

Presentation of the Preliminary Soft Skills Indicator (3Si) Model to Teachers and Curriculum Planners of Business Schools – A Sample From Finland

Kai Schleutker
Turku University of Applied Sciences

Jose-Luis Poza-Lujan
Valencia Polytechnical University

Keijo Varis
Turku University of Applied Sciences

Valeria Caggiano
UniTre

Nuria Lloret
Valencia Polytechnical University

Although Soft skills have been reported as indispensable elements of personal and organizational performance in business environments, their role in business education is not fully acknowledged. Being often considered as inborn abilities, guidelines for their development are needed. This study aims to provide business educators insights on essential soft skills and their promotion by asking business professionals to assess them in three dimensions. The results exhibit variations in the perceived significance of soft skills and suggest specific skills appropriate for bachelor-level business education. As a main contribution, the 3Si-Model is introduced. The findings are expected to be of interest for business teachers and curricula designers in Business Higher Education Institutions (HEI).

Keywords: soft skills, soft skills indicator (3Si) model, young professionals, business schools

INTRODUCTION

Along with working environments becoming more dynamic and turbulent, individuals are increasingly expected to adapt to change, communicate within and between organizations, and manage their tasks in their working environments. This has induced a skills shift, which is a challenge for both companies and educators. In a recent study (Bughan et al., 2018), more than 3000 managers reflected the skills shift between 2020 and 2030. They were asked to estimate the significance of types of skills according to their estimated share of working time in 2020 - 2030. The results indicate that some skills (e.g., physical manual,

and basic cognitive skills) are decreasing. In contrast, soft skills and Digi-technical skills, corresponding for 23%, respectively 17% of working time, are anticipated to be the most used in 2030. Also, other recent reports reflecting future skills (WEF, 2016; OECD, 2016) emphasize the role of soft skills. Furthermore, soft skills are supposed to affect career success to the extent that their importance is profoundly underlined in the Agenda for new skills and new jobs (Eurydice, 2014), and were highlighted in the recent “Rethinking education strategy – Investing in Skills” report for better socio-economic outcomes by the European Commission (Eurydice, 2019).

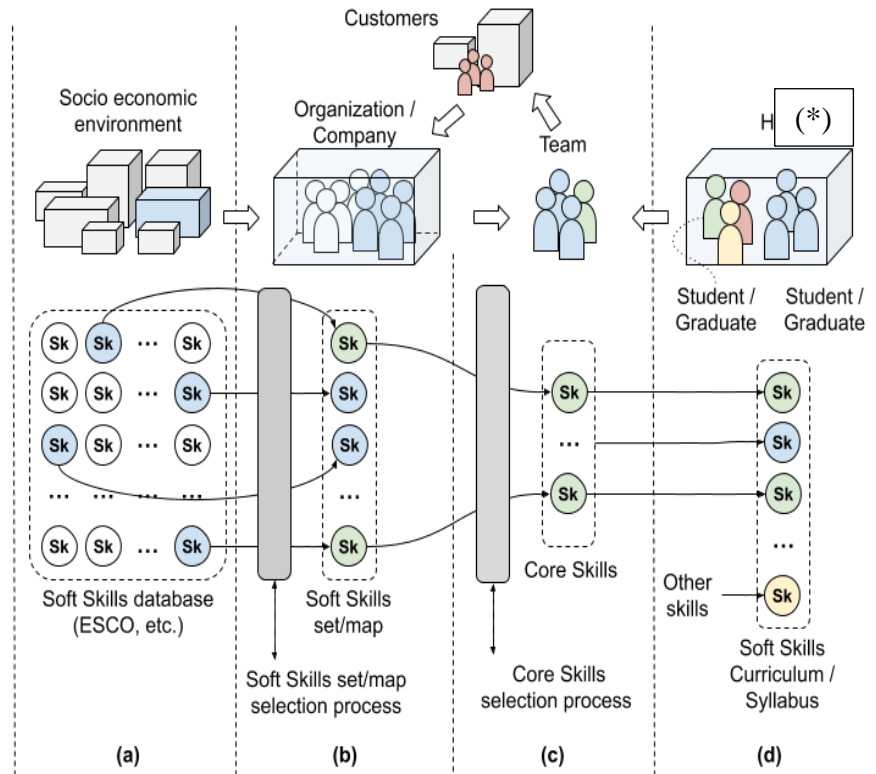
Soft Skills comprehend a variety of skills, such as *communication* skills, *team working* skills, *self-management* skills, and *thought* skills. Along with ‘soft skills’, the titles ‘employability skills’, ‘transversal skills’, ‘generic skills’, ‘social skills’, and ‘emotional intelligence’ are used almost interchangeably, referring to the same types of skills and competencies. The variety of titles is partly because they are field-specific, and particular areas of administration and business use their own specific terms, emphasizing the competencies needed in the respective fields.

Higher education is increasingly expected to equip graduates to an unknown future and the employability of recently graduates as a priority in higher education policy (Eurydice, 2019), promoting soft skills is a central concern (Succi & Canovi, 2019). Educational institutions have been repeatedly urged to teach these skills (Bennis & O’Toole, 2005; Lehtinen, 2006; Mitchell, Skinner & White, 2010); however, it has been a challenge to include them in their curricula (García-Aracil & van der Velden, 2008; Tedesco, Operti & Amadio, 2014). Several reasons lie behind this – as working life undergoes constant changes, educators may lack a precise perception of currently needed skills. Secondly, soft skills are somewhat abstract and often considered inborn abilities rather than skills that can be learned (Gilbert 2004; Grugulis & Vincent 2009). Thirdly, such abilities as ‘team working’, ‘communication’, and ‘self-management’ cannot be learned by traditional classroom methods (Bereiter & Scardamalia, 2006; Gewertz, 2007; Tedesco et al., 2014).

