

Developing Teachers' Soft Skills within the New Educational Paradigm: Competences, Values, Indicators, Results

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Abstract. This paper deals with theoretical models of soft skills development in teacher education. The immediate purpose of this consideration is to develop a model for the development of a teacher's soft skills as a competent, innovative, motivated, and competitive specialist in the labor market in the present time. The role of soft skills in the process of professional development of employees in all organizations has been increasing in recent times. However, the importance and necessity of teachers' soft skills and, therefore, their formation among students studying in pedagogical areas are not yet adequately realized by many participants in the educational process. This paper examines the concept of soft skills and identifies the importance of these skills for the development of a specialist in the pedagogical field. In addition, a comparative analysis of hard skills and soft skills was conducted, and their components, namely competences, values, and behavioral indicators were evaluated. An analysis was conducted to assess the labor market needs for new qualifications. This made it possible to design a model of the modern teacher with skills reflective of their real environment. The results of this study can be further used in the improvement of lifelong learning and adult education.

Keywords: educational paradigm, competence, skill, ongoing professional training, social skills, social harmony.

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Mokytojo minkštųjų įgūdžių tobulinimas naujoje švietimo paradigmoje: kompetencijos, vertybės, rodikliai, rezultatai

Santrauka. Straipsnyje nagrinėjami teoriniai minkštųjų įgūdžių tobulinimo modeliai mokytojų rengimo srityje. Tyrime pirmiausia buvo siekiama sukurti šiandienos mokytojo, kaip kompetentingo, novatoriško, motyvuoto, konkurencingo darbo rinkos specialisto, minkštųjų įgūdžių modelį. Pastaruoju metu organizacijose pastebimai didėja minkštųjų įgūdžių vaidmuo profesinio tobulėjimo srityje, tačiau daugelis švietimo proceso dalyvių dar nesupranta mokytojų minkštųjų įgūdžių svarbos ir to, kad juos būtina formuoti pedagoginių studijų studentams. Straipsnyje pateikiama minkštųjų įgūdžių samprata ir atskleidžiama šių įgūdžių svarba ugdant būsimus pedagogus. Atlikta lyginamoji kietųjų ir minkštųjų įgūdžių analizė bei įvertinti jų komponentai, kuriuos sudaro kompetencijos, vertybės ir elgesio rodikliai; atlikta ir naujų darbo rinkos poreikius tenkinančių kvalifikacijų analizė. Visa tai leido suprojektuoti modernaus ir realybę atitinkančių įgūdžių turinčio mokytojo modelį. Tyrimo rezultatai gali būti naudojami tobulinant visą gyvenimą trunkantį mokymąsi ir suaugusiųjų švietimą.

Pagrindiniai žodžiai: švietimo paradigma, kompetencija, įgūdis, nuolatinis profesinis mokymas, socialiniai įgūdžiai, socialinė harmonija.

1. Introduction

In today's academic environment, the importance of soft skills for effective professional practice in various fields, including teaching, is becoming increasingly clear. The concept of soft skills has been developed for many years since the 1960s and was introduced even later, in the 1990s. Today, the interest in and need for soft skills is even stronger. Technology is developing very rapidly, and knowledge gained quickly becomes obsolete. Therefore, it is more relevant than ever for a teacher to develop supra-professional skills beyond the disciplinary knowledge that teachers possess. A professional is defined not as someone who has learned a lot of profile information, but the one who is able to learn quickly, adapt quickly to new conditions, and find non-standard solutions that add value (Tsalikova & Pakhotina, 2019).

The new educational paradigm requires a modern high-level expert to generalize professional knowledge, a variety of abilities and competences, flexibility, and adaptability to fulfill their professional duties, guarantee an exhaustive and stable development of education and science in Ukraine, social harmony, and the further progress of culture in democratic society. Publishing the results of previous research, the authors have repeatedly drawn the attention of teachers and managers to the many inconsistent positions between the requirements, theory, and practice of training a competitive expert in the educational services market.

Today, employers and key stakeholders emphasize the importance of training staff to have multidisciplinary competences, high employability, and professional mobility as the ability of an expert to adapt to dynamic socioeconomic and professional conditions, successfully find or switch to necessary working modes work competently and originally, eschew stereotypes, and take atypical decisions in the context of market competition. In today's economy, workers must be able to solve complex problems in fluid, rapidly changing, team-based settings (Deming, 2017; DISCO, 2012). Thus, the issue of continuous lifelong professional development of experts through formal, non-formal, and

informal education, their competitiveness, and level of qualification becomes especially relevant (Marin-Zapata et al., 2021).

The National Business Education Association considers that soft skills are extremely important for experts in the modern workplace. Soft skills complement hard skills, also known as tech skills, to ensure productivity in the workplace and everyday competences (Arkansas Department of Education..., 2007). The term “soft skills” has been studied in the military sphere, psychology, business, and now it is the subject for research in the education and educational services market.

