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NATIONAL PROSPECTS
AND EUROPEAN PRACTICES**

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The scientific monograph presents the theoretical and practical aspects of the modernization of research area: national prospects and European practices. General questions of economics and enterprise management, technical sciences, technology of food and light industry, physical and mathematical sciences, geographical sciences, medical sciences, legal sciences, national security issues, pedagogical and philological sciences, and so on are considered. The publication is intended for scientists, educators, graduate and undergraduate students, as well as a general audience.

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**COMMUNICATIVE COMPETENCE
AND PEDAGOGICAL CONDITIONS OF ITS FORMATION
OF FUTURE SPECIALISTS OF AGRARIAN SECTOR**

Kateryna Kovalova¹

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Abstract. In the given article is examined the essence of the notion of «communicative competence» elaborated by Ukrainian and foreign scientists. In recent decades, the concept of “competence” has become increasingly apparent at the general didactic and general pedagogical level. Increased attention to this concept was also due to the recommendations of the Council of Europe in questions on the renewal of education. Considering the different approaches to the definition of “competence”, we conclude in the article that competence is understood as the knowledge that a person must master in the learning process, the result of mastering the content of education, which should be manifested in future professional activities. According to the educational and qualification characteristics of an agrarian specialist, students must have not only general technical and special skills, but also be able to find a common language with colleagues, perform a number of management functions. The purpose of the article is to analyze the concept of “communicative competence” and determine the structure of communicative competence of future agrarian engineers.

Also the article examines the pedagogical conditions of formation of the communicative competence of future agrarian specialists. The formation of the communicative competence requires the need to substantiate the pedagogical conditions under which the formation will take place in the most effective way. It is shown that the process of forming of the communicative competence of future agrarian specialists is impossible without the creation and implementation of pedagogical conditions, on which the efficiency of the learning process depends and that affects the quality of the training. It has been proved that this process will be more successful, while using such pedagogical conditions as the use of a personality-oriented approach

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in teaching, providing of a contextual approach and the subject position of students in the process of professional communication training; the use of training exercises and games aimed at increasing the communication activity of students.

1. Introduction

Ukraine's foreign and domestic policy, our country's entry into the European and world community pose new challenges for educators. According to the Law of Ukraine "On Education", one of the main tasks of modern education is the formation of communicative competence based on the expansion of knowledge, skills and abilities which can increase productivity, as well as in life in general. The authors define the structure of communicative competence of specialists differently (linguistic, speech, sociocultural, strategic and pragmatic competences; cognitive, emotional and behavior components), but it is indisputable that components, which investigators include in this notion, are inalienable from communicative competence.

Some scientists consider communicative competence as an integrated learning goal (O. Berdychevskiyi, I. Bim, M. Vashulenko, V. Safonova, Y. Passov), others – as a component of speech (V. Skalkin) or foreign language (P. Serdyukov) competence.

The third group of researchers is convinced that communicative competence means a person's ability to communicate as a complex of multicomponent activity, the nature of which is influenced by various factors (A. Bogush, N. Galskova, O. Petraschuk, L. Bachman, A. Holliday, S. Savingnon).

The quality of training of graduates of higher educational institutions, where the criterion is the professional competence, is considered from the standpoint of the UNESCO recommendation.

According to the educational and qualification characteristics of an agrarian specialist, students must have not only general technical and special skills, but also be able to find a common language with colleagues, perform a number of management functions.

Agrarian should carry out business communication in order to solve professional, social and production problems, establish contacts with partners, determine their own style of communication with managers and

colleagues, improve the psychological climate in the team, resolve labor conflicts, improve labor discipline, conduct business communication in a foreign language in oral and written forms in typical professional situations.

These tasks require a high and sufficient level of communicative competence of future engineers in today's conditions. First of all, it is necessary to define the essence of the complex concept of "communicative competence", which includes two concepts: "communicativeness" and "competence".

The integration of Ukraine into the European space, the intense transformations in the social life of the country at the beginning of the 21st century, connected with the globalization of the world economy, its general informatization raise new requirements for communication processes in the society. The success of adapting of future specialists in a professional environment, the quality of performing of functional responsibilities, and the resolution of professional and social problems depend on the ability to communicate effectively. Therefore, today we should pay special attention to the issues of development and formation of the communicative competence of the specialist, as an important humanitarian aspect of adaptation in a transformative society and building a successful career in the future.

The process of forming the communicative competence of future agrarians is impossible without the creation and implementation of pedagogical conditions on which the effectiveness and efficiency of the learning process depend and that affect the quality of training of future specialists.

2. The essence and structural components of communicative competence

As for the concept of "competence", it is not new in foreign and domestic pedagogy. So, already in the 80s of the XX century the idea and term "competence" have been widely used in the United States and some European countries in connection with the problem of individualization of learning. Even then, an attempt was made to use the term "competence" in the sense of "educational result of the student."