In organizations, skilled graduates and employees form the core of their performance. Thus, defining and training the most significant soft skills needed in their working positions is of remarkable interest. This interest is growing as skills mismatch and skills gaps are reported (WEF, 2016; OECD, 2016), and organizations report facing problems in recruiting skilled workforce (Bughin et al., 2018).

This study was conducted to assign the most important soft skills needed in business working environments and additionally indicate their development potential. Moreover, a tool is suggested to classify soft skills according to their significance, development potential, and current level in graduates or employees. The data were obtained from the Finnish data using a questionnaire. Thus, the results seek to provide business educators and curricula designers, as well as HR professionals, a multidimensional insight into these skills, hopefully enabling them to select and name the important skills that are most important for them. The layout of the research is presented in Figure 1.

FIGURE 1
THE SOFT SKILLS SELECTION PROCESS IN THE RESEARCH



* In the figure 1 HEI means Higher Educational Institutions

The proposed Soft Skills Status Indicator (3Si) model offers various outcomes related to skills' level and learning potential. By incorporating the perspectives of organizations (significance of skills), student/graduate/employee (existing skill level), and higher education institutions (the learning potential of skills), it aims to expose skills that may have more importance and have more learning potential than other skills in specific business environments.

LITERATURE

The History of Soft Skills

Soft skills have been discussed in various disciplines, originally in the sense of social skills needed in the interaction between persons in any working environment. In the early 1990s, Gardner et al. (1994) and Goleman (1995) (Schutte, Malouff, Hall, Haggerty, Cooper, Golden & Dornheim, 1998) launched the concept of emotional intelligence, inducing an increasing discussion of personal traits needed for good self-management and successful social interrelations. Emotional intelligence was introduced as a combination of multiple interpersonal and intrapersonal skills. *Intrapersonal* skills refer to self-awareness and the ability to regulate thoughts and actions, such as self-image, determination, and assertiveness. Intrapersonal processes form a foundation for self-esteem, open-mindedness, the ability to learn, self-confidence, and self-motivation (Schutte et al., 1998). *Interpersonal* skills are needed to interact with others, communicate appropriately, and build stronger and more meaningful relationships. In work contexts, they are used to convey messages to achieve objectives, as a manager, for example, may try to influence staff members (Schutte et al., 1998). In addition, communication and teamwork skills can be considered crucial parameters in exploiting one's other professional skills.

In the field of hospitality, the importance of social skills has been stressed as a necessary competence in the relationship with customers (Burns, 1997). Moreover, their role has been considered necessary in educational work (Bereiter & Scardamalia, 2006; Ngang, Yunus & Hashim, 2015; Tynjälä, Virtanen, Klemola, Kostiaainen & Rasku-Puttonen, 2016). In the engineering and IT sectors, the analogy of ‘hardware’ and ‘software’ has provoked a special meaning for soft skills, referring to skills that are needed as complementary to technical skills, e.g., teamwork and communication with customers (e.g., Kumar & Hsiao, 2007; Wikle & Fagin, 2015) and project management (Stevenson & Starkweather, 2009).

Regarding business management, for decades, management was viewed in the light of theories, more as a playground of material and immaterial inputs and outputs than human interaction. A good manager was considered to possess above all theoretical and strategic orientation and lead others with orders, more than by showing an example. Starting from the early 2000s, business graduates were urged to possess practical business-oriented skills instead of purely theoretical knowledge (Bennis & O’Toole, 2005; Lehtinen, 2006). Later, the applied, human approach has gained more attention, and employers have increasingly stressed the importance of practical and social skills by graduates (Mourshed, Patel & Suder, 2014) and business professionals (Mitchell et al., 2010; Robles, 2012).

The Character of Soft Skills

Soft skills are a cluster of personality traits, goals, motivations, and preferences valued in the labor market (Heckman & Kautz, 2012) and skills that characterize one’s relationships in a milieu (Schultz, 2009). It is obvious that many of them, such as *communication*, *self-management*, and *teamwork skills*, enable a person to cope with others in different situations. Soft skills are linked to personal objectives and motivations (Cimatti, 2016) and are used in a transversal sense in daily life and workplaces. As they are adapted and modified according to the situation (Bereiter & Scardamalia, 2006; Anthony & Garner, 2016), they are broadly applicable, unlike many hard skills.

They are suggested to improve interactions, work performance, critical thinking, and career prospects (Mitchell et al., 2010; Cimatti, 2016). It has also been suggested that the appropriateness of soft skills is related to entrepreneurial abilities (Ref. 3). Therefore, they can be expected to provide a broader and better performance in the current labor market (Schultz, 2009; Rego, Zózimo, Correia & Ross, 2016). For example, an IT professional with excellent technical skills will benefit remarkably from being able to communicate these skills within their team or to clients. Or, a skilled sales professional offers more value to the employing organization when possessing good teamwork skills. Thus, soft skills may help to obtain more consistent and accurate results, improving the quality of the objectives and the strategies adopted (Schultz, 2009; Jones, Baldi, Phillips & Waikar, 2017). As soft skills are constantly adopted and promoted through practicing in everyday working situations (Bereiter & Scardamalia, 2006), their usage is based on individual strategies and evaluations. More specifically, it depends on one’s approach to elaborating problem-solving strategies and the ability to interact within different working environments (Cimatti, 2016). Due to their value in the labor market, developing soft skills of higher education students should be considered a key factor to ensure an effective transition from higher education into the labor market (Jones et al., 2017; Eurydice, 2019).

