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ASSESSMENT OF STUDENTS' DEVELOPMENT OF SOFT SKILLS: A CASE STUDY

Abstract

The article raises the question of increasing emotional intelligence (soft skills), which are currently very important for achieving the competitiveness of students in the labor market. Considering that improving these skills is one of the new directions in the dynamically changing world, it is required the development of human resources, especially in the field of student-based research.

However, it must be admitted that not enough attention is paid to developing this skill set in our state. Hence, this study aims to assess students' learning outcomes to improve their soft skills, including integrating innovative forms and instructional strategies. The learning outcomes of students are evaluated using both quantitative and qualitative methods.

The study involved 78 students of the Higher College at Amanzholov University and Amanzholov University.

The results showed that some students do not have a clear idea of the content of competencies, and several significant ones have not been mastered at the proper level.

This fact confirms the need to develop additional curricula and other activities within the framework of educational work to improve all components of these skills.

Finally, vocational secondary education policy experts in Kazakhstan can use innovative formats and teaching strategies to improve future specialists' soft skills.

Keywords: assessment, creative competence, development, future teachers, case.

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СТУДЕНТТЕРДІҢ ИКЕМДІ ДАҒДЫЛАРЫН ДАМЫТУДЫ БАҒАЛАУ: ЖҰМЫС ТӘЖІРИБЕСІНЕН

Андатпа

Мақалада қазіргі уақытта студенттердің еңбек нарығында бәсекеге қабілеттілігіне қол жеткізу үшін аса маңызды болып табылатын эмоционалды интеллектті (жұмсақ дағдыларды) арттыру мәселесі көтеріледі. Бұл дағдыларды жетілдіру қарқынды дамып жатқан әлемдегі жаңа бағыттардың бірі болып табылатындығын ескерсе, адами ресурстарды, әсіресе, студенттік зерттеу саласында дамыту қажет.

Алайда, мемлекетімізде осы дағдылар жиынтығын дамытуға жеткілікті көңіл бөлінбейтінін мойындау керек. Демек, бұл зерттеу студенттердің әлеуметтік дағдыларын жақсарту, оның ішінде инновациялық формалар мен оқыту стратегияларын біріктіру үшін оқу нәтижелерін бағалауға бағытталған. Студенттердің оқу нәтижелері сандық және сапалық әдістерді қолдана отырып бағаланады.

Зерттеуге С. Аманжолов атындағы ШҚМУ мен С. Аманжолов атындағы ШҚМУ Жоғарғы колледжінің 78 студенті қатысты.

Нәтижелер көрсеткендей, студенттердің бір бөлігі құзыреттіліктің мазмұны туралы нақты түсінікке ие емес, ал бірқатар маңыздылары тиісті деңгейде игерілмеген.

Бұл факт осы дағдылардың барлық компоненттерін жетілдіру бойынша тәрбие жұмысы шеңберінде қосымша оқу бағдарламаларын және басқа да іс-шараларды әзірлеу қажеттілігін растайды.

Сонымен, болашақ мамандардың soft skills-ті арттыру үшін оқытудың инновациялық форматтары мен стратегияларын Қазақстандағы орта кәсіптік білім беру саясатының сарапшылары пайдалана алады.

Түйін сөздер: бағалау, шығармашылық құзыреттілік, даму, болашақ мұғалімдер, кейс, зерттеу.

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ОЦЕНКА РАЗВИТИЯ МЯГКИХ НАВЫКОВ СТУДЕНТОВ: ПРИМЕР ИЗ ПРАКТИКИ

Аннотация

В статье поднимается вопрос повышения эмоционального интеллекта (мягких навыков), которые в настоящее время очень важны для достижения конкурентоспособности студентов на рынке труда. Учитывая, что совершенствование этих навыков является одним из новых направлений в динамично меняющемся мире, требуется развитие человеческих ресурсов, особенно в сфере студенческих исследований.

