Review

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Service-Learning as a Pedagogical Practice for the Promotion of Generic Competencies: A Systematic Review

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Abstract: Service-Learning (SL) is a methodology that links students directly with reality. It strengthens the development of different competencies in students as they participate in activities associated with community service. The objective of this work is to analyze the SL methodology as an effective pedagogical practice to promote the development of generic competencies in university students. This research is a systematic review. The articles were selected according to the Systematic Reviews and Meta-Analyses (PRISMA) guidelines, and the eligibility criteria proposed by the PICOS strategy (population, interventions, comparators, outcomes and study design) based on 71 records of scientifically identified articles in the Web of Science (WoS) Journal Citation Report databases. Publications between 1999 and 2022 were considered. The literature review allowed the selection of seven articles showing the results of qualitative, quantitative and mixed research. The results reveal that the application of SL enhances the learning of professional and transversal competencies such as teamwork, appreciation and respect for diversity and multiculturalism, ethical commitment, critical and self-critical capacity, social responsibility, among others. It is concluded that this pedagogical practice effectively consolidates the development of these competencies, and that the success of its application depends on the commitment of teachers, students and community partners.

Keywords: generic competencies; instrumental competencies; interpersonal competencies; systemic competencies

1. Introduction

The training of the 21st century professional requires a competency-based curriculum. These are defined as the set of knowledge, abilities, skills, abilities and attitudes that a person possesses in an area of knowledge for their development in different life situations [1–7] and where the student is the protagonist of his or her own learning. There are disciplinary, professional and generic competencies [1,8]. Generic competencies are related to "knowing how to be" and "knowing how to be". They are divided into instrumental, interpersonal and systemic parts [1]. The Tuning Project states that these should form part of the curriculum, so universities and higher education centers have incorporated them into the subject programs that make up the curricula of each degree program. In this context, education focuses on solid training based on a competency model, which allows quality assurance [5,9,10]. Therefore, universities establish mechanisms to contrast and evidence the achievement of

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these competencies [11]. This new paradigm implies a change in how to teach and in the way of evaluating.

In this context, teachers must rethink their pedagogical practice, which is understood as a set of duly planned actions aimed at generating significant learning in students and achieving metacognition [12,13]. Thus, teachers have the mission to know their students and reflect permanently on how to teach [14] to apply the most pertinent methodological strategies to achieve the proposed learning [15]. In this way, the process should be planned and incorporate diverse activities where the student is the protagonist, favoring collaborative work, which allows students greater interaction and participation with their peers [16]. Therefore, from this new approach, an effective pedagogical practice is one where the teacher involves students in their learning, motivates them to reflect, to self-evaluate, to learn to learn, to work with others [16,17]. They develop their capacity for criticism and self-criticism to achieve competent citizens, capable of transforming knowledge, of combining theory and practice [18,19], of making decisions when facing and solving problems. In short, to provide a holistic education that allows the development of the competencies that students need to successfully face the professional world.

In this new scenario, the teacher must incorporate constructivist learning methodologies focused on the students' work, such as case studies, portfolios, de-bates, projects, problem-based learning (PBL), challenge-based learning (CBL), Ser-vice-Learning (SL), among others.

SL is an innovative methodology that facilitates the understanding of issues from different perspectives [20–22]. It has an experiential, participatory and democratic educational approach based on reciprocal learning [23–25]. It is proposed as an educational philosophy [26] that integrates community service and meaningful learning into a single coherent and articulated project in which work is done on real needs with the aim of improving it [20,27,28]. It allows the student to be directly involved with the community to which he/she provides the service and to adapt to its needs [29–31]. The central elements of this methodology are learning, service and structured reflection [20,25,32–34]. Service fosters learning and learning fosters service [24]. Structured and guided reflection on processes and outcomes, which is present throughout the project, allows students to connect cognitive, behavioral, emotional and social [35]. It can be implemented in formal education, from primary to university, or in informal education [20,26,36].

Its origin is found in the United States at the end of the 19th century with Dewey, who proposes that education should be linked to social needs if education-al institutions are to prepare their students to live in society [21,26,37,38]. Dewey's idea points to a democratic, participatory and interactive teaching considering learning by doing. But the expression service-learning is not yet known as such until decades later [36,37,39,40]. The term was coined in 1967 by Robert Sigmon and William Ramsey [41]. In 1979, Sigmon [23] de-fined the three basic principles: a) those who receive the service control and participate in it; b) they become more capable of serving and being served by their own actions; c) those who serve learn, but also give meaning and significance to what they have learned.

