



Undergraduate soft skill development as an outcome of service-learning programs: A systematic literature review

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Abstract

Soft skill development of university students has been identified by researchers as key to their employability. The objective of this study is to systematically review the existing literature on applicability of service-learning on soft skill development for university students. The researchers expect to identify gaps in service-learning literature. The current study systematically reviewed 17 research articles that have been dedicated to university student outcome of soft skill development due to service-learning programs. Popular research journal articles published in electronic databases were explored and filtered. The findings reveal that service-learning exposure commonly improved seven soft skills. Another seven soft skills found specific to certain studies only. In literature, here was little evidence of soft-skill development due to service-learning in Sri Lankan context. Implications of this study includes upgrading of present university curricula to improve employability of the students and to introduce service-learning to university curriculum of the Sri Lankan universities. Also, conducting an empirical study in the area is recommended.

Keywords: *Employability, service-learning, soft skill development, university curriculum.*

1. Introduction

Developing countries like Sri Lanka need to produce graduates with knowledge, skills and experience as per the requirements of national needs through an effort of continuous quality improvement to be competitive with international counterparts (Munasinghe & Jayawardena, 1999; Tharmaseelan, 2007). Entry to Sri Lankan state universities is extremely competitive. In 2017 less than one fifth of qualified applicants were enrolled to the state universities (University Grants Commission, 2018). However, there is an ongoing concern by employers- especially the corporate sector organizations, regarding the level of readiness of fresh graduates in taking their first job roles (Cotton, 1993; Small, Shacklock & Marchant, 2018 Wickramasinghe & Perera, 2010). This expectation of employers seems to be presently

impractical as university education in Sri Lanka is primarily not intended to be job oriented (Ariyawansa, 2008). Despite of continuous efforts, Sri Lankan education system has been suffering from inability to swiftly modify the curricula in response to the need to the job market (Ariyawansa, 2008).

Study on key individual factors of employability (Finch, Hamilton, Baldwin, & Zehner, 2013) found that employers put highest importance on the soft skills whereas the academic credentials is given the lowest importance. The study further suggests that soft-skills and problem-solving skills should be given priority in developing university curricula. The same study suggests that the universities are finding it difficult to adapt to the need of soft skill development of graduates for employment.

As Altman (1996) explains, education consist of three distinct domains: Foundational, professional and socially responsive. Foundational domain includes history, theories, concepts, methodologies of a discipline. Professional domain includes practitioner skills and practical elements used in the field. Socially responsive domain includes knowledge on social and community of the students. However, traditionally, the educational institutes have been focusing predominantly on the Foundational and Professional domains but have been ignoring the socially responsive domain which is very important element of futuristic education system. Global economy is in cross-roads and being transformed. Along with the changes, education systems are also being transformed. One of the new pedagogical approaches and models is service learning. Service-learning is a structured course where students gain useful learning while delivering a service to community (Giles & Eyler, 1994). Service-learning being closely knitted with society and communities is poised to respond to this paradigm shift in economy that is underway (Stuteville & Ikerd, 2009).

Traditional methods of teaching such as lectures and referring to textbooks can be useful to a certain extent or in certain situations. Educators have been seeking ways to expand and enhance education beyond the traditional frame of knowledge acquisition in classroom and textbooks (Bringle & Hatcher, 1999). The rationale for the need for change in the curriculums has been justified. As the free-market capitalism has been challenged with situation like financial meltdown of 2008 in Unites States and a need for new paradigm of sustainable economic development has emerged for future based on living biological systems with regenerative nature instead of mechanistic systems that is static in nature. The new paradigm will be based on classical economics principles with civic and social responsibility in its foundation (Stuteville & Ikerd, 2009). Along with this paradigm shift, education systems are also being transformed. One of the new pedagogical approaches and models is service-learning.