In recent decades, the concept of "competence" has become increasingly apparent at the general didactic and general pedagogical level. Increased attention to this concept was also due to the recommendations of the Council of Europe in questions on the renewal of education. The Council

of Europe has identified five groups of key competences. These include: communicative, technology, political, social and intercultural competencies, the ability to learn throughout life.

The meaning of the concept of “competence” was thoroughly developed by the British psychologist J. Raven in his works “Competence in modern society” and “Pedagogical testing”. Under “competence” he understands a set of cognitive and emotional components of effective human life and interprets this concept as motivated abilities [23, p. 224].

A foreign researcher V. Bezrukov understands competence as “mastering the knowledge and skills that allow you to express thoughts professionally and evaluate opinions” [2, p. 46]. N. Lavrychenko defines the competence of the individual “as a psychological and social quality, which means strength and confidence, the source of which is a sense of success. Competence contributes to the individual’s awareness of his own ability to interact effectively with others [14, p. 434].

I. Yermakov, having analyzed the views of the scientists from Ukraine, Ireland, France, Switzerland, Scotland, Austria, Greece came to the conclusion that, despite differences and different interpretations of the term “competence”, we can see that for scientists from different countries skills that are necessary for real life are considered: professional, skills of adequate application of knowledge, obtaining information, updating knowledge and continuing education, self-education, social and communication skills, ability to solve problems and controversial issues or conflicts, work in a team, feel responsible, etc. [10, p. 114].

O. Kucher defines competence “as a general ability of an individual, which is characterized by the presence of specific skills and abilities based on knowledge, to effectively perform certain activities or perform a certain function” [9, p. 235–236]. A. Bogush interprets competence “as a complex characteristic of the personality, which absorbs the results of previous psychological development, knowledge, skills, abilities, creativity, initiative, independence, self-esteem, self-control” [3, p. 3].

Considering the different approaches to the definition of “competence”, we can conclude that competence is understood as the knowledge that a person must master in the learning process, the result of mastering the content of education, which should be manifested in future professional activities.

There is also no common point of view in Ukrainian and foreign pedagogical literature on the definition of key competencies that should have a modern educated person, but most researchers, including I. Zymnya, V. Kraevskiy, A. Khutorskiy identify communicative competence as key.

As noted above, the concept of “communicative competence” encompasses two concepts: “communicativeness” and “competence”. Let’s move on to consider the concept of “communicativeness”. Yu. Khanin defines “communicativeness” as the unity of three components: the need for communication, emotional state before, during and after communication, communication skills and abilities [8, p. 138].

V. Kan-Kalik characterizes communicativeness as a multifaceted phenomenon that combines a number of components, among which sociability, social unity, and altruistic tendencies are of special importance. The author emphasizes that “sociability” should be understood as a person’s ability to feel pleasure from the process of communicating with other people. Altruistic tendencies in a person’s emotions are related to the desire to bring joy to the people with whom he communicates, to empathize with the joy of another, and so on.

When studying the concept of “communicative competence”, we can not ignore the process of communication, because they are interconnected. According to B. Parigin, “communication is a complex and multifaceted process, which can be both a process of interaction of individuals and information; to be considered as the attitude of people to each other and to be a process of their mutual influence and a process of their empathy and mutual understanding”.

The role of communication is important in the learning process, as the latter has a pronounced communicative and interactive nature. Personality is formed in the activities carried out by him and which is an indicator of its mental and social qualities, which shape its language behavior [16, p. 187].

The conceptual foundations of the study of the phenomenon of communication have been developed in the works of V. Bekhterev, O. Leontiev and other psychologists, who consider communication as a necessary condition for human development, socialization and individualization.

A. Derkach and N. Kuzmina point out that communication acts not so much as an exchange of information, but as a process of interaction and mutual influence.

During communication as a result of systematic contacts in the course of joint activities, its participants receive a variety of knowledge about themselves, their friends, ways to most rationally solve problems.

For all the variety of approaches of scientists to the role and function of communication, we can say that they all come down to the uniqueness of the role of communication in both the development and functioning of the individual.

The above analysis of the categories “communication”, “communicativeness”, “competence” serves as a methodological basis for considering the essence and structure of communicative competence of the individual.

The term “communicative competence” was first introduced into scientific usage by D. Heims, who defined it as “knowledge that provides an individual with the opportunity to carry out functionally-oriented speech communication, and what speakers need to know to achieve success in communication in a foreign culture “. [5, p. 271].

In the works of L. Petrovska “communicative competence” is interpreted as a complex formation that includes knowledge of socio-psychological factors and the ability to use them in specific activities, understanding motives, behavioral strategies, frustrations, the ability to understand group socio-psychological problems, understanding of possible obstacles on the way to mutual understanding, mastering the technology and psychotechnics of communication.