Developing Soft Skills - For Who and How

Although there are numerous reports on the character and context of the use of soft skills, the aspects of developing soft skills are essential while educating the workforce for the future. Their main feature is that they cannot be linked directly to a specific profession or activity, the use of them, and thus also the learning goals and methods are related to specific contexts. Scholars have stated that these kinds of skills are ‘not directly teachable (e.g., Bereiter and Scardamalia, 2006) and ‘traditional classroom methods cannot be applied in their learning’ (Nealy, 2005; Mason et al., 2009; de Villiers, 2010).

Moreover, it has been stated that the training of soft skills should begin during studies for the students to perform efficiently in their academic environment and in their future workplaces (Muir, 2004; García-Aracil & Van der Velden, 2008; de Villiers, 2010). While standardized methods exist for learning hard

skills, this question remains quite open regarding soft skills (Nealy, 2005; Nikolov, Shoikova & Kovatcheva, 2014).

Currently, research and practice have been able to specify and highlight abilities in sub-abilities, some of which can be developed. For instance, communication ability can be divided into verbal communication, written communication, presentation skills, listening and nonverbal communication, whereby each of them can be fostered as such.

RESEARCH DATA AND METHODS

This study focuses on the soft skills related specifically to business professions, and a three-dimensional approach is used. In addition to the dimension ‘significance of the skill’, the dimensions ‘development potential’ and ‘level by students/graduates’ are included to obtain a more complete insight into the aspect of development and learning methods for soft skills. Finally, a tool Soft Skills Status indicator (3Si) is introduced based on these three dimensions.

The Questionnaire and Its Dimensions

The pilot study was conducted in Finland. The study was based on a questionnaire submitted to business professionals to obtain experience-based insight. Persons with several years of experience in business working contexts are supposed to have identified and developed the most known soft skills during their working career. The study was operationalized by asking the respondents to judge a battery of soft skills by their significance and potential for development. In addition, they were asked to assess each skill level by the recently graduated junior staff working in their organizations to find out possible skills gaps.

The sample was gathered via an online survey in Southwestern Finland in May–June 2018. The choice of the sample was justified by the opportunity to obtain insight into skills needed in authentic business environments. Furthermore, as soft skills are related to person-bound features, business professionals will probably have experience of developing these skills by themselves and thus relevance to assessing dimensions regarding their significance and development potential.

The field of business comprises a wide range of branches, types of organizations and positions. The background questions consisted of position, working experience, branch, and company size, as well as the organization's possession (private/public/NGO). Regarding the options for the position, the ISCO classification was used, whereby the European Union's NACE-codes (NACE codes) were used to choose the branch.

In the main part of the questionnaire, the respondents were asked to rate a battery of 21 soft skills according to the research questions:

- How significant is this skill in your work position? (1=not important at all, ..., 5=highly important)
- In your opinion, to what extent can this skill be developed? (1=not likely, ..., 5= highly likely)
- According to your experience, how would you rate the level of recently graduated junior professionals (students) in this skill? (1=very poor, ..., 5=very high)

Regarding the many appellations addressing soft skills, a pre-study was conducted using internet-based sources. This review covered 32 sources in an academic, development project, and business fields, including 5 to 84 titles of soft skills each. After compiling these in an Excel sheet, the most used soft skills detected were extracted. As a result of this study, a questionnaire covering five skills clusters and 21 skills was selected to be applied in this research (Table 1).

TABLE 1
THE SOFT SKILLS USED IN THE STUDY (IN ACCORDANCE WITH EBN35 and ESCO)

Class	Category	Soft Skill
Intra-personal	Thought	Learning and use of Knowledge Creativity Strategic Orientation Analytic Thinking Conceptual Thinking
	Goal Orientation	Initiative Goal Orientation Planning & Organization Preoccupation with Order and Quality
	Personal Management	Self-Confidence Self-Control Commitment to Organization Flexibility and change management
Interpersonal	Team Management	People Management Leadership Work in team and Cooperation
	Influence	Communication Empathy Negotiation Networking Customer Orientation

