Development and mastery of soft skills among graduate students

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Abstract
The paper addresses content-related issues, a state-of-the-art assessment, and the key trends in the growth of soft skills. Soft skills should be emphasized in university curricula because they are currently necessary for having decent career possibilities. The article examines the findings of a study on the development of soft skills among postgraduate students at Alfred Nobel University in Dnipro, Ukraine who are majoring in professional education. These statistics demonstrate that postgraduate students are aware of the value of developing soft skills in order to have a successful career. Additionally, creative teaching strategies and tactics geared at developing soft skills will be incorporated into the educational process.

Keywords: soft skills; hard skills; labor market; universal skills; communication skills; professional education.

INTRODUCTION

Characteristic features of current situation are the presence of deep and rapid socio-economic, political, innovative and educational transformations in the life of Ukraine, the orientation of the country to integration the global world community, increasing the openness of the educational process, focus on the needs of the society and future employers. A challenging point nowadays is the importance of an individual which can actualize the need for highly qualified competitive scientific and pedagogical staff characterized by holistic high professionalism and personality culture, creativity, non-standard thinking, readiness to respond flexibly to changing conditions and solve professional pedagogical tasks creatively. These can be applied by new pedagogical thinking, intuition, ability to improvise, ability to establish and maintain contact with the interlocutor, to express their attitude to what is happening, to persuade and defend their view, to make decisions and manage their contacts, to reach goals and take on different roles, to maintain internal autonomy and encourage the partner to change behavior, to reach mutual understanding in different conditions of information exchange, etc. All mentioned above allows us to understand why the international education community emphasizes the orientation on vocational (in particular,
pedagogical) education to the formation of soft skills and hard skills in their integrity.

Recent studies of the labor market indicate that the interest in soft skills is increasing. Most employers consider them as important as professional knowledge and skills. It is believed that the professional skills can be outdated but the soft skills are always relevant.


So, today we observe the high popularity of using soft and hard skills in educational process, increase in their application not only for development among managers but also among the students of different specialties. At the same time we have to mark an obvious gap between theoretical claims and practical implementation of soft skills via hard skills into a formal educational context.

The objective of this article is to get acquainted with the soft skills system required by a university trainer in his or her professional activity and to highlight the opportunities for gaining and developing these skills during postgraduate study in the specialty 015 Professional Education.

**RESEARCH METHODS**

At the theoretical level, the article provides a retrospective analysis of the concepts of “soft skills” in domestic and foreign science. An empirical part of the research was carried out through the methodologies “Modified Questionnaire of Self-Actualisation Diagnostic” (A. Lazukin, in the adaptation of N. Kalin) (Fetiskin, Kozlov, & Manuylov, 2002). To diagnose soft skills, a set of techniques was used, including the questionnaire “Measurement of Communicative and Social Competency” (V. Kunitsyna) (Kunitsyina, Kazarinova, & Pogolsha, 2001), the methodologies for studying the motivation for university lecturers (Ilyin, 2002), the diagnostic procedures of reflection level (Karpov, 1985) and the methodology “Coping Behaviour in Stressful Situations” (Chen et al., 2017).

After theoretical analysis was completed, there were identified the most important issues:

1. Soft skills acquiring, their characteristics and distinctive features.
2. Advantages of acquiring soft skills for future university lecturers: social and communication skills, cognitive skills and personal qualities and components of emotional intelligence.

3. Possible ways of soft skills’ integration into new educational context.

4. Soft skills acquiring among post graduate students in a new educational format.

Our analysis is also based on the survey carried out with a group of post graduate students of Professional Education specialty and from Alfred Nobel University, Dnipro. Forty-five post graduate students of the 1-st, 2-nd, 3-d and 4-th year of studying were interviewed. Each interview lasted from forty to sixty minutes. The detailed notes were taken and recorded. The group of experts was selected from academic staff from the Department of Pedagogy and Psychology of Alfred Nobel University, among whom there were 12 lecturers, senior lecturers and professors.