Однако следует признать, что развитию этого набора навыков в нашем государстве уделяется недостаточно внимания. Следовательно, это исследование направлено на оценку результатов обучения учащихся для улучшения их социальных навыков, включая интеграцию инновационных форм и стратегий обучения. Результаты обучения студентов оцениваются с использованием как количественных, так и качественных методов.

В исследовании приняли участие 78 студентов Высшего колледжа Университета Аманжолова и Восточно-Казахстанского университета им. С. Аманжолова.

Результаты показали, что часть студентов не имеет четкого представления о содержании компетенций, а ряд значимых не освоен на должном уровне.

Этот факт подтверждает необходимость разработки дополнительных учебных программ и других мероприятий в рамках воспитательной работы по совершенствованию всех компонентов этих навыков.

Наконец, эксперты по политике в области среднего профессионального образования в Казахстане могут использовать инновационные форматы и стратегии обучения для улучшения межличностных навыков будущих специалистов.

Ключевые слова: оценивание, творческая компетентность, развитие, будущие учителя, кейс, исследование.

Introduction

At the present stage of social development, characterized by dynamic innovation processes, the outlook on the abilities of young professionals is changing. Soft skills occupy a special place among the personality traits of specialists [1]. A survey conducted in 2019 revealed that there are having difficulty finding young professionals with soft skills, suggesting that the system for

cultivating well-rounded specialists who can start working without additional training is inadequate. Since the modern transformation of society demands a specialist with not only professional skills but also universal skills for successful everyday communication, such as flexibility of thought, sociability, and many others, the improvement of their soft skills in the vocational education system is important [2]. Strategies for the modernization of colleges' academic programs should include soft skills training preparing specialists for professional activities [3]. However in Kazakhstani colleges, the process of changing curriculum is slowing down, and the labor market suffers from a shortage of highly qualified personnel. In the formation of curriculum colleges, the issue of developing soft skills was not taken into account; there was no possibility of revising the college's curriculum according to the opinions of employers. However, it is arduous to formulate the real goals of the course and effectively simulate the process according to the developed soft skills. There is almost no empirical research on this issue and it requires social practice [4]. Therefore, the development of soft skills is of particular importance to college students because their success and competitiveness depend on the breadth and diversity of their range of professional and life knowledge and skills in various fields. This determines the importance and relevance of the selected research topic.

The study's objective is to assess how university and college students learn, how their soft skills improve, and the main pathways for their development, including the integration of innovative formats and instructional strategies.

Materials and methods

In professional reality, what matters is the ability to resolve conflict situations, media literacy, the ability to think effectively, and general communicative culture as essential personal characteristics of the professional. The researchers [5, 6] define these abilities as soft skills, which are non-professional skills that allow students, as carriers of the global culture of our time, to form their career strategies in consideration of individual potential. Many researchers have turned to the disclosure of this problem and considered various aspects of this issue [7] concurs that a large number of existing equivalents of this term, as well as the ambiguity of their interpretations, does not allow us to dwell on any option as universal. The term's use is found in training manuals for the US Army from 1972. A set of social and communication skills that enable one to effectively communicate and work in teams is referred to as a "soft skill" [8].

The fact of the possibility of dividing the functions of soft skills and, hence, their relevance for various spheres of human life confirms such a previously identified distinguishing feature of soft skills in terms of skill orientation as universality [9]. Based on the methods, soft skills can be divided into groups based on a task-based approach [10].

We can conditionally single out the following tasks, which differ in the subject of their focus:

- Tasks oriented towards self-management;
- Tasks oriented towards social interaction;
- Tasks aimed at solving professional problems.

Based on this, we can distinguish the following groups of soft skills:

− For the individual's soft skills: managing his emotions, managing his development, self-learning skills, self-regulation, etc. [11].

− Soft skills for others: communication skills, teamwork, leadership skills, negotiation skills, empathy, etc.