Under Sustainability Development Goal (SDG) 4.4, Sri Lanka commits that “By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship” (Department of Census and Statistics Sri Lanka, 2018, para 8.6). Therefore, it is important to explore on different ways of bridging skill and competence gaps of university students as well. Also, there has been an acute lack of innovation by policy makers and educators in finding solution to the youth unemployment and improving effectiveness in university education in Sri Lanka. If service-learning delivers expected outcomes it can provide a credible

pedagogical strategy for developing soft skills within higher education system. Current study attempts to find the answer for the question, what evidence can be found in literature on soft skill development of university students due to partaking in service-learning programs? This paper provides an overview of service-learning as a pedagogical strategy for higher education. Thereafter, it describes the methodology adopted in systematic literature review (SLR) and summarizes the literature that meets the focus of this paper. The results from the SLR and discussion follows next.

2. Overview on service-learning

The concept of service-learning seems to have gained scholarly attention as a pedagogy over the recent decades (Steinberg, Bringle, & Williams, 2010). As per Giles and Eylar (1994) term service-learning was first coined by Sigmon and Ramsey in 1967. Service-learning is a pedagogical strategy and methodology that helps the student gather learning while practicing activities that are beneficial to communities. As the term “service-learning” implies, it incorporates both service and learning objectives.

Definition of service-learning can be found as a teaching and learning strategy that brings together;

- a) Community service with academic curriculum (Celio, Durlak & Dymnicki, 2011)
- b) Hands-on with applicability in behavior curricula (Corroto, 2014)
- c) Valuable learning resources that cannot be obtained only within the college (Bordelon & Phillips, 2006)

Moreover, according to Cress, Collier, Reitenauer and Associates (2005, as cited in Cress, Yamashita, Duarte, & Burns, 2010), service-learning provides room for reflective integration of academic content covered in courses by the students. According to Bringle and Hatcher (1996), service-learning provides additional means to achieving academic objectives. It promotes personal satisfaction through the learning experience (Bordelon & Phillips, 2006). From a pedagogical angle, service-learning is considered as an experiential education method that students together with community members address community issues and academically rigorous projects are selected to address learning goals that come from the course followed by the students (Gibson, Hauf, Long, & Sampson, 2011). Service-learning extends the learning environment of the students beyond the boundaries of the classroom to the community (Bordelon & Phillips, 2006). According to Jacoby (2009), “service-learning is a form of experiential education in which students engage in activities that address human and community needs together with structured opportunities intentionally designed to promote student learning and experience” (p. 5). This definition explains how service-learning differs from collaborative and problem-based education that are also experience-based learning methods. For this study the researchers used following as the working definition as it has been widely used by other authors.

Course-based, credit-bearing educational experience that allows students to;

- a) Participate in an organized service activity that meets identified community needs and

- b) Reflect on the service activity in such a way as to gain further understanding of course content, a broader appreciation of the discipline, and an enhanced sense of civic responsibility (Bringle & Hatcher, 1995).

Three different models of service-learning with distinct assumptions can be observed: Professional Model that is focused on career training and cognitive development, Civic engagement model with the focus of active and engaged citizens and Social change model that focuses on empowerment and social justice. A key goal of the last two models is affective learning. Out of these three models, professional model is the most commonly used model by the researchers (Beatty, 2010). John Dewey's work on democratic education, Kurt Lewin's work on social psychology and Jean Piaget's work on cognitive development have been the integral elements of Kolb's model for intuitive learning (Kolb, Boyatzis & Mainemelis, 2001). Experiential Learning Theory and the intuitive learning model of Kolb is used as a framework for reflection process in service-learning (Bringle & Hatcher, 1999; Goldberg, Richburg & Wood, 2006). John Dewey's work on democratic education and schooling covers five areas of relevance to service-learning: Linking of education and experience, democratic community, social service, reflective inquiry, Social transformation through education (Saltmarsh, 1996). Reflection is an integral learning mechanism used in service-learning. Kolb's model for Intuitive learning can be used as the framework for reflection (Goldberg et al., 2006). Reflection allows the student to critically evaluate and question the general assumptions and to move beyond just memorization (Goldberg et al., 2006).