Harvard University, the Carnegie Endowment for International Peace, and the Stanford Research Center carried out a study which established that 85% of success at work is accounted for by advanced soft skills and only 15% – by professional skills and knowledge (hard skills) (The Soft Skills Disconnect, 2015). These statistical data were taken from “A study of engineering education” by Charles Riborg Mann, American physicist, engineer, and educator, published in 1918 by the Carnegie Endowment for International Peace. This study involved fifteen hundred engineers answering a question in writing: “What are the most important factors in determining probable success or failure in engineering?” Apart from that, there was a face-to-face interview concerning the crucial factors defining the essential requirements to be an engineer. In addition to hard skills, the participants mentioned such soft skills as reasonableness, uprightness, imagination, creativity, zeal, sensitivity, meticulousness, veracity, effectiveness, and empathy. Respondents believed that exactly personal qualities were seven times more important than knowledge in engineering (Mann, 1918).

Then, they sent this result to 30,000 employees of the four big engineering companies and asked them to enumerate six skills necessary for forefront engineers in employment or further development. The most important features were character, reasonableness, effectiveness, empathy of others, knowledge, and technique. As we can see, the top four skills are social skills, while only the last two constitute professional qualification. More than 7,000 respondents answered this questionnaire. As a result, the Character group was placed at the top of the list by 94.5 percent of the respondents. At the same time, technique was placed at the bottom of the list by an equal majority of the respondents. Accordingly, in 1918, in his work on education for engineering, Charles Mann proved that it is essential to teach social skills in educational institutions and workplaces, as around 80% of achievements at work were accounted for by soft skills, and only 20 percent by professional skills and knowledge (Mann, 1918).

Nevertheless, as the data of the American Society for Training and Development (ASTD) show, Americans continue spending $\frac{3}{4}$ of time learning professional skills and knowledge. For example, according to the report data on “State of the Industry: Increased Commitment to Workplace Learning” obtained from more than 400 companies in all major industries, we see that learning and constant improvements are vital for progress and sustain competitiveness. The ASTD assesses that U.S. companies spent about \$ 171.5 billion on employee learning and development in 2010 (Green, 2011). However, just 27.6% were directed to soft skills acquisition.

As the National Soft Skills Association (NASSA) data show, the belief that soft skills do not embrace knowledge and thus cannot be assessed and taught has caused the education crisis that society currently faces at schools and workplaces (National Soft Skills Association, 2019). The purpose of the National Soft Skills Association (NASSA) is to spread research and advanced experience concerning the teaching and evaluation of soft skills. The National Soft Skills Association regards soft skills through the prism of personal qualities, namely through planning and organizing, communication, teamwork, critical thinking, positive attitude, and others.

The Framework Program of updated key competences for lifelong learning, endorsed by the European Parliament and the Council of the European Union (Annex to the Proposal..., 2018), includes skills such as critical and analytical thinking, problem-solving, inventiveness, cooperation, communicative and argumentative skills, decision-making, self-control, flexibility, compassion, involvement, and broad-mindedness. These skills are included in all eight main competences. A scientific analysis of the problem in hand, as well as a study of the state of teachers' professional development under conditions of formal, non-formal, and informal education, allowed us to reveal several essential contradictions, in particular between:

- 1) The modern sociocultural and educational requirements for training teachers as competent, innovative, motivated, competitive experts in the educational services market, and the traditional approaches to professional development within the system of postgraduate education, outdated content, forms, and technologies of advanced training;
- 2) The necessity for teachers to develop continuously and realize their potential in compliance with individual learning paths and the absence of skills required to do that;
- 3) The teacher's desire for professional self-realization and the lack of effective ways to develop teaching skills, the unwillingness to perform new professional roles and functions, and the introduction of innovations in the educational process.

The topic of this paper has been determined by the urgency of this problem, its lack of development in teaching theory, the exigencies of educational practice, and the issue of resolving the identified contradictions.

The relevance of the problem lies in the fact that there is a lack of development in pedagogical theory, highlighting the need to create a concept of teacher education in line with current trends. This prompted us to choose this topic for analysis (Jardim et al., 2020).

The aim of this paper is to develop a model of soft skills development in the pedagogical sector taking into account modern requirements as well as sociocultural and educational transitions. This will identify the theoretical provisions for training a competent, innovative, motivated, competitive specialist in the labor market. Thus, our main objectives and their methodological approach are:

- The method of theoretical research will allow highlighting the general characteristics of soft skills as a set of skills that determine successful participation in the work process.

- Analysis and synthesis will allow a comparative characterization of hard skills and soft skills.
- The method of empirical research will explain the soft skills model and its components from the perspective of an educator as a modern specialist in the labor market.
- The method of terminological analysis will clarify the systems of the main concepts used in this paper: the educational paradigm and its components, teacher's soft skills, adaptability, communication, competence.

2. Theoretical background and prerequisites for the emergence of soft skills

The term “soft skills” has its own background. Since 1959, significant investments in the development of technologies by the U.S. Army have begun being aimed at perfecting its workforce. New standards were set for the working environment and equipment. Meanwhile, studies began to demonstrate that service members make good use of not only hard skills, but also the common and inexhaustible, so-called *soft* skills, which are not subject to systematized training. A doctrine was introduced on February 1, 1968, called the “Systems Engineering of Training,” which explained the discrepancy between these skills. The doctrine provided a foundation for the establishment of specialized military courses. It can be concluded that soft skills were defined as one's ability to work with people and documents (for example, monitoring troops, managing staff, carrying out research, providing maintenance reports), while hard skills mainly concerned use of machinery (Preparing 21st Century Students..., 2020).

