

Dynamics of Future Psychologists' Soft Skills Development During their Study at the Higher Education Institution

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Abstract: The article examines the dynamics of soft skills development as a factor of successful professional activity of future psychologists at different stages of their higher education training. The term "soft skills" means a set of personality traits, social skills, communication skills, personal habits, friendliness and optimism. It also includes individual, communication and management skills. It is stated that for successful professional activity, such groups of psychology students' soft skills as communication skills, personal performance, management skills, strategic skills and critical thinking should be developed. To study the dynamics these soft skills groups development, the diagnostic study was conducted among first-, third- year and master's degree students majoring in Psychology at Khmelnytsky National University. According to the research results, it has been concluded that while studying at a higher education institution, psychology students have a positive dynamics of changes of soft skills development. However, there is a number of first- and third-year students with poor communication and organizational skills, leadership skills, stress resistance and critical thinking. Considering this fact, there is a strong necessity to work out and implement ways of soft skills development for future psychologists.

Keywords: *soft skills, dynamics of soft skills development, psychology students, higher education institution, readiness for professional activity.*

How to cite: Vasylenko, O., Afanasenko, V., Petyak, O., Rudenok, A., Sheleh, T., & Komar, T. (2022). Dynamics of Future Psychologists' Soft Skills Development During their Study at the Higher Education Institution. *Revista Românească pentru Educație Multidimensională*, 14(3), 139-163. <https://doi.org/10.18662/rrem/14.3/602>

1. Introduction

Nowadays the requirements for the future specialists' knowledge, skills and abilities that they acquire in a higher education institution are significantly increasing. In particular, foreign languages and computer literacy are gradually becoming necessary for the modern specialist and are taken for granted. Therefore, the so-called "soft skills" are becoming increasingly important, which significantly contribute to the highest level of development and application of professional skills.

In Ukraine, the concept of "soft skills" is a relatively new phenomenon. The curricula of most Ukrainian higher education institutions provide training courses that are focused mainly on the obtaining of professional and fundamental knowledge, i.e. "hard skills", by students. While the development of such skills as flexibility and critical thinking, sociability, responsibility, ability to work in a team, work ethics, which belong to soft skills, are not paid enough attention by researchers, and typically they are not considered important in educational process in higher education institutions of Ukraine.

Soft skills development is crucial for future psychologists as they must be able to find a compromise, analyze information, collect the necessary facts, formulate their own opinion and argue it, etc. Therefore, soft skills are the key to successful personal and professional development.

Issues of soft skills development as an important component of the future specialist's competitiveness are studied by Ukrainian scientists N. Dlugunovych, 2014; O. Glazunova, T. Voloshina & V. Korolchuk, 2019; K. Koval, 2015; I. Paslavaska, 2020; I. Kostikova, L. Holubnycha, Z. Girich & N. Movmyga (2021), etc.

Ukrainian researchers O. Malykhin, N. Aristova, L. Kalinina & T. Opaliuk (2021) note that soft skills should be considered as personal and interpersonal meta-qualities and meta-abilities that are vital to any future specialist who is going to make a significant contribution both to their professional development and to the sphere they are going to work in.

A. Ivonina, O. Chulanova & Y. Davletshina (2017) interpret "soft skills" as a social and labour feature of the set of specialist's knowledge, skills, abilities and motivational characteristics connected with interaction between people, the capability of effective time management, persuading and negotiating, leadership, emotional intelligence. Such skills are necessary for successful work performance, job requirements and strategic goals of the company. Researchers consider them to be a potential quality characteristic

that allows to describe almost all elements of staff readiness for effective work in a certain situation at the workplace (Ivonina et al., 2017).

According to I. Kostikova, L. Holubnycha, Z. Girich, & N. Movmyga (2021), research, practical experience, ways and means of developing students' soft skills are important for the international education development. The authors identify the following basic soft skills that can be developed by means of educational games at English lessons: critical thinking, creativity, time management, emotional intelligence, the ability to interact with people, conflict management skills, consciousness flexibility and stress resilience (Kostikova et al., 2021).

J. Balcar, M. Šimek, & L. Filipová (2018) studied the problem of students' soft skills development in Czech universities and concluded that soft skills implementation should start at primary and secondary schools, as the soft skills required of university graduates are almost identical to the ones of secondary education graduates. Therefore, universities should monitor changes in requirements of their graduates' soft skills and use this information to constantly update educational goals. According to researchers, surveys of employers and annual surveys of university graduates facilitate this process (Balcar et al., 2018).

In the article "Is it better to invest in hard or soft skills?" J. Balcar (2016) argues that soft skills are as important and productive as hard skills. But modern education is mostly mediated by hard skills, which leads to the uneven development of soft skills and hard skills in schoolchildren and students. Therefore, J. Balcar believes that soft skills and hard skills should be differentiated according to the needs of employers due to significant differences in the value of soft skills in different sectors of the economy (Balcar, 2016).

Serbian scientists A. S. Lokaj, V. Miftari & V. Hajdari (2021) looked into the problem of students' awareness of the soft skills importance for their future career. The results of their study showed that there is a strong positive correlation between students' training to prepare for work and the development of their soft skills. However, many students feel that their soft skills are lower than they would like them to be developed. It was also found that students have a low level of emotional intelligence. Therefore, researchers suggest that soft skills development has to be facilitated to prepare students for successful future careers. It is important to integrate the soft skills development into relevant courses, specialized training seminars or specialized programs at universities. Students' efforts to improve their soft skills by means of reading books and active participation in training programs and activities are of great importance as well (Lokaj et al., 2021).