In Latin America, SL experiences are developed at the primary and secondary education level rather than in higher education. In Argentina, in 2002, the Latin American Center for Solidarity Learning and Service (CLAYSS) was founded and in 2005 the International Association of Researchers in Service-Learning was founded [26,42]. In Europe, specifically in Spain, also in the first decade of the 20th century, initiatives arose from different organizations and individuals such as Roser Batlle and Josep Puig Rivera, who collaborated with the first publications promoting this methodology. Similar actions were carried out in Asia and Africa [41]. In all latitudes its dissemination is through seminars, congresses and conferences, which have enabled the creation of associations such as the 1st Annual International Conference on Service-Learning Research, promoted by Shelley Billig and Andrew Furco since 2001, which led to the creation, in 2006, of the International Association for Research on Service Learning and Community Engagement (IARSLCE). The process of institutionalization and internationalization of this methodology is still under development. A consensus is still lacking in relation to the support of public institutions, acceptance by the educational community to incorporate it as part of the curriculum, and application in

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multicultural contexts [41]. In this sense, experiences in the American continent are more advanced than in Europe.

The problem that arises is that although the generic competencies in higher education are declared in the curricula and made explicit in the graduate profiles of the careers, it is not known exactly which methodologies enhance the development of these competencies. In this context, the following research question arises: Is the SL methodology an effective pedagogical practice to foster the development of generic competencies in university students? To answer this question, a systematic review was carried out, considering publications between 1999 and 2022 in the WoS database. The criteria given by PRISMA and the PICOS strategy were used for the selection of texts.

Therefore, the objective of this research is to analyze the SL methodology as an effective pedagogical practice to foster the development of generic competencies in university students.

2. Materials and Methods

This research is a Systematic Review (SR), which is framed within the Preferred Re-porting Items for Systematic reviews and Meta-Analyses (PRISMA) method [43]. The SR is a methodology that aims to answer a research question, considering a structured review of the scientific evidence on a specific topic [44]. This methodology involves the selection of primary studies that are analyzed by applying inclusion and exclusion criteria. The selected articles are subjected to a methodological quality analysis, considering the research design, population size and methodology used [45].

This review was developed according to the standards of the PRISMA statement, which considers 27 aspects that allow quality improvement in systematic reviews. The items considered were: 1 (title), 2 (structured abstract), 3 (rationale), 4 (objective), 6 (eligibility criteria), 7 (information sources), 8 (search), 9 (study selection), 10 (data extraction process), 11 (data list), 16 (additional analysis methods), 17 (study selection), 18 (study characteristics), 20 (results of individual studies), 21 (synthesis of results), 23 (additional analyses), 24 (summary of evidence), 25 (limitations), 26 (conclusions), and 27 (funding) [43]. Item 5 (protocol and registry), 12 (risk of bias in individual studies), 13 (summary measures), 14 (synthesis of results), 15 (risk of bias across studies), 19 (risk of bias across studies), 22 (risk of bias across studies) are excluded [46–49].

2.1. Search Strategies

The selection of articles was performed based on eligibility criteria, using the framework called PICOS, Target population (participants, P), Interventions (methodological techniques, I), Comparison (elements of comparison of studies, C), Outcome (outcome of studies, O) and study designs (S) [50,51] (See Table 1).

Table 1. Eligibility criteria using PICOS (participants, interventions, comparators, outcomes, and study design).

PICOS	Description
Participants	Undergraduate students (1st to 6th year) and graduate students who have worked with Service-Learning (SL) during their undergraduate training. Teachers working with SL methodology.
Interventions	Application of questionnaires, observation guidelines, surveys; application of semi-structured and in-depth interviews.
Comparators	What was used were Service-Learning (SL), Pedagogical Practices, and Generic Competencies.
Outcomes	Importance and benefits of SL. Generic competencies developed by SL.
Study design	Qualitative, descriptive, exploratory studies were included; quantitative, descriptive, longitudinal, quasi-experimental; mixed, considering the MMAT quality criteria.

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2.3. Study Selection and Data Extraction

First, duplicates were manually removed. Then, article titles and abstracts were checked for relevance. Subsequently, the full texts of the articles that were likely to be selected were reviewed. Any disagreement was discussed with a third investigator until consensus was reached.

Then, meeting abstracts, letters, editorial materials, proceedings papers and reviews, and articles that were not related to SL experiences in higher education were excluded.

2.4. Quality Assessment and Risk of Bias

The Mixed Methods Appraisal Tool (MMAT) scale was used to assess the risk of bias among the included studies, which is a valid measure of the methodological quality of the article. Two authors conducted the studies independently and the opinion of a third author was requested in case of any discussion.