Many authors on the topic of service-learning have found numerous benefits that are specific to students, communities and community organizations and the educators. As Novak, Markey and Allen (2007) assert "service-learning provides an opportunity for substantial improvement in the quality of the educational experience for the student" (p. 154). Also, the meta-analysis of service-learning related student outcomes of Warren (2012), postulates increase of student learning outcomes. Among many positive outcomes for students are: Positive attitude towards self, positive attitude towards learning and university/school, social skills, civic engagement and academic performance (Celio et al., 2011), self-knowledge, confidence, communication skills, social awareness and sense of social responsibility (Gibson et al. 2011), empowerment, enhancement of life-skills, interest in the community and neighborhood (Bordelon & Phillips, 2006), reframe social issues that are complex in nature (Novak et al., 2007), improved personal development and higher self-efficacy (Sanders, Oss, & McGeary, 2016), better prepare students for future career as service-learning engages students in situations effectively with uncertainties, complexities and difficulties that can be linked to situations in present day management comparing to conventional methods of education (Govekar & Rishi, 2007). According to Huffman and Hillyer (2014), other benefits such as connection with communities in a meaningful way, courage to deliver what is needed in front of strangers, compassion, and empathy for a disadvantaged community, building Social Capital with communities, Development of the abilities of communities to resolve their own problems.

3. Methodology

Literature reviews, according to Steward (2004), can come in several formats.

- a) SLRs
- b) Secondary data analysis research projects or
- c) Part of primary research projects

For this study, it deployed a SLR to study a specific area (skill development) under the broader topic of service-learning (Aquilani, Silvestri, Ruggieri, & Gatti, 2017; Kitchenham, Brereton, Budgen, Turner, Bailey, & Linkman, 2009; Steward, 2004).

The researchers reviewed academic journals in electronic databases such as;

- a) Emerald Insight
- b) Elsevier
- c) Taylor and Francis, and
- d) JSTOR

The key words “service-learning”, “University Students”, “Soft Skill development” were used for the initial search. The search yielded 1,251 articles. The inclusion criteria for the articles were being empirical studies on service-learning carried out to study soft-skill development of undergraduates. Articles such as conference papers, case studies, published books have been excluded from this review. Also, publications in other languages than English are also excluded. Following filtering the articles based on the article title and the abstracts 62 articles were selected for further review. The researchers studied these 62 full text articles and picked 17 articles that carried empirical examples of university students improving their soft skills as a result of following service-learning programs.

The structure of filtering process of the articles is shown in the Figure 1.

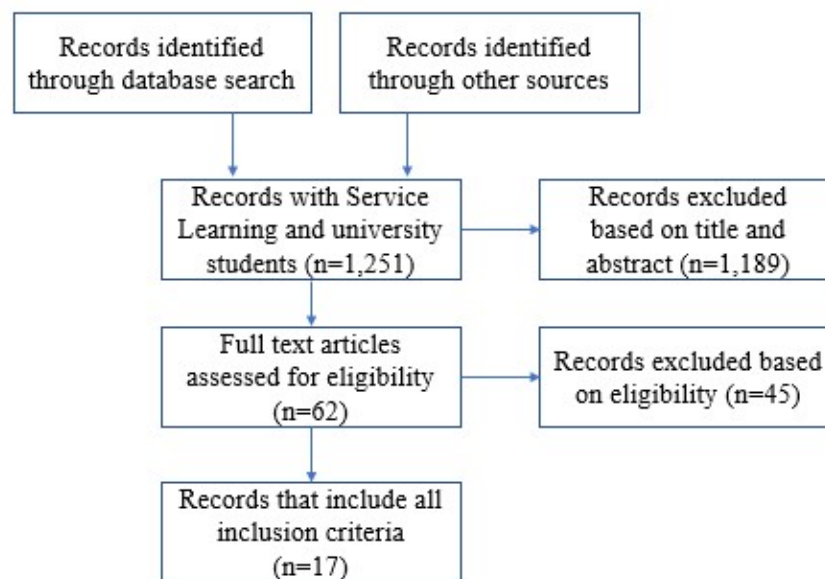


Figure 1 Structure of the article filtering process of the review

Table 1

Past studies on university-based service-learning programs with soft skill development as student outcomes

