

Soft Skill Development in Undergraduate Degree Programs in Sri Lankan Public Universities: General Trends, Potential, and Barriers

Lakshi Karunarathne¹ and Ranthilaka G Ariyawansa²

Department of Estate Management and Valuation, University of Sri Jayawardenepura, Sri Lanka.

Abstract

The study aims to identify important soft skills for undergraduates, barriers to teaching soft skills, and the potential of public universities in developing soft skills in undergraduates. A mixed-method approach was used in this study. The purposive sampling method was used, and data of the quantitative phase were collected from academics and industry representatives via an online questionnaire survey. Interviews were conducted with industrial personnel via semi-structured telephone as well as face-to-face interviews. Descriptive statistics and content analysis were used to analyze the data. Results indicate that communication, teamwork, ethic, and professionalism as the most important soft skills for undergraduates from both academic and industry perspectives. Time constraints, the largeness of student number in classrooms, and a lower level of student awareness of the importance of soft skills were found to be the barriers to developing soft skills in undergraduates. Identifying the presence of skilled lecturers, and infrastructure to develop soft skills in undergraduates were seen as part of the university potential to develop the soft skills in undergraduates. The study suggests that universities and employers should work together to increase students' awareness of the importance of soft skills and guide them in developing the same. The university curricula should create scope for implementing and evaluating soft skill development in undergraduates.

Keywords: Soft skills, Sri Lankan Public Universities, undergraduates

Suggested Citation: Karunarathne, L. & Ariyawansa, R.G. (2022). Soft skill development in undergraduate degree programs in Sri Lankan public universities: General trends, potential, and barriers. *Sri Lanka Journal of Education*, 1(2), 68-89.

Email: lakshikarunarathne@sjp.ac.lk, ariyaw71@sjp.ac.lk

Introduction

The significance of soft skills is well recognized in the literature. Different disciplines such as management, information system, accounting, project management, leadership and many more have identified the importance of soft skills for undergraduates in rapidly changing work and life environments (Ahmad et al., 2021; Dolce et al., 2020; Levasseur, 2013). Soft skills are different from hard/technical skills; they are difficult to teach even though they play a vital role in improving employability, finding innovative solutions to problems, and adapting to changing environments. Soft skills are a must and programs/courses need to be developed with the combination of hard skills and soft skills (Dolce et al., 2020; Yan et al., 2019).

Soft skills are generally thought to be difficult to be defined and classified. Definitions and classifications change in different disciplines and scenarios (Ahmad et al., 2021; Dolce et al., 2020; Gibb, 2014; Levasseur, 2013; Yan et al., 2019). ‘Soft skills are cross-disciplinary, independent of job or industry...’ Yan et al. (2019, p.243). Dixon et al. (2010) as cited in Levasseur (2013) describe soft skills as ‘a combination of interpersonal and social skills...’(p.566). Gibb (2014) describes soft skills as intra-personal skills and interpersonal skills that are essential for personal development, and career success. Further, soft skills are identified as attitude to work, personal attributes, and individual qualities (Grugulis et al., 2009).

Teaching soft skills through courses and training programs are debatable in the literature. Some soft skills are unteachable. These include human qualities such as integrity, self-esteem, leadership ... etc. that can be achieved through self-realization (Yan et al., 2019). However, it is possible to make a positive impact by inculcating unteachable human qualities through transforming basic knowledge, understanding and providing opportunities to practice them within and outside the classroom. Soft skill development should be a continuous process of lifelong learning and it requires personal motivation to learn, and a conducive environment to support the interaction with others. Thus the development of soft skills is harder than that of hard skills (Levasseur, 2013). Educational influence is one that can be used to develop soft skills in addition to the family, societal norms, life experiences, and spiritual influences (Yan et al., 2019).

As opposed to soft skills, graduates focus mainly on hard skills such as discipline and knowledge (Gibb, 2014; Ahmad et al., 2021; Gunaratne et al., 2018). However, as highlighted in the literature, hard skills themselves are not sufficient to secure a job and effectively perform in a work environment (Dolce et al., 2020; Succi & Canovi, 2020). Soft skills are essential in the job market and to increase the employability of graduates (Dolce et al., 2020; Succi & Canovi, 2020). Meanwhile, employers continually criticize higher educational institutions for the absence of soft skills in the degree holders and for not adequately preparing them for the labor market (Succi & Canovi, 2020).

This situation is predominantly seen in Sri Lanka too, especially in the areas of Art, Social Sciences and Humanities Education (Ariyawansa, 2008). According to Gunaratne et al. (2018), 74% of the employers stated that it is a huge challenge to find graduates with relevant soft skills. According to Ariyawansa (2008), one of the main objectives of higher education should be to prepare undergraduates for the ever changing labor market. To this end, the development of soft skills is a vital aspect that needs to be expanded within the higher education institutes in Sri Lanka. Accordingly, universities need to complement hard skills with soft skills which will allow undergraduates to manage their personal and career life successfully contributing to finding innovative solutions for personal, organizational, and social problems.