The composition of communicative competence includes a certain set of knowledge and skills that ensure the effective course of the communicative process [15, p. 178].

A. Dobrovych considers communicative competence as a constant readiness for contact. This is explained by scientists from the standpoint of consciousness, thinking. The scientist believes that a person thinks and this means that he lives in a mode of dialogue, taking into account the ever-changing situation in accordance with his intuitive expectations of his partner. L. Stolyarenko characterizes communicative competence as the ability to establish and maintain the necessary contacts with other people.

Effective communication is characterized by the achievement of mutual understanding by partners, better understanding of the situation and the subject of communication.

Communicative competence is considered as a system of internal resources needed to build effective communication in a range of situations of interpersonal interaction [22, p. 256]. M. Zabrotskyi and S. Maksymenko interpret communicative competence as a certain integral characteristic of communication, which indirectly expresses the moral and ideological attitudes of the individual.

It is clear that even today scientists do not have a single point of view on the interpretation of communicative competence in training and education in general.

Some scholars consider communicative competence as an integrated learning goal (I. Bim, M. Vashulenko), others – as a component of speech (V. Skalkin) or foreign language (I. Serdyukov) competence, others – as a person's ability to communicate as a complex multicomponent speech activity, the nature of which is influenced by various factors (A. Bogush, L. Bachman, S. Kozak, O. Petraschuk, A. Holliday).

Consequently, with all the diversity of approaches of scientists to the concept of communicative competence, we can conclude that communication plays a significant role in the development and functioning of the individual and in solving educational and practical problems in the team. Also, within my research, I have determined that the communicative competence of a student is defined as the possession of communicative knowledge and skills that ensure the effective implementation of the communicative function in professional activities and in society, finding an adequate style and tone of communication taking into account the personality of the interlocutor, circumstances of communication and strategies of speech interaction

The views of scientists also differ on the structure of communicative competence. For example, L. Bachmann identifies three main components in the structure of communicative competence: linguistic, strategic and psychomotor skills (cognitive processes).

According to M. Vyatyutnev, communicative competence includes: “1) knowledge of grammar and vocabulary; 2) knowledge of the rules of communication (you need to know how to start and end a conversation, what topics can be discussed in different types of speech events); 3) usage of speech means” [24, p. 54–60]. Unlike M. Vyatyutnev, N. Gez in the composition of communicative competence, in addition to the above components, has mentioned such a component as the ability

to relate language tools to the tasks, conditions of communication and understanding of relations between communicators.

The most extensive structure of communicative competence was proposed by Yu. Fedorenko, highlighting:

a) language competence (language knowledge: lexical, grammatical, phonetic and spelling);

b) speech competence, which covers four types of communication (listening, speaking, reading, writing);

c) competence related to the process of speaking (dialogic and monologue speech);

d) lexical competence, in particular knowledge of vocabulary and speech lexical skills; grammar – knowledge of grammar and speech grammar skills;

e) phonetic, which involves phonetic knowledge and speech-hearing-pronunciation skills;

f) socio-cultural competence related to the country studies and linguistics. The author is convinced that the phenomenon of communicative competence and its nature require the inclusion of many elements in its structure [13, p. 65].

Yu. Fedorenko considers communicative competence as a set of linguistic, speech, sociocultural, sociolinguistic, strategic, discursive competences. According to I. Vorobyova, communicative competence consists of linguistic, sociocultural, sociolinguistic competence.

Among foreign scientists who study the problem of formation of communicative competence, there are also differences in views on its structure. M. Svein proposed a model of communicative competence with three components: grammatical, sociolinguistic and strategic competence. D. Larsen-Freeman identified such components in the model as: linguistic form, pragmatic competence, interacting patterns and strategic competence.

S. Savignon names four components of communicative competence, they are: 1) grammatical competence (grammatical level of a sentence); 2) sociolinguistic competence (understanding the social context in which language is used); 3) discursive competence (understanding how to connect separate language forms into a single whole); 4) strategic competence (compensation for imperfect knowledge of the rules, imperfect mastery of something) [20, p. 130]. S. Bloom-Kilka and I. Levenstone proposed to expand the concept of “communicative competence”, involving in its

structure semantic competence, which, according to scientists, consists of an understanding of homonymy, antonymy; ability to avoid specific terms by means of paraphrases; ability to recognize degrees of paraphrase equivalents.

According to D. Izarenkov, communicative competence is formed through the interaction of three basic components:

- language competence associated with the linguistic organization of communicative units;
- subject, which is responsible for the content of statements and provides knowledge about the fragment of the world that is the subject of speech;
- pragmatic, which reveals the communicative intentions of the speaker, the conditions of communication, forms the ability to use utterances in certain speech acts, correlating them with the intentions and conditions of communication [6, p. 56].

