

# Future specialists' readiness formation for communicative interpersonal interaction

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**Abstract.** The purpose of the research is to provide interpersonal communication substantiation by exploring the "mechanics" of the process, determining its various components. The object of the study is the process organization of future specialists' readiness formation for communicative interpersonal interaction. The subject of the research is the breakthrough information technologies and their implementation in the students' project activities. The methodological basis of the study was the ideas of domestic psychologists and teachers about the relationship between learning and communication, the understanding of the didactic process as communicative one. The authors discuss the major skills involved for effective communicative interpersonal interaction process. Thus this article provides a detailed analysis of the major components of interpersonal communication.

## 1 Introduction

### 2.1 Relevance of the research

The importance of future specialists' readiness formation for communicative interpersonal interaction is caused by the global processes of rapid automation and all industries robotization, the construction of artificial intelligence systems, the interaction with which radically change our understanding of professional activity.

The research of this problem can allow to solve objectively existing contradiction between the need of society for the competent specialists, which are ready to use communicative skills for solving professional problems, and the low level of this competence formation. The last decades of changes in the system of higher education are associated with megatrends, which include of the educational process adaptation to the needs of the student's personality, his/her direction not only on cognitive but also personal opportunities development, the formation of a humanistic type of scientific consciousness personality, able to realize the ideals of person's communicative potential development [1, 2]. Such orientation to the humanization of interpersonal relations, the establishment of

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subject-subject relationships between the teacher and the learner is relevant in the context of the present stage of socio-economic development and in conditions of radical complexity of social, economic, cultural and other factors.

Interpersonal communication affects the state, behavior, views, regulation of joint activities of all participants in the process. «Productivity, retention, and work satisfaction is improved when colleagues regularly look in one direction as they converse with each other, thereby humanizing their organization» [3].

## 1.2 Study of the problem

Many scientists at all times were interested in the problem of human interaction. A person, being a member of a particular social group, is in interaction with other people. The organization of their behavior under the influence of other people in social psychology is called interaction [3, 4, 5-7].

Interpersonal relations were studied by A.N. Leontiev, L.S. Vygotsky, V.N. Kunitsina, K. Floyd, E. Berne, P. Hartley, J. Stewart, L. Baxter, D. Braithwaite, D.D. McQuail, X. Dance. Organizational behaviour and human interaction were considered by A.A. Huczynski, D.A. Buchanan, N.A. Flanders and others. So, J. Stewart demonstrated the benefits of mindfulness for reducing stress, improving focus, and even strengthening your immune system functioning. The scientist Peter Hartley proposed the model of interpersonal communication.

Cultural and historical theory (L.S. Vygotsky) presents interpersonal relations as a system of relationships transmitted from generation to generation through myths, legends, traditions, experience of the adult generation, literature, art, etc. Activity approach (A.N. Leontiev) explains the nature of interpersonal relationships, primarily in terms of joint activities. Representatives of this theory argue that only in the framework of joint activities is it possible to build interpersonal relationships, and it is through joint activities that the nature of human relationships is determined. V.N. Kunitsina distinguishes such structural components of interpersonal relationships as:

- distance, or degree of psychological proximity of partners (close, far);
- valency, or relationship evaluation (positive, negative, contradictory, indifferent);
- position of partners (dominance, dependence, equality);
- degree of familiarity (the ratio of superficial acquaintance, familiarity, companionship, friendship, love, marital, family).

J. Stewart gives appropriate advices in order to provide effective results of interpersonal relations:

- take in aspects of the other person's reflections by asking about them;
- reflections are part of what make each of us a person, and the more they're present in your listening and talking, the more personal your communicating can be;
- mindfulness is the opposite of living life on automatic pilot. It means being here and now, attending to what's happening in the present;
- apply mindfulness to your communicating by working to be present-to your conversation partner(s);
- pick a setting for an important conversation that will allow you to focus on each other;
- practice mindfulness by firmly separating yourself from your screens of your phone while you're conversing, and encourage the other person(s) to do the same.

During the Council of Europe Symposium on "Main competencies for Europe", the following model list of core competencies was identified. For example:

- be able to collaborate and work in a group;

- to make decisions to settle disagreements and conflicts;
- be able to negotiate;
- be able to develop and execute contracts.

## 2 Materials and methods

Interpersonal interaction is a process of direct or indirect influence of objects on each other, generating their mutual conditionality and communication. In the process of interpersonal interaction, a person's attitude to another person as a subject who has his/her own world is realized. These relationships are built on the basis of people's communication and in the process of joint activities.