With this purview, this article seeks answers to the following questions.

What is the general view of academics regarding soft skills in the university system?

What type of soft skills are important?

What potential do the Sri Lankan public universities have in developing soft skills of their undergraduates and what are the barriers for initiating such programs?

Research questions are addressed from both academic and industry perspectives. The rest of the paper is organized as follows. First, the paper discusses the literature related to definitions and categorization of soft skills, the importance of soft skill development for undergraduates, different types of soft skills discussed in the literature and study conceptualization. Secondly, the study materials and methods are accordingly outlined. And finally, the empirical results of the study are discussed and analyzed.

Literature review

In this increasingly competitive and changing world, undergraduates must improve their abilities systematically and progressively in accordance with the global society's direction in an effective manner. Despite the technical abilities, it also necessitates a variety of soft skill development (Kyllonen, 2013; Junrat et al., 2014). Therefore, it has been recognized the connection between soft skill development and the overall success and professionalism, education, and leadership (Dixon et al., 2010; Ahmad et al., 2021), demonstrating the importance of soft skills for individuals in the twenty-first century. Soft skills have also been recognized as employability skills, key skills, life skills, generic skills, essential skills, core skills, transferable skills, key competencies, and necessary skills (Cleary et al., 2007; Esa et al., 2014).

The literature confirms that the phrase "soft skill" is widely used, yet poorly defined. Unlike academic or disciplinary education, which is content-specific, subject-based, and officially tested, soft skills are a set of abilities that are independent of formal curricula, though they are frequently acquired by the people on their own, and are seldom explicitly examined.

Accordingly, soft skills are commonly described as talents, abilities, and personal characteristics that may be employed in the vast range of professional contexts in which function throughout their personal and career lives (Fraser, 2001; Chamorro-Premuzic et al., 2010; Rainsburry et al., 2002).

In today's competitive labor market, recruiters are more interested in job-related experts who have soft or non-technical abilities in addition to academic knowledge (technical competence) (Mansour & Dean, 2016; Nusrat & Sultana, 2019). According to Finch et al. (2013), soft skills are the most important employability skills whereas academic reputation is the least important. Soft skills including personal qualities and interpersonal skills increase the employability of individuals and enhance their performances in their careers (Tsirkas et al., 2020). Soft skills are important in the workplace because they are used when employees communicate and interact with one another, collaborate to complete tasks, and engage in dialogues to offer feedback, solve problems, and resolve work-related difficulties (Adnan et al., 2014).

Soft skills would be a requirement for academic learning (Chamorro-Premuzic et al., 2010). Consequently, in the education system, most of the universities and higher educational institutions are taking the need seriously and looking for innovative methods to improve their graduates' employability through soft skill development (Nusrat & Sultana, 2019). As a means for contributing to the total graduate employability, higher education institutions must re-evaluate their approaches to successful teaching techniques for soft skill development and assistance for university students' transition to the workplace (Tran, 2013; Yao & Tulia, 2019). Wheeler (2016) mentioned that soft skills enable business graduates to put their technical talents and theoretical knowledge to good use in the workplace. Soft skills are being integrated into leadership development programs, internships, and coaching opportunities at several institutions and business schools because it is important to shape up and form the person's personality (AbuJbara & Worley, 2018).

Significance of developing soft skills is further reinforced in the concept of 21st century skills. It is understood that students need new set of skills to face complex and continuously evolving future (Craig, 2012 as cited in Erdem (2019)). Existing literature reveals that different researchers have put these skills into different categories (Wagner, 2008; Jacinto, 2016 as cited in Erdem (2019)). These 21st century skills range from survival skills and critical thinking through problem solving ability to decision-making and skills (Wagner, 2008; Jacinto, 2016 as cited in Erdem (2019)).

The literature further reveals a dynamic combination of soft skills such as cognitive skills, interpersonal skills, intellectual skills, and social skills and qualities (Ministry of Higher Education Malaysia, 2006; Beard et al., 2007; Rao, 2014; Jameson et al., 2016; Ellis et al., 2014). These soft skills have been classified differently by scholars. Table 1 shows a few such examples.

Table 1

Classification of Soft Skills

Source	Main Classification	Soft Skills
Yao & Tuliao (2019)	Independent skills	life skill, working independently, research skill, critical thinking,
	Interpersonal relationships	interpersonal communication, working in teams, cooperation, negotiation, and understanding others from different cultures
	Perceived employability	communication in English and cultural competence
Bak, Jordan & Midgley (2019)	Decision-Making skills	problem-solving, flexibility, planning skills
	Behavioral Skills	time management, organizational skills, motivation and enthusiasm, communication skills, stress management, initiatives
	Management skills	collaborative learning, leadership skills, people management, teamwork
	Negotiation skills	negotiation, management of complexity and change,
Samkin, & Keevy (2019)	Ethical behavior and professionalism	avoiding conflict of interest; acting with honesty and integrity; protecting the public interest; exercising due care; remaining objective and independent; protecting the confidentiality of information; enhancing the profession's reputation, and adhering to professional conduct
	Personal attributes	managing change; self manages; treating others in a professional manner; initiative and competence; leadership ability; adding value in an innovative manner; being a team member, and managing time; understands the national and international environment; being a life-long learner;
	Professional skills	managing and supervising others; obtaining information; solving problems; making decisions; critically interpreting information; communicating effectively; using technology, and understanding basic legal concepts