Croatian scientists M. Kalauz, G. Hudec & V. Kirinic (2015) prove that proper perception by students their own soft skills development for future professional careers is worth forming. Researchers claim that soft skills are based on a combination of cognitive and metacognitive skills, interpersonal, intellectual and practical abilities of students, and are combined with their hard skills. This combination adds value to competitiveness of the future specialist (Kalauz et al., 2015).

Spanish scholars L. Chova, L. Martinez & I. Torres (2016) believe that the development of linguistic and soft skills of the graduates of higher education institutions contributes significantly not only to job search, but also to increasing self-awareness and understanding cultural differences at the new workplaces (Chova et al., 2016).

Italian scientist F. Cornalli (2018) notes that recent changes in the labor market have had a significant impact on higher education and training of graduates. Nowadays, universities have to not only provide knowledge to develop professional skills, but also "soft skills" that can be applied in many professional situations and areas. In this regard, she considers it to be necessary to determine the basic structure of the university graduate's soft skills based on the results of theoretical and empirical research. Soft skills require constant redefinition as they are constantly changing. In addition, they may acquire different characteristics in different cultures and living conditions of society. Along with the satisfying the labor market requirements, the positive impact of young people's soft skills development on their health, family life, social cohesion, civic activism and life satisfaction is observed (Cornalli, 2018).

Studying the development of "soft" and "hard" skills of future specialists in accounting and their importance for the accounting profession, L. Cernușca (2020) concluded that harmonious combination of hard and soft skills enables accounting professionals to communicate with customers more efficiently. The employers' expectations of accounting professionals follow from the roles and actions they must perform to ensure the success of the company they work for. Employers will be more interested in hiring young accounting graduates who have solid soft skills and are ready to use them to develop the hard skills needed for their work (Cernușca, 2020).

The Indian scientist V. Saravanan (2009) insists on the importance of developing such students' soft skills as critical thinking and information management skills (Saravanan, 2009).

N. Hikmah & S. H. Siregar (2016) believe that the development of soft skills, non-formal education and lifelong learning are important for the development of education in Indonesia. The development of students' soft

skills, especially entrepreneurial skills, personal skills and social skills are valuable for improving the lives not only of students themselves, but also of Indonesian society in general (Hikmah & Siregar, 2016).

Bangladesh scientist M. R. Siddiky (2020) found that gender makes a significant impact on the soft skills development, except for the development of presentation skills. Therefore, he points to the necessity for a more detailed study of cultural and social factors that influence the development of students' soft skills based on their gender (Siddiky, 2020).

This data is confirmed by Spanish scientists P. Fernández-Arias, Á. Antón-Sancho, D. Vergara & A. Barrientos (2021), who studied the features of soft skills of American university teachers from different regions. They found that there is a significant gap between men and women in the level of development of such soft skills as leadership, sense of control, orientation, image creation where women express a much higher self-perspective. Men show a higher self-perspective in the development of such skills as flexibility of thinking. Researchers also found that American university professors are willing to work with a blended model of university education. It contributes to the development of both hard and soft skills of students (Fernández-Arias et al., 2021).

Studying the importance of soft skills development for students of higher education institutions, Russian scientists A. Arbuz & I. Dinner (2019) assessed students' awareness of such soft skills as operational thinking, communication skills, skills of working with digital technologies, skills of working under the uncertainty conditions, etc. Researchers have concluded that most students are aware of the importance of soft skills for successful careers and workplace productivity. A. Arbuz & I. Dinner suggest investing more resources in the development of interactive forms of learning, the use of game tasks, the development of interrelations between disciplines that affect the formation of students' soft skills (Arbuz & Dinner, 2019).

The problem of soft skills development as a factor of future professionals' competitiveness at the labor market is quite relevant nowadays. The concept of soft skills has become an integral part of the global labor market over the past 20 years. "Soft skills" is equated with such concepts as "employability skills", "people skills", "non-professional skills", "key skills", "skills for social progress", "life skills".

Soft skills is a sociological term that refers to the personal emotional intelligence; set of personality traits, social skills, communication skills, personal habits, friendliness and optimism (Dlugunovich, 2014, p. 239). This group of skills includes also individual, communication and management skills.

American and German experts in management, business and education were the first to use the term "soft skills". They considered soft skills to be a complement to "hard" or "professional" skills. The researchers stressed that soft skills are more difficult to obtain and change unlike hard skills, which are easier to be formed and developed.

Thus, soft skills are both professional, interpersonal, and intrapersonal skills that help to succeed in professional activity. However, there is no any list or classification of soft skills, because for different activities, different types of skills are a priority.

2. The problem and purpose of the study

The analysis of scientific works shows that today in scientific research the main attention of scientists is focused on the problem of forming soft skills in future specialists as a factor of their competitiveness in the labor market. At the same time, the development of soft skills in psychology students as an important component of their future professional activity remains little studied.

The aim of the article is to diagnose the dynamics of soft skills as a factor of the future psychologists' successful professional activity at different education stages in higher education.

3. Methods and stages of study

An empirical study of the students' soft skills development dynamics was carried out on the basis of Khmelnytsky National University. It involved 56 students majoring in Psychology, namely: 18 first-year students, 20 third-year students and 18 master's students. The students gave oral consent to participate in the study, which took place outside of school time, without disclosing participants' personal information and the study results.

The study was conducted in several stages during the 2020-2021 school year.

The purpose of the first stage of the study was to identify and substantiate the groups of soft skills which are necessary for successful future professional activity of psychology students. For this purpose, the following theoretical methods of scientific research were used: analysis and synthesis of scientific sources on the problem of youth's soft skills development; comparison of Ukrainian and foreign scientists' views on the problem of teaching, acquiring and development of student's soft skills; specification of scientific works and ideas for more accurate definition and

substantiation of the psychology students' soft skills groups which they need for future professional activity.

