Development of soft skills of high school students as an opportunity to implement the requirements of modern education

The article considers the main features of the formation process of “soft skills” of high school students in the training based on modern educational technologies. The first part of the article describes the features of the world and Kazakhstan society development over the past three decades, and concludes that there is a need for further reforms in the field of professional guidance in the secondary education system. Matching the needs of modern society, the latter should develop student’s not only professional orientation, but also supra-professional, “flexible”, or “soft” skills. The importance of the vocational education cycle in developing “soft skills” among secondary school pupils is also discussed. In the final part of the article an overview of advanced pedagogical technologies was given, the effectiveness of which in terms of the development of soft skills has been confirmed by both pedagogical science and practice. Significant work in this direction is implemented in further plans to address the problem of soft skills development in terms of effective career guidance work in schools in Kazakhstan. The study shows the main forms and results of the development of soft skills in modern high school in the professional education school system.

Keywords: interactive educational technologies, soft skills, universal skills, high school, school graduators, creativity, communication.

Introduction

In modern society, there are many problems faced by school graduates, one of them is the difficulty of making a decision in choosing the conditions for the development of supra-professional skills for the future profession. Of course, difficulties in defining a specialty may appear not only at school, because every person has to determine his life and decide what educational program to go to study in order to learn a number of modern technologies. They are suitable for forming “soft skills” in students during vocational education. These conditions are created for the learning environment, providing students the opportunity to understand the benefits of positive changes, learning from the experience of acquiring soft skills [1].

The relevance of the study “soft skills” is determined by the fact that at the present stage of social development the requirements to the abilities of the young specialist change under dynamic innovation processes.

Creative approach to the use of the technology of productive communication involves the successful creative solution of the problems of forming a set of learning tasks with the aim of manifesting “healthy” self-confidence. As part of the training sessions to divide the set of tasks into smaller subsets, fragmentation of tasks is used, allowing them to be consistently solved taking into account the psychological individuality of students and their creativity, which will complement personal qualities as a positive view of life, self-confidence and the ability to honestly look at reality. And that is why creativity as soft skills — the ability to engage in dialogue with the focus of the training session, practicing the skills of polite persistence to manifest their leadership qualities [2].

The first studies of soft skills and their impact on employee performance began in the United States in the 1960s, and the last few years have seen more and more talk about them.

If you translate the word “soft skills” literally, you get at first glance some sort of gibberish — “soft skills”. The secret is that we do not mean soft, but rather “flexible” skills. That is, those that will be useful in any profession. In English soft skills are usually opposed by hard skills — “solid skills” that are needed to develop a particular profession. For example, to become a programmer you need to master one of the programming languages — this is hard skill. And the ability to negotiate will for any profession — this is soft skill.

The school is in the focus of monitoring, studied this issue in terms of addressing the problem of career guidance, which is attended by a school graduate. The student who is going to continue his studies taking into
account the acquired soft skills in the future profession and came to the conclusion that there is a need for reforms of school education in the direction of career guidance.

Today, the professions that surround us are more fluid than ever and bring about constant change, making the question of career guidance even more acute for researchers. There was a need for highly qualified personnel, which led to the emergence of such discipline as “proforientology” [3].

In his address, President Kassym-Zhomart Tokayev focused on this topic. In his view, Kazakhstan should move to a policy of career guidance based on the ability of students. This policy should form the basis of the national standard of secondary education [4].

Of course, career choices must be based on the abilities and preferences of students, but this is not the only factor of choice. The definition of the specialty is also influenced by a wide range of other reasons — starting from the interests, desires, physical and psychological features of the pupil, the opinions of parents, financial opportunities to the prospect and demand of the profession in the labor market.

Taking into account the above, in order to achieve the goal of providing the country with highly qualified specialists, the vocational guidance project “Career Building Center for Schoolchildren” is implemented. In order to achieve this goal, the Center started to transform the career guidance system in schools under the program of the international educational center EDTECH. The program is based on the KASIP digital comprehensive career guidance system for graduate students. The aim of this project is to prepare young people for the choice of a profession on the basis of their personality and socio-economic situation on the labour market.