3. Pedagogical conditions of formation of communicative competence

The State National Program “Education” focuses on the important task of the education sector – the creation of a viable system of continuous education and upbringing to achieve high educational goals, provide opportunities for continuous self-improvement of the individual, the formation of intellectual and cultural potential as the highest value of the nation. According to the Laws of Ukraine “About Education”, one of the main tasks of modern education is the formation of communicative competence based on the expansion of knowledge, skills and abilities necessary directly to increase labor productivity, as well as in the field of life in general.

The process of forming the communicative competence of future agrarians is impossible without the creation and implementation of pedagogical conditions on which the effectiveness and efficiency of the learning process depend and that affect the quality of training of future specialists. Scientists N. Logutina, M. Lisoviy, V. Liventsova classify pedagogical conditions in different ways that contribute to the effective formation of students’ communicative competence. The personality-oriented approach was studied by such scientists as G.O. Bal, I.D. Bekh, O.M. Pehota, V.V. Ribalka, V.A. Semichenko, V.V. Serikov, S.A., Sysoeva, I.S. Yakimanska.

The formation of the communicative competence of future engineers requires the need to substantiate the pedagogical conditions under which the formation will take place in the most effective way. The concept of “pedagogical condition” includes two components “pedagogical” and “condition”. The Big Explanatory Dictionary of the Modern Ukrainian Language interprets this term as follows: “pedagogical” – meeting the rules and requirements of pedagogy [1, p. 713]. Macmillan interprets the concept of “pedagogical” as being comparable to educational methods and principles. The concept of “condition” is a broader concept and is considered in many social sciences: pedagogy, psychology, philosophy, sociology, and the other. As for example, the Big Explanatory Dictionary of the Modern Ukrainian Language gives this concept as follows: “condition” – a necessary circumstance that makes the implementation, creation, accumulation of something or contributes to it [16, p. 1295].

The Philosophical Encyclopedic Dictionary, edited by L.F. Illyichov, speaks of conditions as “something on which another depends (“)””; the existence of this phenomenon” [17, p. 707]. Therefore, we can conclude that a condition is a circumstance or factors that contribute to and make possible a certain state or process.

N.M. Kostritsa in his dissertation research for the formation of professional speech defines psychological and pedagogical conditions as essential components in the process of language learning, internal and external circumstances that influence and contribute to the active process of mastering professional speech. The article investigates and resolves the problem of more effective formation of the communicative competence of future engineers, while using such pedagogical conditions as a personality-oriented approach in teaching, providing a contextual approach and the subject position of students in the process of professional communication training; the use of training exercises aimed at increasing the communicative activity of students.

The purpose of the article is to consider the pedagogical conditions for the formation of the communicative competence of future engineers.

Having analyzed the existing definitions, pedagogical conditions should be understood as: a set of circumstances that contribute to ensuring the desired effectiveness of the learning process and the successful achievement of its specific goals. Therefore, one of the tasks of organizing the learning process is to create favorable pedagogical conditions.

Scientists classify pedagogical conditions in different ways that contribute to the effective formation of students' communicative competence. In particular, N. Logutina attributed the following effective conditions for the formation of professional foreign language communication among future economists:

- promoting students' awareness of the role of professional foreign language communication in the foreign economic activity of an economist;
- implementation of a contextual approach to the educational process;
- use of forms and methods of interactive teaching;
- provision of reflexive analysis by future managers of their own communication capabilities [13].

M. Lisnoy, investigating the problem of the formation of the professional speech of future medical workers, notes that for the formation of the professional speech of medical students, it is important to take into account and adhere to the basic principles of language teaching:

- the unity of the development of speech and thinking;
- communication of oral and written speech;
- communication of the formation of a culture of professional speech with the study of humanitarian and special disciplines [12, p. 81].

Liventsova, in order to improve the culture of professional communication of future managers, identifies the following pedagogical conditions:

- the formation of students' reflective attitude to the communicative aspect of future professional activity;
- the use of group forms of organization of training, built in accordance with the principles of social and psychological training;
- the use of role-playing and business games as methods of active learning;
- orientation of the teacher to the dialogical form of educational interaction with students, which provides a favorable psychological microclimate in the group, an atmosphere of creativity and spontaneity during classes, emotional contact with students [11, p. 119].

4. Personality-oriented approach

One of the important pedagogical conditions for the formation of the communicative competence of future engineers is the use of a personality-oriented approach in teaching, aimed at the development of dialogical interaction in teaching.

Personality-oriented approach (G. Bal, I. Bekh, O. Pekhota, V. Rybalko, V. Semichenko, V. Serikov, S. Sisoeva, I. Yakimanska) as an educational process in higher pedagogical educational institutions provides the transition from knowledge of subject as the goal of learning to the subject as a means of professional development of the personality; from the priority of highly specialized tasks to the integral development of the personality of the future teacher; from subcontracting in the teacher-student system to pedagogical interaction and cooperation; freedom of choice of educational tasks and creation of conditions for self-affirmation and self-development in a professional environment.