Soft skills as a term was officially coined in 1972 at the CONARC Soft Skills conference. Thus, Dr. Whitmore and John P. Fry rendered three paper dwelling on the analysis of skills and learning procedures: “What Are Soft Skills?” by John P. Fry and Paul G. Whitmore, “The Behavioral Model as a Tool for Analyzing Soft Skills” by Paul G. Whitmore, and “Procedures for Implementing Soft-Skill Training in CONARC Schools” by John P. Fry. Moreover, Dr. Whitmore delivered a report on understanding the term “soft skills” by people from different CONARC schools (in terms of command, super world, consulting, and leadership). Apart from that, Seth Godin, an American businessman, economist, and former vice president for Yahoo marketing, published his article “Let's Stop Calling It Soft Skills” on the Medium e-publishing platform. Nowadays, we consider professional skills to be a basis for staff recruitment and management. However, we pay less attention to the essential ones, namely social skills, regarding them as supplementary and minor.

The British e-learning platform SkillsYouNeed argues that the advancement of eight skills vital for life and career require a thorough distribution of resources:

- Personal skills (119), involving effective planning, self-improvement, emotional restraint, sustenance, etc.;
- Interpersonal skills, namely life skills that are used communicate with other people on a daily basis (107) involving interpersonal communication, working in a team, the ability for compromise, conflict resolution, etc.;

- Leadership skills that are particularly sought by employers (81), involving general leadership, moral leadership, project management, etc.;
- Learning skills (64), namely tutoring, broadening a mindset, training, management and organization skills, establishing advantageous relationships; setting goals and priorities, reading, audition, data processing (surveys, interviews, and focus groups);
- Presentation skills (23) involving self-presentation in interviews, talking publicly to large groups of people and at conferences, lectures and seminars, communication skills, abilities to host press conferences and deliver speeches;
- Writing skills (30), in particular spelling, grammar, punctuation, writing skills (for example, writing reports, resumes, essays, press releases, job applications, etc.);
- Numeracy skills (44), including addition, subtraction, fractions, percentages, accounting calculations, decision-making regarding the most successful proposals for goods and services, etc.;
- Parenting skills (65) in terms of preparation for parenting, childcare, diversions for children and toddlers, adolescent parenting, cyberbullying, environmental education, etc.

3. The characteristics and models of soft skills development

Soft skills (also super professional or flexible skills) are a range of general, intersecting skills and motivational characteristics of an expert in the field of communication, leadership, emotional intelligence, time and career planning, critical thinking, teamwork, etc. They are necessary for an efficient involvement in the work process, high productive capacity, professional communication, and are not linked to a particular profession. Being the characteristics of potential qualities and properties, they describe the components which determine the staff's readiness to work effectively at a workplace under a given situation. Thus, having analyzed works that form the base of our study, we can generally describe soft skills as:

- The social and psychological skills of an expert acquired in non-formal and informal educational institutions and used for the progress of one's profession;
- Skills that cannot be certified and are hard to assess in quantitative terms or tracked;
- Skills whose development is controlled by the brain's right hemisphere, i.e., EQ – emotional intelligence;
- Skills that are variable and situational, depending on a particular qualification and organization;
- They allow experts to find the best ways out of a range of issues that do not fall within the scope of one's professional duties;
- Skills including goal setting, leadership, motivation, emotional intelligence, communication, decision-making, time management, conflict resolution, critical thinking, inventiveness, and stress management;

- Personal qualities that ensure an individual's effective and harmonious interaction with others and the application of distinct behavioral models;
- Skills that differ from professional knowledge and, on the contrary, are closely linked to human nature;
- They embrace social, intellectual, communicative, volitional competences.

The first point to consider is the difference between hard skills and soft skills. Excelling at hard skills requires intelligence (left brain hemisphere, logic, IQ); developing soft skills requires “emotionality” (right brain hemisphere, EQ, empathy). Hard skills requirements are always the same regardless of the area of application – workplace, corporate culture, professional direction. Soft skills, on the contrary, are fluid and situational, as they are not easy to learn, while their mastery is impossible to predict in terms of time (Fernandes et al., 2021). For example, teaching refers to professional skills, i.e., hard skills: the rules of teaching and the established canonical behavioral forms of a teacher remain the same for every teacher in any educational institution. Communicative skills refer to universal competences – this already refers to soft skills: the rules of constructing effective speech will depend on the audience which the speaker is addressing and on the circumstances of speech themselves (e.g., a presentation at a conference or a conversation in an informal setting).

Since one may learn hard skills in different educational institutions (schools, institutes, additional courses, postgraduate education), there are usually certain levels of difficulty for them, which one can gradually climb akin to a ladder. For example, English language proficiency is divided into levels: elementary, pre-intermediate, intermediate, upper-intermediate, and so on. One passes an exam in order to reach a new level of proficiency. Unlike hard skills, there are no step-by-step instructions for mastering soft skills: a person has a certain natural quality (for example, a calm disposition) or acquires it through experience, by trial and error (teamwork, leadership qualities). There are certificates and diplomas signifying that a person has the necessary hard skills, but soft skills are not certified and manifest themselves in more complex circumstances and are thus harder to prove. Therefore, it is possible that soft skills are slower to learn than hard skills. Table 1 provides a comparative analysis of hard (professional) skills as universal ones, which are necessary for experts, and soft (super professional) skills as a set of non-specialized, cross-cutting skills and motivational characteristics of an expert.

