

FORMATION OF SOFT SKILLS OF STUDENTS OF HIGHER EDUCATIONAL INSTITUTIONS OF OMSK (ON EXAMPLE OF ECONOMISTS AND IT SPECIALISTS TRAINING)

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Abstract

Recently the increasing value for successful work is played by soft-skills. In the course of training of students in a higher educational institution it is important not only to form professional hard skills, but also the competences allowing reacting quickly to changes – soft skills. The objective of this research consists in definition of a gap in formation of students' soft-skills and need of their development. The hypothesis of a research was the assumption that students at the high level realize the need of development of soft skills for successful work. As a result of a research the opinion of students on degree of sensibleness of need of development of such competences as system thinking, skill to communicate, customer focus, possession of digital technologies, work in the conditions of high uncertainty and others is estimated. The obvious trend of a gap in formation is diagnosed for students' soft-skills and need of their development. At the same time for economists and IT specialists and also students of various courses the difference in a gap on the same soft-skills is revealed. It is proved that for development of competences various methods can be used.

Key words: soft skills, students, methods of development of soft skills

JEL Code: J21, J24

Introduction

While hard skills are extremely important for workplace success, it is also critical to develop soft-skills, such as self-awareness, motivation and social skills. The emerging role of soft skills may be explained by increasing flexibility of working environment, dynamic changes in typical work roles, increased popularity of collaborated forms of work relationships such as teamwork and project-based forms of employment.

In the context of university education, it is important to develop not only professional hard skills but also such competencies that affect the ability to effectively behave under uncertainty and rapidly changing work or social environment. This common competencies are

difficult for standard quantitative assessment methods and depend on the person and social experience.

These skills are important for professionals in many industries and positively correlate with productivity and overall effectiveness of a person's behavior in a specific social or professional domain, organization or industry. Also, the development of these competencies enhances interindustrial mobility and maintains competitive ability in the labor market. Many organizations recognize that these person-related skills are lacking across the top managers and demand a certain level of soft skills from prospective employees, students, and trainees.

It is important to investigate how undergraduate students in the Omsk Region differ on levels of soft skills. Educational institutions should develop not only professional skills and deliver knowledge, but also train students to make effective decisions under uncertainty and effectively communicate with different social groups, organizations, and institutions.

The problem of the importance of soft skills development has been mentioned in works by Durrani (2001), Hazlett (2017), Succi (2015). From the perspective of developing these transferable skills for undergraduate students this problem was examined by Skoda, Doulik, & Simonova (2018), i.e. specifically for students of managerial and engineering programs was analyzed by Jaafar (2018), Salama, & Ayub (2016), Schipper, & Stappen (2018), Takacs, & Horvath (2017). Methods and techniques of soft skills assessment are described in other studies (Corti, Brambilla, & Sancassani (2014), Lyz (2018), Ow (2009).

1 Sample model and method

This study was aimed to measure the gap between actual and desired levels of development of soft skills among students.

The following tasks were formulated:

1. Evaluate the degree of a acknowledge of soft skills by university students;
2. Measure the actual levels of development of soft skills;
3. Measure the actual gap between actual and desired levels of soft skills of university students in the Omsk Region.

The first hypothesis of a research was the assumption that students at the high level realize need of development of soft-skills for successful work.

As the second hypothesis the assumption was made that active methods of training (trainings and master classes) are allocated as the most significant methods of development soft-skills with students of final years, namely the fourth, and the economic directions.

The results represented in this article are a part of a big research of career guidance and professional self-determination at different stages of reproduction of a labor power. We used quota sample in this study. The sample consisted of undergraduate students majoring in economics and management and IT students. These majors have been selected based on a high level of actual demand in the labor market of the region. Also, both programs are very selective and competitive.

According to the Ministry of Education of the Omsk Region, there are 1505 students majoring in economics and management in Omsk (650 first-year students, 855 fourth--year students); 568 IT students (375 and 193 first and fourth-year students respectively). These groups were selected because they represent the most typical problems in the context of the work choice.