The second stage of the study was aimed at diagnosing the levels of the psychology students' soft skills development of the defined groups and their comparative analysis. For this purpose a set of diagnostic methods was used: Communication Skills Test by L. Michelson, modified by Y. Hilbukh (for diagnosing communication skills); The Holmes and Rahe Stress Scale (to study the personal performance skills); method «Leadership skills diagnosis» by E. Zharikov, E. Krushelnytsky (for management skills study); methods of identifying "Propensity for communicative and organizational activities" (for the study of strategic skills) and "Test of critical thinking" by L. Starkey, modified by E. Lutsenko (to diagnose the level of critical thinking development).

To assess the development level of the psychology students' *communication skills*, the Communication Skills Test by L. Michelson, modified by Y. Hilbukh (1978) was used. It makes qualitative and quantitative analysis of data possible due to the answer key to calculate the number of correct and incorrect answers as a percentage ratio of their total number. A particular communication style of the psychology students' is determined: confident, dependent or aggressive.

To diagnose the *personal performance skills* (time management, creativity, analytical thinking, responsibility, abilities to achieve goals and cope with stress), The Holmes and Rahe Stress Scale (Holmes & Rahe, 1967) was used. The Holmes and Rahe Stress Scale contains a list of 43 distressing life events over the past year, both emotionally positive and negative, which are numerically rated according to their potential to cause disease on a 100-point scale. The method allows for qualitative and quantitative data analysis and determines the level of stress resistance: quite high, high, medium or low.

The study of *management skills* was carried out by means of the method of «Leadership skills diagnosis» by E. Zharikov, E. Krushelnytsky (Fetiskin et al., 2002). The method allows to make qualitative and quantitative analyses of the recipients' ability to be a leader. They are offered 50 statements to answer "yes" or "no". One point is given in case the recipient's answer aligns with the one in the answer key, otherwise they receive 0 point. This way the following levels of psychology students' leadership skills are determined: low, medium, high, very high (tendency to dictate).

To study the psychology students' *strategic skills*, the method "Propensity for communicative and organizational activities" (Raigorodsky,

2002) was used. The methodology consists of 40 questions that are supposed to be answered "yes" or "no". The obtained data undergo the qualitative and quantitative analyses to determine the level of propensity for communicative and organizational activities on a 5-point scale: low, below average, average, high, very high.

Critical thinking of psychology students was studied by means of the "Test of critical thinking" by L. Starkey, modified by E. Lutsenko (2014). This verbal test consists of 27 statements / questions, each with 4 options for choosing an answer. After the data processing, general index of critical thinking is calculated. It can range from 0 to 27 points and allows to determine the following levels of the critical thinking development: high, medium, low.

At the third stage of the research, based on the results of the diagnostics, the ways of development of the defined soft skills groups were worked out and substantiated.

4. The results of the study

According to the scientific works analyses the psychologist's professional readiness includes their professional orientation, professionally significant features, knowledge and skills. It is essential for the professional training that the knowledge and skills acquired in higher education institutions become individually significant for psychology students. In this case they stipulate the formation of future psychologists' holistic scientific worldview and creative initiative, which become their personality traits and professional activity capabilities.

Thus, we have identified five groups of future psychologists' soft skills, which are essential for their successful professional activity:

The first group of soft skills consists of *communication skills* as an important professional and personal quality of the future psychologist. This group includes such competencies as interpersonal communication, abilities to work in a team, to negotiate, to communicate effectively with colleagues, clients, managers, the ability to persuade, to resolve conflict situations, to make independent decisions. As work with clients includes active listening, the ability to ask questions correctly, to express opinions concisely, the use of communication skills is vital for professional activity.

The second group – *personal performance skills* – includes time management, creativity, analytical thinking, responsibility, abilities to achieve goals and cope with stress. To have a successful professional activity, the future psychologist has to be active and innovative, constantly work on their self-development and self-improvement.

The third group consists of *management skills*, which are based on competencies for working in a multidisciplinary team. The abilities to unite the team, to establish effective communication between its members, to demonstrate leadership are necessary for successful work in a multidisciplinary team.

The fourth group – *strategic skills* – are of great importance for successful professional activity. It includes strategic decision-making (especially useful for work with innovative technologies; ability to work under competitive conditions and social risks, to plan their activities, etc.

Critical thinking refers to the fifth group of soft skills, being extremely relative in the 21st century. The future psychology specialist must be able to analyze, systematize, evaluate data, etc.

The next stage of the study was the diagnosis of the levels of development of the psychology students' soft skills groups, substantiated at the previous stage.

To assess the development level of the psychology students' *communication skills*, the **Communication Skills Test by L. Michelson**, modified by Y. **Hilbukh** (1978) was used. The purpose of this test is to determine the communication competence level and the quality of the communication skills development of the tested students.

It should be noted that it is a kind of achievement test, so each question has the correct answer. The test provides some reference behavior that corresponds to a competent, confident, partner style. The degree of approximation to the referent standard can be determined by the number of correct answers. The questionnaire contains a description of 27 communicative situations. 5 possible ways of behavior are offered for each situation. The surveyed person has to choose the one, which is typical for them in this situation. More than one option cannot be chosen and another variant not specified in the questionnaire cannot be added. According to the answer key the chosen variant can be referred to a particular type of response: *confident, dependent or aggressive*. The percentage of correct and incorrect answers to the total number of selected answers is calculated.

Dependent communication style involves a tendency to dependence of the person's views, evaluations and behavior on the other people's influence in the communication situation.

Competent, confident, partner style of communication is an adequate response to the behavior of others depending on the situation. It involves abilities to come into contact with other people, to express positive feelings and assessments towards them, to seek and provide help and support, to say: "No!" if necessary, control yourself in conflict situations.