Along with this project the public fund “Development of civil and legal initiatives” announced the launch of programs for youth “Generation of Independence” and “Professional navigation”, where under the term soft skills at the moment mean skills. They are common to several activities. They include cognitive and intellectual skills, emotional intelligence, the ability to manage one’s own activities, and the ability to interact productively with others.

This initiative is aimed at supporting young people in matters of career guidance, as well as the development of competences necessary for the economy of Kazakhstan. The goal of the project “Generation of Independence” is to popularize the success of young Kazakhstaniis who have achieved over the years of independence of the country. The project gathered the most inspiring stories of 500 people from all regions. In turn, the program “Professional navigation” is reduced to the development of skills and competencies for the most demanded professions in the labor market.

Another project on implementation of career guidance is “Atlas of new professions and competences of Kazakhstan”. With this kind of program high school students have the opportunity to choose their future profession. This project is a prognostic map of perspective industries. 463 professions are described in detail for 9 priority industries. The atlas is a mass, simple and practical tool that allows the entire population of Kazakhstan accessible information on the prospects for the development of the labour market and demanded specialties. It will allow graduates to make a competent choice of future profession.

Summarizing all the above, it clarifies the relevance of the issue of career guidance of schoolchildren. Today, the career guidance of graduates becomes more than ever a matter of national importance. Joint efforts by all stakeholders are needed to improve this work. The positive result will be in a balanced demand of the country’s economy, motivation of the youth themselves, and will help them in building their professional career, personal success and self-realization [5].

The discipline of “professional studies” determines the science of soft skill development in the school system. Therefore, to date, the question has arisen about the formation of soft competencies — soft skills, which are accepted to be interpreted as professional cultural competencies. At present, soft skills become more popular, which increase the importance of dichotomy in the formation of future professionals. In the study we present the most significant skills of soft skills and ways of their development in the development of a new discipline “Proforientology” as a school course. The term “vocational guidance” means comprehensive assistance in the choice of specialty, planning and implementation of professional career with the development over — professional competencies [6].

Supra-professional competences are the skills with which the future school leaver can confidently choose the right in terms of character professional branch. For example, system thinking as a form of soft skills allows not only to quickly understand the essence of the problem, but also to make the process of its solution as effective as possible.
Supra-professional skills, due to their versatility, allow a person not to spend his whole life learning one profession, but to try himself in different spheres. Soft skills are additional knowledge, skills and personal qualities. They are not so dependent on the specifics of a particular profession, but help to build a future career.

Soft skills are intellectual and interpersonal competencies that, unlike hard skills, cannot be quantified or certified. Sometimes they are called personal qualities because they depend on the character of the student and are acquired with personal school experience. Forms of soft skills include: organization, curiosity, good memory, ability to plan future career, etc.

Soft skills are more “thin matter”. They are much more difficult to identify and almost impossible to measure directly. This general definition is rather a set of skills that are not related to a particular occupational field, such as “life skills”. But they are responsible for the performance, speed and quality of the tasks to be solved.

To empower students in their future careers, it is necessary to develop four different groups of universal competencies: social, intellectual, volitional and leadership (Table 1).

**Universal Competences Group**

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<tr>
<th>Universal Competences Group</th>
<th>Description</th>
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<tr>
<td>1. Social competencies are responsible for</td>
<td>successful interaction with others: communicativeness, competent written and spoken language, ability to speak in public, emotional intelligence (ability to recognize emotions and motives of others), flexibility and acceptance of criticism.</td>
</tr>
<tr>
<td>2. Intellectual competencies are responsible for</td>
<td>continuous professional development within the scope of its field: analytical mind, ability to see and solve the problem, good memory, learning ability, creativity.</td>
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<tr>
<td>3. Volitional competencies are responsible for</td>
<td>achieving the goals in the work: results orientation, time management, perseverance, stress resistance, readiness to perform routine actions.</td>
</tr>
<tr>
<td>4. Leadership competencies are responsible for</td>
<td>successful use of resources to achieve common goals: decision-making, responsibility, team building, mentoring, conflict resolution.</td>
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Professional self-determination does not mean the creation of limits to the development of the personality, not the fall into professional limitation, but the search for infinite development. Researchers confirm the relevance and importance of the issue of professional self-determination.