To form the entrepreneurial competence of those who study in professional educational organizations, researchers N. Nagimova and M. Fakhretdinova developed their model of soft skills development resembling a three-layer ellipse and consisting of three development zones (Fig. 1) (Nagimova & Fakhretdinova, 2018):

- The “nuclear zone” that includes soft skills given to people by nature, namely temperament, the mental composition of a personality, modalities of worldview (the leading sensory system of a person), types of thinking, individual styles of learning;

Table 1. Comparative characteristics of hard skills and soft skills

Main Descriptors	Hard skills	Soft skills
Base	Competence	Competence
Determinative characteristic of the skill	Direct professional skills acquired through formal, non-formal, and informal education, receiving certification, undergoing various educational training programs	Sociopsychological skills of an expert obtained in non-formal and informal educational institutions and used to progress in a particular profession
Variability	Unchangeable and do not depend on place, company, people, corporate culture	Changeable and situational
Sphere of use	They are used in any industry, profession, or sphere of activity and described in job duties	They have little in common with professional knowledge and help experts find the best solutions for tasks not described in job duties
Thinking style	The left brain is in charge of their development; intelligence, logic, IQ – intelligence quotient	The right brain is in charge of their development; EQ – emotional quotient, empathy
Level of development, measurability	The level of their acquisition can be formed, measured, and demonstrated	They do not have certification or quantitative indicators in measuring. The level of their development is difficult to check or demonstrate
Types of competences	Professional technical competences, in particular driving a car, using computer programs, blind typing skills, knowledge of a programming language	Social, communicative, intellectual, volitional competences
Results	Guaranteed and achieved with less effort (subject to basic criteria such as motivation, goal setting, ability of lifelong learning)	Not guaranteed and achieved with greater effort (limit of competences, deep integration into the personality structure)

- The “flexible zone” that involves soft skills determining the quality of human activity in various professional, personal, and social situations, such as creative, systematic, and tactical thinking, readiness for teamwork, effective oral and written communication, cooperation, independent task fulfilling, creativity, and planning;
- The “perspective zone” including soft skills that will be important and necessary for a person throughout their life and require constant improvement and development. For example, these skills are project- and strategy-based thinking, readiness to solve specific professional or social problems under changing conditions, analysis, customer orientation, ability for continuous self-development and self-government, mobility, a basic understanding of time management, reflection, and others.

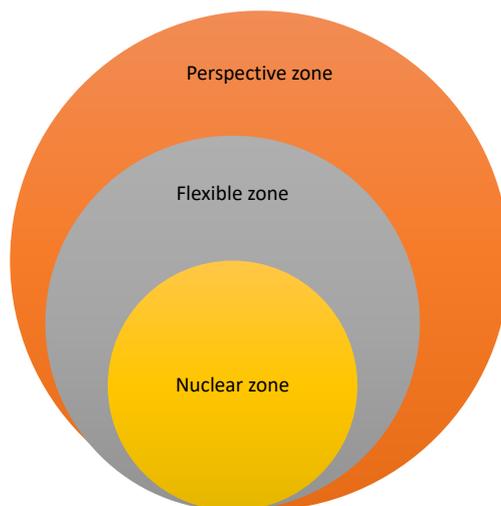


Figure 1. Structural model of soft skills according to Nagimova & Fakhretdinova

4. Competence and communication skills of an expert

The model of soft skills development of a teacher aims to form a structure that embodies the abstract and planned process of training an expert, competitive in the domestic and European labor markets, and with the required set of skills and competences. Such a structure also allows you to track the development of the object. Using its verbal (descriptive) and graph-schematic forms, we can reproduce, characterize, and describe. We have worked out our model of soft skills development of a teacher under the new educational paradigm that includes competences, values, behavioral indicators, and results (The concept of implementation..., 2019).

Competences (from the Latin *competo* – to achieve, meet, strive) are used to denote the powers of a person (or organization) and their rights and responsibilities in a given area, which determines the ability of an expert to make decisions, organize and monitor their implementation, acquire knowledge. Competence relates to working and reveals the area of professional activity in which a person is competent (Armostrong, 2004). The Training Agency (1988) defines competence as an action, behavior, or product that a person must be able to demonstrate as the ability to transfer knowledge and skills to new situations within a professional activity. We should note that professional activity covers work organization and planning, its innovation and reproduction, and includes qualities required of a worker. Competence consists of the following components: individual traits, characteristics of an individual, his/her wareness, knowledge, skills, ability, personal and collective experience, standards of behavior, guidelines, orientation, range of powers. The needs of society and the development of its representatives, specific historical goals influence the acquisition of a particular competence.

Values are typical human phenomena that denote subjects, things, qualities, and relations in the real world, ideas, rules, goals, ideals, natural and social phenomena aiming at

social progress and personal characteristics development. Results are knowledge, skills, way of thinking, views, values, and other personal qualities we achieve through learning, training, and development. They can be identified, forecasted, evaluated, measured, and demonstrated after the accomplishment of an educational program or separate educational components (Law of Ukraine “On Education,” 2017).

