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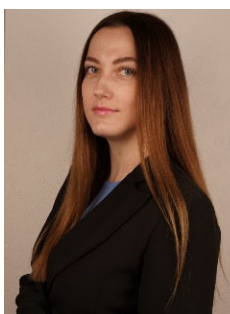
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SOFT SKILLS DEVELOPMENT IN ESP CLASSES: CRITICAL AND CREATIVE
THINKING
РОЗВИТОК СОЦІАЛЬНО-КОМУНІКАТИВНИХ НАВИЧОК НА ЗАНЯТТЯХ
АНГЛІЙСЬКОЇ МОВИ ПРОФЕСІЙНОГО СПРЯМУВАННЯ: КРИТИЧНЕ І КРЕАТИВНЕ
МИСЛЕННЯ



Dubrova Oksana M., Doctor of Public Administration, Associate Professor, Head of Foreign Languages Department, National Transport University, Kyiv, Ukraine, e-mail: roksi4791@meta.ua

<https://orcid.org/0000-0002-8150-1215>



Harkusha Inna Yu., Senior Lecturer, Foreign Languages Department, National Transport University, Kyiv, Ukraine, e-mail: inna.maschinina@gmail.com

<https://orcid.org/0009-0006-9765-3711>

Abstract. This article investigates the problem of soft skills development of students in technical higher education institutions, in particular the development of critical and creative thinking in ESP classes. Bloom's taxonomy, which presents the process of thinking formation, is considered. The concepts of critical and creative thinking are analyzed, and the properties of these types of thinking are described. Moreover, the effectiveness of interactive methods for solving the problem of critical and creative thinking development of modern students, who are representatives of technical progress generation, is proven. As a result, the process of the formation of critical and creative thinking in ESP classes with the application of non-standard approaches, forms, methods and teaching techniques, is described.

Key words: soft skills, ESP, critical thinking, creative thinking, interactive methods, online learning, non-standard teaching methods.

Introduction. The modern world appears as a global information space where knowledge and information are of paramount importance. The features of an information society include free access to any information for all individuals, a high level of development of information and communication technologies and well-developed information infrastructure of society. The information society represents a qualitatively new stage in human development, where everyone can receive, process and distribute information using information and communication technologies, while the state ensures a high level of uniformization across all sectors [1].

Life in the information society obliges a person to think critically and creatively and be able to generate new ideas. Today, the success is determined not by how much one knows, but how well one thinks, communicates, works in team, and engages in self-development and self-improvement. As a result, in the

educational process, accents are transferred to the development of soft skills, which are a complex of non-specialized, super-professional skills that have no direct connection to a person's professional abilities, for example, sociability, critical and creative thinking, flexibility of the mind, and stress resistance. "The new content of higher education development should be the creation of conditions for individuals to master previously unknown methods of activity and thinking models; to develop a critical, creative and innovative attitude to reality; and to acquire the ability to promote implement and apply innovations" [2, p. 396].

Objectives. The research objectives are to investigate the problem of soft skills development of students in technical higher education institutions, in particular, development of critical and creative thinking in ESP classes; to analyze the process of shaping human thinking; to consider the concepts of critical thinking and creative thinking; to explore the properties and process of forming specified types of thinking; to study the peculiarities of information perception by modern students, who are representatives of technical generation; to describe the work of formation of critical and creative thinking in ESP classes applying non-standard approaches, forms, methods and teaching techniques.

Background. The processes of thinking formation are described in the works of N. Dychka, O. Pavlenko, L. Anderson, D. Krathwohl. The study of various aspects of critical thinking is conducted by foreign scientists (A. Ghanizadeh, A. Al-Hoorie, S. Jahedizadeh), as well as Ukrainian researches (A.E. Konverskyi, M.I. Kruhliak, S.A. Terno, A.V. Yakovenko and others), who have examined definitions, properties, structure, stages and development of critical thinking. The development of creative thinking skills is explored by J. Guilford, R. Pavliuk, O. Mrykhina and the formation of a creative approach in the educational process is analyzed by A. Sadykova and O. Shelestova. The works of V. Redka, O. Pometun, Yu. Hladun and A. Kozakevych deal with high learning results achieved through interactive teaching methods. Additionally, the characteristics of educational technologies with a student-centered approach are highlighted by O. Piekhota.