Based on the overall number of students enrolled at these programs the following universities have been selected: Omsk Dostoevsky State University, University of Finance, the Siberian State Automobile and Highway University (SibADI), Omsk State Agrarian University. Year of the study was the second criteria we used in this research. First-year students are interesting in the context of the transformation of understanding of their future work role and professional self-awareness. The fourth-year students may represent the effectiveness of the educational system in the context of developing soft skills. Sample structure is represented in the table 1 below.

At the last stage, subjects of the study has been randomly drawn from the target population: every third student majoring in Economics and every second student majoring in informatics and data sciences.

For the analysis of data methods of descriptive statistics as a result of which the set of the indicators characterizing interrelation of a course, direction of preparation with methods of training and development of soft-skills is received were used. Communication between a course, the direction of preparation and types of methods of training was measured by means of Kramer's (V) coefficient with mistake probability assessment.

Tab. 1: Sample model of the study

	Total		Sample	
	people	%	people	%
Economics and management				
1 course	650	100	254	39,1
4 course	855	100	299	35,0
Only in the direction	1505	100	553	36,7
Computer science and computer facilities				
1 course	375	100	179	47,7
4 course	193	100	112	58,0
Only in the direction	568	100	291	51,2
All	2073		844	

Source: authors

2 Results

Firstly, according to the aim of the study, the desired level of soft skills development was measured. We used self-reported estimates for both desired and actual levels of soft skills development presented in table 2.

Tab. 2: The level of development of soft-skills students (% of respondents)

necessity / development of competencies for the profession	1 course		4 course		Economics		IT	
	necessity	development	necessity	development	necessity	development	necessity	development
systems thinking	92,1	62,2	90,4	70,8	89,9	64,6	93,9	68,4
client orientation	75,0	44,6	70,8	60,9	82,1	60,0	57,8	37,8
critical thinking	84,9	69,1	86,1	62,3	83,5	46,1	88,8	69,4
sociability	83,3	68,0	87,8	73,9	94,0	75,5	70,4	62,2
cross-sectoral interactions	83,3	36,9	85,6	53,3	90,5	49,1	73,8	35,7
ownership of digital technologies	94,8	66,7	94,1	74,8	91,7	70,0	99,3	70,7
work in conditions of high uncertainty	59,7	39,4	67,4	43,6	67,4	42,7	55,8	38,8
self-development	96,2	75,7	94,1	78,5	94,2	80,1	96,9	71,4

Source: authors

It is necessary to note that students are well informed about employers expectations related to subprofessional competencies and soft skills. According to self-reported data we collected, operational mindset (thinking) is of the highest importance for all participants

(measured importance is 90%); while the actual self-reported level of this competence is about 25% lower. Customer-focused mindset is important for 70% of respondents (57.6% for IT students), about 20% of participants have reported lack in development of this skill, most of them are first-year students. More than 80% of the participants evaluated critical thinking as important, but only 60% are satisfied with its actual level. According to collected data, critical thinking is especially important for fourth-year students majoring in economics, however, the actual level of this competence is high (the measured gap is less than 14%). The competence in interindustry communications has demonstrated the broadest soft skill gap of 40% (table 3).

Participants of the study have demonstrated a clear awareness of the importance of digital technologies skills, but still, the actual level of this skill may be evaluated as average (25 percent measured gap).

Tab. 3: Gap in soft-skills development of students (% of respondents)

development of competencies for the profession	1 course	4 course	Economics	IT
	competence is developed	competence is developed	competence is developed	competence is developed
systems thinking	30,1	19,6	25,3	25,5
client orientation	30,4	9,9	22,1	20,0
critical thinking	15,8	23,8	37,4	19,4
sociability	15,3	13,2	18,5	8,2
cross-sectoral interactions	46,1	32,3	41,4	38,1
ownership of digital technologies	28,1	19,3	21,7	28,6
work in conditions of high uncertainty	20,0	23,8	24,7	17,0
self-development	20,5	15,6	14,1	25,5

Source: authors

IT students demonstrated the highest degree of awareness, probably, some of them understand this skill as a hard skill, directly affecting their professional competence and effectiveness. Surprisingly, the overall measured importance of the ability to work under uncertainty was relatively low (55-67%), the measured gap between desired and actual levels of this skill is also low (about 21%).