Source	Main Classification	Soft Skills
Robles (2012)	Communication	written, oral, speaking capability, listening, presenting
	Courtesy	manners, etiquette, business etiquette, gracious, says please and thank you, respectful
	Flexibility	adjusts, adaptability, lifelong learner, willing to change, accepts new things, teachable
	Integrity	honest, high morals, has personal values, ethical, does what's right
	Interpersonal Skills	nice, friendly, sense of humor, personable, has self-control, nurturing, empathetic, patient, social skills, sociability, warmth
	Positive Attitude	confident, optimistic, enthusiastic, happy, encouraging
	Professionalism	businesslike, poised, well-dressed, appearance,
	Responsibility	gets the job done, accountable, self-disciplined, reliable, resourceful, common sense, wants to do well, conscientious
	Teamwork	agreeable, cooperative, supportive, gets along with others, helpful, collaborative
Work Ethic	loyal, hard-working, self-motivated, willing to work, good attendance, initiative, on time	
Ellis et al. (2014)	Resource Competencies	allocate time, allocate human resources, allocate money,
	Information Competencies	interpret information
	Interpersonal Competencies	negotiate a decision, serve clients & customers, work with diversity, participate as a team member, exercise leadership
	Basic Skills	listening, speaking
	Thinking Skills	self-management, decision making, problem-solving, self-esteem, knowing how to learn, creative thinking personal qualities: integrity, reasoning, responsibility, social skills,
Problem-solving	implementation planning, idea evaluating, critical thinking, identifying key causes,	

Source	Main Classification	Soft Skills
Trung, & Swierczek, (2009)	Learning	self-esteem, active learning and growth, self-confidence, creative thinking,
	Information processing	information organizing, basic software use, synthesizing
	Communication:	teamwork, written communication, information gathering, understanding cultural differences
Varela (2020)	Oral presentation	credibility content and structure clarity, aid support, delivery
	Teamwork	mission analysis, backing up, coordinating, conflict management, motivating others
	Critical thinking	the stating problem, showing alternatives, using concepts, stating assumption
Haselberger et al. (2012); Succi (2018)	Personal	being tolerant to stress, learning skills, being committed to work, being professionally ethical, self-awareness skills, creativity/innovation skills, life balance skills,
	Social	teamwork skills, communication skills, leadership skills, conflict management & negotiation skills, culture adaptability skills, contact network skills
	Methodological	results orientation skills, adaptability to change skills, customer/user orientation skills, decision-making skills, continuous improvement skills, analysis skills, management skills
Jacinto (2016) as cited in Erdem (2019)	Ways of thinking	creativity, problem-solving, decision-making and learning, critical thinking,
	Ways of working	communication and collaboration
	Tools for working	information and communications technology [ICT] and information literacy
	Skills for living in the world	citizenship, life and career, and personal and social responsibility

Source: Authors (2021)

As per the literature review based on the list of soft skills categorization in the studies of Haselberger et al. (2012) and Succi (2018) as well as the above categorization (Table 1), fifteen (15) soft skills are identified as significant skills for undergraduates. These fifteen are classified into three categories: social, personal and organizational as given below.