The main contradictions in the field of scientific and methodological support of the educational process of the university within the framework of the problem of formation readiness for communicative interpersonal interaction were determined between:

- the objective needs of practice, realizing the educational potential of teaching methods, and new tasks of personal development;
- innovative trends in education and the lack of a comprehensive program for the formation of communicative competence, which would include all stages of university education. The uncertainty of the parameters of professional and communicative training of students and the conditions which provide its success is due to the undeveloped diagnostic apparatus, tools for quantifying the professional and communicative competence of the student's personality [1,3].

The choice of research methods is determined by the sense of research tasks. The strategy was based on acmeological approach. The comparative method was used as the leading one. The main research methods included; conceptual modeling and pedagogical experiment in its ascertaining and forming variants. From the system of empirical methods for the solution of specific objectives of the study were as follows: questioning, testing, method of expert assessments (content analysis of products and activities, participant observation, and analysis of materials interviews), self-assessment.

## 3 The aim of the research

The main aim of our research is to provide the definition of term “interpersonal communication”. So we should perform the following steps: to explain the special or distinctive characteristics of interpersonal communication; to identify the component parts of interpersonal communication; to explain how these components relate to one another and consider the most important features of the skills involved in communicating with other people, emphasizing the possibility of their formation.

To achieve the goal, the following tasks are set:

1. Identify the potential of the university educational process in the future specialists' readiness formation for communicative interpersonal interaction.
2. To develop methodological support for the integrative technology of future specialists' readiness formation for communicative interpersonal interaction.
3. To check methodical and pedagogical efficiency of the experimental program introduction.

The object of the study is the process organization of future specialists' readiness formation for communicative interpersonal interaction. The subject of the research is the breakthrough information technologies in the formation of future specialists' readiness for communicative interpersonal interaction and their implementation in the students' project activities.

The methodological basis of the study was the ideas of domestic psychologists and teachers about the understanding of the didactic process as communicative one.

## 4 Results and discussion

The experimental system of future specialists' readiness formation for communicative interpersonal interaction is a comprehensive training program that integrates various methods and technologies of teaching communication. It is the correlation of all private technologies of learning to communicate with each other and with the final generalized results gives an integrated character to the author's experimental system of future engineers' readiness formation for communicative interpersonal interaction character.

Integrative system of university students' training is a multi-functional system that includes students in interaction with the group, educational information and a teacher. The student becomes as the subject of establishing integrated relations, one of teaching, learning and interpersonal interaction, thereby gaining experience of professional and communicative activities.

Experimental training program consists of three modules (under the structures) corresponding to the three components of the structure of communicative competence. The implementation of each module has a common purpose is future specialists' readiness formation for communicative interpersonal interaction. Each substructure has its own didactic programme provision, the content of which is mainly considered as active training methods and forms application in order to achieve a common integrated result in the professional and personal development of students.

How can we define interpersonal communication? This definition can be criticised – it does not take account of the different meanings which participants can perceive in the same situation.

Relationship is known to involve events where the participants are specific individuals. Interpersonal relationship is knowledge of the other person. That is a very important aspect of the interaction. Both the form and content of the communication reflects the personal characteristics of the individuals as well as their social roles and relationships [7]. "Interpersonal communication does not only involve the exchange of messages. It includes the creation and exchange of meaning essentially" [7]. This implies that we could arrive at an accurate and unambiguous statement of whatever was communicated. "In fact, this is extremely difficult if not impossible to achieve. Whereas we might not agree that "all human behaviour is ambiguous", just about anything anyone says could be interpreted in a number of ways" [1,4]. Interpersonal communication is an ongoing process rather than an event or series of events. When you consider an event you think of something very definite which happens, and which has a definite start and a finish. It can be misleading to think of interpersonal communication in this way.

Using the model to identify the components of the communication process can help to understand what is going on in practical situations.

The internal component of interpersonal relationship is determined by the attitude of the individual to himself/herself, based on the system of person representations in society and in the environment (natural and anthropogenic). It is based on the ability of the individual to identify, comprehend and evaluate their role in society, to show their own talents, to develop and develop their life plans based on personal and valuable person's orientations and motivation [2].

Personal qualities in your conversations are choices, ESP (Emotions-Spirit-Personality), reflections, and mindfulness. John Steward considered four ways to humanize the communicating [3] Communication in groups is not the same as communicating with one other person - there are different influences at work. Taking in and giving out two of the

characteristics that make each of us a person are our choices and our ESP (Emotions-Spirit-Personality).

“Reflections are results of the uniquely (so far as we know) human capability to be aware of our awareness” [1]. You can help personalize your communicating by using your taking in and giving out to get reflections on the table between you and your conversation partner.

