

Cognitive Technologies in Pedagogical and Natural Science Training for Future Psychologists in Post-Pandemic Education

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Abstract: In conditions of post-pandemic reality, the creation of optimal psychological and pedagogical conditions for the formation of future specialists, raising the level of their professional training, socialization and adaptation to work in the work collective requires appropriate psychological support, the development of cognitive and psychological support technologies for the constructive implementation of practical social psychological assistance in the pedagogical process, as well as the use of cognitive-psychological approaches by teachers, the development of psychological recommendations on the style of pedagogical impact and the like.

The article highlights the important socio-psychological conditions for preparing a future teacher for socio-pedagogical activity in the context of post-pandemic realities. The necessity of using cognitive psychology technologies in the process of forming professionally speaking competencies of future psychologists and their speech culture in the process of professional speech training is substantiated. The technologies and conditions for the organization of the pedagogical process for the preparation of future practical psychologists who have undergone changes as a result of recent events related to the implementation of the educational process in a remote mode are described.

In our opinion, the materials in this article will be of interest to educators, practical psychologists, and social educators of the vocational education system, since they will help not only better understand the psychological characteristics of the professional and personal development of future specialists, but also constructively solve the urgent problems of their professional training.

Keywords: *professional training, future psychologists, cognitive psychology, pedagogical aspect, professional preparedness, speech training, communicative culture, post-pandemic education.*

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1. Introduction

The postmodern post-pandemic education system of preparing young people for professional activities involves orienting high school students in acquiring skills to quickly adapt to new working conditions. Each teenager ultimately depends on the right choice of profession for labor productivity in the state, the efficiency of using labor potential, the extent of staff turnover and migration, and the like. And this means that to ensure social needs it is necessary to create an effective system of social and professional orientation, while expanding the freedom of choice of profession (Rodolfa & Schaffer, 2019).

Career guidance activities of pedagogical groups, workers of various organizations with the aim of choosing a profession by students in accordance with their personal abilities, interests, physical development is today considered one of the most urgent tasks in society. At the same time, students should be cautioned against overestimating some and underestimating other professions, and studying their stability and the dynamics of professional interests. This is especially important because teachers are often forced to work on rebuilding the professional aspirations of young people if they are in conflict with their personal data or the demand for a profession (Alberta & Wood, 2009).

Considering the reform of the post-pandemic education system of higher psychological education in the context of modernization and innovative development, we are of the opinion that the modernization of university education in the context of postmodern society should take into account world trends in its development.

Among them:

1) the growing role and share of universal knowledge, the consolidation of specialties, ensuring the development of intersubject communications;

2) the fundamentalization of education, the most important aspects of which are the mathematization of knowledge, the formation of a unified scientific picture of the world, the development of new paradigms of knowledge organizations. Scientists recognize that the 21st century will be the century of quality mathematics (mathematics of structures, geometry, topology, etc.); (Herrington & Parker, 2013).

3) humanization and humanization of education - focus on the development of individual abilities and capabilities, creating conditions for

creativity and self-realization of a person, the formation of analytical, communicative and other intellectual skills;

4) informatization of education through the use of personal computers, new information and communication technologies. The most important tasks are the education of the information culture of the future specialist, the training of information system managers, the formation of new models of university e-education;

5) educational innovations. A variety of educational initiatives based on the latest technologies, implements an innovative university, should absorb: educational innovations: new knowledge and educational products of universities (educational programs, new textbooks and teaching aids; databases, information-related systems, information-thematic modules, new about objects educational infrastructure) new or improved educational learning technologies (distance, television-satellite, Internet technologies, etc.); science and technology innovations designed for implementation and application in production (Heiby et al., 2008).

An important condition for their occurrence is the presence of innovative infrastructure in the region and the university itself; economic innovations: new teacher remuneration mechanisms, student self-financing, tax incentives for investment in education; managerial innovations: new forms of organizing the educational process and research work, the transition to the marketing orientation of educational institutions; new management and financing structures, etc. (Wright, 2012)

The psychological service, as well as the system of methods of cognitive psychology in the system of professional psychological education, is obliged to provide appropriate assistance to the young man, to orient him in a difficult situation of choice, by conducting a psychological examination and diagnosis, and socio-psychological correction in post-pandemic postmodernity. This is precisely what the cognitive methods are aimed at, which determine the readiness of students to study at professional psychological educational institutions and work in the profession, as well as the psychological and pedagogical correction of those students who are not ready or are lagging behind. In addition, the psychological support of the educational process in vocational schools provides for the diagnosis of personal development, value orientations and social status of students, identifying shortcomings and problems of their social development.