Aggressive communication style means the inability to avoid manifestations of sharpness, irritation, anger, categorical judgments, negative assessments of people and events that may affect other people.

The results of the Communication Skills Test by L. Michelson, modified by Y. Hilbukh among first-year psychology students are presented in Table 1.

Table 1. The results of the study of the development levels of communication styles of the first-year psychology students (in %)

Communication style	Development level of communication style		
	High	Medium	Low
Dependent	44,4	33,3	22,3
Competent	33,3	44,4	22,3
Agressive	27,8	44,4	27,8

Source: Authors' own conception

As can be seen from Table 1, the majority of first-year psychology students demonstrate a dependent type of communication (44.4%), which indicates the dependence of their views, opinions and behavior on other people. Noteworthy is the fact that slightly increased rates of students' aggression and incompetence in communication with others have been diagnosed.

The results of the communication styles study of 20 third-year psychology students are shown in Table 2.

Table 2. The results of the study of the development levels of communication styles of the third-year psychology students (in %)

Communication style	Development level of communication style		
	High	Medium	Low
Dependent	15	30	55
Competent	40	50	10
Agressive	10	25	65

Source: Authors' own conception

The data in Table 2 show that third-year psychology students, in contrast to their first-year counterparts, show a competent, confident, partner style of communication, are less dependent on the others' opinions, less aggressive, less categorical to judgments and negative assessments of people or events.

The results of the communication styles study of 18 master's degree students majoring in psychology are shown in Table 3.

Table 3. The results of the study of the development levels of communication styles of master's degree students majoring in psychology (in %)

Communication style	Development level of communication style		
	High	Medium	Low
Dependent	11,1	27,8	61,1
Competent	55,6	33,3	11,1
Agressive	5,5	22,3	72,2

Source: Authors' own conception

Thus, the results show that students doing their master's degree, have higher communicative competence and quality of communication skills in comparison to younger students. Only 2 master's students majoring in Psychology (11.1%) have a dependent communication style. A high level of aggression and incompetence in communication is typical for 1 student (5.5%).

To diagnose the second group of skills – *personal performance skills* – which include time management, creativity, analytical thinking, responsibility, abilities to achieve goals and cope with stress, Holmes and Rahe Stress Scale (T. Holmes & R. Rahe, 1967) was used.

American physicians T. Holmes and R. Rahe examined the medical records of over 5,000 medical patients as a way to determine whether stressful events might cause illnesses (including infectious diseases and injuries). They concluded that 151 mental and physical illnesses are usually preceded by certain serious changes in the person's life. Based on their research, they compiled a scale in which each important life event corresponds to a certain number of stress points. The authors of the method claim that *stress resistance* is the ability to cope with stress and psychophysical loads without harm to the body and psyche. *Social adaptation* is the process of active adaptation of the individual to the conditions of the social

environment. One of its types - socio-psychological adaptation – is the interaction of the individual and the social environment, which provides the optimal ratio of goals and values both of the individual and the group. *Adaptive potential* is the degree of hidden possibilities of the person to deal with new or changing social environment conditions. External difficulties, illness, hunger, etc. reduce the individual's adaptive potential, and the situation threatening the life goals can lead to disadaptation.

The Holmes and Rahe Stress Scale contains a list of 43 distressing life events over the past year, both emotionally positive and negative, which are numerically rated according to their potential to cause disease on a 100-point scale.

Interpretation:

- less than 150 points – quite high stress resistance;
- 150 - 199 points – high stress resistance;
- 200 - 299 points – medium stress resistance;
- 300 and more – low stress resistance (vulnerability).

Quite high degree of stress resistance means that a person has a low stress loading. And it directly contributes to the life length.

High stress resistance indicates that a person does not spend their energy and resources to combat the negative mental states arising in stressful situations. Therefore, any personal activity is considered to be effective.

A medium degree of stress resistance indicates that a person's stress resistance decreases when the number of distressing life situations goes up. It means that the individual has to spend a significant amount of their energy and resources to combat the negative mental states experienced during stress.

A low degree of stress resistance means that the individual has to constantly spend all their vital energy and resources to combat the negative mental states arising in stressful situations. A large number of points (more than 300) is a warning of danger that should force the person to take urgent measures to eliminate stressful conditions. Being close to nervous exhaustion, the person is at risk of psychosomatic illness.

The results of the study based on Holmes and Rahe Stress Scale with 18 first-year psychology students are presented in Table 4.

Table 4. The results of the stress resistance study of the first-year psychology students

Degree of stress resistance	%
Quite high stress resistance	11,1
High stress resistance	16,7
Medium stress resistance cpeccy	44,4
Low stress resistance	27,8

Source: Authors' own conception

According to the data in Table 4, medium and low stress resistance predominante with first-year psychology students. These results show that the recipients have to spend a significant amount of their vital energy and resources to combat the negative mental states arising during stress. They are not able to cope with psychophysical loads and stress without harm to their body and psyche.

The results of the stress resistance study of 20 third-year psychology students are represented in Table 5.

Table 5. The results of the stress resistance study of the third-year psychology students

Degree of stress resistance	%
Quite high stress resistance	25
High stress resistance	25
Medium stress resistance cpeccy	35
Low stress resistance	15

Source: Authors' own conception

As can be seen from the data in Table 5, third-year psychology students mostly have medium (35%), high (25%) and quite high (25%) degree of stress resistance. Unlike the first year students, they have are able to cope with significant psychophysical loads and stress without harm to their body and psyche. Only three students (15%) have low stress resistance.

The results of the stress resistance study of 18 master's degree students majoring in psychology, held by means of Holmes and Rahe Stress Scale are presented in Table 6.

