

Formation of Communicative Competencies of Applicants for Higher Education in the Context of Distance Learning

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Abstract: The article deals with the formation of communicative competencies of applicants for higher education in the context of distance learning from the perspective of neurosciences. The relevance of the article lies in the fact that for a successful, effective organization of distance learning, it is necessary to select the rational methods of teaching, aimed at enhancing the development of personality. The purpose of the article: to clarify the interpretation of the concepts: “competence”, “communicative competence”, “distance learning”, “neuroscience”, “neurolinguistics”, to investigate service platforms for online learning; to find effective teaching methods that contribute to the formation of communicative competence of university applicants. Methods of work - analysis of scientific and methodological literature, system analysis.

Results: the use of active teaching methods has a great impact on the formation of communicative competence in higher education students. Service platforms that help teachers conduct online learning with students have been investigated. It was emphasized that videoconferencing and video meetings help to form communicative competence with students. In addition, it was noted that higher education should be implemented using a competency-based approach. Novelty in the work is a review of neurolinguistic programming as one of the effective methods of formation of communicative competence. Conclusion: the use of current pedagogical technologies in the university helps to implement new principles of individualization and differentiation, taking into account the psychological aspects of the person associated with his intellect and speech.

Keywords: *Competence; higher education; applicant; communication; communicative competence; distance learning; neuroscience; neurolinguistics.*

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Introduction

The today's development of higher education is associated with changes in the forms and methods of teaching in universities, that is, the use of the latest technologies that will help teachers conduct classes in accordance with the requirements of current society. Therefore, when organizing distance learning, one of the tasks is to find rational teaching methods that are aimed at enhancing personality development and can compete in the labor market. The level of development of higher education is a significant indicator of the competitiveness of the state's economy. Therefore, changes in higher education will be able to contribute to the high-quality training of students, future specialists who will fit the times (Kosholap et al., 2021; Sarancha et al., 2022).

The objective of the research is to reveal the formation of communicative competencies of applicants for higher education in the context of distance learning from the perspective of neurosciences.

Methods of work - analysis of scientific and methodological literature, system analysis.

Therefore, to begin with, let's find out the essence of the concepts of "competence", "communicative competence", "distance learning", "neuroscience", "neurolinguistics".

According to the Dictionary of Foreign Words of Morozov & Shkaraputa (2000, p. 282) "competence" means awareness, informedness, authority.

According to the dictionary of the Ukrainian language, edited by Bilodid et al. (1973, p. 250), we find an explanation of the word "competence" under the concept of "competent", that is, 1) a person with sufficient knowledge in a certain area, 2) full-fledged, independent.

Dmytrenko (2018, p. 6) in his manual gives the following definition "competence is the qualities acquired through living situations, reflection of experience." The author refers to the components of competence: knowledge, skills, abilities, stereotypes of behavior, efforts.

The full definition of "competence" is found in the manual, edited by Bibik (2017, p. 202) is "the totality of the student's personal qualities (value and semantic orientations, knowledge, abilities, skills), conditioned by the experience of his activity in a certain social and personal sphere; the student's ability to independently implement practical activities and solve life problems, which are based on the acquired learning and life experience, personal values and opportunities.

The term "communicative competence" is not new in pedagogy, but, unfortunately, there is no clear definition. Usually this concept is interpreted as "the formation of speech communication and communication in general".

According to Izarenkov (1990), "communicative competence" is a person's ability to communicate, with the help of one or more types of speech activity, acquired in the process of ordinary communication or during purposeful organized learning.

According to the research of Havrylyak (2019, p. 71), "communicative competence is a generalized communicative property of a person, which contains developed communicative abilities and is formed from the skills and abilities of interpersonal communication, as well as knowledge about its basic laws and rules".

According to Korniyaka (2011, p. 36), "communicative competence is a complex, organized, internally contradictory combination of communicative knowledge and skills, which consists of the goals and results of the subject's communication".

Thus, communicative competence is the ability to communicate, establish contacts with other people, observing certain conversation rules.