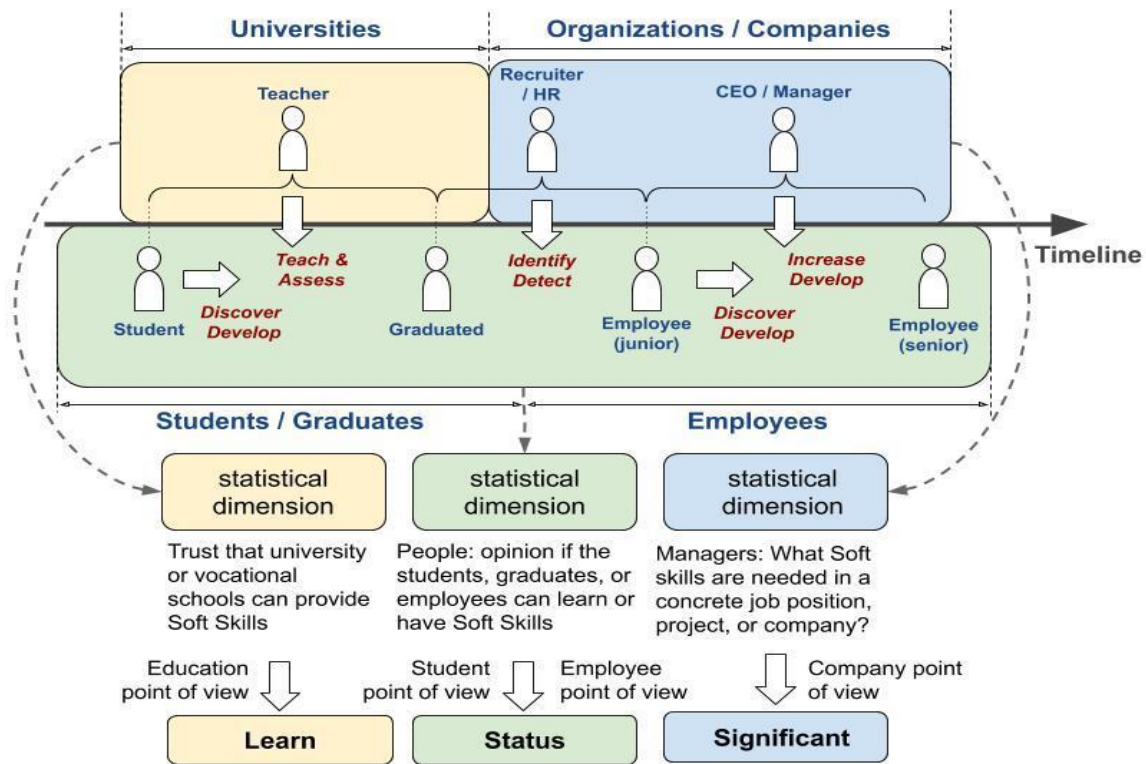
To avoid confusion regarding the perception of these definitions, the online questionnaire offers a concise definition for each skill. For instance, *Initiative = reacting to opportunities and challenges proactively; make decisions and actions; Networking = establishing win-win contacts with a wide range of people.*

The survey was shared online in May–June 2018 to an organization of entrepreneurs, an association of business operatives, and thirdly in-training student groups of operative businesspeople, whereby a total of 159 responses were gathered. They were analyzed with the *Microsoft Excel software, whereon a descriptive analysis was made.* Additionally, a correlation analysis was made where appropriate.

How We Developed the Soft Skills Status Indicator (3Si) Model

In this research, learning soft skills is viewed as a process with various stakeholders, each having their own interest in promoting the skills. The data needed for the 3Si analysis was obtained by combining three (3) dimensions of Soft Skills: Significance – Learning potential (Learn) – Level of the Skills (Status). Figure 2 seeks to reflect the roles and benefits of all three stakeholders.

FIGURE 2
THE PROCESS OF HOW WE DEVELOPED THE 3Si INDICATOR MODEL
IN THE RESEARCH



The proposed Soft Skills Status Indicator (3Si) Model was designed to detect skills with both significance and high learning potential and present possible skills gaps by junior staff/students. Hereby the 3Si Model is expected to offer a useful tool for organizations and HEIs, enabling reflection and discussion on developing soft skills.

RESULTS

The results are presented in two sections, first the direct distributions to the three dimensions and, subsequently the outcome of combining these dimensions (the 3Si configuration).

Soft Skills Assessed by Business Professionals

The sample totaled 159 respondents, of which 13% worked in a managerial position, 23% in an expert position, and 64% in operative positions of sales and other business-related tasks. They represented private (70%) and public (30%) organizations, out of which 35% were small sized, 19% medium-sized and 46% large-sized, covering 17 different branches.

Regarding the importance and significance in the respondents’ working positions, the highest-rated skills were *Communication* (4.60), *Team working skills* (4.45), *Customer orientation* (4.43), *Initiative* (4.38) and *Preoccupation with order and quality* (4.35). The lowest rated were *Leadership* (3.55), *Conceptual thinking* (3.60), *Networking* (3.62), and *People management* (3.72). All skills in this dimension were rated over 3.1, which indicates that in our sample, soft skills are considered quite crucial in work overall. As stated earlier, the rating scale was 1-5.

The results confirmed previously reported results (e.g., Andrews & Highson, 2008; Robles, 2012; Mitchell et al., 2010) for specific skills (*Communication*, *Team working*, and *Initiative*), whereas *Customer orientation* and *Preoccupation with order and quality* include a sense of novelty. *Customer orientation* - it can be considered a naturally important skill in business environments. As for the latter skill, it might relate to the Finnish culture of 'aiming to do things right'. Regarding the lowest-rated skills, it is surprising to find *Leadership* and *Networking* in this group. One reason for the former may be found in the group's composition: only 13% work in manager positions.

TABLE 2
MEAN VALUES IN EACH DIMENSION OF SOFT SKILLS: MEAN VALUE ON EACH DIMENSION; THE SKILLS REPRESENTED IN APLHABETICAL ORDER

Skill	Dimension		
	Significance	Learn	Status
Analytical thinking	3.79	3.71	3.38
Commitment to the organization	4.09	3.14	3.42
Communication	4.60	3.96	3.66
Conceptual thinking	3.60	3.64	3.40
Creativity	4.03	3.38	3.36
Customer orientation	4.43	3.18	3.63
Empathy	3.90	2.84	3.29
Flexibility and change management	4.31	3.47	3.59
Goal orientation	4.21	3.59	3.50
Initiative	4.38	3.33	3.45
Leadership	3.55	3.47	3.04
Learning and use of knowledge	4.30	4.14	3.88
Negotiation	4.04	3.58	3.47
Networking	3.62	3.70	3.55
People management	3.72	3.57	3.08
Planning and organization	4.23	4.10	3.48
Preoccupation with order and quality	4.35	3.77	3.47
Self-confidence	4.26	3.40	3.43
Self-control	4.16	3.33	3.36
Strategic orientation	3.77	3.35	3.39
Team working skills	4.45	4.18	3.79

As for the development potential of skills, the highest scores were given to *Team working skills* (4.18), *Learning and use of knowledge* (4.14), *Planning and organization* (4.10), *Communication* (3.96) and *Analytical thinking* (3.71).