A person-centered approach helps to reveal the hidden potential of students, to encourage learning, arouses a thirst for knowledge, for independent activity and self-development. One of the main tasks of the personality-oriented approach in teaching is to create conditions under which both professional knowledge and a spiritually rich personality are formed, who are aware of their own significance.

For a teacher, this approach to professional training is primarily a rejection of the authoritarian style of communication with students and the transition to a democratic style, which provides respect for everyone's personality, humanism, recognition of the right to individuality. The teacher's pedagogical communication should be based on this approach, which assumes subject-subject interaction between the teacher and the student. The teacher must have pedagogical communication at a high professional level, help the student to become an equal, active, proactive participant in the pedagogical process.

The concept of personality-oriented learning, as O. Savchenko appropriately notes, provides its organization based on deep respect for the student's personality, taking into account the characteristics of individual development, treating him as a conscious responsible subject of educational and educational interaction, as well as the formation of an integral personality, realizing his dignity [21, p. 127].

The opinion of such scientists as O. Padalka, A. Nisimchuk, I. Smolyuk and A. Shpak deserves special attention, who believe that the process of developing a student's personality in a university is precisely in transforming his inclinations into abilities. Personally-oriented learning involves dialogical interaction between a teacher and a student, which is carried out

using such teaching methods as problem lectures, educational discussions, role-playing games, in which the potential of students is revealed, and communicative abilities are activated. The pedagogy of cooperation, which was studied by such scientists as Sh. Amonashvili, D. Vigotskyi, Makarenko, A. Sukhomlinskyi, is based on student-centered learning.

The main goal of cooperation pedagogy is the joint activity of a teacher and a student, helps to work in a team, to form a favorable microclimate and friendly, partnership relations. Involvement in joint collective activities requires students to activate cognitive activity, thinking, contributes to the effectiveness of problem solving, and also helps to increase self-esteem and self-confidence. Group work allows you to gain new knowledge, share your own experience; contributes to the creation of situations of success and increase motivation to master communicative knowledge, skills, and abilities.

So, student-centered learning provides effective conditions for the formation of the communicative competence of future engineers, creating an atmosphere of equality and respect.

5. Modeling of situations of future professional activity

The next pedagogical condition for the formation of the communicative competence of future agrarian engineers is the modeling in the educational process of communicative situations of future professional activity. Modeling of situations of future professional activity is reflected in the technology of contextual learning. In foreign pedagogy, the technology of contextual learning is often called “Case-Study”, which literally means – the study of a situation, a case. This technology was developed by A. Verbitskyi [25].

This technology is designed to improve the efficiency of education in higher education and combines training in specially simulated professional situations.

Modeling of real professional situations helps students to understand responsibility for their actions, teaches them to interact with colleagues, understand them, feel the need to establish and maintain contacts with people for the further development of professional relations in the team. Thus, the use of contextual learning technology is a promising tool in the preparation of students of agrarian specialties, because it helps them to

effectively assimilate the educational material of a professional direction, increases their creative activity, develops communication skills, and helps to understand the importance of the chosen profession. The issue of communicative situations and their modeling in the educational process is paid close attention both in the scientific and methodological literature, and in the practice of teaching. Having considered the positions of scientists the educational communicative situation can be defined as a set of living conditions that contribute to a certain point of view and its use in a linguistic equivalent. The use during the lectures on “Psychology”, “Foreign language for professional orientation” of communicative situations of future professional activity contributes to the formation of language behavior of a specialist, create the ease in communication in general.

Communicative situations contribute to the disclosure and realization of the communicative abilities necessary in the activities of students especially in their ability to obtain knowledge, exchange information, conduct a conversation, formulate and argue the opinion, take into account the interlocutor’s opinion, clarify the facts, solve business problems, make decisions and achieve the desired result.

The success of the implementation of the technology of modeling of communicative situations depends, first of all, on a clear modeling of both the content and the procedural component of the technology. The key point in the implementation of this technology is the stages of modeling a communicative situation.

The design stage involves the definition of the purpose of the simulation, the topic of the communicative situation, the problem, the cognitive content of the situation, the establishment of rules, the definition of roles, e.t.c.

The preparation stage includes the study of didactic material, the training of the studied material, the search on the Internet for the necessary additional information to model a communicative situation, the distribution of roles, the goals of each participant, forecasting problem situations that may arise in the process of solving the assigned tasks. At this stage, the great importance is attached to auditorium and extracurricular independent work of students. Students perform the following types of independent work: they perform lexical and grammatical exercises, work with audio and video materials, compile a glossary, clusters of text materials, study additional information on the

Internet on a topic with a selection of photographs, illustrations, etc., write creative works (messages, essay).

The stage of implementation of a modeled communicative situation involves immersion in an imaginary communicative situation, the creation of a certain personally meaningful product for the student, included to the context of communicative interaction of professionally oriented content.