The experimental system of future specialists' readiness formation for communicative interpersonal interaction is a complex integrative training program that includes various methods and technologies of teaching communication. The final stage of the experimental system was to check the effectiveness of this one.

The training program can be focused on the use of a special course, the subject "Foreign language" by means of breakthrough technologies in the process of professional training. Our position is that in addition to professional subjects teaching, it is possible to use didactic means for the personality development and future specialists' readiness formation for communicative interpersonal interaction.

Techniques and forms can be the following: visualization techniques, podcasts (the process of creating and distributing audio or video files in the style of TV shows on the Internet), video presentations of projects created with the help of special programs and web services, videos.

The peculiarity of the experimental integrative program was the creation of the necessary conditions for the implementation of students' communicative activities. The forms of organization of ones include group discussion methods and breakthrough information technologies [5].

Breakthrough pedagogical technologies are called ones that contribute to intellectual breakthrough, a fast growth in human thinking development [5].

The main pedagogical purpose of the use of breakthrough information technology training is the development of communication skills through joint projects. Active use of educational institutions of Internet technologies, telecommunication means in full-time educational process means the introduction of innovative processes. Thus there are modifications by means of these innovations: the purposes and the maintenance of curricula, forms and methods of training change [7].

Among the breakthrough information technologies we can highlight the following:

1. Electronic conference.

Electronic conferences (EC), or, as they are often called, computer conferences, allow to receive the texts of messages on the monitor of the user's computer transmitted by the participants of the "conference", located at different distances from each other. The use of the mode in the organization of training sessions requires moderation of the conference teacher. Work is possible in real time, for example, when using the IRC (Internet Relay Chat) and random access.

For example, in (USENET newsgroups) mode, the server installs software that supports newsgroups. Unlike email-based mailing lists, newsgroups operate in real time, requiring users to connect online. Working with them is similar to mailing lists, i.e. participants read messages sent to the group by other participants, send their answers there, discuss problems, etc., but everything happens "now and at once", it does not take time to send letters.

2. Teleconference and video phone.

They provide two-way communication between the students. At the same time there is a simultaneous two-way transmission of video, sound and graphic illustrations. All this can be seen simultaneously in three Windows on the screen of each monitor.

Video phone differs from video conferencing due to the limited size and quality of visual information and the inability to use real-time computer applications

Didactic properties of this class include the ability to transmit real-time images, sound, graphics and their presentation to students for educational purposes. These properties make it possible to fully apply in the educational process such well-proven in traditional learning forms as lectures, seminars and control activities.

In the context of electronic conference and teleconference and video phone it is possible to apply technology visualization of the educational information: mind map (mental map, chart, links, map of thoughts, associative map, mind map), conducting brainstorming sessions, preparation of trees of concepts, technology, critical thinking, clusters, infographics, scribing and the technology of asking questions: the technique of asking questions "6Why", cross-discussion. Technology visualization of the educational information:

– mind map (connection diagram, associative map, mind map) is a graphical way to present information in the form of a map, idea, concept consisting of key and secondary topics. This is a way of structuring ideas, memorizing large amounts of information;

– scribing (from the English "scribe" – to sketch drawings, a technology invented by the British artist Andrew Park) is a way of visualizing information with the help of graphic symbols, simply and clearly displaying its main content and internal connections. "Performance in the technique of scribing is first of all the art of accompaniment of the spoken speech "on the fly" with drawings, sketches)" [1,4].

– infographics, as a graphical way of presenting information, data and knowledge, uses tables, charts, graphical elements, etc. the Basic principles of infographics are content, meaning, ease of perception and allegory. "Graphical representation of information as a way of communication between people, the transfer of the meaning of complex phenomena and concepts in the form of pictures have been used by man since ancient times" [1,4]. The main purpose of infographics is to inform, represent a large amount of information in an organized form, easy to understand.

In general, visualization technology allows to solve a number of pedagogical tasks: activation of educational and cognitive activity, ensuring the intensification of training, the formation and development of critical and visual thinking, visual perception.

The technology of asking questions: the technique of asking questions "6Why", cross-discussion:

– "6Why" technique allows to determine the main causes of the problem and leads to a quick and qualitative solution to the whole problem. Applying the method "6 why" the researcher identifies the causes of the problem at a new level, again and again asking himself/herself why, what is the reason for the situation. This method is the first step in the process of research works which are usually published in conference proceedings "Recent Achievements and Prospects of Innovations and Technologies" [1].

The example of "6Why" technique in the process of the students' project activities can be demonstrated by means of problem solution "Voice control is rarely used to perform any actions" (Problem). We asked surveyed respondents to give answers on the question: In what situations do you most frequently use Voice Control? The results are shown on the diagram 1.