2. Main research

2.1. The relevance of introducing the principles of cognitive psychology in the context of speech training of future psychologists in the post-pandemic postmodernity.

The communicative culture of the personality can be positioned as a personal need for interaction with other subjects, an expression of the holistic and individual in a person, the manifestation of its creative potential in the ability to maintain the positive nature of the communicative process and to be friendly with people. It is due to the development and self-development of the personality, which is manifested in the creative nature of the development of the best examples of communicative activity. At the same time, it provides the degree of social activity of the individual, the social significance of the norms of his behavior, the use of appropriate means of communicative activity. Understanding of communicative culture as a means and conditions of personality formation is based on the knowledge of its adaptive capabilities that help a person to act in accordance with the cultural standards of an important environment for him (Gilligan & Methley, 2015).

Competence in communication, knowledge of laws, functions, types, forms, levels and ways of influencing a person is one of the main conditions for achieving a high level of professionalism for specialists of professions of the “man-man” type, since in contact conditions you can create an adequate idea of the person, his desires, needs (Jimerson et al., 2007). Thus, knowledge of the essence of communication, its features and problems forms the basis for the implementation and improvement of relations with other people, including in the professional sphere. Professional communication of workers in the psychological service sector refers to role communication, the participants of which act as carriers of certain roles (master - customer, buyer - seller, etc.). With this communication, a person is reflected not so much as an individual, but as a social unit that performs certain functions.

Christens, Connell, Faust, Haber (2015) defines a behavioral role as fulfilling a social function, a certain repeating standardized part of the personality, meets accepted standards and is a response to the role expectations of others. She calls role flexibility, the art of being different depending on the situation, a necessary condition for self-identification of a person. Whatever role the personality plays, it is always in a certain group of people — the family, among friends, in the work collective, and has contacts

with partners in the process of professional activity. “Just as music is built on an alternation of pleasing to the ear consonances and a tense or even cutting ear dissonance, the music of human relations is a natural alternation of consonances and dissonances, coherence and inconsistency, compromise and confrontation, cooperation and competition. This music, in addition, polyphonic, contains a lot of controversy (Kaslow et al., 2004).

The science of human communication requires the creation of something like a counterpoint - music science about the simultaneous and coordinated movement of several independent voices forming an inextricable harmonious whole” (Hall & Lunt, 2005). Sufficiently successful, in our opinion, is the parallel between music and relationships, focusing on communication as the main factor in understanding interpersonal interaction. In this regard, it should be noted that interpersonal relations are based on mutual readiness of subjects for a certain type of informal interaction and communication, which is accompanied by feelings of sympathy - antipathy. They arise and develop on the basis of the subjective need for communication and its satisfaction; are regulated directly or indirectly by the individual psychological characteristics of people interacting and are accompanied by a state of satisfaction or dissatisfaction with each other (Ionova, 2007).

Any communicative interaction necessarily involves the exchange of knowledge, thoughts, interests and value orientations. In interpersonal relationships involved psychological mechanisms of perception and understanding of each other, interpersonal attractiveness, mutual influence and role behavior, which was already mentioned. All this is realized in a communicative culture, which we consider to be the leading lever in the formation and development of interpersonal relations.

In the process of training the formation of a communicative culture of future specialists, it should rely on the provision that (Davis et al., 2004):

- the priority is the use of communication tools in accordance with the specific social context;
- the construction of the educational process requires the involvement of students in situational communication, as close as possible to real production situations;
- the teacher not only organizes effective interaction, but also becomes an active coordinator of the educational activities of future specialists, their partner;
- in practical classes, preference is given to interactive pairing, group activities, business and role-playing games, the task of solving specific production problems using dialogue, discussion, debate, modeling situations.

The communicative culture of personality is realized in communicative knowledge, skills. By such knowledge is understood the generalized human experience of communicative activity, that is, the reflection in the minds of people of relevant situations in their cause-effect relationships and relationships. The value of such knowledge has long been recognized by mankind. Communicative knowledge includes knowledge about the essence of communication as a process, a social phenomenon, its types, stages, and patterns of development. (Kivinen et al., 2016) They contain information about existing communicative methods and techniques, their impact on the communication process, opportunities and limitations. It is also knowledge of which methods are effective for different people and situations. This area also includes knowledge about the degree of development of certain communicative skills in oneself, and about which methods are effective and which are not effective for the one who applies them.