Material and Methods. In our work, one of the main tasks in ESP classes at National Transport University is to develop soft skills, namely, the ability of critical and creative thinking.

Thinking skills are considered "basic survival skills" that are necessary for successful achievements in the personal, academic and social spheres of life. It is based on the level of development of thinking skills that students are divided into successful/unsuccessful, active/inactive, competent/incompetent [3, p. 2].

The process of thinking formation is presented in Bloom's taxonomy, which was proposed in 1956 by the American psychologist Benjamin Bloom. Differentiating between lower (LOTS) and higher (HOTS) levels of cognitive skills, Bloom associates such cognitive processes as knowledge, comprehension and application with lower-order thinking skills, and analysis, synthesis and evaluation with higher-order thinking skills [4]. In 2001, Lauryn Anderson introduced an updated version of Bloom's taxonomy, which also contains six levels of cognitive skills, where the first four levels are the same: remembering, understanding, applying, analyzing and the two highest are evaluating and creating [5]. The ability to evaluate is based on critical thinking, while the ability to create is rooted in creative thinking.

In our research, we understand **critical thinking** as a process of processing information, evaluating reality and the thinking process itself through analysis, reasoning, interpretation, deduction, proof and explanation. An important prerequisite for this process is subjecting the information to doubt, and the result is the formation of a new thought or course of action with the presentation of convincing arguments while simultaneously recognizing and accepting other alternatives.

The properties of critical thinking (according to S. Terno) are:

- 1) high degree of awareness of one's own cognitive actions – the ability to interpret, classify and systematize knowledge and independently apply it in various situations.
- 2) independence – the ability to set new tasks and solve them;
- 3) reflexivity—the ability to reflex one's own;
- 4) purposefulness—movement to the goal setting, where actions and thoughts are aligned and adjusted accordingly;
- 5) evaluation (the key point of critical thinking) consists of analyzing, interpreting and comparing information in order to adjust one's action;

6) justification – identification of reliability [6, pp. 27-39].

The most important condition for the development of students' critical thinking in ESP classes is the creation of problem situations. The way to critical thinking involves meaningful learning, where information is gathered, selected, organized, and connection is established between existing knowledge and new knowledge to be acquired. In this way, new information is integrated into the existing knowledge. Then the process of acquiring new knowledge engages cognitive processes, which are key to successfully solving problems.

Interactive methods are best suited for the development of critical thinking, as they focus not only on memorization, but on the thoughtful, creative process of exploring the world, identifying problems and finding solutions. The application of interactive methods helps individuals develop the ability to define the problem to be solved, independently find, process and analyze information, structure their thoughts, and present persuasive arguments. At the same time, critical thinking requires flexibility, the ability to determine the most effective solution, openness to different perspectives, and a principled approach to justifying one's own position [7].

Interactive learning is a form of active interaction in which students are engaged in dialogues with their teachers or peers, actively participate in the learning process, and complete creative and problem-solving tasks in pairs or groups (V. Redko). The essence of interactive learning depends on interaction itself, as the learning process takes place through continuous and active engagement among all students (O. Pometun). Interactive learning is described as education "immersed" in communication (Yu. Hladun) and as co-learning, mutual learning, whether in groups or through collaboration (O. Kozakevych) [8, pp. 105-109].

For example, studying a particular topic in ESP classes, the first step involves becoming familiar with the information through reading or listening. This is followed by discussions in pairs or groups (e.g., *How do you understand...? Do you agree/disagree? Why?*). During such discussions, students interpret and analyze received information, exchanging opinions. Quite often, to support or refute the initial information, it is necessary to search for additional sources. Students use online resources, allowing them to explore ideas from multiple perspectives and evaluate both the original concept and its alternatives. This process leads to active research and learning through online resources.

The next stage involves presenting their conclusions, ideas, action, plans or problem-solving methods either orally or in written form. An oral presentation leads to further discussion, students compare their findings and conclusions. At this stage, active listening and openness to alternative viewpoints are crucial. This process fosters active, conscious knowledge acquisition and critical thinking development.