The Mixed Methods Appraisal Tool (MMAT) is a checklist used in systematic reviews based on the synthesis of qualitative and quantitative evidence, but also includes criteria for the evaluation of mixed studies. It defines the study category and applies to seven items. A dichotomous scale with a score from zero to one was used to obtain a final percentage mean. Studies are considered high quality > 75 %, moderate quality 50-74 % and low quality < 49 %. [52].

3. Results

The search vector yielded 71 records in the identification phase distributed in the following databases: conferences indexed in Social Sciences and Humanities (CPCI-SSH): 19 records; conferences indexed in Sciences (CPCI-S), 10; emerging studies (ESCI), 16; books in Social Sciences and Humanities (BKCI-SSH), 2; articles indexed in SCI-EXPANDED, 13 and in SSCI, 11. 9 texts were excluded because they were duplicates. Of the remaining 62, 26 were eliminated because they were not articles, leaving 36 records to be examined. Subsequently, during the checking phase, 20 records were excluded from the PRISMA statement because the research did not present results of the application of the SL methodology and 9 because they did not work with a university population. Finally, 7 articles are selected that present results of the application of the SL methodology at the university level for the promotion of generic competencies. Of these, three are qualitative; one is mixed and three are quantitative. The articles selected for the review were published in English and Spanish between 1999 and 2022. The selection criteria defined in the previous section were used (See Figure 1).

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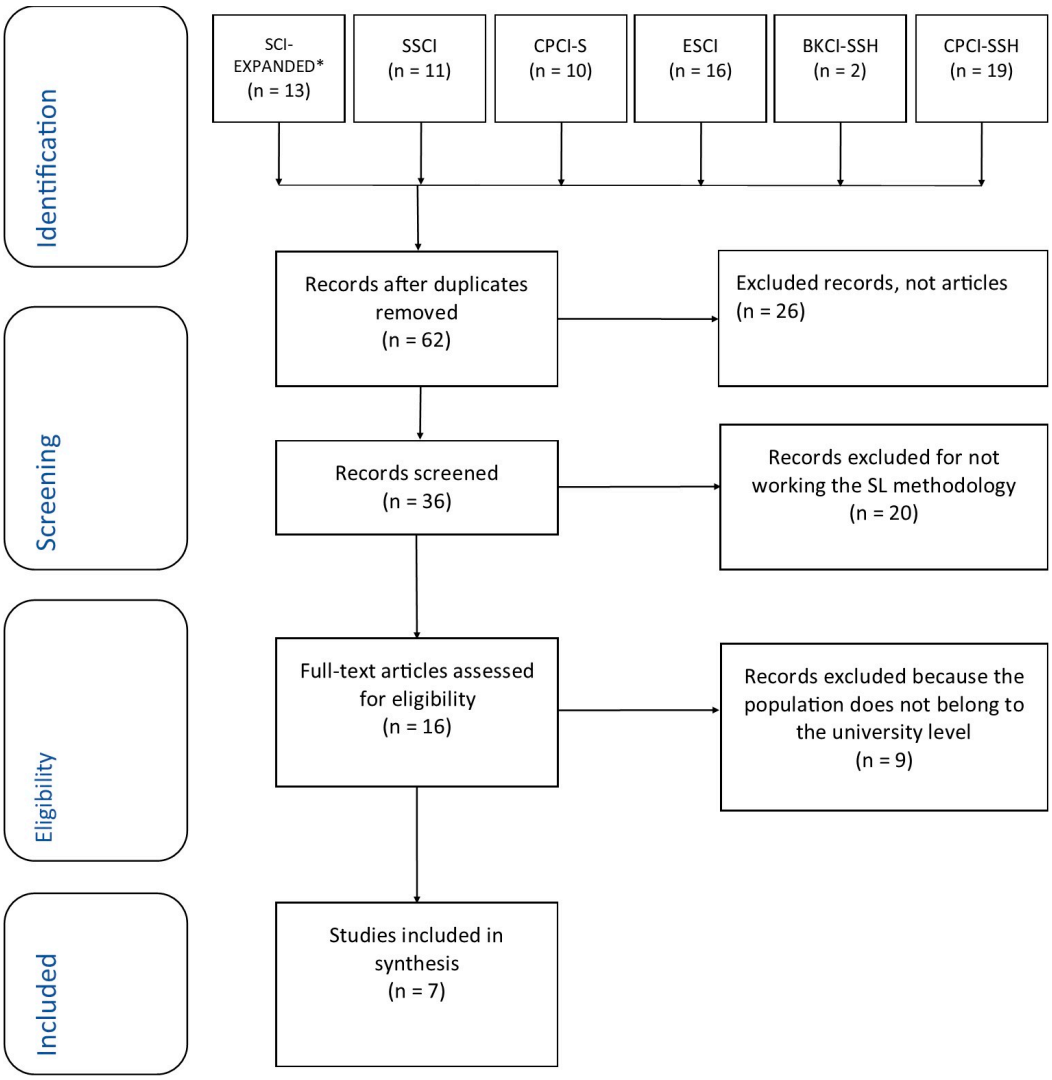

Figure 1. PRISMA flowchart of the revision identification and selection process.