Stage of assessment is checking and evaluating of the results of simulated communication activities by students. Students take part in the discussion of the communicative situation, share the difficulties and ideas that have arisen in the process of work, and reflect on their participation in it.

The use of problematic communicative situations in the educational process promoted the development of linguistic-thinking activity, pushed to search for new ideas. Logical-justified solutions, stimulate the processes of analysis, comparison, synthesis. So, studying the topic “My future profession”, students not only read the texts that were offered in the textbooks, but also tried to tell about the features and differences in the work of their colleagues abroad after watching a video about the work of the Chinese plant. In order to solve situations, it is necessary for students to apply thinking, analysis, disagreement, creativity, dedication, independence, use of hypotheses, prove their point of view, understand interlocutor’s thoughts, form skills to overcome obstacles.

6. Gamification as the way of studying

Although we can find references to the early 20th century on the use of games to improve the learning process in various aspects of life. But the idea of gamification as an educational field began to gain popularity in Ukraine only with the spread of the Internet and various digital devices, becoming even an important research topic: are video games really effective methods to improve education?

Some authors agree that video games can improve the quality of learning, generations of children born in the last 20 years have fully grown up in a computerized environment, where the Internet, electronic devices, video games and various IT tools have become an integral part of their lives. Moreover, this new generation is particularly different from the previous ones in its ability to use technology and is called the “Network of Generations”.

Thus, it is obvious that the generation will be more motivated to learn if they are given the opportunity to use digital resources in their learning when approaching any subject.

Any game, including a computer game, contains some functions:

- teaching function – the development of general educational skills and abilities, such as memory, attention, perception of information of various modalities;

- entertainment function – creating a favorable atmosphere in the classroom, turning them from a boring event into an exciting adventure;

- communicative function – uniting student groups, establishing emotional contacts;

- relaxation function – removal of emotional stress caused by stress on the nervous system during intensive training;

- psychotechnical function – the formation of skills for preparing the physiological state of the players for more effective activity, restructuring of the psyche to assimilate large amounts of information.

The game itself is a very flexible form of learning. It assumes imitation of situations corresponding to the implementation of real actions within the framework of the proposed model. As a result – a more solid assimilation or consolidation of knowledge by students.

In addition, unlike traditional forms of learning, a game contains a very important component – entertainment. The challenge is often to engage and motivate the learner from the start. Often times, the fear of the complexity of the discipline blocks the ability to perceive information, minimizing them. By creating such an environment, it is easy for learners to relieve emotional stress and to show their abilities to the maximum.

Gamification technology can solve this problem as well. All people, regardless of age, love to play. Since childhood, the term “play” has been associated with positive emotions.

According to a study by DFC Intelligence, more than 3 billion people are playing video games in 2021, which is almost half of the world’s population! Only the mobile games market is growing every year: about 21% of all app downloads on Android and 25% of all downloads on iOS are from mobile games, and the audience growth in 2020 was 12% more than in the previous year.

Meanwhile, the age of players is decreasing – a study from Hi-Tech.Mail. Ru shows that 69% of children master gadgets even at preschool age. This

suggests that new generations are faced with intricate game mechanics from infancy, and that forms game thinking. The presence of game mechanics in everyday life is becoming familiar. Young people of today who have grown up with a tablet in their arms will expect this kind of gamified interaction, even in areas where the game was not originally foreseen.

We can summarize the advantages of this technology:

– gamification allows you to make the process of learning a foreign language bright, interesting, colorful;

– during the game, the material is memorized easier, without unnecessary volitional efforts;

– during the game, additional positive emotions appear, which not only improve the memorization process, but also increase motivation.

Thus, a lesson built with the use of gamification allows you to keep the attention of students, does not leave anyone indifferent in the classroom, “infects” with a positive and emotionally tunes in a useful way.

7. The subjective position of students in education

The next pedagogical condition for the formation of the communicative competence of future agrarians is to ensure the subjective position of students in the process of professional communication training.

As I. Prokopenko notes, “subjective experience, which manifests itself in target guidelines, attitudes, aspirations, values, needs, personal plans – all this include professional and pedagogical experience of teachers” [20; 18]. The teacher’s attitude towards the student as a self-sufficient person instills in the student self-confidence, allows him to feel respect for his thoughts, and in turn, increases motivation for learning in general, and for mastering communicative competence in particular.

Taking into account the subjective experience of the student allows you to find out what the students know and multiply this experience. It is important to use the previous experience of students in the selection of teaching methods in order to develop those skills that students do not yet possess, and not to dwell on the material that is already well known and learned.

This is facilitated by the use of problem situations, role-playing games, during which students use the already acquired life experience and at the same time try to apply new theoretical knowledge in practice. In order to form the subject position in the process of professional communication

training, the concept of joint solution of educational tasks should be used. This concept was developed by researcher V. Laudis. The concept of “joint educational activity” is interpreted as an act of exchange of actions, operations between the teacher and the student, as well as between the students themselves in the process of forming the learned activity.