In nearly all, the ratings in the ‘Learn’ dimension (describing the development potential) were lower than those in the ‘Significance’ dimension (describing the importance of the soft skills to companies), and the variation among skills was broader. This may indicate that ‘learn’ is not as straightforward a concept as ‘significance’. Also, it can be considered that skills that are familiar from the respondents’ educational contexts (e.g., *learning and use of knowledge, planning and organization, analytical thinking*) and internal organizational training (e.g., *team working, communication*), might get higher marks for being more familiar than other skills. The lowest scores were *Empathy* (2.84), *Commitment to the organization* (3.14), *Customer orientation* (3.18), *Initiative* (3.33) and *Self-control* (3.33). Furthermore, some of these skills might have been considered inborn skills or abilities, and thus the development potential of them, by means of learning, has been difficult to assess.

The third dimension, ‘Status’ seeks to detect possible skills gaps by reflecting the skills level of young, recently graduated graduates in organizations. According to the results, junior staff has the highest level in *Learning and use of knowledge* (3.88), *Team working* (3.79), *Communication* (3.66), *Customer orientation* (3.63) and *Flexibility and adaptation to change* (3.59). Although none of the items was rated 4 or higher, the result can be considered satisfactory from the point of view of educational institutions. While previous reports (Mourshed et al., 2014; OECD, 2016) have indicated gaps in *communication, flexibility* and *team working*, these skills were rated relatively high in this research. Also, *initiative* was rated satisfactory 3.45. The lowest-rated dimensions were *Leadership* (3.04), *People management* (3.08), *Empathy* (3.29), *Creativity* (3.36), and *Self-control* (3.36). The relatively low scores are understandable, keeping in mind that junior staff and graduates are at the early stages of their work careers and most soft skills will evolve during authentic working experiences. This is primarily considered to be especially the case with management and leadership skills.

Some correlation was detected between the respondent’s position and the rated significance. The main finding was that persons in managerial positions seemed to rate specific skills (*leadership, people management*) higher than other professional groups. In addition, aged persons tended to assess the potential of learning lower than younger persons. These correlations were significant. Regarding the impact of branch or company size/possession on judging skills, they did not show any remarkable correlation in either of the dimensions in this sample.

The Suggested 3Si Indicator Model for Defining and Developing “Core” Soft Skills

As all three dimensions (significance, development potential=learn, and level=status) reflect the perspectives of the different stakeholders, they can be operated as factors that describe the skills. Utilizing the means obtained for each skill by the three dimensions, each skill can be given a specific profile concerning the dimensions. At simplest, the skills can be divided into two categories (High– Low) by cutting the skills by half according to the mean values. Subsequently, half of the skills in each dimension (significance, development potential=learn, and level=status; see tables 2 and 3) would be high (H) and the other half low (L). The skills exceeding the group mean in every three groups would belong to High, and those under the group mean to Low. Table 3 presents the skills classes with High Significance – these skills are crucial for organizations.

TABLE 3
THE MAIN FOUR (4) DIFFERENT CLASSES OF SOFT SKILLS WITH DESCRIPTIONS

Class	Dimension			Scenario	Skills
	Sign.	Learn	Status		
1	High	High	High	Core Skills, which organizations need, high learning potential, high level among junior staff/students	<i>Communication, Goal orientation, Planning and organization, Preoccupation with order and quality, Learning and use of knowledge, Teamwork skills</i>
2	High	High	Low	Ignored skills, which organizations need, high learning potential, low level among junior staff/students	<i>none</i>
3	High	Low	High	External skills, which organizations need, low trust in learning potential, high level among junior staff/students	<i>Customer orientation, Flexibility and Change management</i>
4	High	Low	Low	Neglected skills, which organizations need, low trust in learning potential, low level among junior staff/students	<i>Commitment to organization, Initiative, Self-confidence and Self-control</i>

From the point of view of educators, the skills rated High in ‘significance’ are more interesting than the Low ones, as the High ones seem to be more critical in professional working environments. Regarding ‘status’=the rated level of soft skills, the situation is more ambiguous, as skills rated High seem to be under control. On the other hand, skills rated Low in this dimension (and perhaps High in significance), may imply a gap in the skill. As for ‘development potential’, High rated skills indicate good prospects for promotion, which could be valuable information, especially if the skill has high relevance (‘significance’).

In this consideration, the skills can be categorized, and subsequently, a scenario for each skill can be envisaged. In the case of class 1 (H-H-H) includes skills that all rated High in all three dimensions, representing thus the most favorable situation: the organization needs the soft skill, there is trust in learning it, and graduates seem to have a high level on the skill. If skills remain in this class, there is no skills gap between higher educational institutions (HEI) and business organizations in this class. From educators’ and trainers’ points of view, the message could be: “Keep an eye on these skills, although the situation seems to be under control.” Six skills were positioned in this class (*Communication, Goal orientation, Planning, and organization, Preoccupation with order and quality, Learning and use of knowledge, Teamwork skills*).

Class 2 (H-H-L) could be labeled as ‘ignored skills’, implying graduates have relatively low skill level, albeit the development potential seems high, and the organization needs it. Using the average rate of each skill group as a threshold, none of the skills ended in this class in this sample. For educators, this result is encouraging, as the skill level of graduates and the junior staff seems to match quite well with the organization's need. Normally, skills in this class would indicate a gap in the respective skill, and thus a conclusion would be that business educators should consider setting a special focus on it. In this research, none of the skills was placed in this class.