Table 6. The results of the stress resistance study of the master's degree psychology students

Degree of stress resistance	#	%
Quite high stress resistance	6	33,3
High stress resistance	8	44,4
Medium stress resistance crpecy	3	16,7
Low stress resistance	1	5,6

Source: Authors' own conception

The results of the study showed that, in contrast to junior psychology students, most students doing their master's degree have high (44.4%) and quite high (33.3%) stress resistance. They have a stable adaptive potential and stress resistance, which, according to doctors T. Holmes and R. Rahe, directly contributes to the continuation of their lives. Only one master's student (5.6%) has a low resistance to stress.

The study of the third skills group – *management skills* – was carried out by means of the method of «Leadership skills diagnosis» by E. Zharikov, E. Krushelnytsky (Fetiskin et al., 2002). The presented technique is aimed to assess the person's ability to be a leader. The recipients are offered 50 statements to answer "yes" or "no". For each answer that coincides with the key, one point is given, otherwise - 0.

Leadership assessment:

If the sum of points is less than 25, the person's leadership skills are low.

If the sum of points ranges from 26 to 35, the respondent's leadership skills are expressed moderately.

If the sum of points ranges from 36 to 40, the leadership skills are strongly expressed.

If the sum of points is more than 40, the person as a leader is prone to dictate.

The results of the method «Leadership skills diagnosis» by E. Zharikov and E. Krushelnytsky held among 18 first-year psychology students are presented in Table 7.

Table 7. The results of the study of leadership skills of the first-year psychology students

Level of leadership skills development	%
Low	50
Medium	27,8
High	16,7
Very high (tendency to dictate)	5,5

Source: Authors' own conception

As it can be seen from the data shown in Table 7, half of the first-year psychology students are unable to be leaders due to the poorly developed leadership skills (50%). 27.8% of students have moderately developed leadership skills while there are only 16.7% of respondents with highly developed leadership skills, which characterizes them as strong-willed, persistent, proactive, patient, self-critical individuals. However, it is noteworthy that one first-year student majoring in psychology showed an excessive tendency to leadership and dictatorship, which should not be typical for in the profession of psychologist.

The results of the leadership skills diagnosis of the third-year psychology students are represented in Table 8.

Table 8. The results of the leadership skills study of the third-year psychology students

Level of leadership skills development	#	%
Low	3	15
Medium	10	50
High	6	30
Very high (tendency to dictate)	1	5

Source: Authors' own conception

The results of the method «Leadership skills diagnosis» by E. Zharikov and E. Krushelnytsky held among 20 third-year psychology students show that leadership skills of 50% respondents are developed at the medium level while 30% have a high level of leadership skills.

Leadership skills of 15% of third-year psychology students are poorly developed. The fact that one third-year student has an excessive tendency for dictatorship and leadership is alarming.

The results of the diagnosis of leadership skills of master's students majoring in psychology are shown in Table 9.

Table 9. The results of the leadership skills study of the master's degree psychology students

Level of leadership skills development	#	%
Low	2	11,1
Medium	10	55,6
High	6	33,3
Very high (tendency to dictate)	0	0

Source: Authors' own conception

The analysis of the leadership skills development of master's students majoring in psychology show that they mostly have medium (55.6%) and high (33.3%) levels of leadership skills while their low development is typical for only two respondents (11.1%). The positive phenomenon is that no excessive tendency for dictatorship and leadership among master's student was diagnosed.

To study the *strategic skills* that make up the fourth group of future psychologists' soft skills, the method of testing "Propensity for communicative and organizational activities" (Raigorodsky, 2002) was used. This technique helps to identify the ability to clearly and quickly establish business and social contacts, the desire to expand them, to influence people, to take the initiative, etc. The methodology consists of 40 questions. They are supposed to be answered "yes" or "no" during 10-15 minutes.

Interpretation of research results:

Respondents whose result is 1 score have a *low level* of propensity for communicative and organizational activities.

People who get 2 scores have *below average* propensity for communicative and organizational activities. They do not seek communication, dislike being in a new company; prefer to be alone; have limited acquaintances; experience difficulties in establishing contacts with others; are poorly oriented in an unfamiliar situation; do not defend their opinion; suffer when experience insults; do not take the initiative in public activities; in many cases they avoid making independent decisions.

If total number of scores are 3, the respondent has an *average level* of communicative and organizational propensity. Such people get into contact with others without limiting their circle of acquaintances; defend their opinion; plan their work. However, their potential of propensity for communicative and organizational activities is not stable and needs further development.

4 scores mean a *high level* of communicative and organizational propensity. Such people are not confused in the new situation; quickly find friends; expand their circle of acquaintances constantly; are engaged in public activities; help close friends; show initiative in communication; take an active part in the organization of public events; are able to make decisions in an extreme situation.

A *very high level* of communicative and organizational propensity is typical for people who get 5 scores. They get quickly oriented in difficult situations, take initiative in making decisions and arguing their opinion, feel at ease with new people, are good at arranging various games and group activities.

The results of the testing method "Propensity for communicative and organizational activities" among 18 first-year psychology students are presented in Table 10.

Table 10. The results of the study of communicative and organizational propensity among first-year psychology students

Level of propensity for communicative and organizational activities	#	%
Low	4	22,2
Below average	5	27,8
Average	5	27,8
High	3	16,7
Very high	1	5,5

Source: Authors' own conception

As it can be seen from Table 10, first-year psychology students have communicative and organizational skills developed at the average level and below average level, which indicates that the potential of these abilities is not stable. These students do not show a purposeful desire to communicate, experiencing difficulties in establishing contacts with people. They are poorly oriented in unfamiliar situations, do not argue their opinion, suffer when get insulted; are not initiative in public activities and avoid making independent decisions in many cases.