Communicative skills are understood as a complex of communicative actions based on a high theoretical and practical readiness of a person for interpersonal communication, and allows for creative use of communicative knowledge. Among the skills necessary for constructive communication, the main place is occupied by the ability to understand another person. For this, first of all, knowledge of its value orientations, which are expressed in ideals, needs and interests, in the level of aspirations, is necessary (Hosking & Pluut, 2010).

No less important is the ability to bring another to the center of your system of value orientations, which was written about. Since the act of communication involves two or more participants, for them to understand both or several people, it is necessary to be able not only to produce signals, but also to learn to perceive them. At the same time, various situational factors and interpersonal relationships of participants in communicative interaction can affect the shades of the meanings of words and non-verbal means, cause their exaggeration or deviation when used as symbols of meaning. In such situations, it is important to be able to perceive signals that involuntarily slip in the partner's behavior (expressive signals), although he would like to hide them; transmit false signals designed to silence an existing problem and true goals.

2.2. Speech training of future practical psychologists as an important part of the mechanisms of pedagogical training of cognitive psychology in the new paradigm of the post-pandemic education system

One of the significant areas of cognitive psychology in the new paradigm of the post-pandemic education system is the speech training of future practical psychologists. It is clear that it is possible to achieve the formation of the corresponding competences of the speech competence of a psychologist already at the stage of professional training by implementing certain conditions. Among them, of particular importance is the quality and effectiveness of the management of the process of vocational training, in particular speech training, as an indispensable condition for professional development and the formation of the speech competence of a future specialist. Indeed, speech training is an extremely important aspect of the pedagogical training of future practical psychologists, because in the process of professional interaction, the psychologist translates his understanding, intuitions, feelings and experiences into conceptual forms that are expressed in words, articulated, and translated through speech. (Adelabu & Adu, 2015)

The level of speech proficiency determines the speech competence of a specialist, which is closely related to other components of professional competence, permeates and integrates them, forming during all stages of training and professionalization. As a component of professional competence, speech competency is a professionally significant quality of a practical psychologist. It consists of a set of knowledge, skills and abilities that provide the ability to perceive understand and create texts that contain information expressed by specific means of the language regarding the object of his profession, as well as store such information in memory and process it during mental operations. It should be noted that the psychological prerequisites of both the ability for the profession and, in general, the readiness of the future psychologist for professional activity, are considered to be the high level of their professional culture, the central link of which is psychological culture.

The most important component of the psychological culture of the personality of the psychologist is the culture of speech, which involves the ability to use a variety of means and methods of influencing the client, the ability to conduct dialogue with the client, including orientation to the partner as an equal subject of communication, full understanding (Wolff et al., 2015).

A real speech culture presupposes knowledge of the existing stereotypes of interaction, the ability to use them at appropriate times, as well as the ability to solve such practical situations when the use of existing stereotypes cannot give positive results. The formation of a speech culture is the key to success in the functioning of the speech competence of practical psychologists in the context of preparing for future professional activities. So, the ability of psychologists to practically solve problems associated with verbal interaction in future professional activities is defined as their special ability.

It is a simulation model of the formation and development of the speech competence of a future psychologist, the path of ascent from "I am not a specialist" to "I am a beginner" contains an integrated joint activity of a teacher and a student. When developing the workshop, we took into account the fact that as a result of training, not only the assimilation of a certain system of knowledge, skills and abilities (functional development) should be ensured, but the conceptual development of the personality, which finds expression in expanding and deepening ideas and concepts about the surrounding reality, in shaping values, semantic formations of personality, in enriching one's own concept of life and mastering the technologies of its practical implementation. The program of the workshop provides for a series of sequentially arranged thematic classes, each of which includes the following forms of work: (Kameneva & Bondarenko, 2018).

1. Assimilation of theoretical material on the speech features of the professional speech of a psychologist. This form of work makes it possible to correlate theoretical propositions with previously acquired experience.