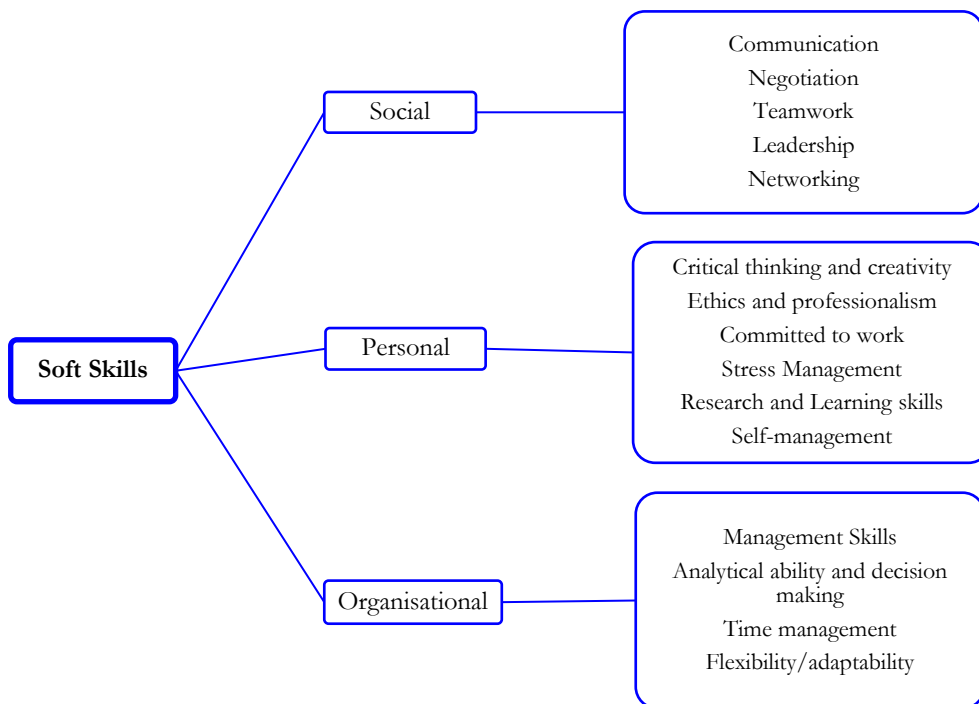


Figure 1. Conceptual Framework
Source: Authors (2021)

Materials and methods

This is a pragmatism research and use mixed method approach for the triangulation of the results and for more clarification as well as elaboration of the results (Greene et al. 1989 as cited by Johnson and Onwuegbuzie, 2004). Further, mixed method approach provides a better understanding of research problems and complex phenomena than quantitative and qualitative approaches alone (Creswell & Clark, 2007). Primary data were collected using a structured questionnaire survey administrated through a google form from the academics. Semi-structured telephone calls and face-to-face interviews were used to collect data from the employers. The purposive sampling method was adopted to select respondents from academics of public universities and employers from the industry. The sample size of the questionnaire survey is 64 academics and 20 industry representatives. Respond rate of the questionnaire is 50.8% (the questionnaire was mailed to 126 academics) and the survey was conducted within a period of two weeks.

The questionnaire was developed after a thorough literature review and piloted with several academics before the distribution. The study explores the participants’ perception of fifteen (15) soft skills (Figure 1). Respondents were asked to rank those soft skills and also evaluate the importance in Seven (7) point Likert scale (Extremely important to Not important at all). Additionally, open-ended questions were included to gather information on potentials and barriers of having the soft skill development programs for undergraduates in Sri Lankan public universities.

The demography of the sample of the questionnaire survey is shown below in Table 2 (Sample is 64). The majority of the respondents are female (61%) and 39% of the respondents are in the ages between 25-34 years. Thirty percent is in the category of 45-54 years. The PhD holders constitute 52% of the sample. Fifty two percent of the academia is from the management background.

Table 2

Demographic Information of the Sample

Category	Subcategory	Respond Rate (%)
Gender	Male	39
	Female	61
Age	25-34 years	39
	35-44 years	23
	45-54 years	30
	Above 55 years	8
Highest Education Qualification	Bachelors degree	19
	Masters degree	25
	Mphil	4
	PhD	52
Specialized Field	Management	52
	Applied sciences	9
	Architecture	2
	Engineering	9
	Humanities and Social sciences	11
	Medical sciences	6
	Technology	11
Designation	Visiting Lecturer	2

Category	Subcategory	Respond Rate (%)
	Temporary Assistant Lecturer	14
	Temporary Lecturer	3
	Lecturer Probationary	14
	Senior Lecturer (Grade I)	22
	Senior Lecturer (Grade II)	33
	Professor	12

Source: Authors (2021)

The qualitative phase of the interview was also used to answer the three research questions of the study. Interviews were conducted with twenty (20) industrial personals. The sample consists of 12 persons who are in the middle-level managerial positions and the others are from the top-level management. All the interviewees hold master's degrees as the highest educational qualification. All of them are in the age category of 35-55 years. They hold positions as company directors, senior managers, and senior professionals.

Quantitative data are processed using descriptive statistics such as mean, standard deviation, percentages in the IBM SPSS package and qualitative data gathered through the interviews are analyzed using content analysis.

Results & discussion

Academics view on soft skills in general

As per Table 3, academic respondents are of the view that soft skills are very important for undergraduates which shows a higher mean value (6.77) and they are confident that they have enough awareness of the soft skills required for undergraduates and teaching them. However, 'entire university community need the soft skill development at various levels' is a comment given by some respondents.

Further, it was revealed that some degree programs have separate subjects/modules to teach soft skills to undergraduates. In this regard, most respondents believe that a separate subject is required to teach soft skills in the degree curriculum. On the contrary, some opinions differed as in the following quote.

“ ... it is very difficult to transfer soft skills from a separate subject, and therefore, what should be done is to encourage students to engage in extra-curricular activities like sports, work with clubs and societies, engage in events organized by students' unions which would be fun for them and lead them towards active social life and that could automatically nurture soft skills in them”.

Furthermore, as per the analysis, motivation shown at the university and departmental level to upgrade soft skills is not highly significant.