It is known that in the order of the Ministry of Education and Science, the Regulation on distance learning is approved, which contains the essence of the concept of "distance learning" - this is an individual process of acquisition of knowledge, skills and abilities, which is organized at a distance among participants in the educational process, using psychological, pedagogical and informational -communication technologies (Tabachnick & Fidell, 2013).

According to the Concept for the Development of Distance Learning in Ukraine (Kremen, 2020), "distance learning is a form of education based on distance learning technology for full-time, part-time, evening and external education students".

Sussman (2021) in his publication defines that "neuroscience is a field that studies the activity of the nervous system." Neuroscience combines knowledge of biology, psychology and medicine; helps to understand the work of mental functions through neural connections.

The Encyclopedia of Today's Ukraine defines that "neurolinguistics" is a multifaceted science that combines the knowledge of neuroscience, psychology and linguistics, that is, it studies human speech activity through the work of the brain (Kovalevska, 2021).

Formation of communicative competence among university students in the organization of distance learning

A review of studies by domestic and foreign authors proves that (Bukreiev, 2020; Korniyaka, 2011; Kravchenko-Dzondza, 2014; Ilyashenko, 2019; Orap, 2018; Wierzbik-Strońska, 2020; Zolotarenko, 2020) worked on this problem.

The work of Kravchenko-Dzondza (2014) is devoted to the study of the formation of students' communicative competence in the process of studying the disciplines of the philological cycle. The author notes that pedagogy of our time changes its methodology, it becomes the pedagogy of constructivism. The researcher notes the psychological and pedagogical support of the teacher, who must create an emotional background so that the student can make the right choice in various life situations. In addition, the teacher tries to help the university student make adequate decisions on his own. The teacher must introduce interactive teaching methods in the educational process and offer students to solve conflict situations for this. Interactive teaching methods are based on the principle of active interaction, group work and always feedback. It is in this way that it is possible to create an educational environment where students will be ready to communicate, interact, convey their own opinions, and accumulate new knowledge. In addition, the author notes the improvement of the style of speech, which includes linguistic and speech knowledge.

Korniyaka (2011) investigated the issue of the peculiarities of the development of the communicative competence of specialists at different stages of their professional development. The author notes that the ability to own communicative competence is a significant, necessary factor for organizing effective relationships in the interpersonal sphere. The article presents 3 functions that a person realizes during communication: communicative and speech, social and perceptual and interactive. The essence of communicative speech is the ability to receive, understand and enunciate the information orally and in writing. The social and perceptual factor is the perception and understanding of the essence of another person, mutual knowledge and mutual appreciation. The interactive function is the ability to organize and regulate interaction, mutual influence and mutual understanding.

An & Frick (2006) devoted to the study of the formation of communicative competence during distance learning. The article emphasizes that the degree of communicative competence development depends on the environment's ability to handle ambiguous communication. Certainly, face-

to-face communication is considered more effective than through means of communication. Online communication requires more time compared to "live" communication, that is, the same tasks are performed more slowly than in offline learning. One of the disadvantages is the lack of visual and auditory cues. Although, no doubt, there are advantages. First, students can work at any convenient place and be independent of time. Second, they have more time to analyze, think about the content, compose an open-ended complete response. Third, there is better interaction between the instructor and students. Fourth, students gain knowledge by learning, and the instructor is only an instructor for them. Fifth, online communication is convenient for students who are not confident, shy.

The issue of improving student learning during distance learning is investigated by Gorla and Konstantinidis (2023). The article proposes a pedagogical model that promotes the synergy of 8 components: student community cohesion, creating openness between the participants of the educational process, multimodality, active participation, personalization, motivated learning, desire to gain experience, technological improvement.