Figure 1. Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) analysis flow. SCI-E* = Science Citation Index-Extended; SSCI = Social Science Citation Index; ESCI = Emerging Sources Citation Index; CPCI-SSH = Conference Proceedings Citation Index-Social Sciences and Humanities; CPCI-S = Conference Proceedings Citation Index-Science; BKCI-SSH = Book Citation Index-Social Sciences and Humanities; A&HCI = Arts and Humanities Citation Index; BKCI-SSH = Book Citation Index-Social Sciences and Humanities; A&HCI = Arts and Humanities Citation Index.

The PRISMA guidelines were considered, and seven articles were selected. Table 2 shows in detail the selected authors, publication sources, indexation, citations and types of studies. Table 3 details the eligibility criteria that were applied to the selected articles. The mixed methods assessment tool (MMAT) [52] was used for this purpose.

Table 2. Articles selected by the PRISMA guides.

Authors	Affiliations	Journal	Pub. Year	Sample	WoS Index	Times Cited, WoS Core	Category of Study Designs
Martinez-Vivot, et al. [30]	Univ. de Buenos Aires; Univ. de Barcelona	Profr. - Rev. Curric. Form. Profr.	2015	30 students between 22 and 40 years old	ESCI	4	Mixed

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Uribe [53]	Univ. Autónoma de Chile	Rev. Electronica Investig. Educ.	2018	26 students, 3 teachers, 8 municipal rural schools in an indigenous context	ESCI	0	Qualitative
Salazar-Botello et al. [54]	Univ. del Bio-Bio	Hallazgos-Rev. Investigaciones	2021	608 students, 19 teachers, 130 community partners	ESCI	0	Quantitative, descriptive, longitudinal
Perez et al. [55]	Univ. Católica del Norte; Pontificia Univ. Javeriana	Rev. Univ. y Soc.	2019	56 students, 1 teacher, 6 community partners	ESCI	1	Qualitative
Yu et al. [56]	Hong Kong Polytechnic University	Service-learning for Youth Leadership: the case of Hong Kong	2019	79 students, 18 teachers, 355 children	BKCI-SSH	0	Quantitative
Santos et al. [31]	Univ. de Santiago de Compostela; University of Navarra; University of Valencia	Front. in Educ.	2021	1153 students, (789 experimental group; 364 control group)	ESCI	5	Quantitative, quasi-experimental
Godoy-Pozo et al. [57]	Univ. Austral de Chile; Univ. de La Frontera; Univ. Mayor	Medwave	2021	5 teachers between 35 and 50 years old	ESCI	1	Qualitative, descriptive, exploratory, case study

Table 3. Eligibility criteria using (MMAT) Mixed Methods Assessment Tool

Authors	Study Designs	S1	S2	1.1	1.2	1.3	1.4	1.5	2.1	2.2	2.3	2.4	2.5	3.1	3.2	3.3	3.4	3.5	Quality
[30]	Mixed	1	1	1	1	1	1	1											100%
[53]	Qualitative	1	1						1	1	1	1	1						100%
[54]	Quantitative	1	1											1	1	1	0	1	86%
[55]	Qualitative	1	1						1	1	1	1	1						100%
[56]	Quantitative	1	1											1	0	1	1	1	86%
[31]	Quantitative	1	1											1	1	1	1	1	100%
[57]	Qualitative	1	1						1	1	1	1	1						100%

Studies are considered high quality > 75 %. All meet the requirements. The research question was also derived from the overall research objective. The articles were then analyzed considering the variables under study: service-learning (SL), pedagogical practices and generic competencies.

3.1. Service-Learning Outcomes (SLO)

The articles reviewed positively evaluate ApS in its three essential components: learning, service, reflection. They agree that it favors learning [30,31,53–57] and con-clude that a) it is a useful pedagogy; b) it is a methodology that allows students' per-sonal and professional growth [53]; c) it develops students' technical competencies, values and attitudes [54]; d) it reinforces the development of generic competencies [31,55,57]; e) it allows active learning [56]; f) it reinforces transversal learning [31]; g) it favors the strengthening of values [57].