On the later stage, theoretical as described in scientific articles, projects, conference proceedings and web resources were compared and contrasted with the data from the experts and post graduate students’ interviews, hence we could elaborate the all-round understanding of what it is necessary to start developing and mastering soft skills among post graduate students in the context of new pedagogical education format. As a result, final conclusions were made.

RESULTS AND DISCUSSION

First of all, we have to underline that there is an ongoing dialogue between employers and higher education institutions in different countries around the world to identify the so-called “skills of the future” that may become the key ones to the specialist. It is interesting to note that, in 2009, the OECD (Organization for Economic Co-operation and Development), which brings together countries around the world, presented a report entitled “21-st Century Skills and Competencies for New Millennium Students in OECD Countries” (Ananiadou & Claro, 2009). In 2015 the OECD published the results of a five-year study “Skills for Community Development. The Power of Emotional and Social Skills”, which analyzed how education affects the personal success of learners and the development of society as a whole.

From the short review above, key results emerge that students’ emotional and communicative qualities determine the life success no less than academic achievements. In foreign educational practice, emotional and communicative qualities are considered as “soft” skills that add to “hard skills” or technical, professional skills. Unlike the latter, which are usually well-measured, fairly robust, identified with specific designs, and included in job descriptions and learning outcomes, soft skills are versatile and essential for the successful professional. They are of vital self-determination of any person, regardless from the profession. These include the ability to communication, leadership,
cooperation, diplomacy, establishment of the relationships; team-building and public skills; the ability to present ideas and to solve the open-ended tasks creatively. In today’s world, these competencies are considered as an important educational outcome, along with professional competences.

Another promising finding was that eleven directives that foresee the introduction of new teaching and learning methods for the development of soft skills for EU university students by 2020 were adopted in 2018. The Europass of skills in 26 languages of the EU Member States has been introduced there. The analysts at the World Economic Forum have made a forecast that identified the ten key competencies that will be needed in 2020 (Ananieva, 2016), according to which the most important ones will be the ability to solve difficult tasks and critical thinking, the creativity and the ability to manage people, interaction skills and emotional intelligence, client orientation, the ability to negotiate and make decisions. From these findings it is clear that these competencies relate to the soft skills.

A similar pattern of results was obtained in 2017, when the officially adopted soft skills classification and its explanation called “European Skills, Competencies, Qualifications and Types of Occupation”, including 1,584 skills that are in demand in the labor market was developed (European Commission; Directorate-General for Employment; Social Affairs and Inclusion, 2017).

When investigating this issue of those international studies, it must be pointed out that this issue is also being researched in Ukraine. Thus, A. Zinchenko and M. Saprykina (2016) state that according to a survey conducted by the Development Center KSV during July-August 2016, such skills as teamwork, communication skills, and analytical thinking, the ability to learn quickly, flexibility, responsibility, initiative, competent written and oral language and emotional intelligence are the most in demand among employers.

In 2012 the National University of Kyiv-Mohyla Academy developed and presented the first comprehensive program “PROFI+” to prepare students for the labor market which provides gaining “soft skills” which is universal for all specialties.

We consider it essential to continue our analysis with defining soft skills as an important development element for university trainers. Planned comparison revealed that there are different approaches to the interpretation of soft skills and their classification, which is caused by the contextual approaches of researchers.

The analysis found evidence that in many contexts soft skills are treated or used as synonyms with such notions as employability skills, people skills, non-professional skills, key skills, skills for social progress (skills for social development), skills of the 21-st century, life skills.

Scholars take different approaches to defining the essence of soft skills or “flexible skills”: the personal qualities of an individual, which allow to interact with other people more effectively and harmoniously (Davydova, 2015); communication and management talents (Sosnitskaya, 2009); skills that help you quickly find common ground with others, establish and maintain
relationships, successfully present own ideas, be an effective communicator and leader (Gaiduchenko & Marushev, 2019) and others.