The purpose of the joint educational activity of the teacher and the student, the researcher determines as the construction of a mechanism for self-regulation of learning. The joint solution of educational problems presupposes a certain phasing in the interaction of a teacher and a student. At the initial stage, the importance of the teacher is maximum, then the student’s independent activity gradually increases. Ultimately, teacher involvement is minimal and students interact with each other.

Such students are characterized by a creative approach to the performance of their duties and are distinguished by a high level of communicative competence. An important pedagogical condition that ensures the formation of communicative competence is the use of training exercises aimed at increasing communicative activity. A person’s communicative activity is characterized by such signs as initiative, a positive attitude towards communication, motivation to establish contact, interest in the subject of the conversation, focus on achieving a result in the conversation.

In the educational activities of students, activity is understood as the orientation of the individual towards the purposeful mastery of knowledge, skills and abilities. Exercises contributing to the formation of the communicative competence of future engineers should be in two directions: the first direction – developmental exercises and tasks that arouse interest among students and promote active participation in their performance, the second direction – exercises containing information that relates to production, professional, business problems and questions.

Exercises and tasks of the first direction are more used in classes on the basics of pedagogy and psychology, where they study psychological cognitive processes such as sensation, perception, memory, attention, imagination, thinking and their role in human life.

The study of these issues in lectures allows them to be discussed at seminars using the methods of discussion, the method of specific situations, didactic and role-playing games aimed at consolidating knowledge of this discipline.

The second direction of exercises and assignments contains problems and situations that relate to the future professional activity of students and should be based on the principle of modeling the working conditions of work. Most often, the method of analysis of specific situations is used here, in which students are offered various professional and industrial situations, as well as the method of discussions, where questions and problems concerning both professional and universal aspects of the life of human society are discussed.

8. Conclusions

Thus, on the basis of the analyzed scientific sources and professional literature the essence and structure of communicative competence of the future agrarian specialists are specified. It is defined as the possession of communicative knowledge, skills and abilities necessary for the agrarians to carry out speech activities in the educational and professional sphere. The authors define the structure of communicative competence of specialists in different ways (linguistic, speech, sociocultural, strategic and pragmatic competence; cognitive, emotional and behavioral components), but there is no doubt that the components that researchers include in this concept are an integral part of communicative competence. Considering the different approaches to the definition of “competence”, we conclude in the article that competence is understood as the knowledge that a person must master in the learning process, the result of mastering the content of education, which should be manifested in future professional activities.

The formation of the communicative competence of future agrarian specialists takes place in an effective way, while using such pedagogical conditions as the personality-oriented approach in teaching, the contextual approach and the subject position of students in the process of professional communication training; the use of training exercises and games aimed at increasing the communicative activity of students. Thus, student-centered learning provides effective conditions for the formation of the communicative competence of students, creating an atmosphere of equality and respect. Modeling of real professional situations helps students to understand responsibility for their actions, teaches them to interact with colleagues, understand them, feel the need to establish and

maintain contacts with people for the further development of professional relations in the team. Taking into account the subjective experience of the student allows lectures to find out what the students know and multiply this experience.

References:

1. Busel V. T. (Eds.) (2005) *Velykyi tlumachnyi slovnyk suchasnoi ukrainiskoi moyi: 250000* [Big Explanatory Dictionary of the Modern Ukrainian Language: 250000]. Kyiv: Irpin: Perun. (in Ukrainian)
2. Bezrukova V. S. (1996) *Slovnyk novoho pedahohichnoho myslennia* [Dictionary of new pedagogical thinking]. Yekaterinburg: Alternative Pedagogy. (in Ukrainian)
3. Bogush A. M. (1999) Movlenniievi rozvytok ditei: sutnist ta shliakhy realizatsii [Speech development of children: essence and ways of realization]. *Doshkilne vykhovannia*, no. 6, pp. 3–5. (in Ukrainian)
4. Fedorenko Yu. S. (2002) Komunikatyvna kompetentsiia yak naivazhlyvishyi element uspishnoho spilkuvannia [Communicative competence as the most important element of successful communication]. *Ridna shkola*, no. 1, pp. 63–65. (in Ukrainian)
5. Hymes D. H. (1972) On Communicative Competence / J. B. Pride and J. Holmes (Eds.). *Sociolinguistics. Selected Readings*. Harmondsworth: Penguin, pp. 269–293.
6. Izarenkov D. I. (1990) Bazisnye sostavlyayushchie kommunikativnoy kompetentsii i ikh formirovanie na prodvinutom etape obucheniya studentov nefilologov [Basic components of communicative competence and their formation at an advanced stage of training non-philological students]. *Russkiy yazyk za rubezhom*, no. 4, pp. 54–60. (in Russian)
7. Karpenko O. M., Lukyanova A. V., Abramova A. V., Basov V. A. (2015) Gamification in E-Learning. *Distance and Virtual Training*, no. 4, pp. 28–43.
8. Khanin Yu. L. (1972) K voprosu ob otsenke kommunikativnosti lichnosti [On the question of assessing the communicativeness of the individual]. *Obshchenie kak predmet teoreticheskogo i prikladnogo issledovaniya*, no. 1, pp. 168–172. (in Russian)
9. Kucher O. A. (2006) Do problemy formuvannia hromadianskoi kompetentnosti vypuskniviv zahalnoosvitnoi shkoly [To the problem of formation of civic competence of secondary school graduates]: *Materialy Pershoi mizhnarodnoi sotsialno-pedahohichnoi konferentsii*, Lutsk, 26-27 kvitnia 2006 r. (in Ukrainian)
10. Sokhan L. V., Yermakova I. H., Nesen H. M. (Eds.) (2003) Zhyttieva kompetentnist osobystosti [Life competence of the individual]. Kyiv: Bohdana. (in Ukrainian)
11. Liventsova V. A. (2005) Formation of students' communicative competence in the process of learning a foreign language. *Modern information technologies and innovative teaching methods in training specialists: methodology, theory, experience, problem*, no. 7, pp. 361–365.