In relation to service they conclude that ApS a) is a tool for working with and for the community because it fosters social cohesion [53]; b) promotes positive culture in the community [30,31,56]; c) is successful if it responds to the expectations of com-munity partners [54]. They play an active role in change [55], so it is essential to know them [56]. Finally, for its successful implementation, students, community partners and teachers must be motivated [30,31,54–57]

Regarding reflection, the selected articles conclude that it allows a) increasing self-confidence; b) improving problem-solving skills; c) developing intra- and inter-personal competencies [56]; d) establishing mutual relationships between academic learning and action in the community [31].

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However, the selected articles show difficulties when applying ApS, such as a) problems of communication, coordination and organization among the team and with the beneficiaries [54]; b) having tools to encourage self-evaluation [57]; c) orienting re-flective practice so that it is deeper and more meaningful, in order to monitor experi-ences more closely and to be able to provide effective feedback [31,57]. Another drawback is that the application of this methodology requires academic overload [57]. In this sense, the motivation of all its actors is essential [55,57]. Even when it is em-phasized that ApS generates greater commitment from its participants, the need for effective training in ApS is made explicit, especially for community partners so as not to create false expectations and so that the meaning of this methodology is understood [54,56,57].

3.2. Results of Pedagogical Practices

In relation to the characteristics that an effective pedagogical practice should have, it must be planned. Uribe [53] points out that SLA is a planned activity that is executed and evaluated. The teacher must know his students, consider their environment, generate diverse activities, favoring collaborative work. Salazar-Botello et al. [54] explain that ApS generates a collaborative work model; students should be involved in their learning and motivated to develop their ability to learn how to learn. The teacher's permanent reflection is fundamental. All these aspects are evidenced in the analysis of the reviewed studies, because the decision to apply ApS is effectively the product of the teacher's reflection, regarding the implementation of activities dif-ferent from the traditional ones to generate significant learning in their stu-dents.

3.3. Results of Generic Competencies

Generic competencies are divided into instrumental, interpersonal and systemic competencies, in accordance with the European Tuning project and the Latin Ameri-can Tuning project [4]. Thus, the analyzed articles show the development of these competences.

3.3.1. Results of Instrumental Generic Competencies

Instrumental competencies are those related to training and learning. Table 4 shows in detail the generic instrumental competencies that are evidenced in the analysis of the selected articles.

Table 4. Classified according to instrumental generic competencies.

References	Ability to organize and plan	Basic knowledge of the profession	Oral and written communication	Problem-solving	Total InsGC	% InsGC
[30]	x	x	x		3	75%
[53]					0	0%
[54]					0	0%
[55]					0	0%
[56]				x	1	25%
[31]					0	0%
[57]		x		x	2	50%
Total	1	2	1	2		

The instrumental competencies that are made explicit in the articles reviewed are four. One article refers to the ability to organize and manage time [30]. Two highlight the fact that students have basic knowledge of the profession [30,57]. One notes that students develop oral and written communication skills [30]. Two note that students strengthen their problem-solving skills [56,57]. These competencies are the least evident, which could be explained by the fact that they are related to the management of basic knowledge. However, the article that evidences the development of a greater number of instrumental competencies is that of Martínez-Vivot and Folgueiras [30]. This presents the first stage of an SL project, whose interest is to detect the needs of the community being

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intervened and to determine precisely which generic competencies students develop with this type of methodology.

3.3.2. Results Interpersonal Generic Competencies

Interpersonal competencies are linked to "being" and "living together", to maintaining interpersonal relationships and working with others. Table 5 shows which competencies are evidenced in the articles analyzed.

Table 5. Classified according to interpersonal generic competencies.

References	Teamwork	Valuation and respect for diversity and multiculturalism	Ethical commitment	Critical and self-critical ability	Social responsibility	Interpersonal skills	Total IntGC	% IntGC
[30]		x	x	x		x	4	67%
[53]	x	x	x		x	x	5	83%
[54]	x						1	17%
[55]	x	x	x	x	x	x	6	100%
[56]	x	x				x	3	50%
[31]	x	x					2	33%
[57]	x	x	x	x	x	x	6	100%
Total	6	6	4	3	3	5		

According to the review of the articles, the interpersonal competencies that are most developed when working with SL are teamwork [31,53–57]; appreciation and respect for diversity and multiculturalism [30,31,53,55–57]; interpersonal skills [30,53,55–57]; ethical commitment [30,53,55,57]; and to a lesser extent critical and self-critical capacity [30,55,57]; and social responsibility [53,55,57]. Interpersonal competencies exhibit a higher level of development in students, by virtue of their focus on fostering both individual and social skills. This phenomenon could be attributed to the fact that SL constitutes an educational strategy focused on social dimensions.