Table 3

Views about Soft Skills Required for Undergraduates in General

Views	Minimum	Maximum	Mean	Std. Deviation	Yes (%)	No (%)
Soft skills are very important for undergraduates	2	7	6.77	.707		
Lecturer’s awareness of required Soft Skills for undergraduates	5	7	6.30	.659		
Lecturer has enough soft skills to teach and deal with students	3	7	5.91	.750		
There is a separate Soft Skills component in the degree programme	1	7	5.75	1.222		
Soft skills should be a separate subject in the course structure	1	7	5.59	1.509		
University has the motivation to develop undergraduates' Soft skills	1	7	5.25	1.285		
Degree programmes have adequate steps to upgrade Soft Skills	1	7	5.00	1.321		
Soft Skills can be improved via teaching subjects					80	20
Present graduates have a lower level of soft skills					67	33

Source: Authors (2021)

Further, Table 3 shows that 67% of the respondents are of the view that present graduates have lower levels of soft skills and the reasons for having lower levels of soft skills are perceived as negative relationship between students and lecturers, weak education practices since school level such as ‘focus on competitive examinations’, ‘not improving soft skills’, ‘lack of understanding of the importance of soft skills among undergraduates’, etc.

In addition, 80% of respondents agree that the soft skills of undergraduates can be improved within the scope of teaching subjects by including assignment activities such as case studies, group and individual discussions, role plays. Skills such as communication, leadership, teamwork, critical thinking, time management problem solving, networking can

be improved through these activities, they observed. Further, lectures should be diverted from traditional one-way knowledge delivery mechanisms and increase student-centered learning activities such as reflective responses, think-pair-share, jigsaw discussions, fishbowl discussions and problem-based learning etc. Meanwhile, there are 20% who didn't agree with the above claim with the views that,

“To some extent, it is possible to provide a guide to students to improve their soft skills within a scope of a subject. Actually, self-motivation and neediness are key factors that influence soft skill development”.

“Semester system has compelled the lecturers to finish the syllabus somehow. Further common program requires a panel of lecturers to maintain consistency in delivering the lecture and sometimes that restricts the ability to be flexible and use of creativity in delivering the lectures”.

“What I teach is highly technical. And, I believe inside those modules, students must focus on their technical and analytical skills rather than soft skills. I don't believe that soft skills can be integrated into those modules which are highly technology-related”.

Important soft skills for undergraduates

Table 4 demonstrates the ranking of 15 soft skills, the respondent were asked to select soft skills they like best in order of their preference in each category. Accordingly, it can be observed that communication, teamwork, leadership (under the category of social), critical thinking and creativity, committed to work, research and learning skills (under the category of personal), and under the third category, analytical ability and decision making has been selected as 1st or 2nd choices. The skill of time management can be seen as 3rd choice.

Table 4

Ranking of Soft Skills Under Three Categories (Academics Perspective)

	1st Choice	2nd Choice	3rd Choice	4th Choice	5th Choice	6 th Choice
Social						
Communication	27	0.5	0.3	0.3	0.3	
Negotiation	0.1	5.1	4.6	10	8.3	
Teamwork	2.1	17.7	6.7	1.7	0.3	Not Applicable
Leadership	1.2	2.2	9.3	5.2	4.6	
Networking	0.4	1.2	2.5	7.2	14	

	1st Choice	2nd Choice	3rd Choice	4th Choice	5th Choice	6th Choice
Personal						
Critical thinking and creativity	16.8	6.4	0.3	2.8	0.7	0.3
Ethics and professionalism	5.3	9.3	8.3	11.2	3.6	1.6
Committed to work	7.3	12.4	5.9	1.1	0.2	0.3
Stress Management	0.2	0.2	1.8	4.5	11.6	9.3
Research and Learning skills	0.8	1.4	13.2	8.3	8.3	6.7
Self-management	1.4	1.4	0.8	1.1	5.3	14
Organizational						
Management skills	5.8	5.6	1.5	0.7		
Analytical ability and decision making	10.9	9.3	0.7	0.7	Not Applicable	
Time management	2.9	3.1	14.7	4.6		
Flexibility/adaptability	0.5	0.9	4.8	17.9		

In addition to the above ranking under each category conceptualized in the study, 15 skills are also evaluated and ranked according to the importance on a 7-point Likert scale (Table 5). Similar to Table 4 with slight differences, it emerged that communication, teamwork, critical thinking and creativity, ethics and professionalism and committed to work are the most important soft skills for undergraduates as per the academic perspective. On the other hand, negotiation, management skills and research and learning skills are ranked as the lowest important skills.

Table 5

Evaluating and Ranking of 15 Soft Skills (Academics Perspective)

Rank Order	Soft Skills	Minimum	Maximum	Mean	Std. Deviation
1	Communication	6	7	6.88	0.333
2	Teamwork	5	7	6.83	0.42
3 or 4	Critical thinking and creativity	4	7	6.73	0.597
	Ethics and professionalism	2	7	6.73	0.761
5	Committed to work	5	7	6.7	0.582
6	Time management	5	7	6.69	0.56
7	Networking	5	7	6.67	0.536
8	Self-management	4	7	6.66	0.597
	Stress Management	3	7	6.64	0.698
9 or 10 or 11	Analytical ability and decision making	3	7	6.64	0.784
	Flexibility/adaptability	5	7	6.64	0.574
12	Leadership	4	7	6.59	0.66
13	Negotiation	5	7	6.58	0.612
14	Management Skills	4	7	6.5	0.69
15	Research and Learning skills	3	7	6.44	0.753

Tables 4 and 5 indicate academic perspectives on the important soft skills for undergraduates and Table 6 below indicates the industry perspective on the given 15 soft skills. Accordingly, communication, teamwork, ethics and professionalism, committed to work, analytical ability and decision making can be identified as the most important soft skills. The least important skills that can be seen are ‘stress management’ and ‘research and learning skills’.