Question - problem.

1. Why? — Students rarely use voice control in their practice. (First why)
2. Why?– Great commitment to the already known methods. (Second why)
3. Why? – Students do not see the benefits of using voice control. (Third why)
4. Why? – Many do not know all the functions of voice control. (Fourth why)
5. Why? – Store employees can not formulate the unique advantages of the new device. (Fifth why)
6. Why? – There is no quality device in our region. (Sixth why)

Cross-discussion consists of several stages: the formulation of the question; the question

put forward for cross-discussion should be problematic, and therefore not have a clear answer; drawing up a scheme for cross-discussion.

It is possible to offer to write down the arguments and to assume, to foresee arguments of opponents.

At the final stage of electronic conference and teleconference Smart technology and one of problem analysis (method of prioritization (time management), SWOT-analysis of the project) should be provided.

Technology of goals setting: the technique of setting SMART goals, ranking of goals.

– Smart technology is a modern approach to setting working goals. The system of setting smart goals allows to summarize all available information, to establish acceptable deadlines, to determine the adequacy of resources, to provide all participants with clear, accurate, specific tasks at the stage of goal setting.

SMART is an abbreviation, the interpretation of which: *Specific* (the goal of SMART should be specific, which increases the probability of achieving it), *Measurable* (at the stage of setting the goal, it is necessary to establish specific criteria for measuring the process of achieving the goal), *Achievable* (the goal should be achievable, since the realism of the task affects the motivation of the performer), *Relevant* (to determine the significance of the goal, it is important to understand what contribution the solution of a specific task will make to the achievement of global strategic objectives), *Time bound* (the goal should be limited in time, and therefore, the final deadline should be determined) which indicates the failure of the goal). The goal of SMART should be limited in time, and therefore the final deadline should be determined, the excess of which indicates the failure of the goal.

Goal ranking: a way to determine the significance of individual goals and sub-goals in the analysis of the goal tree. Ranking of goals (which are expressed in quantitative terms or by formulating general directions) provides the situation stability and the prospect of new directions of development, new activities. The ranking of the specific objectives:

Technology of problem analysis is represented by method of prioritization (time management), SWOT-analysis of the project [2].

Time management is one of working and personal time control, aimed at the proper planning of current tasks and the allocation of their time. It includes: daily communication with co-organizers, work with a huge amount of information and distribution of tasks. For the successful organization of temporary resources it is necessary to follow the following requirements: to overestimate values and priorities, to change the attitude to work and life, to engage in self-development and self-improvement, to use tactics and strategies (to spend time on more valuable deeds and actions).

SWOT-analysis of the project, as a way to assess the current situation in the development of the project and the prospects for its development, involves the identification of four key aspects: *Strengths* – strengths, *Weaknesses* – weaknesses, *Opportunities* – opportunities and *Threats* – threats, where strengths and weaknesses characterize the state of the internal environment of the group at the time of analysis, threats and opportunities relating to the external environment, which is not possible to affect directly. The method of SWOT analysis allows to describe the situation clearly and structurally, to develop development steps, prospects. The method of SWOT analysis of the project contributes to the generalization and structuring of the accumulated data [1]. The result of its competent application is a list of tasks formed in the course of professional activity.

The main features of considered breakthrough technologies are:

– Apply Agile principles in practice (allows you to change the communication system in the team and rebuild it for productive product development);

– Use Kanban-Board (allows you to properly evaluate and decompose tasks and configure the smooth operation of the team);

- Organize Scrum teams (the ability to create a backlog and conduct an effective retrospective);
- Assess the needs of the project (allows you to find bottlenecks and unnecessary processes, make a forecast for growth).

## 4 Conclusion

Currently, a new system of education is developed which is focused on entering the world information and educational space. This process is accompanied by significant changes in the pedagogical theory and practice of the educational process, associated with the introduction of adjustments to the content of learning technologies that should be adequate to modern technical capabilities, and contribute to the harmonious person's entry into the information society. «All social interaction is necessarily communicative and any social process presumes a communication process» [1].

The training program which is focused on the use of a special course, the subject "Foreign language" by means of breakthrough technologies application in the process of professional training provides both person's development and future specialists' readiness for communicative interpersonal interaction. The main purpose of breakthrough information technology is the development of communication skills through joint projects.

One way communication affects quality of life is that your personal relationships affect your physical health. The most effective listening is mindful, empathic, and dialogic. You can build relationships by carefully being open with and to other people. Solving the problem of communicative skills formation it is possible to avoid the problem of intercultural communication.

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