We can observe even more diversity in the approaches of such researchers as O. Abashkina, K. Koval, O. Sosnitskaya to the list of soft skills. Thus, K. Koval (2015) singled out the following: leadership skills and ability to work in a team, ability to teach and negotiate, ability to set and achieve goals, time management, purposefulness, presentation skills, effective communication skills, stress resistance, creativity, creative approach to solving problems and analytical skills, etc. As compared with the research by O. Sosnitskaya (2009) we can add to the list of soft skills such important elements as the ability to persuade, lead, manage, make presentations, find the right approach to people, ability to solve conflict situations. O. Abashkina (2010) underlined the following skills as such competencies that provide personal dynamics (sense of responsibility, desire for achievement, self-confidence, high motivation), area of interpersonal relationships (contact, objective self-esteem, compassion and empathy for others), desire for success (self-giving, motivation to maintain status, tendency to systematize, initiative), endurance (resistance to criticism, resistance to failure, positive emotional attitude, firmness of life position, satisfaction with work). V. Shipilov (2016) gave the following elements to the list of soft skills: basic communication skills that help to develop relationships with people, support conversation, effectively behave in critical situations while communicating with others; self-management skills that help effectively control one’s own state, time, and processes; effective thinking skills that help make life and work more systematic and the management skills that people need when they become leaders in any business process.

Iu. Ivaniuk (2019) in his turn, identifies the signs that one can say with certainty that a specialist has soft skills, if he is flexible, he is not afraid to take responsibility, establishes favorable relationships with people, knows how to work in a team, can teach others, is capable to set tasks for people quickly and accurately, motivating them for quality work, knows how to persuade people, manage their time with competence.

Based on the analysis of researchers’ approaches to the classification of soft skills, we can distinguish the following three groups:

1. social and communication skills (communication skills, interpersonal skills, group work, leadership, social intelligence, responsibility, ethics of communication);
2. cognitive skills (critical thinking, problem-solving skills, innovative thinking, intellectual workload management, self-study skills, information skills, time management);
3. personal qualities and components of emotional intelligence (emotional intelligence, honesty, optimism, flexibility, creativity, motivation and empathy). It should be noted that, within each category and between categories, individual skills and qualities interact. It is clear that different types of soft skills are a priority for different activities.
Now let us consider to understand how important those soft skills are for educators. The profession of the university lecturer is public, and therefore the educator, being a professional, must be a bright, intelligent and creative personality who is able to identify complex problems in vocational education, including research and innovation activity, and to offer some approaches to solve them, which involves deep analysis and creation of new holistic knowledge and / or pedagogical practice. However, nowadays current professional qualifications require a deeper, more practical and flexible knowledge within competencies. According to K. Koval (2015), professional skills become somehow outdated, and “soft skills” remain always relevant. Without claiming the completeness of the list, we consider that such skills are important for the university lecturers:

– communication skills (ability to listen to the interlocutor, to persuade and argue, to present themselves and their ideas; to work in a team in order to solve collaborative tasks, to establish relationships and maintain contacts, to communicate with the audience, to model relationships with stakeholders in the educational process – students, parents, educators, senior management, social partners; non-verbal communication skills and Internet communication culture, the ability to solve conflict situations, public speaking and leadership);
– cognitive skills (critical thinking, problem-solving skills, innovative thinking, intellectual workload management, self-study skills, information skills and time management);
– management skills (forecasting, the ability to form a group, the ability to form a team and a system of communication in a team, the ability to motivate team members and carry out formal and informal leadership, the ability to manage themselves and the audience);
– strategic skills (strategic planning, strategic decision making, the ability to work under risk conditions and delegate authority);
– skills of self-organization (the ability to set and achieve goals, skills of self-management, self-esteem, self-reflection and self-development);
– emotional competences (self-confidence, empathy, sense of responsibility, emotional intelligence, stress resistance, readiness to accept criticism and to respond to it adequately, honesty, optimism, flexibility, motivation and empathy).

It gives clearly better understanding that within each category and between categories, individual skills and qualities can interact. However, having one or the other skill is significant as an individual position, which is part of the requirements.

In addition, the university lecturer should be able to develop soft skills for future professionals, which will allow them to be successful and effective in their work due to a high level of self-organization, quality planning and effective communication.