Table 6*Evaluating and Ranking of 15 Soft Skills (Industry Perspective)*

Rank Order	Soft Skills	Minimum	Maximum	Mean	Std. Deviation
1	Communication	6	7	6.86	.350
2	Teamwork	5	7	6.80	.443
3	Ethics and professionalism	2	7	6.72	.766
4	Committed to work	5	7	6.70	.582
5	Analytical ability and decision making	5	7	6.69	.560
6	Critical thinking and creativity	4	7	6.67	.644
7	Management Skills	3	7	6.66	.695
8 or 9	Networking	5	7	6.64	.574
or 10	Leadership	4	7	6.64	.601
	Flexibility/adaptability	5	7	6.64	.574
11	Time management	3	7	6.61	.789
12 or	Negotiation	5	7	6.53	.642
13	Self-management	4	7	6.53	.734
14	Stress Management	4	7	6.47	.712
15	Research and Learning skills	3	7	6.38	.826

Table 7 given below compares the ranking order of 15 soft skills from the academic and industry perspectives. Highlights show similar ranks in both perspectives and it is interesting to see that the most important three soft skills are the same in both academic and industry perspectives, namely, communication, teamwork and ethics and professionalism. Similar situation can be seen for the least important skills as well. Both parties agree that it is research and learning skills that are least liked. Some skills have very slight changes in the ranking such as ‘committed to work’ is in 5th place in academic perspective and it is the 4th in the industrial perspective. Further, time management, self-management and stress management take higher places in academic perspective, but they get lower ranks in the industry perspective. Moreover, management skills and leadership take lower ranks in academic perspective, and they take a higher rank in the industrial perspective.

Table 7

Comparison of Academic and Industry Perspectives on 15 Soft Skills

Rank Order	Academic Perspective	Industry Perspective
1	Communication	Communication
2	Teamwork	Teamwork
3	Critical thinking and creativity; Ethics and professionalism	Ethics and professionalism
4	Critical thinking and creativity; Ethics and professionalism	Committed to work
5	Committed to work	Analytical ability and decision making
6	Time management	Critical thinking and creativity
7	Networking	Management Skills
8	Self-management	Networking; Leadership; Flexibility/adaptability
9	Stress Management; Analytical ability and decision making; Flexibility/adaptability	Networking; Leadership; Flexibility/adaptability
10	Stress Management; Analytical ability and decision making; Flexibility/adaptability	Networking; Leadership; Flexibility/adaptability
11	Stress Management; Analytical ability and decision making; Flexibility/adaptability	Time Management
12	Leadership	Negotiation; Self-Management
13	Negotiation	Negotiation; Self-Management
14	Management Skills	Stress management
15	Research and Learning skills	Research and Learning skills

Barriers to teach soft skills in the university system

Table 8 demonstrates addressing the next research question of barriers to teaching soft skills in the university system.

Table 8

Barriers to Teach Soft Skills in the University System

Barriers	Comments given by academia
Time constraints in Semester based system	Students are overloaded with technical subjects and content, mainly focusing on passing the end semester examinations. Therefore, time allocated and the weightage given for technical subjects is higher and students hardly have time to engage in activities that improve their soft skills.
Evaluation of soft skills are not included in the student evaluation procedures	Student Evaluation procedures should be reviewed to adhere to soft skills as there is no guideline in the university system to address these issues (For example no common guideline for marks deduction for late submission).
Largeness of student number hinder the opportunity to improve soft skills	Lack of teacher training on student-centered teaching to a large group of students
Lack of awareness and self-motivation of undergraduates toward soft skill development	In the competitive environment, students are more focused on getting higher results for technical/hard skills and less attentive to developing their soft skills

Potential to improve soft skills of the undergraduates in the public university system

Despite the barriers, there is potential in the state university system to develop soft skills among the undergraduates. Curriculum and syllabus development should encourage soft skill development. For example, adopting Student-Centered Learning (SCL), Garcia et al. (2020) mentions that one of the goals of higher education institutions is to produce graduates with soft skills to face the challenges of the 21st century and to this end, the academics should flip themselves 360 degrees from traditional chalk and talk method to SCL which can take students out of their comfort zones and empower them with soft skills to be lifelong learners. Weimer (2002) makes the point that in the student-centered classroom the roles of the teacher must necessarily change, so that the teacher changes from the “sage on the stage” to the “guide on the side” who views the students not as empty vessels to be filled

with knowledge but as seekers of knowledge to be guided along their intellectual developmental journey” as cited in Wright (2011, p. 93). In such an environment, students learn by doing and involving in learning activities such as problem solving, presentations, communication, critical thinking etc. (Yao & Tuliao, 2018). This approach is currently promoted by the University Grants Commission (UGC) in Sri Lanka and to some extent is implemented in Sri Lanka by the curriculum development process which includes and promotes the necessary aspects of knowledge, skills, attitudes and mindset. Moreover, one of the interviewees reveal that “learner centered teaching is all about learning, in this regard, assessments should not focus on producing grades but assessment should more importantly promote learning, so evaluation should focus on that”. In addition, some of the degree programs include soft skills as a compulsory noncredit subject.