Our model of soft-skills development of a modern teacher includes the following components: communication skills, critical thinking, self-control skills, professional flexibility and compliancy, emotional competence, leadership, teamwork, social harmony, and social contacts. Let us consider these components in more detail and start with communication skills. Communication is a direct sequence of transmission of certain messages, where the participants are the sender of information and/or messages and their receivers (The importance of developing soft skills..., 2020). It represents a conscious, targeted, and appropriate influence on the views and values of the interlocutor, built mainly on a rational basis. The meaning of these messages can be understood only within the context of the real interaction between communicators. Communications include business correspondence, negotiations, interpersonal, intergroup, public, mass, and political communication. In interpersonal communication, there is always a distinction between verbal and nonverbal communication.

So, to make the model easier to understand, Figure 2 reflects that each of the above factors are important and together give a complete core – the foundation for the modern educator.



Figure 2. Model of key soft skills for the modern teacher

We should note that a modern expert needs language not as a list of unified requirements, but as a mindset, a tool for cultural interaction within the information society, self-education and self-fulfillment, qualified execution of duties, development of language and communication skills. The communicative competence and expertise, professional and communicative qualities, guidelines, and techniques reveal the potential of the knowledge society expert. This potential influences the success of communication in different life situations. Despite the range of innovative roles and functions, educators respond to students' information and problems traditionally, including assessments, then interpretations, r, clarifications, and additional questions, and rarely do the most productive trust-building and dialogue reactions of understanding and support. Despite the range of innovative roles and functions, educators respond to students' information and problems traditionally: assess, then interpret, calm down, clarify, and ask additional questions. However, understanding and support as the most productive reactions for trust-building and dialogues are quite rare.

We can distinguish numerous characteristics that render the communicative portrait of a modern expert. The level of formation of communicative competence represents the ability of an expert to apply language skills in different communication situations, namely: to form the purpose and objectives of professional communication based on social and interpersonal ethics; to analyze the subject of professional communication, organize discussions; to use ethics tools to achieve a communicative goal. The communicative portrait of an expert can also include the following language skills: to model communicative behavior according to the situation; to choose and apply different communication strategies to achieve a successful result; to conduct a conversation, interview, discussion, dialogue, debate, negotiation, etc.; to use different tactics to implement the chosen communication strategy; analyze conflict and critical situations and resolve them constructively. The communicative competence of a modern expert can also be determined by the following language skills: to prove, substantiate, motivate, argue, refute, deny, reject, evaluate; to paraphrase, articulate thoughts with precision; to transform oral information into written and vice versa; to have a basic understanding of business communication (business letters, faxes, contract, telephone conversation, business conversation, negotiations, meeting, etc.), etc.

There is a wide range of professional communication skills that form important attributes of the communicative competence of a modern expert. These skills are as follows: to speak so that others understand you correctly, listen and understand others, influence an interlocutor's decisions, persuade softly, create an atmosphere of trust and mutual understanding. V. Levi presents a verbal portrait and psychological characteristics of the genius of sociability, the maestro of communication (Levi, 1980). Among the main features that help becoming a great communicator in all genres, Levi highlights the following: interest as a huge curiosity in fate, characters, circumstances of another person's life; feedback; artistry including the variability of gestures and intonation, the ability to transform into a narrator, imitator, and mime; inner natural optimism; peace of

mind and security; foresight and general experience that allow one to acquire in communication much more than the average person does; sympathy. Accompanying qualities are openness of perception, ease of switching attention, trustworthiness, tact, ingenuity, a sharp mind, high sensitivity to change. However, anxiety and bias can prevent successful communication. Selfishness and aggression can simplify communication as well as destroy it. Levy's opinion may sound like an educational imperative, arguing that the genius of sociability is not a very talkative person but the best in communication. Moreover, we do not consider absolute generalists, who do not exist, but especially skillful people.

So, the main communicative skills of a teacher are:

1. Ability to arrange the process of professional relationships, creating means of communicative impact, relying on the originality of a communicative event, characteristic of interlocutors, prior communicative (constructive or destructive) knowledge, everyday life experience;
2. Generation of communicative experience, solving communicative tasks successfully, selection of efficient tools, methods, and techniques to broadcast personal communicative experience;
3. Knowledge of ways to encourage subjects to join communicative cooperation, subject-to-subject, partnership form of communication;
4. A variety of discourse genres: speech (arguments, debates, polemic), replies (to remarks, proposals, demands, bits of advice), conversations in educational sphere (with co-workers, board, the public), interviews, professional conversations, and meetings, lectures (informative, persuasive, generalizing, initiatory), reports (academic, thematic, informative, communicative), discussions, notifications, comments, suggestions, offers, regulations, consent, etc.;
5. Ability to change communicative behavior and strategies in interpersonal interaction as determined by communicative conditions, objectives, behavioral patterns, and roles of communicators;
6. Comprehension of the grounds for recipients' behaviors, tempers, desires, and the ability to respond adequately (interpersonal intelligence);
7. Leadership and initiative in organizing professional communication;
8. Adoption of the best mode of professional communication;
9. Demonstration of communicative tolerance, respect, empathy, trust, and indulgence of thoughts, views, and an unbiased attitude to interlocutors;
10. Triggering and controlling emotions and moods;
11. Providing psychological comfort and security, etc.