We are aware that special disciplines are “responsible” for the development of “hard skills”. They are “critical” in the short term and can be developed faster, with less effort and a guaranteed result (provided students have
the motivation, the ability to study, etc.), as well as practically they do not incline to reverse development, otherwise, the soft skills more frequently can be developed spontaneously. They are “critical” in the long run, and their development is slower. They require more efforts, the achievement of the required level is not guaranteed (“limit” of competences, deep integration in the personality structure).

Let us consider the signs of personality development presented in Fig. 1.

![Fig. 1. Signs of personality development (Zhadko & Churkina, 2006)](image)

We are aware that the leading condition for ensuring the integrity in the development of soft skills is knowledge and understanding of graduate students’ tasks and the context of their implementation. As practice shows, teaching different skills without relying on the values and priorities of professional activity does not lead to the expected changes. Realizing professional tasks allows you determining what skills are needed by the university lecturer, which skills will be used and which is not.

An experience analysis singled out two approaches to the soft skills formation today. The first one is to teach directly by introducing separate courses within the variant component of the curriculum. The second approach is based on the potential of all disciplines in conjunction with non-formal education and extracurricular activities. It is necessary to note that both approaches are common and widely spread at Ukrainian universities.

A solution to the problem under consideration is proposed in our approach implemented at the Department of Pedagogy and Psychology of Alfred Nobel University, Dnipro, Ukraine. The formation of soft skills of third-level (educational-scientific) level applicants in the specialty 015 Professional Education (by specialization) was facilitated by the training course “Professional-Pedagogical Communication”, the content of which was
organically combined with the traditional disciplines of the psychological-pedagogical cycle. This course contains four training modules: “Fundamentals of Professional Communication”, “Verbal Professional Communication”, “Non-verbal Professional Communication”, “Computer Technology as a Professional Communication Tool”. The basis of its development is the content of the textbook adapted for post graduate students (Volkova, 2006).

The learning material of the first training module includes the consideration of the following issues:
- historical origins of professional-pedagogical communication;
- essence, types, functions and model of communication;
- communicative act as a unit of communication;
- the concept of “professional-pedagogical communication”, its types, sources, features of interaction of entities of pedagogical communication;
- communicative knowledge, skills, experience, communicativeness of the university lecturer;
- information and its role in the university lecturer’s professional communication, types of information, ways of its storage, transfer, free access and appropriate processing methods;
- the consideration of pedagogical communication as a leading component of communication of a university lecturer;
- the content of the stages of professional communication of the university lecturer;
- styles, lecturer’s models of communication;
- barriers and constraints arising from the professional communication process;
- interpersonal relationships, social and psychological climate inside the university’s academic staff;
- pedagogical conflicts: types and causes; resolving and preventing pedagogical conflicts. This training module has been entitled “Fundamentals of Professional Communication”.

The structure of the second training module is based on the following issues:
- professional-pedagogical language and speech;
- the essence and functions of the lecturer’s language and speech;
- speech activity and the lecturer’s individual style of teaching.

This module contains the information about the rules, styles of modern language; the essence of verbal means of professional communication (external: oral and written; internal speech); expands on the concept: lecturer’s culture and technique, lecturer-student interaction models of speech. It is entitled “Verbal Means of Professional-Pedagogical Communication”.

The third basic module characterizes:
- non-verbal aspects of communication and their role in regulating relationships, establishing contacts;
- ratio of verbal and non-verbal means;
- revealing features of coding – interpretation of non-verbal behavior;
– non-verbal channels (facial expressions; touch; gesture; interpersonal communication space; visual interaction; intonation). It is entitled “Non-Verbal Means of Professional-Pedagogical Communication”.

The fourth module contains teaching material covering the capabilities of the computer as a means of professional communication for the university lecturer; and dialogue in the system “man – computer”, “man – computer – man”. The issues of application in professional communication of information technologies, in particular computer technology, hypertext technology, multi- and hypermedia technologies, information-retrieval systems; about computer communications in off-line and on-line modes; difficulties, negative consequences of computer technologies introduction; distance learning, its essence, models and forms of interaction. It is entitled “Computer Technology as a Professional Communication Tool”.