Furthermore, possibilities are available to hire professionals from other universities or from the industry to teach or inculcate soft skills. There are volunteers who are ready to help students. Furthermore, there are clubs like Gavel, Rotaract club, societies, sports and career guidance units in universities. Integrating internship programs into degree programs will also provide opportunities for students to improve their soft skill development.

As per the analysis, the following four factors were identified as significant factors that can have a positive impact on the development of undergraduates’ soft skills. These significant factors are, namely, ‘the awareness and preference for soft skills of the undergraduates’, ‘self-motivation of the undergraduates’, ‘SCL’, and ‘infrastructure and technologies in the university system to support the enhancing of the acquisition of soft skills’.

Conclusion

The purpose of this study was to examine the increased relevance of soft skill development in undergraduates in public universities in Sri Lanka. Thus, this article explored the general view of the academics regarding soft skills in the university system, important soft skills for undergraduates from the academic and industrial perspectives, and the potential and barriers of having soft skill development programs for undergraduates in the Sri Lankan public university system.

All the 15 soft skills that were studied showed as very important skills and no major differences of importance/ rank were visible either in the industry or in the academic perspectives. Communication, teamwork and ethics and professionalism have the highest relative weight. Further results indicate that time constraints, largeness of student number in classrooms, and a lower level of awareness of students about the importance of soft skills are major barriers to teaching soft skills in the university system. Further, there is potential in the university system, such as promotion of SCL, skilled and motivated lecturers and other

relevant infrastructure facilities like clubs, sports events, can enhance undergraduates' soft skills.

The study suggests that universities and industry need to work together to increase students' awareness of the importance of soft skills and guide them in developing these skills continuously throughout their university life. Moreover, the university curricular should create scope for implementing and evaluating soft skill development in undergraduates while minimizing the barriers and enhancing the potential in the university system.

Reference

- Abujbara, N. A. K., & Worley, J. A. (2018). Leading towards new horizons with soft skills. *On The Horizon-The Strategic Planning Resource for Education Professionals*, 26(3), 247-259.
- Ahmad, S., Ahmad, S., & Ameen, K. (2021). A qualitative study of soft skills development opportunities: Perceptions of university information professionals. *Global Knowledge, Memory and Communication*, 70(6/7), 489-503.
- Ahmad, S., Ameen, K., & Ahamad, S. (2021). Information professionals' soft skills status and barriers in its development : A mixed method study. *Library Management*, 42(1/2), 80–92.
- Ariyawansa, R. G. (2008). Employability of graduates of Sri Lankan Universities. *Sri Lankan Journal of Human Resource Management*, 2(1), 91–104.
- Bak, O., Jordan, C., & Midgley, J. (2019). The adoption of soft skills in supply chain and understanding their current role in supply chain management skills agenda: A UK perspective. *Benchmarking: An International Journal*, 26(3), 1063-1079.
- Beard, D., Schwieger, D., & Surendran, K. (2007). Incorporating soft skills into accounting and MIS curricula. *SIGMIS CPR '07*, (pp. 179-185).
- Chamorro-Premuzic, T., Arteche, A., Bremner, A. J., & Furnham, A. (2010). Soft skills in higher education: Importance and improvement ratings as a function of individual differences and academic performance. *Educational Psychology*, 30(2), 221-241.
- Cleary, M. (2007). *Graduate employability skills:prepared for the business, industry and higher education collaboration council*. Commonwealth of Australia.
- Creswell, J. W., & Clark, P. (2007). *Designing and conducting mixed methods research*. Thousand Oaks, CA: Sage.