− Soft skills aimed at solving general professional problems in a broad sense: emotional intelligence skills (critical, strategic, systemic, etc.), problem-solving, responsibility, decision-making, adaptability, diligence, etc.

These key categories of emotional intelligence enhance an individual's capacity to handle a variety of professional and everyday tasks. Thus, along with these groups of soft skills' definitions, depending on the researchers' concept, models of soft skills and their components are also diversely presented, which further emphasizes the desire of researchers to better understand the mechanisms of formation of this group of soft skills.

Quantitative and qualitative analyses are chosen as methods. The qualitative approach provides a thorough analysis of the subject matter to learn more about students' motivation, viewpoints, and attitudes and reveals hidden subjective meanings that cannot be explored through the extensive survey and qualitative data.

The research was carried out at the Higher College of Amanzholov University and Amanzholov University (Kazakhstan).

The sample consisted of university students and students of colleges of the 1st and 3rd courses of the specialties "Psychology," "Pedagogy and Psychology", and "Preschool Education." A total of 78 students participated in the coverage. All subjects were between the ages of 18-27.

Results and discussion

Figure 1 shows the results of a questionnaire on the level of emotional intelligence between first and third-year students at universities and colleges.

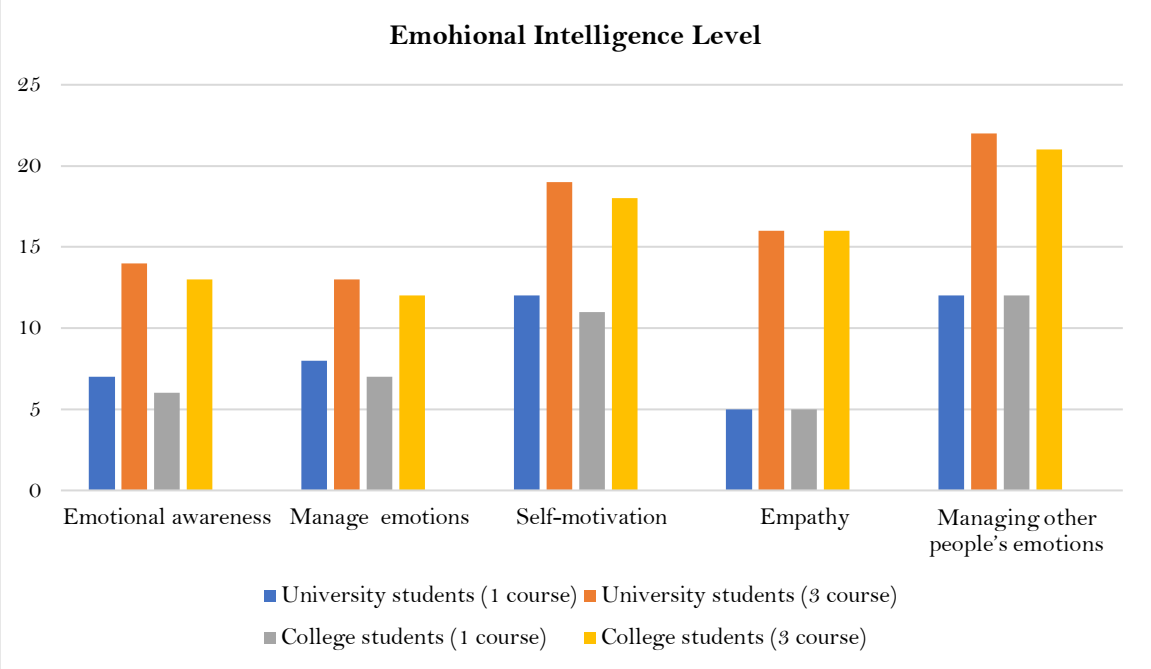

Figure 1 - The level of emotional intelligence.

On the "emotional awareness" scale, it was revealed that in the 1st year, university, and college students have a rather low awareness and understanding of their emotions. First-year students at universities and colleges know very little about their internal state.