Focusing substantially on the activities of third-level (educational) 015 Professionals (specializations) on softskills development, we came to the conclusion that it was necessary to change the formats and technologies of interaction between university lecturers and post graduate students. The traditional classes are no longer of interest to a new generation of post graduate students. On the basis of the survey of post graduate students of Alfred Nobel University, Dnipro (45 persons) it was found out that they are fascinated by case studies (the situation analysis) (78.2%), micro group projects (67.2%), simulation game (simulation) (60.9%), gamification (55.8%), e-learning, m-learning (48.1%), facilitation technologies (55.8%).

The members of academic staff of the Department of Pedagogy and Psychology of Alfred Nobel University, Dnipro (12 persons) were asked to choose among the different teaching methods which they applied:
– “launching” of internal mechanisms of self-development, self-realization and self-improvement of personality in varieties of activity;
– changing stereotypes and realizing the need for personal change;
– reflection of one’s own achievements in personal growth.

As a result, one can observe that the post graduate students have gained their own experience, which is the most powerful impetus for creative mastery of future professional activity. The interactive teaching methods used in the course are presented in the manual (Volkova, 2018). We would like to focus on some of them.

Through the implementation of dialogical and discussion methods of teaching (dialogue, debate, discussion, debriefing, brainstorming, lecture-dialogue, problematic lecture, lecture-analysis of a specific situation, lecture-consultation), each graduate student was given the opportunity to express his thoughts, to make up their own judgements in relation to the issues discussed; the educational process was transformed into mutual learning (collective and micro-group), cooperation of post graduate students and university lecturers as equal entities of learning on the basis of mutual understanding (forming a common field of partners, which unites their interests, allows to jointly consider problems in a specific situation), coordination (coherence, unity.
of action and effort), agreement (formation of common purpose, intentions, motivation of communication). This delivers significantly better results due to the use the techniques of synectics (synectics – “unification of heterogeneous elements”), “Take a position” (provides a demonstration of different thoughts on the topic under study), “Fire on the lead” (graduate students prepare problematic questions, the speaker gives them answers with evidence). Post graduate students were able to realize their individual, personal position, in principle, respect the opinion of another and, if necessary, to adjust their own position, which required the university lecturer to treat the post graduate student as a unique personality.

The implementation of game teaching methods involved modeling of professional situations, joint analysis and problem solving, which contributed to the development of their own values and cooperation. The attention was focused on: business (a form of modeling professional reality, imitation of specific professionally directed and conflict situations), storytelling-role (improvised play of a given situation), situational (presentation of a chosen to play a fragment of a professionally directed situation and presentation of post graduate students’ professional or positional responsibilities to postgraduate students), social and psychological (games with imaginary situations, which involve the reproduction of difficult situations that were a real problem for a certain number of people; which stipulate obligatory comparison of the proposed solutions to the problem with actual decisions) games. As a result, each post graduate student could reflect on their own experience, individual characteristics, including those that serve as a source of barriers to communication and to discover alternatives to behavior in the proposed situations “try on” them and put them into practice. Among the techniques for implementing the aforementioned game methods were singled out the following: reflection, duplication, advisory group, parallel, role rotation, support, interlocutor chair, mute assistant, replay and placement.

The choice of facilitation methods (World Cafe, Open Space, Kurt Levin Force Field Analysis, Anti-Brainstorming, Dynamic Facilitation) is due to the fact that they have significant capabilities: increase the effectiveness of group decision making (situation analysis); identify options, alternative solutions to the problem; choose the best option), create and maintain a climate in the group (increase the level of involvement in the discussion process; stimulate the initiative; encourage personal responsibility for the process and result), provide the exchange of experience among participants and promote the personal development of the participants.