3.3.3. Results Systemic Competencies

Systemic competencies consider instrumental and interpersonal competencies to act as an integrated whole. Table 6 shows which ones are present in the articles under study.

Table 6. Classified according to systemic generic competencies.

Authors	Ability to apply knowledge in practice	Ability to learn	Ability to adapt to new situations	Ability to generate new ideas	Leadership	Commitment to one's sociocultural environment	Commitment to environmental preservation	Total SGC	% SGC
[30]	x	x	x					3	43%
[53]	x				X	x		3	43%
[54]	x	x						2	29%
[55]	x	x		x		x	x	5	71%
[56]	x	x				x		3	43%
[31]	x	x			X			3	43%
[57]		x						1	14%
Total	6	6	1	1	2	3	1		

Regarding systemic competencies, the most developed in students according to the SL methodology are applying theoretical knowledge and putting it into practice [30,31,53–56]; the ability to learn [30,31,54–57]. Three articles agree that it fosters students' commitment to their sociocultural

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environment [53,55,56]. Leadership is evidenced in two of the studies [31,53]. The ability to adapt to new situations [30], to generate new ideas and commitment to the environment [55] are the least explicit. The article that evidences the development of more systemic competencies is that of Pérez et al [55]. The latter presents the results of an SL project aimed at improving the environment.

Next, regarding generic competencies (Figure 2), all the articles under study show that interpersonal and systemic competencies are manifested when working with SL. Two of them present interpersonal competencies in 100% [55,57], followed by 83% in the study by Uribe [53]; 67%, Martínez-Vivot and Folgueiras [30]; and 50%, Yu et al [56]. In second place are the systemic ones, which are presented in 71% in the article by Perez et al. [53] and 43% in the article by Martínez-Vivot and Folgueiras (30); Santos et al. [31]; Uribe [53]; Yu et al. [56]. However, instrumentals are absent in four of the studies [31,53–55] and in a lower percentage (50%) in that of Godoy Pozo [57] and 25% in that of Yu et al [56]. However, in the article by Martínez-Vivot and Folgueiras [30], the percentage is 75%, which could be explained by the fact that this research presents the results of the first phase of the SL project, in the evaluation of which a self-assessment questionnaire is applied to the work with SL, which includes the generic competencies proposed by the Tuning Latin America Project. In the case of the article by Godoy-Pozo et al. [57], 50% of the instrumental competencies are explicit, which could be explained because it is qualitative research on the perception that teachers have of SL and a synthesis is made of their opinions on the subject.

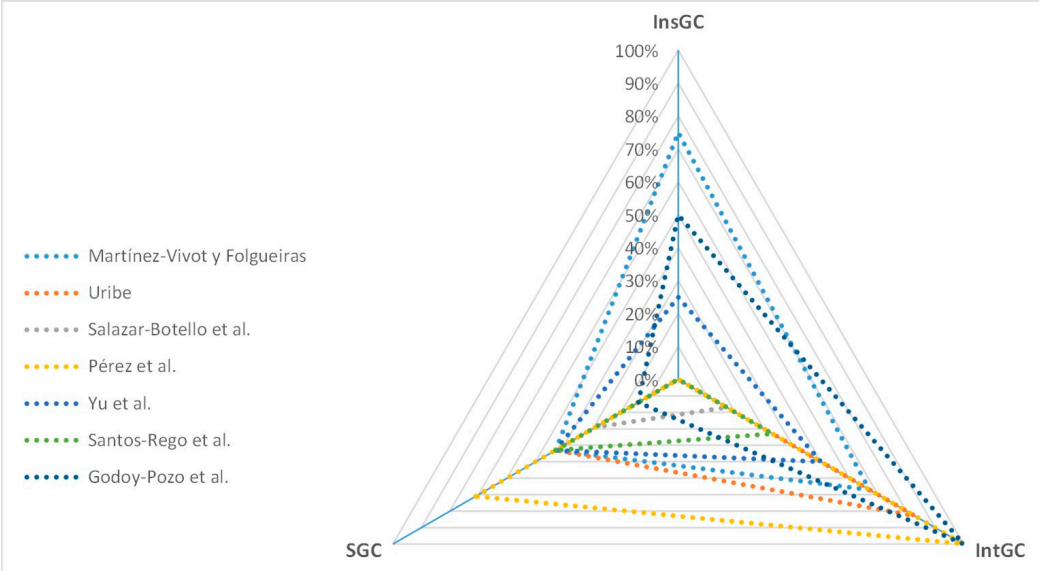

Figure 2. Comparative graph of generic competencies.

