Education*, *51*(3), 1081–1101. <https://doi.org/10.7202/1039629ar> (ver. 25.05.2023).
- Meyer, M., & Wood, L. (2017). A critical reflection on the multiple roles required to facilitate mutual learning during service-learning in Creative Arts education. *Teaching in Higher Education*, *22*(2), 158–177. <https://doi.org/10.1080/13562517.2016.1221808> (ver. 25.05.2023).
- MIUR. Ministero dell'istruzione, dell'università e della ricerca (2018). *Una via italiana per il Service Learning*. <https://www.miur.gov.it/web/guest/-/una-via-italiana-per-il-service-learning> (ver. 25.05.2023).
- Mustian, A., Lee, R., Nelson, C., Gamboa-Turner, V., & Roule, L. (2017). Jumping Into the Deep End: Developing Culturally Responsive Urban Teachers Through Community-Immersive Partnerships. *Educational Forum*, *81*(4), 467–481. <https://doi.org/10.1080/00131725.2017.1350239> (ver. 25.05.2023).
- Opazo, H., Aramburuzabala, P., & Ramirez, C. (2018). Emotions related to Spanish student-teachers' changes in life purposes following service-learning participation. *Journal of Moral Education*, *47*(2), 217–230. <https://doi.org/10.1080/03057240.2018.1438992> (ver. 25.05.2023).
- Palpacuer-Lee, C., & Curtis, J. (2017). “Into the Realm of the Politically Incorrect”: Intercultural Encounters in a Service-Learning Program. *International Journal of Multicultural Education*, *19*(2), 163–181. <https://doi.org/10.18251/ijme.v19i2.1239> (ver. 25.05.2023).
- Palpacuer-Lee, C., Hutchison Curtis, J., & Curran, M. (2018). Stories of engagement: Pre-service language teachers negotiate intercultural citizenship in a community-based English language program. *Language Teaching Research*, *22*(5), 590–607. <https://doi.org/10.1177/1362168817718578> (ver. 25.05.2023).
- Park, S., Lee, G., & Hoot, J. (2019). Developing preservice teachers' sensitivity and confidence: a service-learning experience at a homeless shelter. *Journal of Early Childhood Teacher Education*, *40*(1), 31–43. <https://doi.org/10.1080/10901027.2019.1573206> (ver. 25.05.2023).
- Petersen, N., & Henning, E. (2018). Service learning and the practice of social justice and care. *Journal of Human Behavior in the Social Environment*, *28*(4), 436–448. <https://doi.org/10.1080/10911359.2017.1418697> (ver. 25.05.2023).

- Power, A., & Bennett, D. (2015). Moments of becoming: experiences of embodied connection to place in arts-based service learning in Australia. *Asia-Pacific Journal of Teacher Education*, 43(2), 156–168. <https://doi.org/10.1080/1359866X.2014.960801> (ver. 25.05.2023).
- Prasertsang, P., Nuangchalem, P., & Pumipuntu, C. (2013). Service Learning and Its Influence on Pre-Service Teachers: A Study of Social Responsibility and Self-Efficacy. *International education studies*, 6(7). <https://doi.org/10.5539/ies.v6n7p144> (ver. 25.05.2023).
- Roberts, R., Edwards, M. C., & Ivey, T. A. (2019). Planned Behavior Typologies of Agricultural Education Teacher Educators Regarding Service Learning as a Method of Instruction: A National Mixed Methods Study. *Journal of research in technical careers*, 3(2), 36. <https://doi.org/10.9741/2578-2118.1062> (ver. 25.05.2023).
- Salam, M., Awang Iskandar, D. N., Ibrahim, D. H. A., & Farooq, M. S. (2019). Service-learning in higher education: A systematic literature review. *Asia Pacific Education Review*, 20, 573–593.
- Salgado-Robles, F., & Lamboy, E. (2019). The learning and teaching of Spanish as a heritage language through community service-learning in New York City. *Revista Signos*, 52(101), 1055–1075. <https://doi.org/10.4067/S0718-09342019000301055> (ver. 25.05.2023).
- Salter, P., & Halbert, K. (2019). Balancing classroom ready with community ready: enabling agency to engage with community through critical service learning. *Asia-Pacific Journal of Teacher Education*, 47(1), 5–17. <https://doi.org/10.1080/1359866X.2018.1497771> (ver. 25.05.2023).
- Santiago-Ortiz, A. (2019). From critical to decolonizing service-learning: Limits and possibilities of social justice-based approaches to community service-learning. *Michigan Journal of Community Service Learning*, 25(1), 43–54.
- Schulze, U., & Kanwischer, D. (2018). Spatial citizenship and service learning – Breaking the mould of geography teacher education. *Journal for Geographic Information Science*, 6(2), 131–142. https://doi.org/10.1553/GISCIENCE2018_02_S131 (ver. 25.05.2023).
- Silva R., (2018). *Il Service Learning nello sguardo degli studenti*. Roma: Aracne.
- Simons, L., & Cleary, B. (2006). The influence of service learning on students' personal and social development. *College teaching*, 54(4), 307–319.
- Sipacio, P. (2018). Integrating Service-Learning in Higher Education Curriculum: Reflections from Teachers in a Philippine University. *Advanced Science Letters*, 24(4), 2466–2469. <https://doi.org/10.1166/asl.2018.10982> (ver. 25.05.2023).
- Tan, S., & Soo, S. (2020). Service-learning and the development of student teachers in Singapore. *Asia Pacific Journal of Education*, 40(2), 263–276. <https://doi.org/10.1080/02188791.2019.1671809> (ver. 25.05.2023).
- Tapia, M. N. (2009). Aprendizaje-servicio y calidad educativa. Ministerio de Educacion. Programa nacional educación solidaria. Excelencia académica y solidaridad. Actas del 11o. Seminario Internacional “Aprendizaje y Servicio Solidario”. República Argentina, 37-67.

- Tinkler, A., & Tinkler, B. (2016). Enhancing Cultural Humility Through Critical Service-Learning in Teacher Preparation. *Multicultural Perspectives*, 18(4), 192–201. <https://doi.org/10.1080/15210960.2016.1222282> (ver. 25.05.2023).
- Tseng, M. (2017). Exploring taiwanese preservice teachers' identity construction in the context of service-learning: conflict and development. *Taiwan Journal of Tesol*, 14(2), 37–69.
- Uzum, B., Petrón, M., & Berg, H. (2014). Pre-Service Teachers' First Foray into the ESL Classroom: Reflective Practice in Service. *TESL-EJ*, 18(3), 15.
- Warren, J. L. (2012). Does service-learning increase student learning?: A meta-analysis. *Michigan journal of community service learning*, 18(2), 56–61.
- Wrench, A., Neill, B., & Diamond, A. (2021). International service-learning: possibilities for developing intercultural competence and culturally responsive pedagogies. *Asia-Pacific Journal of Teacher Education*. <https://doi.org/10.1080/1359866X.2021.2010275> (ver. 25.05.2023).
- Zani, B., Compare, C., Guarino, A., & Albanesi, C. (2019). Quality of participation in Service-Learning projects. *Quality of participation in Service-Learning projects*, 90–110.