The results of the study of communicative and organizational propensities of the third-year psychology students are presented in Table 11.

Table 11. The results of the study of communicative and organizational propensities of the third-year psychology students

Level of propensity for communicative and organizational activities	#	%
Low	2	10
Below average	2	10
Average	8	40
High	5	25
Very high	3	15

Source: Authors' own conception

The analysis showed that most of the third-year psychology students have their communicative and organizational propensities developed at the average and high level. Thus, they seek contact with others without limiting their circle of acquaintances; argue their opinions; plan work; make friends quickly; are engaged in public activities; help close friends; take the initiative in communication; take an active part in the organization of public events; are able to make decisions in an extreme situation.

The results of the study of communicative and organizational propensities of 18 master's students majoring in psychology are presented in Table 12.

Table 12. The results of the study of propensity for communicative and organizational activities of the master's degree psychology students

Level of propensity for communicative and organizational activities	#	%
Low	1	5,5
Below average	1	5,5
Average	6	33,3
High	6	33,3
Very high	4	22,2

Source: Authors' own conception

According to the study results, average, high and very high development levels of communicative and organizational propensities dominate with master's students majoring in psychology. It means that the students feel at ease with other people, are good at organizing various games and group activities.

The group of soft skills - *critical thinking* that is crucial for psychology specialists – was studied by means of the "Test of critical thinking" by L. Starkey, modified by E. Lutsenko (Starkey, 2004). L. Starkey argues that critical thinking does not accept arguments and conclusions blindly , it explores assumptions, recognizes hidden values, evaluates available data and conclusions. Critical thinking is based on the construction of logical inferences, the creation of coherent logical models and making informed decisions about rejecting a judgment, agreeing to it, temporarily postponing its consideration (Starkey, 2004).

After psychometric procedures had been held, the “Test of Critical Thinking” was adapted for use in Ukrainian society. All tasks and the author's language were preserved in the test (Lutsenko, 2014).

It is aimed to test abilities objectively and can be applied both individually and in a group. This verbal test consists of 27 statements / questions, each with 4 options for choosing the correct answer. There is a single correct answer for each task. It is one-factor test and after results processing general index of critical thinking is calculated. It can range from 0 to 27 points. There is The time of testing is limited by 30 minutes, although it often takes intelligent respondents only 20-25 minutes to complete it.

Interpretation of the research results:

High result on this test means that the individual has developed almost all operations of critical thinking: logic, induction, deduction, reflection, emotion control, analysis of information authenticity, detecting own illusions and manipulation by others, advertising, propaganda , the ability to differentiate between assumptions and facts, identify cause-and-effect relationships or accept their absence, recognize the own mental processes limitats, make the most optimal decisions in conditions of uncertainty and risk, the ability to set realistic goals and find adequate ways to achieve them. Such a person is effective in all activities that require complex and responsible decisions, as well as quickly adapts to changing environmental conditions.

Average result means that this individual has a significant number (30-70%) of critical thinking skills: logic, induction and deduction, the ability to critically analyze information, the ability to largely resist manipulations (perhaps getting not immediately aware of them), control over emotions and awareness their influence on decision-making.

Low test result indicates that only 10-20% of tasks that require the use of critical thinking are successfully solved by the person. Such a person has poorly developed logic, induction and deduction processes, the ability to filter inaccurate and collect objective information, detect manipulations,

illusions and erroneous ideas, make informed decisions, provide arguments in discussion, be aware of their own and others' biases. Such a person will feel incompetent in intellectual disputes, will try to cheat, dodge, get aggressive, as they are not good at providing clear and convincing logical arguments.

The results of the critical thinking study held among 18 first-year psychology students by means of the method "Test of critical thinking", modified by E. Lutsenko (E. Lutsenko, 2014) are presented in Table 13.

Table 13. The results of the study of critical thinking of the first-year psychology students

Level of critical thinking development	#	%
High	3	16,7
Medium	9	50
Low	6	33,3

Source: Authors' own conception

According to the data presented in Table 13, the medium (50%) and low (33.3%) level of critical thinking development prevails. It means that the first-year psychology students have an unstable ability to resist others' manipulation, control their emotions and be aware of their impact on decision making. They do not feel competent enough in intellectual disputes, try to cheat, dodge or get aggressive, because they cannot provide clear and convincing logical reasoning.

The results of the critical thinking study held among the third-year psychology students are presented in Table 14.

Table 14. The results of the study of critical thinking of the third-year psychology students

Level of critical thinking development	#	%
High	6	30
Medium	10	50
Low	4	20

Source: Authors' own conception

According to the data in Table 14, medium (50%) and high (30%) critical thinking levels are typical for majority of the third-year psychology students. This indicates that all their critical thinking operations (logic,

induction, deduction, reflection, emotion control, information analysis, etc.) are well-developed. Thus, they are effective in all activities requiring complex and responsible decisions, and quickly adapt to changing environmental conditions.

The results of the critical thinking study held among the students doing their master's degree in psychology are presented in Table 15.

Table 15. The results of the critical thinking study of the master's psychology students

Level of critical thinking development	#	%
High	6	33,3
Medium	11	61,2
Low	1	5,5

Source: Authors' own conception

As it can be seen from Table 15, most master's students of psychology have high (61.2%) and medium (33.3%) critical thinking levels and only one student (5.5%) showed a low development level of this skill. So, master's students are ready for future professional activity and have a fairly high ability to think critically, which is one of the most important skills of the professional psychologist.