4. Discussion

This systematic review examined 71 scientific articles considering seven databases of the Web of Science Core Collection. The topic under study is Service-Learning (SL) as a pedagogical practice for the development of generic competencies. Selection criteria were applied resulting in a total of seven articles for in-depth review. The articles were analyzed considering the variables under study: service-learning, pedagogical practice and generic competencies.

In relation to service-learning (SL), this systematic review coincides with other previous research that points out that it allows innovation in education and is characterized by being active, experiential, participatory and democratic [22,34,58,59]. It is a pedagogical model [24] that should be placed within the formative framework of the university [21]. Its success depends on a real commitment of all stakeholders [54,55], which is supported by the study of Castro et al [60]. Both teachers, students and community partners value it positively. The application of workshops mobilizes partners to be agents of change [55]. This coincides with Aramburuzabala et al. [35] and Mayor [20,61] when they point out that communities need committed citizens who defend social justice and generate initiatives for the construction of a better society.

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APS is a tool that works with the community and for the community and there-fore promotes the link with the environment and the development of social responsibility [55,57]. This idea coincides with that put forward by Mayor [20,61], Aramburuzabala et al. [22,35], Aramburuzabala and Cerrillo [62], Mayor-Paredes and Guillén-Gómez [63] and Cheng [64] in explaining that it is a methodology that promotes social responsibility by disseminating its relevance to society [64].

In relation to university pedagogical practices, Zabalza [65] points out that these should incorporate planning, content selection, contextualization of teaching, organization of activities for student learning, design of methods, technology management, academic reflection as a constant process, identification with the institution and aca-demic climate. In this sense, SL is a methodology that involves the planning and organization of each of the activities. The contents are selected according to the needs of a community. Teaching is contextualized because there is a transfer of theoretical knowledge to practice. Working with SL means encouraging self-evaluation and reflective practice in students [57]. It demands permanent reflection by teachers as well as feedback and adjustments of its implementation [54], which is fundamental for the successful application of this methodology [56]. This coincides with Szelei et al. [18] and Efimova et al. [14] who point out that in a transformative pedagogical practice, critical reflection is essential in obtaining pedagogical responses. SL requires a strong teaching commitment because it demands many hours of work outside the classroom and for this the teacher must be committed to the institution [57]. What is not evident in the articles analyzed is the use of technology. However, there is research linking SL with the use of social networks, such as, for example, the work of Sharma [66]. In summary, SL meets all the requirements of a transformative pedagogical practice at a higher level.

Pedagogical practice is effective when it involves students in their learning and generates meaningful learning [67], favors the development of skills and students can transfer the knowledge acquired at school to social spaces [17]. In this sense, the SL methodology meets these characteristics because it develops the ability to learn by putting theoretical knowledge into practice, giving meaning to the contents [30]. This coincides with Anguita et al. [68] and Cheng [64] when they point out that there is deep learning by relating theory and practice because learning takes place by doing. It strengthens the commitment of teachers and the participation of social actors in the promotion of sustainable development, which allows a positive perception of their professional future [54,55]. In this regard, Ribeiro et al. [13], Mayor [20,61], Aramburuzabala et al. [22,35] state that it is an ideal methodology to promote sustainable development. In short, it is an effective pedagogical practice because teachers fully comply with their mission to develop professional and generic competencies in their students. In turn, students value it positively, highlighting learning by doing through knowledge transfer as one of its many strengths.

The Tuning Europe project proposes 30 generic competencies oriented to "being", "knowing" and "knowing how to do". It classifies them as instrumental, interpersonal and systemic. The Tuning Latin America project takes them as a basis, regroups them and incorporates three more: social responsibility and citizen commitment; commitment to their socio-cultural environment; commitment to the preservation of the environment, leaving 27 competencies. The purpose of these competencies is to provide an integral and holistic training to future professionals so that they become competent citizens [4]. The articles under study show the promotion of these competencies and define that the most developed are interpersonal competencies such as teamwork, appreciation and respect for diversity and multiculturalism, interpersonal skills, ethical commitment, critical and self-critical capacity and social responsibility. Among the systemic ones are the capacity to apply knowledge in practice, capacity to learn, commitment to their sociocultural environment, and leadership. To a lesser extent, the capacity to adapt to new situations, the capacity to generate new ideas, and the commitment to the preservation of the environment are evidenced to a lesser extent. Regarding instrumental skills, basic knowledge of the profession, problem solving and -to a lesser extent- the ability to organize and plan as well as oral and written communication are highlighted. In this regard, there is agreement with other studies such as Ribeiro et al. [13], Mayor [20,61], Aramburuzabala et al. [22,35], Opazo et al. [34], Castro et al. [60], Aramburuzabala and Cerrillo [62],

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Cheng [64], Jouanett et al. [69], Arque-ro-Avilés et al. [70] in pointing out that SL fosters the acquisition of knowledge, skills, attitudes and values.