Among the works that have had a significant impact in the formation of the science of vocational guidance, we can name such scientists as Clark A.F., Klimov E.A., Gurevich K.M., the concept of A. Maslow, as well as domestic works of J. Aimauyotov, M.M. Mukanova, Prigozhin I., A. Knyazev, Khmel N.D., Beysenbayeva A.A., Sheryazdanova K.T., Kargin S.T., Zhanpeisova K.K. etc.

The most vigorous system of career guidance began to develop from the beginning of the creation of the first “Laboratory of vocational guidance” in 1924. The experience was so successful that by 1932 there were already 54 Professional Advisory Offices. Further, E.A. Klimov and other employees of the Leningrad Institute of Vocational Education proposed a classification of professions (Human - nature, human - technique, human - human, human - iconic system, human - artistic image) and current differential diagnostic questionnaires [7].

In the same period, K.M. Gurevich developed the theory of professional suitability, in which he identified two main types: the profession of absolute fitness and the profession of partial fitness. The essence of absolute theory is that for a particular profession you need a certain set of characteristics or skills [8].

However, it is soft skills that determine the choice between two directions equal to other professional competencies. And the higher the level of development of soft skills, the more determining factor will be exactly soft skills. However, everything is possible, the main thing — to choose a professional set of competencies in the chosen profession.

Definitions and complex soft skills are presented in the scientific works of a number of specialists: Zhadko N., Abashkina O., Davidova V., Gaiduchenko E., Marusheva A, Barinova O. etc. [9-13].

The purpose of the study is to identify the list of technologies focused on the development of soft skills in future graduates on the example of proforientology, and to develop recommendations to improve the
learning environment. Scientists and scientific associations recognize that qualitatively accumulated human capital is provided by vocational education.

First of all, it is a school where basic as well as professional skills are laid. In particular, the state of human capital is affected by high-quality work in the profession, which in turn is achieved by early identification of abilities as a complex of forms of soft skills and inclinations of schoolchildren through career guidance.

Among domestic scientists can be distinguished Zh. Aimauyutov and his book “Psychology and choice of profession” about professional self-determination and this question today is connected with the condition and internal growth: because the management of emotions and stress, reflection, proper goal-setting: is also one of the soft-skills parties [14].

In the current pace of life, new trends and trends are regularly appearing, today’s high school growth requires from him an ever-faster reaction, mobility and flexibility as a new set pace.

One of the outstanding psychologists of Kazakhstan Mukanov M.M. in his work “Identification and development of abilities in children” paid special attention to the further professional application of students’ abilities to the successful performance of activities. Kazakhstan scientists Khmel N.D., Baysenbayeva A.A., Sheryazdanova K.T., Kargin S.T., Zhanpeisova K.K. and many others. Because soft skills are not only used in schools [15].

**Methodology**

Definition of the essence of soft skills in terms of psychological and pedagogical methods allows to determine the main features of the technological effectiveness of the educational process (Table 2):

<table>
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<tr>
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<tr>
<td>1 Consistency</td>
<td>Elements of a technology to solve a problem according to function. These are the linkages and the availability of all the necessary elements that enable technology to achieve the desired result.</td>
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<tr>
<td>2 Scientific character</td>
<td>Requires that the technological process has a certain concept to be based on the achievements of science and practice, which will allow solving current educational and social problems.</td>
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<tr>
<td>3 Structuring</td>
<td>It assumes a clear algorithm, a logical sequence of steps on the way to the goal. The variability and flexibility of the algorithm make it possible to change the sequence of steps depending on the technology implementation conditions.</td>
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<tr>
<td>4 Manageability</td>
<td>Means: a) the ability to diagnose intermediate and final results, b) the ability to predict the results depending on the conditions, c) the optimum effort spent in achieving the result, r) the possibility of using technology by any trained specialist (this is not the personal art of a teacher).</td>
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The most important thing is the guarantee of obtaining the planned result. To study the initial level of development of “softskills” (“soft skills”) in schoolchildren, various types of the survey method were used: an interview, a questionnaire compiled according to adapted versions of the questions of the multilevel personality questionnaire “Soft skills assessment Methodology” by Zhukovsky I.V. The defining “softskills” (“soft skills”) were chosen by us: communication, empathy, value attitude to the future profession.