The combination H-L-H (class 3) implies skills that are important in work positions and simultaneously mastered relatively by graduates and junior staff, however, trust in learning them is considered low. These skills could be named ‘external skills’, as they are obtained in other ways than with traditional learning methods. In this sample, *Customer orientation, Flexibility, and Change management* were in this class. One

possible reason for having these skills here is that in Finland, most business students work during their studies in sales and other operative jobs, whereby they might have obtained these skills.

Class 4 (H-L-L) is interesting since these skills seem to be highly needed in work positions, however, graduates' levels and perceived learning potential are relatively low. This means that there is a potential skills gap, wherefore this class is a challenge for the education system in general. Skills located in this class are *Commitment to organization, Initiative, Self-confidence, and Self-control*. These skills may represent a sort of 'neglected skills', which means that educators and trainers should perhaps consider them increasingly.

DISCUSSION

Soft Skills Assessed by Business Professionals – The Finnish Pilot Study

While confirming findings from some previous studies (e.g., Andrews & Highson, 2008; Robles, 2012; Mitchell et al., 2010), the study's main finding relates to assessed significance by different work positions. *Managers rate specific skills higher than persons in more operative positions*. This is the case with *Leadership* and *People management* (with highly significant correlation), as well as *Planning and organization, Self-control, Strategic orientation, and Conceptual thinking* (significant). For education and training, *this result indicates a set of 'soft managerial skills', apart from skills needed by resting business professionals. The named skills are likely to be more important for the higher business education with master's degree programs, whereas they might not be as crucial in bachelor-level studies*. On the other hand, the research suggests a set of novel soft skills to be included in the bachelor studies, such as *Teamwork, Customer orientation, Flexibility and change management and Self-confidence*.

As for skills gaps, the results were somewhat contradicting with the McKinsey 2018 report (Bughan et al., 2018), which indicated a lack in negotiation, leadership, critical and strategic thinking skills. This can be explained by the Finnish business students very commonly doing part-time working in sales and customer service during studies, whereby they may have acquired these skills along their study time. Nonetheless, it is possible that the case might be different in other countries where working part-time is not as common.

Regarding the assessed development potential, in this sample, managers tended to consider it predominantly lower than operative persons. This can be noted by *Team working, Analytic thinking, Conceptual thinking* (highly significant correlation) as well as *Goal orientation and Negotiation*. This finding is somewhat confusing since persons in higher positions can be expected to possess higher levels of education than operative staff. As higher executives define and direct development measures and skills training in organizations, this dimension may have a remarkable impact and thus needs further study.

Furthermore, *persons in managerial positions differ from operatives when judging the skills of graduates and junior staff. Generally, they tend to rate the graduates' skills lower than those not having subordinates*. Especially this can be noticed in *Initiative, Flexibility for change, Communication, and Empathy* (significant correlation). *This indicates that a person in a manager position is more critical when assessing personal skills*. One reason might be that managers usually answer for the performance of their organizations, carrying the final responsibility also for failures. Thus, their assessment might include this kind of anticipation and a different kind of realism than the operative persons'. In contrast, the latter may consider peer staff more like individuals and colleagues.

Also, these types of *results might be explained by the relatively low share of managers in the sample*. Furthermore, as the sample represented different fields of business (sales, marketing, accounting), a study directed to managers in a certain field can be expected to give differing results.

Therefore, *the results should be considered as tentative, and especially describing the opinions of operative business staff*. As such, they give a preliminary indication of skills needed by operative business staff, produced especially in the frame of vocational business education. To a certain degree, the results confirm the relevance of previously recognized skills (e.g., *Communication, Teamworking*). However, they also suggest acknowledging certain new types of skills needed by operative business staff (e.g., *Customer orientation, Initiative, Self-confidence*).

The 3Si Indicator Model

The 3Si Indicator Model was aimed to create a model of consideration which enables understanding the significance and learning potential of specific skills, thus serving the stakeholders in the learning process. In this configuration, the skills are located and classified according to the three dimensions used throughout the study, providing classes such as ‘Core skills’, ‘Ignored skills’, ‘External skills’, and ‘Neglected skills’. These classes indicate the importance of each skill and suggest how educators and HR trainers can approach it. In the presentation of results, only the 10 skills with the most significance were presented. The classification can reveal skills gaps, as well as skills that are potentially included in the curricula of higher education or to be trained in organizations.

As for organizations, the most significant organizations probably have created knowledge-based maps and tools used in HR development, whereas most business organizations can be assumed to search tools and skills practice-based maps to be used as a base for training measures. However, attention should be paid when using the 3Si Indicator Model, as the assessed significance of each skill may depend on the background and position of the respondent, as experienced in this study.

The knowledge provided by the 3Si Indicator Model is expected to be useful for business schools to update their curricula and/or in-training agenda. It helps them select the most appropriate skills in the curricula, give titles and describe them. It is critical to include relevant soft skills in the list from the start, which seemed to be the case in this research.

LIMITATIONS OF THE RESEARCH

One of the main challenges in the assessment of skills is how to collect enough data from several angles, to achieve validity. Ideally, it would be gathered by a 360-degree method, surveying both actors and their peers. As this causes many practical inconveniences, an assessment based on professionals-in-practice was chosen as the method. Even though not entirely objective, this angle was considered relevant as soft skills are reported to be used in practical contexts (Bereiter & Scardamalia, 2006) and promoted through experiences in authentic environments (Mitchell et al., 2010). Consequently, the choice of business professionals for the sample was motivated. They can be considered to have identified and practiced soft skills in their working career.