The scale of "manage emotions" is a low level of control over one's emotions among university and college students in the 3rd year.

The scale of "self-motivation" is a high level of decision-making about new activities, as well as control over the achievement of the goal among university and college students in the 3rd year.

The "empathy" scale reveals a low understanding of the emotions of other people due to the low level of emotional awareness in a 1st-year university and college student. However, this understanding increases by the third year of university and college students.

On the scale of "managing other people's emotions," a low ability to influence the emotional state of other people was revealed among university and college students in the 1st year. However, this ability increases in university students and college students in the 3rd year.

Consequently, the integrative level of emotional intelligence for university students in the 1st year is 32 points (low level), and for college students in the 1st year - 30 points (low level). For university students in the 3rd year, the level of emotional intelligence rises to 62 points, and for college students, it rises to 60 points.

Figure 2 shows the results of interpersonal relationships in a student group.

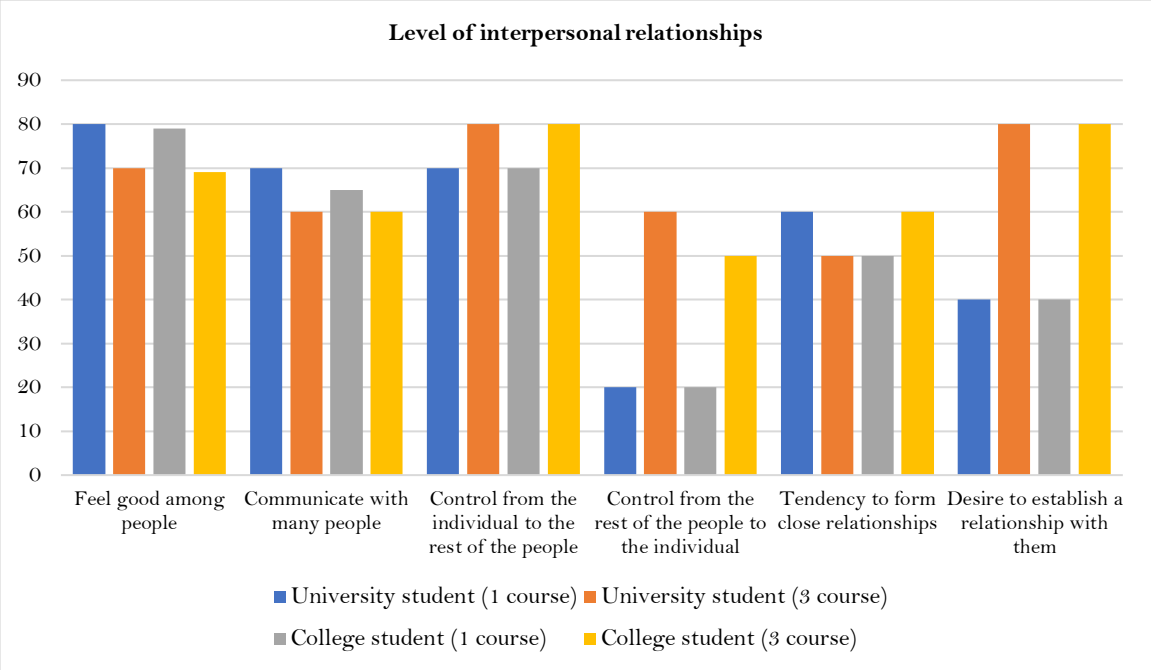

Figure 2 - The results of interpersonal relationships in a student group.

According to the chart, we see that the need for inclusion, the need to form and maintain satisfying relationships with others, upon which interaction and cooperation can build, is at a high level. First-year students at universities and colleges feel good about being part of a team and tend to develop relationships (80%).

In the student group, there is a need for inclusion, and a desire to create and maintain a sense of common interest (70%). Behaviors that correspond to the need for inclusion are designed to create a human connection.