The success of the application of SL depends on the existence of a real commitment of all participants: teachers, students and community partners. Likewise, it is also required that the authorities of educational institutions support and back this type of initiative and that the educational community incorporates it into the curriculum [31,54,55,57]. This idea is also reinforced by authors such as Fernández-Prados and Lozano-Díaz [41] and Aramburuzabala [22,35], who argue that this methodology should be institutionalized because it builds meaningful learning by working with real projects, which strengthens the future professional life of the students.

Although the methodology is positively evaluated by its participants, there are some limitations in applying it, such as the large investment of time and the difficulties in traveling to the communities where the service is provided. These same difficulties are found in other SL studies such as that of Castro et al [60] and Cheng [64]. It is suggested that teaching hours be allocated to dedicate to the implementation of this [54,57] or else the incorporation in the curriculum of a community work subject that works specifically with SL [57].

Even though the benefits of SLA are many, there is a lack of awareness on the part of educational authorities to make the decision to institutionalize it. This can be done in two ways: as a subject within the curriculum or as an institutional policy. In this regard, Salazar-Botello et al [54] and Godoy-Pozo et al [57] propose that it should be part of the development of subjects, which coincides with the study by Yu et al [56]. In this way, it would respond to the Tuning Project's proposal that a competency-based curriculum should be flexible, promote the concept of participatory education, have institutional support and decision, stimulate curricular design and the evaluation system [4]. The problem that institutionalization brings is that it is com-plex to establish links between the university and community partners because sometimes there is a fracture between the two, since the latter do not understand the real meaning of SL. Therefore, when applying for it, there should be effective training for all actors, especially for community partners.

In short, competency-based education requires a paradigm shift in teaching and curriculum. In this context, SL is a pedagogical practice that enables holistic teaching [13,62]. It is an active and experiential [25,59], expansive and transformative methodology [71] that requires three main actors: teachers, students and community partners. It is characterized by student protagonism, solidarity service and because it is intentionally planned learning [26]. It has an impact on the academic curriculum, on the formation of values and on the community [71,72] to the extent that it puts into practice the theoretical contents, which are fundamental for professional performance. It enables academic and cognitive development, because it strengthens the acquisition of generic competencies [26,28,30,31,33,42,53–57,73]. It fosters civic commitment because it promotes social responsibility and sustainable development [20,22,34,35,55,61,62,74]. Vocationally and professionally, it better prepares students to face the world of work [31,53,61].

This work contributes in relation to SL because it is a systematic review where an exhaustive analysis is made of the instrumental, interpersonal and systemic generic competencies that are made explicit in the European and Latin American Tuning project. Other research only refers to how SL contributes to the direct development of certain competencies but does not specifically show which generic competencies are developed by this methodology. Moreover, in Chile, there are no systematic reviews in this regard.

One limitation of this study is that it considers seven Web of Science (WoS) Core Collection databases and not others, but the exclusive use of databases included in WoS allows homogeneous search criteria and the possibility of comparing the quality of the documents analyzed [75].

The literature indicates that more research is still needed to demonstrate the benefits of SL [31,56] to disseminate it at different educational levels, especially at the higher education level because of the value it has in relation to the link with the environment, which is one of the aspects that will become mandatory from 2023 for the accreditation of Chilean universities.

In view of these findings, regarding what still needs to be done with SL, it is proposed that in the future mixed research [56], of a longitudinal nature [22], should be conducted. So far, most of

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them are case studies. It is also necessary to conduct research that focuses not only on the benefits of SL, but also on the impact it has on teachers as a methodology that transforms their pedagogical practice.

5. Conclusions

The evidence presented in this systematic review reaffirms the idea that SL is an effective pedagogical practice for the development of generic competencies. Its experiential, experiential and holistic nature has a positive impact on learning, to the extent that it connects theory and practice, which allows students to be better prepared to face the world of work, thus complying with the Tuning Project.

On the other hand, the findings suggest that SL should be institutionalized because it allows the promotion of social responsibility and sustainable development, essential competencies that should be prioritized at the university level, considering that the mission of higher education institutions is to train competent professionals connected to the needs of the community.

Finally, considering the new paradigm in education, where teachers must rethink their pedagogical practices, studies are required to analyze the impact of this methodology in their professional work.

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