2. A written assignment with introspection of one's own speech knowledge and skills. Written introspection is of great importance in the development of speech competence, since it activates the processes of awareness, which are independent tasks of the program. It is advisable to carry out such introspection in the form of specific tasks and exercises, the purpose of which is to help everyone penetrate their own inner world.

3. Exchange of experience, which is based on the principles of feedback and verbalized reflection. This form is an extremely important methodological and developing element of the curriculum. Sharing experience means talking in the presence of others about how he is feeling at the moment. An important element in introspection and the exchange of experience is the ability to listen, because by listening to the words of others it becomes possible to discover true feelings and experiences. Therefore, this form of work contributes to the development of the perceptual-empathic generative speech competence of the psychologist.

4. Psycho-gymnastic exercises, which, depending on the content of the lesson, can be verbal and non-verbal, are performed in small groups of 2-3 participants or the whole group. The value of psycho-gymnastic exercises is that they allow you to connect different levels of mental reflection to realize the same experience, the same problem. As a result of such work, the possibilities of awareness expand, new facets of perception of the same problem appear.

5. Modeling situations of future professional activity in role-playing games at the training stage includes changing and complicating roles, providing optimal replacement of unproductive forms of behavior with more productive ones and increasing the efficiency of assimilation of the latter, and the formation and expansion of the repertoire of roles of future professional activity leads to gaining freedom of a social role professional, the establishment of a stable professional position of a psychologist. In addition, the analysis, design, discussion and playback of real professional statements in various situations of interaction with the client provide an opportunity to learn how to construct psychotherapeutically correct statements. Individual real situations can be identified by the teacher and used as visual models for teaching students situational and analytical skills. (Lorenzo & Trujillo, 2018)

At the same time, the methodology of the introduced workshop on the speech training of future practical psychologists in the process of training at a higher educational institution was based on the understanding of the speech process model as a multi-level hierarchical system, which is embodied in three levels: the level of relatively elementary internal operations, armbands related using lexical elements in speech; level of operation with logical-grammatical, syntactic conceptual structures, verbal cliches; level of communication processes that provide communication. The last level contains a personal, pragmatic, situational - the most difficult in its organization. So, we consider it possible to understand speech as a dynamic, informative, and subjectively conditioned process of meaningful form in verbal communication (Voudouris & Mrowinski, 2010).

6. The homework is to continue introspection and record the results of self-observation of one's own manifestations of speech competence and speech culture. The workshop "Updating the speech competence of a psychologist", which is a component of professional training, allows you to solve the following problems:

- contribute to the actualization and awareness of students of their own speech potential;

- provide deepening and systematization of knowledge, concepts on the basis of the speech competence of a psychologist and the disclosure of their content;

- to develop the verbose creativity of future psychologists, which enables the practical psychologist to produce original and unique speech texts that correspond to the creative solution of professional tasks;

- contribute to the development of professional formation of the student's personality and the acquisition of professionally important speech qualities and effective possession of verbal means in accordance with the requirements of the profession;

- contribute to the formation of a professional position and professional reflection of the future psychologist;

- to form a professional way of seeing a problem situation and adequately solving it, as well as contribute to the formation of professional identification and expansion of consciousness. The success of the speech training of future practical psychologists depends, in our opinion, on the implementation of the conceptual unity of content, forms, teaching methods. The speech training of the future psychologist should create the conditions for a combination of both scientific and practical knowledge. This finds its explanation in the specificity of the psychologist's professional activity, since he is dealing with a real human problem, and not with an idealized object.

The content of speech training is aimed at fixing, on the one hand, the psychological content of future professional activity (that is, the subject, means, methods, product and result specific to speech activity) and needs as a prerequisite for any activity. On the other hand, it involves an analysis of the procedural side (phase) and the external structure.

3. Conclusions

The formation of the communicative culture of future psychologists in the context of post-pandemic reality should include their familiarization with cognitive psychology, since any interpersonal interaction can not do without situations when communicative-cognitive skills should be at a high level. Due to the ability to communicate constructively and make the right decisions in a conflict, the willingness of a future specialist to professional activity is optimized.

The use of innovative technologies to form a new paradigm of post-pandemic education in the context of improving the speech competence of future psychologists and their introduction into the educational process as a

seminar developed over many years confirms their scale and professional orientation of cognitive psychology and the accumulation of already great practical experience in this professional field in accordance the growing demands the work of a practical psychologist.

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