	Author(s)	Method (sample size)	Student outcome	Limitations
1	Astin and Sax (1998)	Quantitative (2,309 students)	Life-skill outcomes	Small absolute effect sizes Single item scales used
2	Campbell and Sasnett (2011)	Qualitative (35 students)	Teamwork	Population is not from the same academic year.
3	Couse and Russo (2006)	Qualitative (3 students)	Leadership	Small Sample size
4	Faraazlina and Zunurain (2017)	Quantitative (65 students)	Communication Teamwork Leadership Entrepreneurship	Small Sample size
5	Gibson et al. (2011)	Qualitative (students from 3 classes)	Self-knowledge Confidence Communication Social responsibility	Contrasting groups with different conditions
6	Govekar and Rishi (2007)	Mixed (65 students)	Handle uncertainties	Small sample sizes
7	Guo, Yao, Wang, Yan and Zong (2016)	Quantitative (82 students)	Resolving unstructured problems.	Focuses only of a few factors of service-learning experience Lack of rigger in experimental design
8	Joseph, Stone, Grantham, Harmancioglu and Ibrahim (2007)	Quantitative (150 students)	Critical Thinking	Measuring instruments Student understandability
9	Malnin (2018)	Qualitative (72 students)	Empathy, Relationship building, Flexible thinking System thinking	Reluctance in sharing honest feedback
10	Prentice and Robinson (2010)	Mixed (2,317 students)	Critical Thinking Communication Career and Teamwork	Ambiguity in source of learning Insufficient guidelines for selecting control groups

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11	Sabbaghi, Gerald, Cavanagh and Hipskind (2013)	Quantitative (88 students, longitudinal)	Leadership	Small sample size
12	Sanders et al. (2016)	Mixed (65 students)	Personal self-efficacy	Small sample size
13	Sari et al. (2019)	Mixed (504 students)	Communication Teamwork Leadership	Unclear measurement scales Unvalidated self-reported data
14	Sedlak, Doheny, Panthofer and Anaya (2003)	Mixed (94 students)	Critical thinking	Poor Generalizability Short exposure in the program
15	Tucker (2001)	Quantitative (127 students)	Self-efficacy in communication	Poor Generalizability Unvalidated self-reported data
16	West (2017)	Qualitative (48 students)	Communication Teamwork Project Management	Small sample size
17	Wilson (2011)	Qualitative (70 students)	Empathy Self-development	Small sample size Self-selection of students into two assignments

Further, the Table 2 highlights the soft skills that developed based on undergraduates taking part in service-learning programs.

Table 2
Soft skills developed due to service-learning programs

	Student outcome	Study / Authors
1	Life skills	Astin and Sax (1998)
2	Teamwork	Campbell and Sasnett (2011) Faraazlina and Zunurain (2017) Prentice and Robinson (2010) Sari et al. (2019) West (2017)
3	Leadership	Couse and Russo (2006) Faraazlina and Zunurain (2017) Sabbaghi, et al. (2013) Sari et al. (2019)
4	Communication	Faraazlina and Zunurain (2017) Gibson et al. (2011) Prentice and Robinson (2010) Sari et al. (2019) Tucker (2001), West (2017)

5	Entrepreneurship	Faraazlina and Zunurain (2017)
6	Self-Knowledge	Gibson et al. (2011) Wilson (2011)
7	Confidence	Gibson et al. (2011) Sanders, et al. (2016)
8	Social Responsibility	Gibson et al. (2011)
9	Critical Thinking	Joseph et al. (2007) Prentice and Robinson (2010)
10	Empathy	Malnin (2018) Wilson (2011)
11	Relationship building	Malnin (2018)
12	Agile thinking	Govekar and Rishi (2007) Guo et al. (2016) Malnin (2018)
13	System thinking	Malnin (2018)
14	Project Management	West (2017)

4. Results and discussion

It was observed that the selected articles were split equally in number between quantitative and qualitative research approaches. Also, close to one third of articles followed a mixed approach (Figure 2).