The results of the empirical study of the development level of the determined soft skills groups show that master students doing their master's degree demonstrate higher readiness to professional work if compared to junior students. They have highly developed communication skills, personal performance, management skills, strategic skills and critical thinking as an important component of successful work in the sphere of psychology while soft skills of the first- and third-year students need further development. That is why the third stage of this study was aimed at working out and substantiating the ways of psychology students' soft skills development.

Ukrainian and foreign scientists believe that soft skills development is possible in case of the students' active participation in various unions, public associations, scientific societies, student government, etc. Such activities are helpful to improve communication skills, to train them to work in a team and take responsibility for their own decisions.

Researcher I. Paslavska (2020) suggests using interactive learning technologies to achieve this aim, in particular: interactive technologies of cooperative learning, interactive technologies of group learning, situational modeling and work with controversial issues technologies. I. Paslavska notes that to focus the teacher's activity on the soft skills development, the formats and technologies of teacher-student interaction have to be changed.

Students are no longer interested in traditional forms of education, so current trends in education and society have to be taken into account. The author emphasizes that the encouragement of students to active conversation, the use of discussion forms of work in classes, project work, motivating students to participate in creative activities promote the development of such soft skills as communication, argumentation, adaptability, self-control, ingenuity, self-discipline, teamwork, loyalty, motivation.

Based on the analysis of scientific works on the research problem, the following *ways of development of the determined soft skills groups* of future psychologists are effective:

Communication skills of psychology students can be developed by means of oral and writing activities. Students need to take an active part in group discussions and represent the group's opinion. Their public speaking skills and ability to express their ideas must be trained.

Personal performance skills – to develop students' sense of responsibility to the leader and other group members for the task assigned to them, to oblige them to explain the causes of failure to fulfill the task and ways to solve the problem.

Management skills – to encourage students to work selflessly in groups. Each member of the group should be responsible for a specific job or result. At the end of the group work, students should analyze how they contributed to the work and why they deserve certain evaluation.

Strategic skills – to encourage teamwork and collaboration by means of the group work, different students should be assigned to work together. The importance of trust, integrity, responsibility and cooperation should be emphasized.

Critical Thinking – to offer students long-term projects for problem-solving with deadlines. This way students will be stimulated to get focused on the task and organize their time, to solve problems arising in the process of work and develop their self-control.

5. Conclusions and recommendations

The results of the empirical study provide evidence that during their studies at the higher education institution students have a positive dynamics of changes in the soft skills development, as well as in increasing their readiness for future professional activity. Soft skills of master's degree students majoring in psychology (i. e. communication skills, personal performance, management skills, strategic skills and critical thinking) are much better developed in contrast to the junior psychology students.

With this in mind, we recommend the administration of higher education institutions to implement new curricula to cover the full range of soft skills development while getting their training. Students' active work on projects, their maximum involvement in selfless teamwork to consolidate their professional competencies and soft skills are worth implementing into the educational process and should be applied by teachers.

Therefore, **the prospects for further research** are working out of the soft skills development program for psychology students and its implementation during their studies at a higher education institution.

Author Contributions: documentation – O. Vasylenko, V. Afanasenko & T. Komar; methodology – O. Vasylenko, V. Afanasenko, T. Komar, O. Petyak & A. Rudenok; data gathering – O. Petyak & A. Rudenok, data processing – O. Petyak & A. Rudenok, writing – preparation of the original text – O. Vasylenko; writing – review and editing – O. Vasylenko & T. Sheleh; translation text into English – T. Sheleh. All authors have read and agreed to the published version of the manuscript.

References

- Arbuz, A. & Dinner, I. (2019). Formation of soft skills of students of higher educational institutions of Omsk (on example of economists and IT specialists training). *International Days of Statistics and Economics Conference Proceedings September 5-7, 2019; Prague, Czech Republic* (pp. 30-38).
<https://doi.org/10.18267/pr.2019.los.186.4>
- Balcar, J. (2016) Is it better to invest in hard or soft skills? *The Economic and Labour Relations Review*, 27(4), 453-470.
<https://doi.org/10.1177/1035304616674613>
- Balcar, J., Šimek, M., & Filipová, L. (2018). Soft Skills of Czech Graduates. *Review of Economic Perspectives – národohospodářský obzor*, 18(1), 45-60.
<https://doi.org/10.2478/revecp-2018-0003>
- Cernuşca, L. (2020). Soft and Hard Skills in Accounting Field-Empiric Results and Implication for the Accountancy Profession. *Studia Universitatis „Vasile Goldis” Arad – Economics Series*, 30(1), 33-56. <https://doi.org/10.2478/sues-2020-0003>
- Chova, L., Martinez, L., & Torres, I. (2016). Leonardo International Workplacements for Recent Graduates in Europe From Jaume I University 2007-2013: Main Results. *INTED 2016: 10th International Technology, Education and Development Conference* (pp. 7251-7260).
http://www.euophd.net/sites/euophd/files/images/onda_2/07/35th_la