In the context of distance learning, some approaches to the formation of the communication skills of future primary school teachers are covered in the article by Zolotarenko (2020). The author emphasizes that with distance learning, communication via the Internet has become limited. With the introduction of quarantine in the spring of 2019, which was caused by COVID-19, educational institutions organized distance learning. Communication with students consisted of writing letters, providing written answers and the like. Of course, this slowed down the active communication of students. The author notes that in order to resolve an important issue, the teachers turned to the service platforms Zoom, Google Meet, Skype, Google Hangouts, Google Duo, Proficonf, Appear.in, etc. These electronic resources are now helping teachers conduct online classes with students. Video conferencing and video meetings help fill the need for teacher-student communication practice, effectively conduct classes, and form communicative competence so that students have active interaction. Service services also help to organize group work, during which students can conduct a didactic game, as well as play a specific life situation, as well as demonstrate their own way out of a pedagogical situation.

Ilyashenko (2019) considers the issue of the formation of communicative competence in the context of mixed learning. The author notes that higher education should introduce a competence-based approach so that students can apply the acquired knowledge in practice, be competitive in the labor market and freely get a job in the future. The author

focuses on project activities that can be done electronically. In addition, information and communication technologies are certainly indispensable in online learning.

The article by Bukreiev (2020) deserves attention, where the author identifies the factors that most affect the level of student learning: the interaction of the labor market on the formation of education, the accelerated appearance of new engineering professions; the level of training of university students; providing educational space with modern equipment; quality of teaching staff. Thus, the classical or traditional teaching methodology does not help to solve many of the raised issues of modern education. The author focuses on adaptive tests that allow to adapt to the individual characteristics of students, provide each applicant for education with confidentiality. Thus, adaptive tests help organize a survey for educational applicants who study on an individual schedule. In addition, computer technology helps to transfer the educational process to electronic format. But there are also a large number of human factors: the choice of a future profession and life path, which electronic resources are not able to solve.

Wierzbik-Strońska (2020) considers the use of modern technologies in the educational process. The author proves that at present, today's society is interested in university graduates who will have a high level of cognitive processes, be able to apply the knowledge gained, navigate the information space, work effectively in a team, easily adapt to changes in working and living conditions, achieve success, due evaluate their performance. Therefore, the author pays special attention to the formation of "soft skills" that are not related to a specific industry. These circumstances require universities to work on the search for innovative strategies, to develop current educational and information technologies that could be used in the educational process. In addition, a new requirement for teachers has appeared - to form a new culture of pedagogical thinking. The use of today's pedagogical technologies in the university helps to embody new didactic principles of individualization and differentiation. Accordingly, these novelties have a positive effect on the cognitive activity of students, their creative activity. In the first part of the monograph, the author examines the use of innovative technologies during online learning. Attention is drawn to online lectures, online courses and the use of andragogy in the post-coronavirus era. In addition, emphasis is placed on the project work of students through the use of information technology. The second part of the monograph examines innovative technologies for training specialists in various industries. Researchers note the role of heuristic technologies in the

formation of students' critical thinking, the level of motivation of future specialists, and also focuses the preservation of health. In the third part, attention is paid to the use of innovative forms of teaching in physical education lessons for children with hearing difficulties.

Orap (2018) in her study analyzes the psychological aspects that are associated between human intelligence and his speech. Speech consists of speech ability, activity and communicative competence. The article emphasizes that the level of social intelligence depends on speech abilities, capabilities, communicative competence and speech activity.

The article by Batsylyeva (2021) emphasizes that of particular importance for the student is the ability to master communicative competence, that is, it is easy to use verbal and non-verbal means of communication, the ability to start and continue a conversation. In addition, the article notes that the development of neurosciences proves a close connection between higher mental functions and communicative competence. Low level of communicative competence shows ineffective development of human cognitive activity.