5. The notion of critical thinking as an important part of soft skills

Critical thinking is a constituent of the soft skills model and necessary for the 21st-century expert. Scholars consider critical thinking to be the kind of a logical, practical, and conceptually abstract mindset that focuses on characteristics like purposefulness, independence, validity, flexibility, and responsibility. Experts with developed critical thinking can easily find information to fulfill a task, analyze, generalize and compare it, draw

reasoned conclusions. Critical thinking also provides experts with the following skills: independent, critical, and creative thinking, generation of new and unconventional ideas; ability to make grounded decisions; ability to put forward forceful arguments and give an objective evaluation of work results; ability to reflect under new conditions.

Matthew Lipman, an honored professor of philosophy at Columbia University, UNESCO educational consultant, and founder of the Institute for Critical Thinking (1987–1997), developed the reflective model of educational practice. Within this model, educational practice does not aim at learning certain information but comprehending the inner characteristics and meanings of subjects and phenomena. Lipman underlined six key elements of critical thinking (2006):

- 1) Knowledge of certain techniques, which together create a proven effective methodology for processing information.
- 2) Responsibility to provide arguments and examples subject to accepted standards.
- 3) Formulation of independent judgments as a product of critical thinking; creativity rather than reproductive thinking that relies on rigid algorithms and stereotypes.
- 4) Criteria, i.e., provisions that a critical thinker takes into account, in particular standards, laws, bylaws, rules, regulations, guidelines, instructions, codes of conduct, requirements, conditions, restrictions, conventions, norms, unification agreements, principles, predictions, definitions, ideals, purpose, intentions, test results, experimental data, methods, procedures, etc.
- 5) Self-correction of one's own judgments to correct or improve them.
- 6) Attention and sensitivity to context.

6. Meaning of personal skills and skills of social relationships

Self-administering, or personal management, provides a range of skills that facilitate accomplishing personal and professional results, being in charge of their own lives and professional careers, having opportunities for professional self-fulfillment, harmonious self-actualization, and self-reformation by means of formal, non-formal, and informal education. These skills consist of three key facets of self-administering: time efficiency, life management, and self-control. They especially involve setting goals in the profession and their future realization, control over one's own actions, condition, emotions, and development, setting priorities in decision-making.

In terms of professional flexibility and compliancy, contemporary sociocultural issues invoke an expert to possess a certain flexibility, adaptability, and the ability for life-long learning. Having acquired professional flexibility, an expert can resolve various professional problems, change the available ways of their solving to more efficient ones, or find new original approaches. The advanced adaptive skills of the expert allow them to perfectly get used to numerous challenges of life, successfully remove or recompense for the consequences of harmful environmental factors by rearranging connections and relationships between entities, adjust to changing conditions, and reorganize the amount of work. These skills provide high effectiveness, perseverance, stress resilience, mental and physical health.

Emotional intelligence (EQ), meaning social skills, is represented by actual communication with co-workers, board members, clients, and main stakeholders. If intelligence means our knowledge, the capacity to respond and solve various problems, analyze what is happening, and acquire new knowledge, then emotionality is our particular reaction to specific events, people, and information (Goleman, 2009). Emotional intelligence includes the capacity to express, describe and comprehend one's own emotional state, goals, and motivation, as well as those of other people. It also involves the management of our own emotions and those of the people around us, tactfulness, and timely responses. The key skills of EQ embrace self-esteem (the level of personal value, which, being a key competence in interpersonal communications, influences how people feel when communicating), consciousness (intrapersonal consciousness and self-consciousness), compassion (compulsory features of qualified experts, which includes comprehension and tolerance), a favorable surrounding (an extent to which friends, family, colleagues influence achieving goals (Perekrest, 2018; Russell, 2018).

Leadership and teamwork skills mean that the term leader (the one who leads, goes ahead, shows the way) is multiple-meaning and used to denote: a member of the group, whom the group (team) recognizes the right to make decisions; an individual who can organize joint activities and manage interaction in a group; a reputable person who takes responsibility and knows how to influence people; a charismatic person, who with the help of personal internal and external resources can control others, their results, and quality of joint activities.

Leadership is the implementation of organizational management, which covers planning, decision-making, motivation, organization, development, empowerment, and direction of people's activities to achieve specific goals. Leadership embraces initiative, organization of cooperation between team members or companies, tutoring, and guidance. The determinates of leadership skills are as follows: self-assurance, conscientiousness, determination, emotional intelligence, stress resilience, communicative and self-presentation skills, self-motivation, originality and innovativeness, problem-solving, strategic thinking, influence, persuasion, the ability to organize and develop efficient teams.

Social cohesion and social interaction as complex notions based on the principles of inter-individual and inter-structural interaction includes the following mandatory components that unite them: mutual assistance, trust, perception of differences and justice, social inclusion, etc. The State Strategy for Regional Development for 2021–2027 states that “[t]he strategic goal of state regional policy is development and unity, focused on people, a dignified life in a cohesive, decentralized, competitive and democratic Ukraine” (Decree Cabinet of Ministers of Ukraine, 2020). The formation of a cohesive state in social, humanitarian, economic, environmental, security, and spatial dimensions constitutes the first strategic goal of regional development.