Probably, some of the respondents are still not aware of rapid changes in social and economic domains, most of the students rely on professional skills and knowledge. Various methods of training and instruction may be used in order to develop soft skills. Participants were also asked about the effectiveness of different training methods (table 4,5).

Tab. 4: The efficiency of the methods of competence development depending on the course of study (%of respondents)

Methods	course of study		
	All	1 course	4 course
Training	23,7	21,5	25,8
master classes	28,0	25,4	30,5
Webinars	5,8	4,6	7,1
seminars and workshops	11,7	14,0	9,4
Lectures	9,7	14,3	5,1
project activity	21,1	20,2	22,1
	100	100	100

Source: authors

On the basis of it the correlation the coefficient of Kramer (V) who is equal to 0.6 is calculated. Probability of an error (p) less than 0,05.

Tab. 5: The efficiency of the methods of competence development depending on the direction of training (%of respondents)

Methods	direction of training		
	All	Economics	IT
Training	23,7	30,0	17,4
master classes	28,0	31,9	24,1
Webinars	5,8	4,9	6,7
seminars and workshops	11,7	8,9	14,5
Lectures	9,7	7,3	12,1
project activity	21,1	17,0	25,2
	100	100	100

Source: authors

On the basis of it the correlation the coefficient of Kramer (V), which is 0.65, $p < 0.05$.

Trainings and master classes for formation of professional self-determination are important mainly for economists and fourth-year students. The importance of a seminar and practical training in formation of professional self-determination is highly appreciated. According to IT students, along with workshops, group project tasks are also highly effective.

There is a number of subjects, significantly affecting soft skills development (table 6). Based on collected data, university institutions such as departments, programs, and employment centers are the most important subjects affecting soft skills development. University departments are the most important among them. However, it is important to note, student employment centers are not fully effective, only 26% of participants of the study

reported the significant role of these subjects in the process of job search and employment after graduation.

Tab. 6: Subjects influencing the development of soft-skills (% of respondents)

Subjects	All	1 course	4 course	Economics	IT
regional center of vocational guidance of the population	9,2	11,5	6,2	10,3	7,1
employment service	17,1	18,9	14,7	19,9	12,2
university, employment centers	26,0	30,0	21,0	28,0	22,4
faculties and departments	61,6	64,4	58,1	60,8	62,9
HR departments of enterprises, HR-managers	27,1	19,4	36,8	26,0	28,9
youth entrepreneurship organizations	8,9	9,7	7,9	10,1	6,8
educational and training centers	14,7	14,4	15,0	17,3	10,2
a public organization under the guidance industry employers ' unions	12,7	14,6	10,2	14,9	8,8
	6,6	7,7	5,4	5,8	8,2

Source: authors

Last-year students are mostly oriented to communicate directly to HR departments of possible employers rather than university institutions. Also, governmental institutions actively assist students in the job search, these activities were reflected in the collected data. It is possible to conclude that students use all available resources in order to decrease the gap in soft skills; therefore the importance of such institutions as educational centers will be increasing.

Conclusion

Based on the findings and discussions of this study, suggestions and practical implications are drawn for instructors and curriculum developers.

The importance of the development of soft skills for university students and its actual level were examined in this study. We assessed the awareness of students about such competencies as operational thinking, communication skills, digital technologies skills, working under uncertainty and other transferable skills. Also, the subjective assessment of the actual level of development of these skills was measured.

The study demonstrated that the majority of students acknowledges (86.7 percent of economists and 79.5% of IT students) the importance of soft skills for successful career development and workplace performance, hence, the first hypothesis of the study has been supported.

It is proved that for development of competences various methods can be used, at the same time active methods of training at students of the economic directions and final years are the most significant that confirms the second hypothesis of a research. Students of both directions most highly appreciated master classes, design activity, trainings. Besides, also classical forms of education – a seminar and practical training are welcomed.

We conclude this paper with suggestions for further research on the ways to improve soft skills training. More resources should be invested in developing interactive forms of training, game-based tasks, developing relationships between other subjects influencing on soft skills developing such as university employment centers, major employers, HR departments. These activities are aimed to increase the overall ability to compete in the labor market in the Omsk region.

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