The need for control is defined as the need to create and maintain satisfying relationships with people based on control and power. First-year at university and college students try to take responsibility, combined with a leading role (80%), and in this group, there is a need for dependence and hesitation in making decisions (60%).

60% of the students are more inclined to establish close contact, and 40% of the students feel that it is unnecessary. A certain percentage of first-year college students are more careful (60%) when choosing students with whom they form a deeper emotional relationship. Another part of the students would like all students to set up close emotional relationships with them (40%).

In the 3rd year, the results showed the following results. University and college students feel good among their classmates and tend to expand their connections in the group (70%). Students have a strong need to be accepted in their group (60%), and some students tend to speak with a small number of people (40%). The majority of university and college students do not take control of themselves (80%). At the same time, one part of the students tries to take responsibility (60%), while the other part of the students avoids making decisions and taking responsibility (40%).

The majority of third-year students (80%) want to form emotional connections with all the students. But there are also some students university and college students (50%) who are more cautious when interacting. According to the obtained results, in the first year, the demand for communication among university students was high, and in the third year, the demand for communication among university and college students decreased. In the first year, university and college students are more inclined to establish close relationships with each other than in the third

year. Also, the acceptance of control from university students and college students in the first year is significantly lower than in the third.

The results of the data obtained by the method of determining the individual measure of reflexivity are shown in Figure 3.

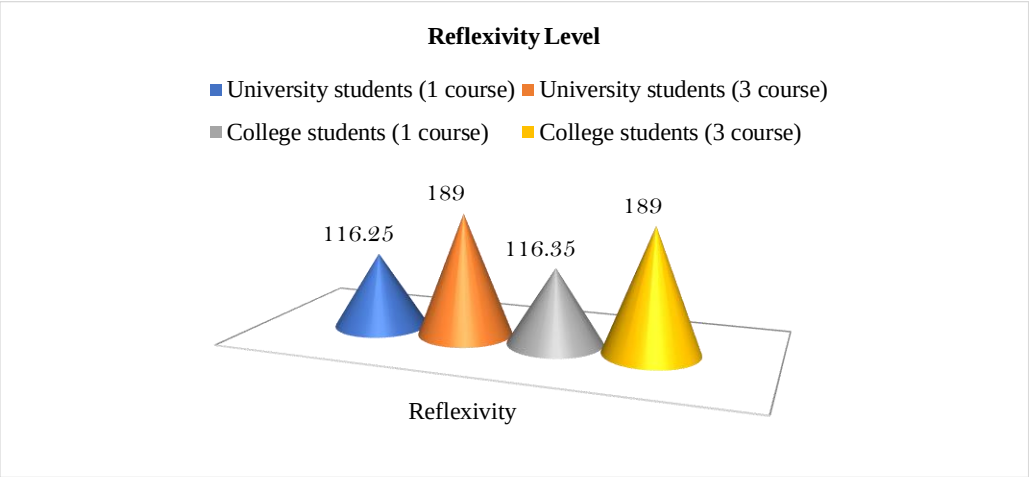

Figure 3 - The results of the diagnostics of students' reflexivity

An analysis of the reflexivity of university students and college students of the 1st and 3rd courses showed that the results obtained are within the average values: in the 1st year m = 116.25 (σ = 14.91), in the 3rd year m = 116.35 (σ = 11 .37). We assume that university and college students develop a degree of reflexivity at the outset of their studies at universities and colleges. Even so, we can say that there is a tendency to increase reflexivity from the 1st to the 3rd course (which, however, does not reach a statistically significant level). Most likely, this trend is due to the search for oneself in adolescence and is indirectly related to the learning process. The increase in reflectivity may be because the third year of study is closer to the final year of study, after which young specialists will have to determine their further professional self-determination.

In addition, repeated-measures ANOVA was performed to investigate the implemented program, the effect of the learning process, and individual measures of reflexivity. The use of analysis of variance with repeated measurements is acceptable if there are no statistically significant differences between the variances (at p>0.05).