Given the previously reported reasons that cause difficulties in planning curricula (de Villiers, 2010; Anthony & Gardner, 2016), *in our questionnaire, we emphasized the needs and considerations of real business organizations. Experiences obtained from our study indicate that the usability of the 3Si Indicator Model, which we developed, is satisfactory, despite the fact that it takes time to rate the three dimensions of the skills based on the questionnaire.* The average time spent responding online was close to 18 minutes, which might increase the share of interruption among future respondents. However, the 21 skills presented in the list were considered adequate, which means that they can be used in future research. The sample represented well the different areas of business and organizational fields, even though it was quite small. Thus, the results regarding the three dimensions (significance, development potential=learn and level=status) must be considered as tentative.

In addition to organizational figures, the background questions covered working experience and the respondent’s position, whereas gender was not asked in the questionnaire. Previous research has reported gender-related differences in the possession of soft skills (Gibson, 1995), leadership style (Lindell & Sigfrids, 2008), and development potential (Balcar, 2016). The inclusion of this question would be relevant in future studies. Furthermore, the sample represented operative staff, which means that the results give more indication to the training of operative staff (sales, marketing, administrative) and vocational education than managerial training.

Finally, the study had a piloting role, and it was conducted to judge the convenience of the research method for similar research in other European countries. As this, the results can be considered to represent the Finnish business culture; whereas the culture in any other country can have variations, wherefore this aspect should be studied further.

CONTRIBUTIONS OF THE RESEARCH

While focusing on soft skills needed in business working contexts, this research confirmed the importance of previously reported skills. Moreover, some skills with novelty were suggested. Regarding the discussion ‘soft skills and curricula’, *the results suggest certain ‘managerial soft skills’ to be taught in master programs, and respectively ‘operative soft skills’ that are essential in bachelor programs.*

The article's main contribution is the 3Si Indicator Mosel, which provides perspectives on soft skills in terms of their significance and learning potential, aiming thus to help choose the appropriate skills for curricula and training programs. In addition, it helps to find out whether there is a bias of Soft Skills or a differentiation at the level of students, employees, HEIs or organizations. As there is an increasing need for detecting the status of non-traditional skills (WEF, 2016; McKinsey, 2018), the results and the configuration are hoped to provide a step forward for planning development measures in order for organizations and business education to cope with the needs of 2020s’ working life.

SUGGESTIONS FOR FURTHER RESEARCH

The impact of cultural differences on valuation and assessment has been stated in earlier research (e.g. Hofstede, 2011; Gibson, 1995); consequently, this is an object for future research regarding our topic. Therefore, a more comprehensive study with a sample representing various cultures would give more detailed knowledge about soft skills needed in business environments. Furthermore, gender may have a remarkable role in assessments regarding soft skills, and thus it should be included in further studies.

Finally, as development and assessment measures for soft skills are a growing area for development (de Villiers, 2010; Cimatti, 2016), urgent initiatives and experiments are needed in the field.

ACKNOWLEDGEMENTS

This work was supported by the Erasmus+ program of the European Commission under Grant 2017-1-ES01-KA203-038589 in the frame of the project CoSki21 – Core Skills for 21st century professionals. The authors would like to thank those who collaborated with the research and answered the questionnaires.

REFERENCES

- Anthony, S., & Garner, B. (2016). Teaching soft skills to business students: An analysis of multiple pedagogical methods. *Business and Professional Communication Quarterly*, 79(3), 360–370.
- Balcar, J. (2016). Is it better to invest in hard or soft skills? *The Economic and Labor Relations Review*, 27, 453–470.
- Bennis, W.G., & O’Toole, J. (2005). How business schools lost their way. *Harvard Business Review*, 83, 96–104.
- Bereiter, C., & Scardamalia, M. (2006). Education for the knowledge age: Designed-centered models of teaching and instruction. *Handbook of Educational Psychology*, pp. 695–713.
- Bughin, J., Hazan, E., Lund, S., Dahlström, P., Wiesinger, A., & Subramaniam, A. (2018). *Skills Shift. Automation and the Future of the Workforce*. McKinsey & Company. Retrieved February 25, 2020, from <https://www.mckinsey.com/featured-insights/future-of-work/skill-shift-automation-and-the-future-of-the-workforce>
- Burns, P.M. (1997). Hard-skills, soft-skills: Undervaluing hospitality’s ‘service with a smile’. *Progress in Tourism and Hospitality Research*, 3(3), 239–248.
- Cimatti, B. (2016). Definition, development, assessment of soft skills and their role for the quality of organizations and enterprises. *International Journal for Quality Research*, 10.
- de Villiers, R. (2010). The incorporation of soft skills into accounting curricula: Preparing accounting graduates for their unpredictable futures. *Meditari Accountancy Research*, 18, 1–22.