- [b/scientific_materials/derosa_dryjanska_bocci_borrelli_2016_role_academic_social_networking.pdf](https://www.researchgate.net/publication/328111111)
- Cornalli, F. (2018). Training and developing soft skills in higher education. *4th International Conference on Higher Education Advances (HEAd'18) Universitat Politècnica de Valencia, Valencia, 2018*, (pp. 961-967).
<https://dx.doi.org/10.4995/HEAd18.2018.8127>
- Dlugunovych, N. O. (2014). *Soft skills yak neobkhidna skladova pidbotovky IT-fakhivtsiv* [Soft skills as a necessary component of IT professionals training]. *Bulletin of Khmelnytsky National University*, 6, 239-242.
http://journals.khnu.km.ua/vestnik/pdf/tech/2014_6/47.pdf
- Fernández-Arias, P., Antón-Sancho, Á., Vergara, D., & Barrientos, A. (2021). Soft Skills of American University Teachers: Self-Concept. *Sustainability*, 13(22), 1-25. <https://doi.org/10.3390/su132212397>
- Fetiskin, N., Kozlov, V. & Manuilov, G. (2002). *Sotsialno-psykholohichna diabnostyka rozvytku osobystosti i malykh brup* [Socio-psychological diagnosis of personality and small groups development]. Publishing House of the Institute of Psychotherapy.
- Glazunova, O. G., Voloshina, T. V. & Korolchuk, V. I. (2019). *Rozvytok «soft skills» u maibutnikh fakhivtsiv z informatsiinykh tekhnolohii: metody, zasoby, indykatory otsiniuvannya*. [Development of "soft skills" of future specialists in information technology: methods, tools, assessment, indicators]. *Open educational e-environment of modern University. Special edition* (pp. 93-106).
http://nbuv.gov.ua/UJRN/oeemu_2019_spetsvip_10
- Hilbukh, Y. Z. (1978). Relevant problems of psychological tests validation. *Psychology Issues*, 5, 108-118.
- Hikmah, N. & Siregar, S. H. (2016). Non-Formal Education: Development of Soft Skills Education in Indonesian Society. *Advances in Social Science, Education and Humanities Research (ASSEHR)*, 88, 3rd NFE Conference on Lifelong Learning (NFE 2016), 142-145. <https://doi.org/10.2991/nfe-16.2017.35>
- Holmes, T. H., & Rahe, R. H. (1967). The Social Readjustment Rating Scale. *Journal of Psychosomatic Research*, 11(2), 213–218. [https://doi.org/10.1016/0022-3999\(67\)90010-4](https://doi.org/10.1016/0022-3999(67)90010-4)
- Ivonina, A. I., Chulanova, O. L. & Davletshina, Y. M. (2017). *Sovremennye napravleniya teoreticheskikh i metodicheskikh razrabotok v oblasti upravleniya: rol' soft skills i hard skills v professional'nom i kar'ernom razvitiu sotrudnikov* [Modern directions of theoretical and methodical developments in management: the role of soft skills and hard skills in the professional and career development of employees]. *Online Journal "Science Studies"*, 1, 1-18.
<https://cyberleninka.ru/article/n/sovremennye-napravleniya-teoreticheskikh-i-metodicheskikh-razrabotok-v-oblasti-upravleniya-rol-soft-skills-i-hard-skills-v-professionalnom/viewer>

- Kalauz, M. Hudec, G., & Kirinic, V. (2015). Soft skills perception among students: importance and performance. *Central European Conference on Information and Intelligent Systems, Varaždin, Croatia, 2015*, (pp. 89-95).
<http://archive.ceciis.foi.hr/app/public/conferences/1/ceciis2015/papers/766.pdf>
- Kostikova, I., Holubnycha, L., Girich, Z., & Movmyga, N. (2021). Soft Skills Development with University Students. *Revista Romaneasca pentru Educatie Multidimensionala*, 13(1), 398-416. <https://doi.org/10.18662/rrem/13.1/378>
- Koval, K. (2015). Rozvytok «soft skills» u studentiv – odyn z vazhlyvykh chynnykiv pratsevlashhtuvannia. [The development of students' soft skills as one of the important factors of employment]. *Bulletin of Vinnytsia National Technical University*, 2, 162-167. http://nbuv.gov.ua/UJRN/vvpi_2015_2_26
- Lokaj, A. S, Miftari, V. & Hajdari, V. (2021). Leading students toward a new soft-skills perspective: development for employment. *Journal of Education Culture and Society*, 1, 283-296. <https://doi.org/10.15503/jecs2021.1.283.296>
- Lutsenko, E. (2014). *Adaptaciya testa kriticheskogo myshleniya L. Starkey*. [Modification of L. Starkey's critical thinking test]. *Bulletin of Kharkiv National University. Series "Psychology"*, 65-70.
<http://ekhnuir.univer.kharkov.ua/handle/123456789/9999>
- Malykhin, O., Aristova, N., Kalinina, L. & Opaliuk, T. (2021). Developing Soft Skills among Potential Employees: A Theoretical Review on Best International Practices. *Postmodern Openings*, 12(2), 210-232.
<https://doi.org/10.18662/po/12.2/304>
- Paslavska, I. (2020). Rozvytok u studentiv «soft skills» u protsesi vyvchennia inozemnoi movy yak neobkbidnyi komponent konkurentospromozhnosti maibutnikh fakhivtsiv. [Development of "soft skills" in the process of learning a foreign language as a necessary component of the future professionals' competitiveness]. *Bulletin of Taras Shevchenko National University of Lubansk*, 3 (334), 196-204.
<http://visnyk.luguniv.edu.ua/index.php/vphil/article/view/303>
- Raigorodsky, D. Y. (2002). *Prakticheskaya psihodiagnostika. Metodiki i testy: Uchebnoe posobie*. [Practical psychodiagnostics. Methods and tests: Textbook]. BAHRAH-M Publishing House. <https://www.twirpx.com/file/42398/>
- Saravanan, V. (2009). Sustainable Employability Skills for Engineering Professionals. *The Indian Review of World Literature in English*, 5(II), 1-9.
<https://worldlironline.net/2009-jul/sustainable-employability-skills-for-engineering-professionals.pdf>
- Siddiky, M. R., (2020). Does soft skill development vary among the students? A gender perspective. *Turkish Journal of Education*, 9(3), 205-221.
<https://doi.org/10.19128/turje.658198>
- Starkey L. (2004). *Critical thinking skills success*. Learning Express, LLC.
http://www.ergen.gr/images/CRITICAL_THINKING_SKILLS.pdf