To check the homogeneity of variance, Levene's test was used, which indicated that the use of the analysis was acceptable (p > 0.05), and the variances were homogeneous of the factors respectively (Table 1).

Table 1 - Estimates of the homogeneity of variances (Leven's test).

Variables	F	p
Factor - 1 Motivational-target component	1,594	0,169
Factor - 2 Interactive-communicative component	0,830	0,704
Factor - 3 Emotional-volitional component	1,377	0,090

The following were used as independent variables: an individual measure of reflexivity, which has three gradations: high, medium, and low, as well as a course of study, which has four gradations.

The following factors were identified as dependent variables:

(1) Motivational-target component (1,594),
(2) Interactive-communicative component (0.830),
(3) Emotional-volitional component (1.377).

In Table 2, it is shown that, for all assumptions and all factors integrated, significant differences were found with a probability of error of less than 1%, based on the repeated measures ANOVA results.

Table 2 - Evaluation of the impact of the training program including the integration of innovative formats and instructional strategies and individual measures of reflexivity on the integral factors of soft skills.

Independent variables	Factor - 1 Motivational-target component		Factor – 2 Interactive-communicative component		Factor – 3 Emotional-volitional component	
	F	p	F	p	F	p
Course	15,86	0,000	8,62	0,000	6,58	0,000
The individual measure of reflexivity (IMR)	6,56	0,002	18,93	0,000	20,35	0,000
Course (IMR)	7,90	0,000	11,86	0,000	5,75	0,000

In the first year, the lowest indicators for the motivational-target component are university and college students who have a low level of individual measure of reflexivity (0.000). The highest indicators of the intensity of the motivational-target component were found among university and college students with average indicators of an individual measure of reflexivity (0.158). In the third year, an inversion is observed: university and college students with a low level of individual measure of reflexivity also increase the severity of the motivational-target component (0.000). University and college students with an average level of individual measure of reflexivity have reduced indicators of the severity of the motivational-target component (0.650).

Table 3 presents the results of multiple comparisons according to the criterion of the least significant differences in the factor of the motivational-target component.

Table 3 - Multiple comparisons by the motivational-target component factor.

№	Course	The individual measure of reflexivity (IMR)	{1} – – ,1072	{2} – – 1,347	{3} – – ,6335	{4} – ,23023	{5} – – ,9819	{6} – ,49497
1	1 course	Average		0,000	0,158	0,107	0,002	0,033
2	1 course	Low	0,000		0,074	0,000	0,247	0,000
3	1 course	High	0,158	0,074		0,023	0,409	0,008

4	3 course	Average	0,234	0,004	0,650	0,021	0,118	0,007
5	3 course	Low	0,000	0,000	0,000	0,005	0,000	0,058
6	3 course	High	0,003	0,000	0,003	0,188	0,000	0,937

Figure 4 shows the differences in the severity of the motivational-target component between university and college students with different levels of individual measures of reflexivity.