12. Lesnoy M. I. (2006) State ped. un. Mikhaïlo Kotsyubynskiy. Vinnytsia.
13. Lohutina N. V. (2006) Formuvannia hotovnosti do profesiinoho inshomovnoho spilkuvannia u maibutnikh menezheriv zovnishnoekonomichnoi diïalnosti [Formation of readiness for professional foreign language communication in future managers of foreign economic activity]. *Extended abstract of candidate's thesis*. Vinnytsia: Vinnytskyi derzhavnyi pedahohichnyi universytet im. M. Kotsiubynskoho. (in Ukrainian)
14. Lavrychenko N. M. (2000) *Pedahohika sotsializatsii: yevropeïski obrysy* [Pedagogy of socialization: European outlines]. Kyiv: VIRA INSAIT. (in Ukrainian)
15. Petrovskaya L. A. (1989) Kompetentnost v obshchenii. Sotsialno-psikhologicheskyy trening [Competence in communication. Socio-psychological training]. Moskva: Izdatelstvo MGU. (in Russian)
16. Frolova I. T. (Eds.). (1987) *Filosofskiy slovar* [Philosophical Dictionary]. Moskva: Politizdat. (in Russian)
17. Gubskiy E. F., Korableva G. V., Lutchenko V. A. (Eds.) (2003) *Filosofskiy entsiklopedicheskyy slovar: Bolee 3500 statey, raskryvayushchikh sodержanie ponyatiy vseh oblastey filosofii: gnoseologii, metafiziki, psikhologii, etiki, estetiki, filosofii prava, istorii i kultury i dr.* [Philosophical Encyclopedic Dictionary: More than 3500 articles revealing the content of the concepts of all areas of philosophy: epistemology, metaphysics, psychology, ethics, aesthetics, philosophy of law, history and culture, etc.]. Moskva: INFRA-M. (in Russian)
18. Prokopenko I. F., Yevdokymov V. I. (2005) *Pedahohichni tekhnolohii* [Pedagogical technologies]. Kharkiv: Kolehium. (in Ukrainian)
19. Sailer M., Hense J., Mandl H., Klevers M. (2013) Psychological perspectives on motivation through Gamification. *Interaction Design and Architecture(s) Journal*, vol. 19, pp. 28–37.
20. Savignon S. (1985) Evolution of Communicative Competence: The ACTFL “Provisional Proficiency Guidelines”. *The Modern Language Journal*, vol. 59, pp. 36–45.
21. Savchenko O. Ya. (1997) *Dydaktyka pochatkovoï shkoly* [Didactics of the pochatkovo school]. Kyiv: Abrys. (in Ukrainian)
22. Stolyarenko L. D. (2003) *Pedagogicheskaya psikhologiya* [Pedagogical psychology]. Rostov na Donu: «Feniks». (in Russian)
23. Raven John (2002) *Competence in modern society: identification, development and implementation*. Moskva: Kogyto-Center.
24. Vyatyutnev M. N. (1986) Traditsii i novatsii v sovremennoy metodike prepodavaniya russkogo yazyka [Traditions and innovations in modern methods of teaching the Russian language]. *Nauchnye traditsii i novye napravleniya v prepodavanii russkogo yazyka i literatury*, no. 5, pp. 78–90. (in Russian)
25. Verbytskyi A. A. (1991) Aktyvne navchannia u vyshchii shkoli: kontekstnyi pidkhid [Active learning at your school: contextual intelligence]. Moskva: Vyshcha shkola. (in Ukrainian)