- EBN35. (n.d.). *Innovation network*. Retrieved September 24, 2018, from <https://ebn.eu/index.php?lnk=KzF0aDVES1I3bG9TYXFGeEhLL2dQMENMM081Nlc1RXdzSEQ3dkJvRkQzMD0=>
- Eurydice, European Commission/EACEA/Eurydice. (2019). *Modernization of Higher Education in Europe: Access, Retention and Employability 2019*. Eurydice Report. Luxembourg: Publications Office of the European Union.
- Eurydice. (2014). *Modernization of higher education in Europe: Access, retention, and employability 2014*.
- García-Aracil, A., & Van der Velden, R. (2008). Competencies for young European higher education graduates: Labor market mismatches and their payoffs. *Higher Education, 55*, 219–239.
- Gardner, H., & Miranda, U.J. (1994). *De sju intelligenserna*. Brain Books.
- Gewertz, C. (2007). Soft skills in big demand. *Education Week, 26*, 25–27.
- Gibson, C.B. (1995). An investigation of gender differences in leadership across four countries. *Journal of International Business Studies, 26*, 255–279.
- Gilbert, R., Balatti, J., Turner, P., & Whitehouse, H. (2004). The generic skills debate in research higher degrees. *Higher Education Research & Development*.
- Goleman, D. (1995). *Emotional Intelligence: Why It Can Matter More Than IQ*. Bantam Books.
- Grugulis, I., & Vincent, S. (2009). Whose skill is it anyway? ‘Soft’ skills and polarization. *Work, Employment and Society, 23*(4), 597–615.
- Heckman, J.J., & Kautz, T. (2012). Hard evidence on soft skills. *Labour Economics, 19*, 451–464.
- Hofstede, G. (2011). Dimensionalizing cultures: The Hofstede model in context. *Online Readings in Psychology and Culture, 2*, 8.
- ISCO. (n.d.). Retrieved from <http://www.ilo.org/public/english/bureau/stat/isco/>
- Jones, M., Baldi, C., Phillips, C., & Waikar, A. (2017). The hard truth about soft skills: What recruiters look for in business graduates. *College Student Journal, 50*, 422–428.
- Kumar, S., & Hsiao, J.K. (2007). Engineers learn “soft skills the hard way”: Planting a seed of leadership in engineering classes. *Leadership and Management in Engineering, 7*, 18–23.
- Lehtinen, U. (2006). Ilmiö nimeltä liiketoimintaosaaminen. In T.U. Lehtinen, & T. Mittilä. (Toim.), *Liiketoimintaosaaminen kilpailukykyssä keskiössä*. Jyväskylä: Kauppatieteellinen Yhdistys.
- Lindell, M. & Sigfrids, C. (2008). Culture and Leadership in Finland. In J.S. Chhokar, F.C. Brodbeck, & R.J. House, *Culture and Leadership Across the World*. LEA’s Organization and Management Series.
- Mason, G., Williams, G., & Cranmer, S. (2009). Employability skills initiatives in higher education: What effects do they have on graduate labour market outcomes? *Education Economics, 17*, 1–30.
- Mitchell, G.W., Skinner, L.B., & White, B.J. (2010). Essential soft skills for success in the twenty-first century workforce as perceived by business educators. *The Delta Pi Epsilon Journal, 52*.
- Mourshed, M., Patel, J., & Suder, K. (2014). *Education to employment: Getting Europe’s youth into work*. McKinsey & Company.
- Muir, C. (2004). Learning soft skills at work: An interview with Annalee Luhman. *Business Communication Quarterly, 67*(1), 95–102.
- NACE codes. (n.d.). *European Commission’s NACE Codes*. Retrieved from https://ec.europa.eu/competition/mergers/cases/index/nace_all.html
- Nealy, C. (2005). Integrating soft skills through active learning in the management classroom. *Journal of College Teaching & Learning (TLC), 2*.
- Ngang, T.K., Yunus, H.M., & Hashim, N.H. (2015). Soft skills integration in teaching professional training: Novice teachers’ perspectives. *Procedia-social and Behavioral Sciences, 186*, 835–840.
- Nikolov, R., Shoikova, E., & Kovatcheva, E. (2014). *Competency based framework for curriculum development*. Retrieved December 18, 2016.
- OECD. (2016). *Getting Skills right. Assessing and Anticipating Changing Skills Needs*. Retrieved October 24, 2019, from <https://www.oecd.org/publications/getting-skills-right-assessing-and-anticipating-changing-skill-needs-9789264252073-en.htm>

- Rego, R., Zózimo, J., Correia, M.J., & Ross, A. (2016). Bridging volunteering and the labour market: A proposal of a soft skills matrix. *Voluntary Sector Review*, 7(1), 89–99.
- Robles, M.M. (2012). Executive perceptions of the top 10 soft skills needed in today's workplace. *Business Communication Quarterly*, 75, 453–465.
- Schulz, B. (2008). *The importance of soft skills: Education beyond academic knowledge*.
- Schutte, N.S., Malouff, J.M., Hall, L.E., Haggerty, D.J., Cooper, J.T., Golden, C.J., & Dornheim, L. (1998). Development and validation of a measure of emotional intelligence. *Personality and Individual Differences*, 25(2), 167–177.
- Stevenson, D., & Starkweather, J. (2010). PM critical competency index: IT execs prefer soft skills. *International Journal of Project Management*, 28, 663–671.
- Succi, C., & Canovi, M. (2019). Soft skills to enhance graduate employability: Comparing students and employers' perceptions. *Studies in Higher Education*, pp. 1–14.
- Tedesco, J.C., Operti, R., & Amadio, M. (2014). The curriculum debate: Why it is important today. *Prospects*, 44, 527–546.
- Tynjälä, P., Virtanen, A., Klemola, U., Kostianen, E., & Rasku-Puttonen, H. (2016). Developing social competence and other generic skills in teacher education: Applying the model of integrative pedagogy. *European Journal of Teacher Education*, 39(3), 368–387.
- Wikle, T.A., & Fagin, T.D. (2015). Hard and soft skills in preparing GIS professionals: Comparing perceptions of employers and educators. *Transactions in GIS*, 19, 641–652.
- World Economic Forum (WEF). (2016). The future of jobs: Employment, skills and workforce strategy for the fourth industrial revolution. In *Global Challenge Insight Report*, World Economic Forum, Geneva.