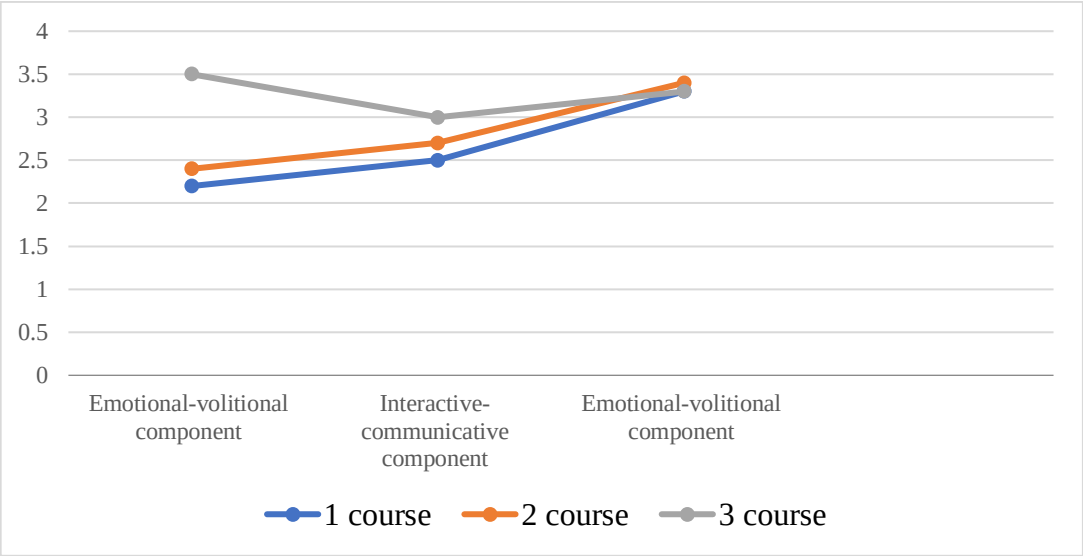

Figure 4 - Results of expert assessments.

Table 4 presents an analysis of the results obtained as a result of the use of one-way ANOVA (homogeneity of variances was confirmed $p \geq 0.05$), which demonstrated statistically significant differences in expert assessments among all stages of professional training between university students and college students.

Table 4 - Comparison of expert assessment between university and college students (1st and 3rd-year students).

Components	University students		College students	
	F	p	F	p
Emotional-volitional component	1,68	0,09	42,15	0,000
Interactive-communicative component	1,95	0,17	16,11	0,000
Motivational-target component	1,22	0,71	17,63	0,000

In Table 5, the use of multiple comparisons according to Scheffe's t-criterion showed that experts consistently (concordance coefficient W = 0.81–0.95) evaluate 3rd-year university and college students by the motivational-target component higher than 1st-year students.

Table 5. - Multiple comparisons of expert assessment by motivational-target component (t-Scheffe criterion).

Course of Study	{1} – M=2,2	{2} – M=2,4	{3} – M=3,5	{4} – M=3,4
1 course {1}	0,33			
3 course {2}	0,00	0,00		

Table 6 presents the results of multiple comparisons according to the criterion of the least significant differences in the factor of the interactive-communicative component.

Table 6 - Multiple comparisons by the interactive-communicative component factor.

	Course	The individual measure of reflexivity (IMR)	{1} – ,09193	{2} – – ,3814	{3} – – 1,002	{4} – ,26855	{5} – – ,5723	{6} – – ,4570
1	1 course	Average		0,061	0,005	0,412	0,023	0,060
2	1 course	Low	0,061		0,132	0,013	0,556	0,816
3	1 course	High	0,005	0,132		0,001	0,325	0,212
4	3 course	Average	0,019	0,515	0,348	0,004	0,954	0,702
5	3 course	Low	0,000	0,000	0,010	0,000	0,000	0,000
6	3 course	High	0,014	0,000	0,000	0,115	0,000	0,000

In the first year, students with a high level of individual measure of reflexivity (0.001) have the lowest indicators in the interactive-communicative component. The highest index for the interactive communicative component was found among college students, with an average index (of 0.412) for the individual measure of reflexivity.

In the third year, there is a clear dynamic: in students with low and medium levels of individual measure of reflexivity, the indicators of the severity of the interactive-communicative component decrease (0.000), in students with a high level of individual measure of reflexivity, the indicators of the severity of the interactive-communicative component increase (0.115). By the third year, the highest scores in the interactive-communicative component are observed among college students with an average individual measure of reflexivity (0.954), which confirms the integrative effect of reflexivity. College students with a high level of individual measures of reflexivity showed the lowest indicators of the severity of the interactive-communicative component (0.000). In this case, the law of “optimum” is also fixed, according to which an individual measure of reflexivity is maximally efficacious at an intermediate optimal value.