At the first stage, a survey of students of grades 10 and 11 was conducted. Table 1 presents the results of the soft skills development questionnaire the respondents. The questions are constructed in accordance with the selected “softskills” (“soft skills”): from 1 to 5 — skills of creativity in communication, analytical thinking, working with information; 6-8 — empathy — the ability to agree with the point of view of another person in the team, to be flexible and adaptive; 9-11 — attitude to the future profession — research skills, interpersonal skills in a team.

**Results and discussion**

The analysis by comparison of the students of the 10th and 11th grades of soft skills showed that the level of development of these skills increased on average by 12 %, which indicates that the skills depending on the program “Proorientology” there are differences in the level of development of soft. The curves of the graph run in parallel, so preference in choosing soft skills does not change as the curves of the graph run in parallel.
With the exception of the skill of creativity, the development of which in 11th grade is higher than in 10th grade (Fig. 1).

![Figure 1 — What skills do you have at the moment? (general sample)](image)

When comparing students in grades 10 and 11 who were involved in social activities, a significant difference was found between owning soft skills in grades 10 and 11. Soft skills of future graduates develop in the process of studying in the classroom. It has also been observed that the overall level of skills development of respondents of two samples in the 10th grade is approximately equal, but if in the 11th training non-social students all skills have developed by about 8-12%, then the participants of social organizations in the 10th grade actively developed such skills as communication skills (difference 24%), creativity (difference 23%), analytical thinking (difference 28%), critical thinking (difference 27%), interpersonal skills (difference 19%), teamwork (difference 22%). The obtained data show that participation in public organizations actively develops soft skills (Fig. 2, 3).

![Figure 2 — What skills do you have at the moment? (socially inactive students)](image)
Modern requirements to future graduates pay attention to the process of formation of soft skills at the stage of career orientation with training on the course of the program “Proforientology”.

As a result of research, high school students were able to realize the importance of soft skills. Since the study revealed the self-preferences of subjects of learning in the choice of soft skills and the level of their development depending on the participation in public associations, the conditions of the educational environment of the school, the course of the curriculum and self-development. Of course, most students care about successful socialization, but only half plan their development in terms of vocational training. It has been proven that soft skills develop more actively during participation in public activities — that is why high school students have the opportunity to constantly develop and improve these skills.

Paying attention also to active digitalization, and in the school community, it was found that most students are not against information and communication technologies in the career orientation of the program. The data obtained also tell us that high school students of both samples prefer to combine traditional and modern pedagogical technologies. At the same time, the participants of public organizations prefer technologies of training in cooperation. It follows that the learning process is increasingly using soft skills development technologies.

According to the concept of A. Maslow, the central concept of soft skills in our research is self-actualization, the achievement of successful socialization “here and now”.

The self-actualized school graduate is calm, confident, successful, satisfied with his life and achieved at this stage of life. With this current of vision, self-actualization is possible when the student learns through the development of soft skills to properly use the corresponding natural inclinations.

According to the research, it can be concluded that taking part in the public organization of high school students are fully “immersed” in the organized environment of development of soft skills and are in constant support of their peers. Given the intensive digitalization of the course programme, information and communication technologies are not yet sufficiently used in school social organizations. For detailed study of pedagogical technologies of development of soft skills, the form of organization of club “I — the future professional” was chosen.

The activity of the club “I — the future professional” was analyzed by considering the activities carried out by this public organization during the school year. Table 3 shows the soft skills developed by each member.

Modern system of vocational guidance with consideration of complex forms of soft skills is multifunctional, it performs the functions of diagnosis, training, formation and development. Career guidance itself is made up of four main components: information, counseling, professional selection.