Creative thinking is defined as the cognitive process of the human brain aimed at solving problems in a new (creative), extraordinary way [9, p. 10]. "Creative thinking is a personal competency that enables individuals to engage in generating, evaluating and improving ideas, ultimately leading to original and effective solutions, progress in knowledge and productive expression of imagination" [10]. Creative thinking is the ability to notice the unusual in ordinary things, seek new solutions and connect completely incompatible things. Creative thinking is a non-standard, original type of thinking that can lead to unexpected solutions or new discoveries [11].

The properties of creative thinking (according to J. Guilford) are:

- 1) the ability to identify and formulate problems;
- 2) the ability to generate numerous ideas;
- 3) flexibility – the ability to produce diverse ideas;
- 4) originality – the ability to create distant associations, provide unusual responses and react to stimuli in a non-standard way;
- 5) the ability to improve the object by adding details;
- 6) the ability to analyze and synthesize [12, pp. 312-314].

In our research, we define creative thinking as a non-standard type of thinking based on an individual's creative abilities. It involves the ability to generate numerous ideas with imagination, critically evaluate these ideas, improve and combine them or their components in an unconventional way, ultimately leading to the development of a new, original and effective solution or way of action.

Theorists and practitioners are convinced that creative thinking can be taught. O. Mrykhina emphasizes that “creative thinking originates in the brain and is an essential type of cognitive behavior that we can develop. The brain is like a kind of radar that needs to be tuned to creativity. It is trained to respond to various life challenges with unconventional solutions. The emergence of creativity in the brain is a complex process, but it is fascinating and exiting” [9, p. 9]. The researcher considers the potential of creative thinking to include a combination of knowledge, skills, abilities, competencies and intellectual resources that enable an individual to generate effective creative solutions. Among the factors contributing to the successful development of creative thinking potential, O. Mrykhina highlights 1) degree of progressiveness of the environment; 2) competition; 3) high level of personal worldview development; 4) organizational efficiency among others [9, pp. 48-49].

Based on our own experience we can say that for the formation and development of creative thinking of students, it is necessary to use creative and non-standard approaches, forms, methods and teaching techniques.

We focus on student-centered learning, where the students with their interests, values, and goals are in the center of the educational process. According to the Law of Ukraine on Higher Education, "student-centered learning is defined as an approach to organizing the educational process providing the promotion of higher education applicants to the role of autonomous and responsible participants of the educational process; It involves creating a learning environment that meets students' needs and interests, including opportunities to shape their individual educational trajectory [13]. The student-centered approach defines applicants of higher education as active participants in their education and places their needs in the center of the educational process [14, pp. 127-130]. Their interests, values, and needs to influence the selection of educational materials, such as texts for reading and listening, vocabulary and discussion topics.

As for the forms of studying, we prefer pair and group work as well as self-study. Working in pairs or groups places students in an active role, where each participant can speak, express their opinions, exchange ideas and discuss them. Advantages of the group work include the ability to receive feedback, support and assistance, as well as the opportunity to work at one's pace according to an individual's abilities. Pair and group work also develops communication skills such as the ability to express opinions, persuade, engage in dialogue and discussion, and define one's viewpoint. Additionally, this approach forms tolerance as students learn to acknowledge and respect the opinion, value and needs of others [15, p. 21].

An important form of work is self-learning, which develops the ability to learn independently. New information is introduced in small parts, focusing primarily on basic concepts and facts, while details and additional information are explored independently. Students are given the freedom to choose what they need or find interesting, and to determine the depth of their learning. This approach encourages autonomy, critical thinking and personalized learning experience.

We actively implement interactive teaching methods and use online resources. Modern students belong to the generation of technological progress, digital technologies and online resources. They rarely read printed texts, cannot imagine life without the internet, and were practically born with social media accounts. They navigate with GPS and seek answers by asking Siri or Google. This generation is characterized by individualism, valuing easy access to information and expecting instant feedback. They respond best to visual learning with YouTube that plays a significant role. It is not just an entertainment platform, but also an educational tool. Students frequently turn to YouTube to see a fact or concept, enhancing their understanding through visual representation. A recent Pearson study found 59% of this generation prefers learning by watching YouTube videos [16].