Frankovský (2018) pays attention to the effectiveness of methods of communicative competence, which is neurolinguistic programming. The author considers this method to be the main tool in communication, especially in managerial communication. He tries to figure out how and what to do to make communication effective. Neurolinguistic programming is a system of abilities and techniques for effective thinking, behavior and communication. Neurolinguistic programming increases the efficiency of the processes of memorization, perception, thinking, imagination and attention. This science helps individuals understand the actions that lead to failure and disappointment, and which leads to success. If we constantly work on our own model of development and strengthening our own potential, we will be able to reveal in ourselves the uniqueness of the personality and his natural abilities. Communication begins with thoughts that we speak out loud using tempo, timbre of voice and gestures. Therefore, our thinking influences our actions as well. If we manage to interest the partner in communication, involve in an active conversation, then we will get an active level of interconnection. The pedagogical process in communication is based on interconnection, stimulation and leadership. Communication skills have a significant impact on leadership at work. First, one of the most important communication skills is the correct formulation of questions. When we ask, we can clarify and verify information. Therefore, the questions must be thoughtful and focused. Secondly, active listening attracts the attention of the partner, creates an atmosphere of trust in the person, and also

demonstrates that we are ready to listen to the interlocutor. Third, an important skill is body language, or non-verbal communication: facial expressions, gestures, eye movements, tactics, and the like. Body language can help the other person to tune in to the desired emotional state. Confidence in conversation, or assertiveness, is an adequate communication skill that demonstrates the ability to express one's own opinion.

Therefore, neurolinguistic programming is one of the effective methods in the field of corporate training, it improves effective communication not only with other people, but also helps to understand oneself.

A review of neural studies on the effectiveness of distance learning for university students

Since the spring of 2019, respiratory conditions have become common in Ukraine, like COVID-2019. This situation has forced all the inhabitants of the world to live and work in a new way. Quarantine contributed to the introduction and organization of distance learning in educational institutions.

Riva et al. (2021) in their article presents neurological research on how distance learning affects the work of our brain: a) when a person is studying at home, b) under the guidance of a teacher, c) the distribution of responsibilities between classmates. Therefore, how does learning on a computer or laptop affect us? First of all, applicants felt tired, anxious caused by the excessive use of time on virtual platforms held in video conferences. Psychologists and neuropsychologists argue that multiple hangouts make for a major communicative component. Unfortunately, negative factors happen during online meetings:

1) the operation of technologies is optimal, that is, suddenly the camera, microphone does not work, access to the Internet network has disappeared;

2) meeting video reduces non-verbal cues.

Therefore, this requires the active involvement of cognitive processes for the perception and understanding of the material, for communication. Small stops make our brains work harder during a video call in order to restore synchronized communication. Therefore, the student needs to be in a certain place. The human brain contains "location" neurons that help identify a person's spatial coordinates. That is, the brain encodes information about a person's whereabouts and remembers the memories of his autobiography. An extremely important factor for each of us is

autobiographical memory, because the experience and development of identity are laid down in a specific place. Thus, when we are at the computer monitor, work in Zoom or Meet, the connection of experiences with our autobiographical memory does not start. In addition, meetings on service platforms encourage participation in new meetings, but give rise to the term “no need to go anywhere”. In addition, distance learning or teaching is also harmful to those around you. The person himself also often has to do more things at the same time. Research proves distance learning at home leads to burnout.

Secondly, applicants only need to understand the mood of the teacher, whether they answer the questions asked correctly or incorrectly. After all, mirror neurons help in the formation of leadership and social intelligence. Therefore, during online learning, non-verbal bodily signals are lost, and then students become insecure and fearful. In addition, during a video conference, we see our essence and then, when answering, we distract attention to ourselves. Sometimes students turn off their cameras so as not to show their appearance, and then the emotional connection between teachers and students is generally lost. Sometimes even the voice, timbre, speed of pronunciation of words is distorted due to poor-quality access to the Internet. Therefore, video meetings violate intuitive perception, which leads to an acceleration of the work of cognitive processes. Spindle cells are a separate class of neurons that help the teacher determine if a student is responding correctly. This process is also based on non-verbal cues. The feeling of support from the teacher is extremely important for the student. Third, peer group communication affects neuronal fluctuations. This requires general attention, which requires eye contact and exchange of views. The general focus is distracted during online learning. But still modern, new programs appear. For example, Microsoft recently developed the “Together Mode” program so that you can clip video images during a live broadcast. Another possibility is the use of virtual reality, which is able to activate neurons and generate empathy.