Table 7 shows the use of multiple comparisons according to Scheffe's t-criterion, which showed that experts consistently (concordance coefficient W = 0.92) evaluate 3rd-year university and college students in terms of the emotional-volitional component higher than junior students.

Table 7 - Multiple comparisons of expert assessment by emotional-volitional component (t-Scheffe criterion).

Course of Study	{1} – M=3,2	{2} – M=3,2	{3} – M=3,4	{4} – M=3,9

1 course {1}	0,33			
3 course {3}	0,19	0,23		

Thus, the influence of specially organized training at a university and college in the context of the formation of flexible skills showed that the indicators of the motivational-targeted, emotional-volitional, and interactive-communicative components have a positive trend. The results of the ANOVA showed that the indicators for all characteristics were lowest during the first year and increased steadily during the transition from course to course. The ensemble of the performed mathematical procedures demonstrated the principles of increased flexibility skill integration, with the least integration of psychodynamic and emotional-volitional components. These data allow us to conclude that the goal of the work has been achieved, and the hypothesis has been confirmed.

Conclusion

The main conclusion we can draw is that the main approach to improving and developing soft skills is effective when integrating innovative forms and strategies for teaching students in universities and colleges. The effective improvement of these skills is not so much due to the dominance of individual factors and conditions, but rather due to their combined influence, structural organization, and consistency. Finding other factors that may influence how university and college students improve their soft skills may be the topic of future research. It also seems appropriate to examine the details of these skills in other age groups, since these skills are developed during ontogeny.

LITERATURE REVIEW

1. Bates, G., Rixon, A., Carbone, A., Pilgrim, C. Beyond employability skills: Developing professional purpose // Journal of Teaching and Learning for Graduate Employability. - 2019. - № 10(1). – P. 7–26.

2. Hirudayaraj, M., Baker, R., Baker, F., Eastman, M. Soft Skills for Entry-Level Engineers: What Employers Want [Text]. Education Sciences. - 2021. - № 11(10). – P. 641-654.

3. Dogara, G., Saud, M., Kamin, Y., Nordin, M. Project-based learning conceptual framework for integrating soft skills among students of technical colleges // IEEE Access. - 2020. - № 8. – P. 83718-83727.

4. Bergdahl, N., Nouri, J., Fors, U. Disengagement, engagement and digital skills in technology-enhanced learning // Education and information technologies. - 2020. - № 25. - P.957-983.

5. Deep, S., Ahmed, A., Suleman, N., Abbas, M., Naza, U., Shaheen, H., Razzaq, A. The Problem-Based Learning Approach towards Developing Soft Skills: A Systematic Review // The Qualitative Report. - 2020. - № 25(11). – P. 4029-4054.

6. Campos, D., Resende, L. Fagundes, A. The Importance of Soft Skills for the Engineering // Creative Education. – 2020. - № 11. – P. 1504-1520.

7. Cimatti, B. Definition, development, assessment of soft skills and their role for thequality of organizations and enterprises // International Journal for Quality Research - 2016. - № 10(1). – P. 97-130.

8. Clements, A., Kamau, C. Understanding students' motivation towards proactive career behaviours through goal-setting theory and the job-demands resources model // Studies in Higher Education. - 2018. - № 43(12). – P. 2279–2293.

9. Creswell, J., Creswell, J. Research design: Qualitative, quantitative, and mixed methods approaches // Sage publications. - 2017. - № 57(4). – P. 4-25.

10. Cruz, M., Saunders-Smits, G., Groen, P. Evaluation of competency methods in engineering education: a systematic review // European Journal of Engineering Education. - 2020. - № 45(5). – P. 729-757.

11. Bates, G., Rixon, A., Carbone, A., Pilgrim, C. Beyond employability skills: Developing professional purpose // Journal of Teaching and Learning for Graduate Employability. - 2019. - № 10(1). – P. 7–26.