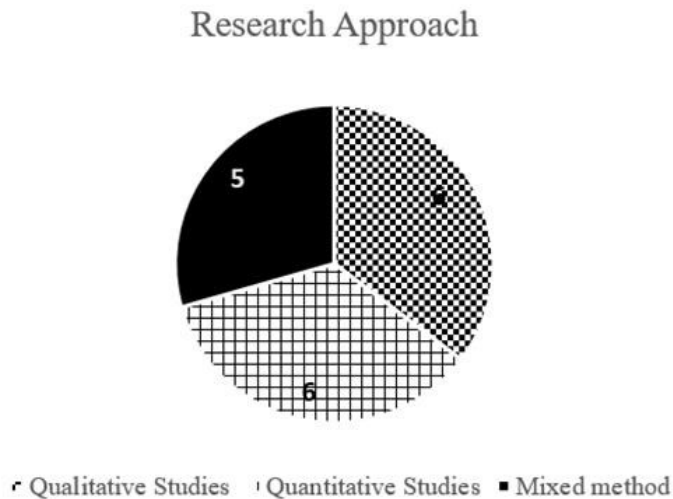


Figure 2 Research approaches followed in the selected articles

Different types of soft skills that were reported as developed in the selected articles are 14. The most reported soft skills highlighted are Communication, Teamwork, Leadership, Critical thinking, Agile thinking, Empathy and Confidence (Figure 3). These represent some of the job related soft skills that are sought after by the employers (Astin & Sax, 1998; Faraazlina & Zunurain, 2017; Malnin, 2018).

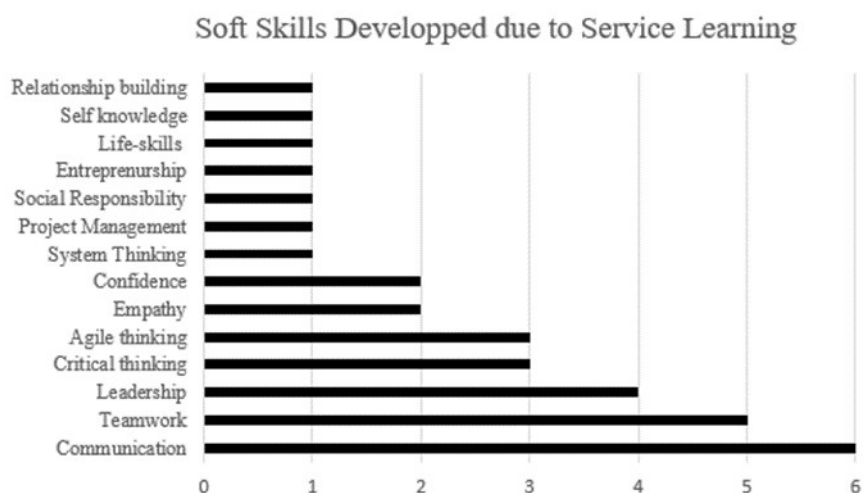


Figure 3 Soft skills developed by partaking in service-learning programs

Minnesota Campus Compact article (Simonet, 2008) highlights that increasing numbers in research suggests that Service Learning brings about four types of outcomes a) Cognitive outcomes, b) Behavioral outcomes, c) Emotional outcomes, d) Social outcomes. While these outcomes are very important for academic success, they also have critical relevance to employment. Many authors on the topic of Service Learning have found numerous benefits that are specific to students, communities and community organizations and the educators. As Novak et al. (2007) assert “service learning provides an opportunity for substantial improvement in the quality of the educational experience for the student” (p. 154).