An excellent result in developing student's critical thinking skills in ESP classes is achieved by applying search-oriented tasks that encourage exploration and discovery of new knowledge, rather than simply familiarizing students with ready-made answers. Additionally, we apply non-standard teaching methods in our work:

1. “Word cloud” technique for studying vocabulary: a visual representation of a list of words and categories on a single shared image, such as drawings, photos, or schematic images.

2. “Scribing” and “Storytelling” techniques for discussing and consolidating read/listened information. Scribing is a method of storytelling or explanation that is accompanied by the simultaneous creation of schematic drawings that visually represents the key points of what is said. Storytelling is a creative form of story. Unlike factual story (retelling, description from memory), which is based on perception, memory, and reproductive imagination, creative storytelling is based on the work of creative imagination. Essential components of such a story must include independently created new images, situations and actions. Students use their acquired experience and knowledge but combine them in new ways.

3. “Mind map” technique for presenting and discussing ideas: an organizational method for information, where facts, thoughts or conclusions are presented in blocks, adding key words, graphics and arrows to show the connection between blocks.

4. “Lap book” – homemade interactive sheets (e.g., A3 format) that vividly present information to the topic being studied. The sheet contains movable parts – sticky notes with words, pictures, diagrams, etc. During explanations or presentations, students can change the order of the information by rearranging the notes.

Conclusions. Modern information society needs a “new personality” – critically thinking and creative one. A modern person should be able to independently acquire information, develop thinking, adequately assess the results of activity, and interact constructively with others.

The learning process begins with familiarization, memorization, comprehension and application of low-order thought operations and can progress through analysis, evaluation, creation fostering high-order thought operations. Accordingly, the goal of modern education should not be the accumulation of knowledge but the development of soft skills, particularly high-order thoughts, such as critical, logical creative thinking.

“Critical thinking elevates a person to the level of an individual who cannot be manipulated, who is not afraid to think, evaluate, and compare. Therefore, the development of critical thinking is necessary not only for the individual, but also for social progress [7]. For effective work in forming and developing critical thinking skills, it is essential to understand the features of students—their worldview, interests, goals and cognitive perception. These factors influence the choice of teaching methods, particularly the application of interactive techniques and online resources. Interactive methods facilitate independent knowledge acquisition and expansion through active interaction and dialogue, engaging cognitive processes such as interpretation, analysis, evaluation, inference and explanation, which are components of critical thinking.

Creative thinking is crucial for successful life, competitive business and scientific research, as it enables solving complex problems in the most effective way.

Thinking creatively means making unconventional decisions. Teaching creative thinking is only possible through the application of non-standard approaches, formats, methods and teaching techniques.

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РОЗВИТОК СОЦІАЛЬНО-КОМУНІКАТИВНИХ НАВИЧОК НА ЗАНЯТТЯХ
АНГЛІЙСЬКОЇ МОВИ ПРОФЕСІЙНОГО СПРЯМУВАННЯ: КРИТИЧНЕ І КРЕАТИВНЕ
МИСЛЕННЯ

Дуброва Оксана Миколаївна, доктор наук з державного управління, доцент, завідувачка кафедри іноземних мов Національного транспортного університету, Київ, Україна, e-mail: roksi4791@meta.ua, <https://orcid.org/0000-0002-8150-1215>

Гаркуша Інна Юрївна, старший викладач кафедри іноземних мов Національного транспортного університету, Київ, Україна, e-mail: inna.maschinina@gmail.com, <https://orcid.org/0009-0006-9765-3711>

Анотація. У статті досліджується проблема розвитку соціально-комунікативних навичок студентів технічного ЗВО на заняттях англійської мови професійного спрямування, а саме, розвиток критичного та креативного мислення. Розглянуто таксономію Блума, у якій представлено процес формування мислення. Проаналізовано поняття критичне і креативне мислення та описано властивості зазначених типів мислення. Доведено ефективність інтерактивних методів та онлайн навчання для вирішення проблеми розвитку критичного та креативного мислення сучасних студентів – представників покоління технічного прогресу. Описано роботу по формуванню критичного і креативного мислення на заняттях англійської мови професійного спрямування з застосуванням нестандартних підходів, форм, методів та прийомів навчання.

Ключові слова: соціально-комунікативні навички, англійська мова професійного спрямування, критичне мислення, креативне мислення, інтерактивні методи, онлайн навчання, нестандартні прийоми навчання.

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