Sandrone & Schneider (2020) discusses active and distance learning from the point of view of neuroscience. COVID-19 coronavirus pandemic outbreak spurs distance learning. Therefore, it was necessary to abandon passive learning and start using active forms of work in order to attract students to online learning: "inverted audience", "mixed forms of work". The Internet is an integral part of learning when organizing asynchronous learning, since a variety of materials can be offered to students. But not all learning experiences correspond to online education, for example, it concerns practical work that should be done in laboratories. In addition, an

active environment for neuroscience students also makes it difficult for them. Thus, it was found that social distance did not give students proper practice and exchange of views with fellow students. Due to limited communication, students felt anxious and depressed during online learning. And in order to introduce distance learning, it needs to be more flexible, as well as a binding consultation with a neuropsychologist.

The question of the effectiveness of mind maps in pedagogical practice is explored by Bawaneh A. (2019). The author believes that teachers need to focus on teaching methods that would focus on the student as the central object in the pedagogical process. Such learning will be active and encourage the student to think at a high level. To enhance learning, an interesting form of work is the use of mind maps, where the student picks up words in a certain association, combining with numbers, colors. During such training there is an internal connection of the two hemispheres of the brain, which effectively strengthens attention, imagination, memory, thinking, and develops communication abilities. An intelligence map is a drawn diagram showing the activity of the human brain.

Chang (2021) explored the question of how the concept of neuroscience has changed the way teachers and students view learning. The author talks about the application of knowledge in neurosciences in the educational process. Teachers, given their knowledge of neuroscience, realized that stress and trauma suppress learning, so they replaced rigid discipline with more loyal ones and provided students with more social and emotional support. In addition, it was clear that this concept has a positive effect on the thinking, imagination, and attention of students. The study took place with a Masters in Mind and Education program at the University of the Midwest. Teachers taught various subjects on a neurobiological basis, developing memory, thinking, imagination, attention, perception. The teachers used the best teaching methods for the classes, in particular, they gave special attention to active teaching methods. Studies have shown that knowledge of neuroscience helped educators take into account the physiological and emotional needs of students, which especially influenced their academic performance. In addition, teachers emphasize that in order for students to easily assimilate knowledge, they need to constantly strengthen their synapses, the material should be explained in various ways: through training exercises, consolidation of knowledge and through reflection. The teachers also noted reasoning and communication, that is, attracting students to active communication during classes: share their knowledge, thoughts, think about the question, using various forms of

education. The teachers created exactly the educational environment where students were physically and emotionally comfortable to study.

Conclusions

Thus, the article highlights the formation of communicative competencies of higher education applicants in terms of distance learning from the position of neuroscience, which is currently quite relevant.

The articles and publications of foreign (Bukreiev, 2020; Ilyashenko, 2019; Orap, 2018; Wierzbik-Strońska, 2020) and domestic scientists (Korniyaka, 2011; Kravchenko-Dzondza, 2014; Zolotarenko, 2020) were processed.

Thanks to the review of articles by domestic and foreign authors on the interpretation of the concepts of "competence", "communicative competence", "distance learning", "neuroscience", "neurolinguistics" are considered. It was found that the use of interactive teaching methods has a significant impact on the formation of the communicative competence of higher school students. Three functions that a person realizes during communication: communicative-speech, social-perceptual and interactive are considered. Service platforms that help educators deliver online learning experiences with students are researched.

It was emphasized that video conferencing and video meetings help to form communicative competence with students. In addition, it was noted that higher education should be implemented using a competency-based approach. In addition, the article highlights the factors that most affect the level of learning of applicants.

It has been established that the use of modern pedagogical technologies at the university helps to create new principles of individualization and differentiation. It is noted that the psychological aspects of a person are associated with his intellect and speech.

The review of neurolinguistic programming as one of the effective methods for the formation of communicative competence is a novelty in the work. The results of neuropsychologists' research on the effectiveness of distance learning for university students are presented, the negative factors of distance learning are named. It was found that the organization of distance learning with students requires joint activities of teachers and neuropsychologists.

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