The article published by Astin and Sax (1998) is the earliest work reviewed in this study on skill development due to Service-Learning participation. In addition to identification of the developed skills this work reveals that the three factors: duration, sponsorship and location of service play significant roles in skill development. Six articles (Faraazlina & Zunurain 2017; Gibson et al., 2011; Prentice & Robinson 2010; Sari et al., 2019; Tucker, 2001; West, 2017) provided empirical evidence on the support of Service-Learning for developing Communication Skills. Five articles asserted the evidence on student development in Teamwork Skills (Campbell & Sasnett, 2011; Faraazlina & Zunurain 2017; Prentice & Robinson 2010; Sari et al., 2019; West, 2017). Four articles (Couse & Russo, 2006; Faraazlina & Zunurain 2017; Sabbaghi, 2013; Sari, 2019) suggested that Leadership skills are developed by the experience in academic Service-Learning programs. Cases of developing agile thinking (Flexible thinking, handling uncertainties and resolving unstructured problems) has been highlighted in three situations (Govekar & Rishi, 2007; Guo, 2016; Malnin, 2018). Another three authors (Joseph, 2007; Prentice & Robinson 2010; Sedlak et al., 2003) have asserted Critical Thinking as a skill that develops due to Service-Learning. Apart from above skills that have been repeatedly identified as student outcomes of Service-Learning programs, seven other skills also have been identified as skills developed due to Service-Learning exposure. None of the reviewed articles represent articles published on Service-Learning praxis in Sri Lanka.

Several authors have emphasized on the value of soft-skill development for employability and use of Service Learning for its development: Faraazlina and Zunurain (2017) recognized that soft-skill gap is contributing to issues in graduate employability, Joseph, Stone, Grantham, Harmancioglu and Ibrahim (2007) mentioned about value of soft skills to the employers, Malnin (2018) recognized soft skills and employability skills, Prentice and Robinson (2010) asserts that soft skills helps graduates to compete in the job market, Tucker (2001) recognized the value of communication skills for employability, Wilson (2011) elaborated on the expectations of employers for the graduates to possess social skills.

Although there is dearth of SLRs on graduate soft skill development outcomes due to service learning programs, there are other SLRs on employability related soft skill requirements (Abelha, Fernandes, Mesquita, Seabra & Ferreira-Oliveira, 2020; Matturro, Raschetti & Fontán, 2019; Noah & Aziz, 2020; Subramaniam, Azmi & Noordin, 2020). The outcome of this review suggests the possibility of developing job-related soft skills through service learning programs.

5. Conclusions

According to the results of the current SLR a few important conclusions can be made. Service-Learning is a new pedagogical strategy that has been introduced to university curriculum and it possess opportunities for soft skill development of students among other outcomes that it delivers. There is relatively a smaller number of journal articles published on usability of service-learning in developing soft skills of the university students. The current study followed a SLR and studied 17 full text articles that highlighted soft skill development of university students as a result of following service-learning programs. This review revealed that while communication, teamwork, leadership, critical thinking, agile thinking, empathy and confidence being the most common soft skills, a total of 14 soft skills were developed due to service-learning exposure. Therefore, service-learning seem to be a well-used strategy for developing soft skills that are needed to improve employability of the graduates. However, there is a dearth of research carried out on the topic of service-learning or outcomes of service-learning in Sri Lanka.

Based on this SLR, following implications can be made.

- a) A policy level attention may support upgrading university curricula to enhance soft skill development of the students.
- b) Service-Learning may be introduced into university curricula as a strategy to develop soft skills of the students.
- c) Further research could be carried out to review current strategies and programs that are aimed at soft skills development in university students; to find out whether and how Service-Learning is implemented in Sri Lanka; to assess whether such Service-Learning programs develop soft skills of the students who participated in such programs.

This SLR is subject to several limitations. Firstly, authors have not considered all the articles that would have been published on the topic of soft skill development due to Service Learning based on the exclusion criteria. Secondly, the reviewed articles have been limited to journal

articles published in English language. Thirdly, there has been restricted access to other databases due to cost involved in accessing them.

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