The professional activity of a modern expert involves in its structure a system of various, constantly changing, both direct and indirect relationships. Indirect relationships include a kind of information mediator and such a characteristic as patio-temporal

distance, for example, communication using synchronous (online) and asynchronous (offline) communication, emails, and chat rooms. The exchange of professional or essential information and experience, the mutual influence of people or social communities actualize social interaction skills (interpersonal or institutional interaction or both, at the level of society). To achieve productive social interaction, people need to percept themselves as individuals, experts, understand their abilities, interests, and capabilities. Moreover, they should know how to interact with other people and have particular skills and abilities (self-control, self-criticism, self-esteem, empathy, attractiveness, stress resistance, emotion management, etc.). This is one of the soft skills needed to perform professional tasks at the workplace with high quality and initiative.

7. Research in the necessities of the labor market

The governments of Germany and Switzerland conducted a study within the component “Professional education in the field of energy efficiency” of the project “Promoting Energy Efficiency and Implementing the EU Directive in Ukraine” (2020–2025), implemented in Ukraine by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ GmbH). The study aimed to assess the labor market needs in terms of new qualifications or skills in the field of energy efficiency and saving. They formed the list of professions/qualifications required for education programs development concerning the training and retraining of students, teaching staff, and the working and non-working population.

During November-December, the All-Ukrainian survey “Needs and requests in new qualifications in energy efficiency and saving” was conducted within the component “Professional education in the field of energy efficiency.” Of the 573 respondents that took part in the survey, 89.9% (481 people) were representatives from institutions for career and technical education, 5.9% (34 people) – higher education institutions, 17% (3 people) – institutions of postgraduate education, 1.9% (16 people) – general educational institutions, and 1.2% (7 enterprises) were employers. Among the surveyed employers were: ECO 21, a consortium of engineering companies of Ukraine, and KNESS, an international group of companies for technology development and implementation of renewable and traditional energy projects.

The quantitative ratio of surveyed respondents by territory (oblast) is as follows: (Fig. 3): Donetsk (73 people), Poltava (69), Mykolaiv (63), Kyiv (57), Odesa (54), Ivano-Frankivsk (44), Dnipropetrovsk (36), Kyiv (33), Odesa (24), Kharkiv (21), Zakarpattia (20), Vinnytsia (19), Luhansk (16), Khmelnytsky (14), Volyn (14), Rivne (9), Sumy (5), Kherson (2).

Among the new professions in fields of energy efficiency and saving and thermal modernization, which have appeared in the labor market over the past 5 years, the respondents listed the following: heat pump installer, thermal insulation expert, heat treatment expert, manager for energy efficiency (energy manager), expert of energy management, smart home architect, energy-saving engineer. The following professions were

listed by respondents as requiring new professional knowledge, skills, and competences in the fields of energy efficiency and saving and thermal modernization: wireman for repair and maintenance of electrical equipment, wireman for lighting and lighting networks, wireman for power networks and electrical equipment, home heating systems installer, power plant operator, and electrical engineer. Employers believe these professions require new competences, a knowledge of new technologies, and the ability to choose alternative technologies and navigate the service market.

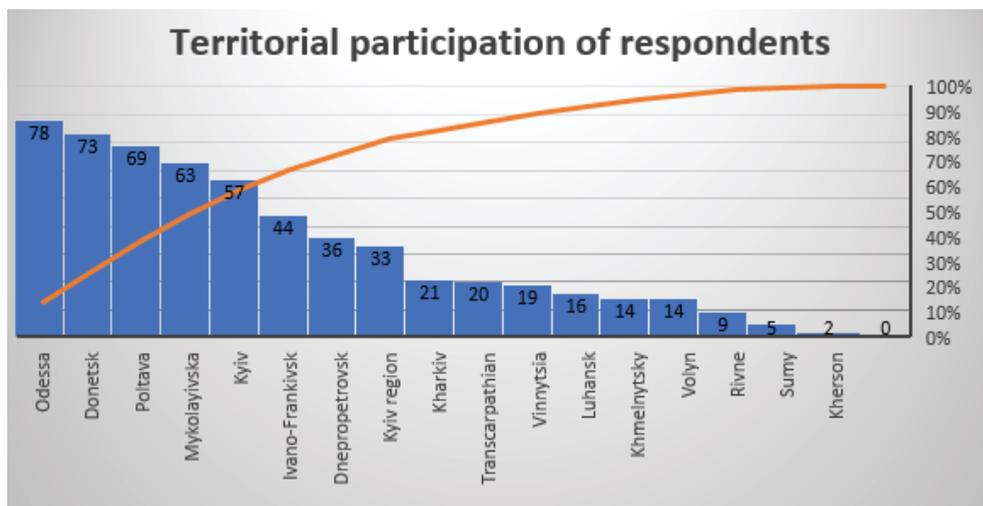


Figure 3. Distribution of participants of the all-Ukrainian survey by territory

Respondents were also asked to grade skills that they believe are important for the modern expert to perform professional roles and functions (from most to less important skills): critical thinking, stress resistance, analytical thinking, problem-solving, creativity, teamwork, flexibility, adaptability, communication, self-regulation, empathy, respect for diversity, focus on providing services to others, emotional intelligence, people management, comprehensive problem solving, ability to assess the situation and make decisions, work ethic, time management, conflict resolution. The ratio of skills is distributed by respondents as follows (Fig. 4): focus on providing services to others (92%), stress resistance (90%), flexibility and adaptability (89%), communication (82%), ability to assess the situation and accept decision (82%), time management (76%), self-regulation (72%), critical thinking (70%), leadership and teamwork (53%), conflict resolution (51%), people management (39%), emotional intelligence (34%), empathy (32%), work ethic (20%).