- Dixon, J., Belnap, C., Albrecht, C., & Lee, K. (2010). The importance of soft skills. *Corporate Finance Review*, 14(6), 35-38.
- Dolce, V., Emanuel, F., Cisi, M., & Ghislieri, C. (2020). The soft skills of accounting graduates: Perceptions versus expectations. *Accounting Education*, 29(1), 57-76.
- Ellis, M., Kisling, E., & Hackworth, R. G. (2014). Teaching soft skills employers need. *Community College Journal of Research and Practice*, 38(5), 433-453.
- Erdem, C. (2019). Introduction to 21st century skills and education. In C. Erdem, H. Bağcı, M. Koçyiğit (Eds.), *21st century skills and education* (pp.2-20). Cambridge Scholars Publishing.
- Esa, A., Selamat, A., Padil, S., & Jamaludin, J. (2014). Applications of soft skills in engineering programme at polytechnic Malaysia. *Procedia-Social and Behavioural Science*, 140, 115-120.
- Finch, D. J., Hamilton, L. K., Baldwin, R., & Zehner, M. (2013). An exploratory study of factor affecting undergraduate employability. *Education+ Training*, 55(7), 681-704.
- Fraser, S.(2001). Graduate attributes and generic skills at Macquarie. *And Gladly Teche*, 1, 1-4.
- Garcia, R., Tan, R. D., Florendo, J., & Santos, N. (2020). 21st century soft skills in student-centered learning among first-year college students: A comparative study, *International Journal of Recent Advances in Multidisciplinary Research*, 7(10), 6338-6341.
- Gibb, S. (2014). Soft skills assessment: Theory development and the research agenda, *International Journal of Lifelong Education*, 33(4), 455–471.
- Grugulis, I., Vincent, S., & Grugulis, I. (2009). Whose skill is it anyway? 'soft' skills and polarization. *Work, Employment and Society*, 23(4), 597–615.
- Gunaratne, P. S. M., Ramanayaka, A., & Panagoda, D. (2018). *Tracer study of graduates. Universities in Sri Lanka*. University Grant Commission.
- Haselberger, D., Oberheumer, P., Perez, E., Cinque, M., & Capasso, D. (2012). *Mediating Soft Skills at Higher Education Institutions*. Handbook of ModEs Project, Life Long Learning Programme.
- Jameson, A., Carthy, A., McGuinness, C., & McSweeney, F. (2016). Emotional intelligence and graduates-employer's perspectives. *Procedia-Social and Behavioral Science*, 228, 515-522.

- Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Researcher*, 33(7), 14–26.
- Junrat, S., Jenphop, C., Suravee, R., & Kanokorn, S.(2014). Soft skills for university library staff in Thailand. *Procedia- Social and Behavioral Science*, 112, 1027-1032.
- Kyllonen, P. C. (2013). Soft skills for the workplace change. *The Magazine for Higher Learning*, 45(6), 16-23.
- Levasseur, R. E. (2013). People skills : Developing soft skills - A change management perspective. *Interfaces*, 43(6), 566–571.
- Mansour, B. E., & Dean, J. C. (2016). Employability skills as perceived by employers and University faculty in the fields of Human Resource Development (HRD) for entry level graduates jobs. *Journal of Human Resource and Sustainability Studies*, 4(1), 39.
- Ministry of Higher Education Malaysia (2006). *Development of soft skills for institutions of higher learning*, University Putra Malaysia.
- Nusrat, M., & Sultana, N. (2019). Soft skills for sustainable employment of business graduates of Bangladesh. *Higher Education, Skills and Work-Based Learning*, 9(3), 264-278.
- Rainsburry, E., Hodges, D., Burchella, N., & Lay, M. (2002). Ranking workplace competencies: Student and graduate perceptions. *Asia-Pacific Journal of Cooperative Education*, 3, 8-18.
- Rao, M. S. (2014). Enhancing employability in engineering and management students through soft. *Industrial and Commercial Training*, 46(1), 42-48.
- Robles, M. M. (2012). Executive perceptions of the top 10 soft skills needed in today's workplace. *Business and Communication Quarterly*, 75(4), 453-465.
- Samkin, G., & Keevy, M. (2019). Using a stakeholder developed case study to develop soft skills. *Meditari Accountancy Research*, 27(6), 862-882.
- Succi, C. & Canovi, M. (2020). Soft skills to enhance graduate employability: Comparing students and employers' perceptions. *Studeis in Higher Education*, 45(9), 1834-1847.
- Tran, T. T. (2013). Limitation on the development of skills in higher education in Vietnam. *Higher Education*, 65(5), 631-644.
- Trung, T. Q., & Swierczek, F. W. (2009). Skills development in higher education in Vietnam. *Asia pacific Business Review*, 15(4), 565-586.

- Tsirkas, K., Chytiri, A. P., & Bouranta, N. (2020). The gap in soft skills perceptions: A dyadic analysis. *Education+ Training*, 62(4), 357-377.
- Varela, O. E. (2020). Teaching core soft skills into business curriculum: Can we teach longitudinally? *Journal of Education for Business*, 95(3), 180-192.
- Wheeler, R. E. (2016). Soft skills: The importance of cultivating emotional intelligence, 20 AALL Spectrum 28.
- Wright, J. B. (2011). Student-centered learning in higher education. *International Journal of Teaching and Learning in Higher Education*, 23(3), 92-97.
- Yan, L., Yinghong, Y., Lui, S. M., Whiteside, M., & Tsey, K. (2019). Teaching “ soft skills ” to university students in China : The feasibility of an Australian approach. *Educational Studies*, 45(2), 242–258.
- Yao, C. W., & Tuliao, M. D. (2019). Soft skill development for employability: A case study of stem graduate students at a Vietnamese transnational university. *Higher Education, Skills and Work- Based Learning*, 9(3), 250-263.