Superior results are seen for one more pedagogical technique. An important role was assigned to the work on the project, which makes it possible to use not only the intelligence, experience and consciousness of the post graduate students during academic process, but also their feelings, emotions, volitional qualities, promotes “immersion” in the teaching material, determination of the personality of their emotional and value attitude to it, improving the efficiency of assimilation, which gives the feeling of success. Project work
involves mechanisms for storage and reproduction of information; transferring information to others; application of knowledge in variational situations; understanding cause-sequence relations, the interrelation between parts and the whole; presenting arguments and evidence, regrouping individual parts and creating a new whole, etc.

It is important to highlight the fact that post graduate students have the opportunity to acquire the skills of interaction, organization, punctuality, the ability to express their opinions clearly and concisely, to understand the essence of the problems of those with whom they communicate, creating the conditions for interaction and encouraging teamwork where it is appropriate. The effectiveness of the project method is that creative communication allows the post graduate student having realized themselves as a communicative personality and opening opportunities for accumulating communicative experience through self-realization in various communications, which are specific processes of information exchange.

In our research we would like to focus the technique of training (within the framework of the course “Self-Management and Self-Development of a University Trainer”), which can contribute to the development of soft skills to future university trainers.

Training as a form of study can reveal the full potential of the graduate students: the level and extent of their competence (professional, social, emotional, intellectual, leadership), independence, decision-making ability, interaction and more. Trainings has become an effective form of pedagogy of cooperation and developmental training:

1) new approaches (cooperation, openness, activity, responsibility, leadership);
2) new knowledge (intensive acquisition, refinement, knowledge sharing, knowledge building);
3) positive values, attitudes, ideals, motivation;
4) new skills (effective communication, self-control, self-management, leadership, teamwork, ability to provide and receive assistance, situation analysis and decision-making, etc.).

CONCLUSIONS AND THE PROSPECTS FOR FURTHER RESEARCH

Having concluded our theoretical analysis, post graduates’ and academic staff survey and having compared and contrasted data obtained, the results of the study demonstrate the following: the labor market today requires a person of comprehensive development, which would ensure the competitiveness of a specialist at the beginning of his professional activity.

The findings of the study are supported by the fact that in addition to professional knowledge and skills, a university lecturer must have a system of soft or social skills called “soft skills”. Developing soft skills is not a bargain, but an objective requirement of the labor market. The high school should respond to these requests.
Results provide the basis to distinguish the following groups of soft skills important for future university lecturers:

1) communication skills;
2) cognitive skills;
3) management skills;
4) strategic skills;
5) self-organization skills and
6) emotional competences.

The acquisition of basic knowledge and mastering the basic skills of soft skills of third-level (educational-scientific) students in the specialty 015 Professional Education (by specialization) was facilitated by the training course “Professional-Pedagogical Communication”, the content of which is organically combined with the traditional disciplines of psychological and pedagogical cycle. This course contains four training modules with the detailed content: “Fundamentals of Professional Communication”, “Verbal Professional Communication”, “Non-verbal Professional Communication”, “Computer Technology as a Professional Communication Tool”.

Through the implementation of dialogical and discussion methods of teaching using the techniques of synectics, game teaching methods involving modeling of professional situations, joint analysis and problem solving, our results can demonstrate the ability of post graduate students to reflect on their own experience and individual characteristics necessary to develop soft skills.

The findings provide a potential mechanism of the following techniques to implement the aforementioned game methods selected for training: reflection, duplication, advisory group, parallel, role rotation, support, interlocutor chair, mute assistant, replay and placement.

To develop soft skills in post graduate students it is necessary to choose some facilitation methods (World Cafe, Open Space, Kurt Levin Force Field Analysis, Anti-Brainstorming, Dynamic Facilitation).

Superior results could be seen for one more pedagogical technique, project work, which involves the “immersion” in the teaching material, determination of the personality of their emotional and value attitude to it and improving the efficiency of assimilation.

The implementation of interactive teaching methods was aimed at the development of soft skills in post graduate students. But in order to successfully develop the ability to apply these skills in professional pedagogical situations, post graduate students must practice them throughout their studies, as these skills tend to reverse. Today, soft skills not only add to hard skills and create new opportunities, they also contribute to the development and formation of professionalism. This is an issue for future research to explore in other fields of pedagogical studies.
REFERENCES


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