The ways to acquire skills and improve them, as respondents believe, are self-education and self-development according to one's personal learning path (trajectory), training courses, masterclasses, fulfillment of new professional tasks, etc.

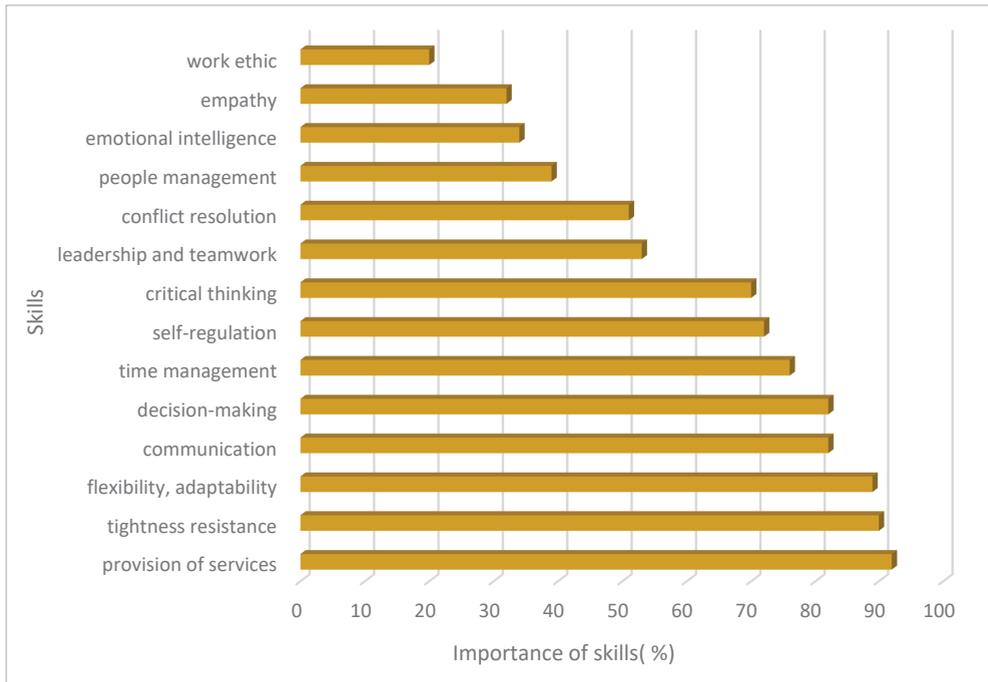


Figure 4. Importance of skills in professional activities

Thus, the market economy clearly defines the guidelines for vocational (technical) education. It also determines the main goal of all subjects of the educational process as the need to take into account modern socioeconomic realities of the labor market and transform them into innovative educational programs. Learning and professional advance of vocational education employees should be founded on high-level standards that comply with the dynamics of the behavioral patterns of young people, the demands of employers and main stakeholders, and the credibility of labor market predictions. Therefore, the task is to form broad, unified professions.

8. Conclusions

Our study has identified, described, and discussed a model of 7 soft skills. Therefore, in accordance with the above results, and responding to the research question presented, we found that some soft skills occupy a relevant place in the teaching performance of special education teachers, highlighting effective communication, collaborative work, and reflexivity.

This paper substantiates the difference between soft skills and hard skills in determining educational outcomes. It was pointed out that unlike hard skills, which can be obtained in an educational institution and later confirmed with a certificate or diploma, soft skills are much more difficult to obtain and just as difficult to prove possession of. In the course of this study, a model for the development of teacher's soft skills in the mod-

ern world was created. This model may not only increase a person's professionalism, but also allow them to be a competent, innovative, motivated, and competitive specialist in the labor market.

In the survey, within the component "Professional qualifications in the field of energy efficiency," it was revealed that respondents highlighted new professions and skills. When grading skills from most to less important, respondents built a certain hierarchy: from critical thinking to conflict resolution. This suggests that in any field of activity, regardless of whether it is pedagogy or energy efficiency – any profession requires super-professional skills, which are contained in the model compiled by the authors. In general, it should be taken into account that the development of any skills takes time. Some professional skills can be acquired in a matter of days (although many are honed by professionals over years). But in the case of flexible skills, the process is always long: a few days are not enough to learn, for example, to communicate differently than one is used to.

At the present level of development of competence-based approach in education, the problem of developing universal competences and supra-professional competences applicable in any profession and everyday life is of particular importance. Nevertheless, there are a number of gaps in this subject that require more attention. So far, the most urgent problems these days include:

- Lack of attention to supra-professional competence development in curriculum design;
- Insufficient involvement of employers in the process;
- Difficulties in observing and measuring skills;
- A mismatch between employers' expectations and the skills developed during university studies, etc.

Each author views and defines "soft" and "hard" skills in their own way. However, all definitions are in some way interrelated or intertwined. There is no doubt that soft skills and hard skills and the continuous development of soft and hard skills have a positive influence on the individual, their successful achievement of set goals, competent use of skills, knowledge and abilities in professional activities, and competitiveness in the labor market.

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