However, despite the diversity of forms, career guidance is not always effective and does not allow youth to fully engage in informed career choices.
Based on the results of the respondents, 59 per cent of pupils leaving school have vague knowledge of their abilities, interests and environment in the labour market. Consequently, a certain number of graduates follow an educational program that will not find employment. This situation may lead to and exacerbate problems of employment and unemployment.

Most often, the course program uses technologies for creating a content-developing environment and training in cooperation, which indicates the specificity of the career orientation. This set of pedagogical technologies is the basis for the development of soft skills.

Thus, the following soft skills are developed: creativity, teamwork, interpersonal skills, communication skills, adaptability and flexibility of intelligence. The following skills are acquired: critical thinking, research skills, analytical thinking, planning, self-control, skills of working in the Internet-information environment.

Conclusions

Based on the results of the study, it is possible to draw conclusions:
1. In the developing space of public organizations, all conditions have been created for the release of teenagers with a certain level of development Soft Skills.
2. It has been found that most students are concerned with their successful socialization, but only half plan their development in terms of vocational training.
3. It has been proven that soft skills develop more actively during participation in social activities — that is why high school students have the opportunity to constantly develop and improve these skills.
4. Graduates of public organizations are ready to apply information and communication technologies in training.
5. High school students of both samples prefer to combine traditional and modern pedagogical technologies.
6. The main pedagogical technologies that are used for the development of soft skills: technology for creating a content-developing environment and technology training in cooperation. Project technology and traditional technologies — also actively used in public organizations.
7. Only one organization has actively used information and communication technology. There is little or no implementation of technologies such as problem learning technologies, case technology and health-saving technologies.
8. The hypothesis of the study was confirmed: thanks to the use of structured soft skills technology, the members of the club ensure a higher level of their development.

Let us return to the question from which we began and again summarize all the above:
- in different professions and positions different set of skills is important, but soft skills can always be an advantage.
- every year flexible skills become more and more important, because professional ones quickly become obsolete, and you need at least the desire to constantly learn and develop.
- soft skills will always be useful to you, even if you decide to change the field of activity or profession.

References


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Жогары сынып окуышыларының икемділік дағдыларын дамыту заманауи білім беру талаптарын іске асырылуда. Зерттеуде оқушылардың кәсіптік білім беру жүйесіне сәйкес, соңғысы статыстың кәсіп кенесінен тиімділеге педагогика ғылымы мен, практика сәйкес. Бұл бағыттағы елеулі жұмыс Қазақстан мектептерінде тиімді кәсіптік білім беру жүйесін құрайды. Бұл бағыттағы елеулі жұмыс қазіргі қоғамның қажеттіліктеріне сәйкес, соңғысы статыстың кәсіп кенесінен тиімділеге педагогика ғылымы мен, практика сәйкес.

Макалада заманауи білім беру технологиялары неғізінде оқу процесінде және жоғары сынып оқушыларының икемділік дағдыларының қамылстарына процессиң неғізі ерекшеліктері болырлық, Макалының бірінші болмайдың сөзінің үш оң жағдайлары: көлдене, жаңа оқу технологиялары. Макаланың бірінші болмайдың сөзінің үш оң жағдайлары: көлдене, жаңа оқу технологиялары. Макаланың бірінші болмайдың сөзінің үш оң жағдайлары: көлдене, жаңа оқу технологиялары. Макаланың бірінші болмайдың сөзінің үш оң жағдайлары: көлдене, жаңа оқу технологиялары. Макаланың бірінші болмайдың сөзінің үш оң жағдайлары: көлдене, жаңа оқу технологиялары. Макаланың бірінші болмайдың сөзінің үş |
далнейших планов по решению проблемы развития мягких навыков с точки зрения эффективной профессионализации работы в школах Казахстана. В исследовании отражены основные формы и результаты развития мягких навыков в современном вузе в системе профессионального образования учащихся.

Ключевые слова: интерактивные образовательные технологии, мягкие навыки, непрофессиональные навыки, универсальные навыки, средняя школа, выпускники школы, творчество, общение.

References


