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Metacognition Didactic Communication in Higher Education

Abstract: Didactic communication is the communication of subjects about learning: its various components and processes. Didactic communication can only be studied as a multi-component, multilevel and multistage phenomenon, the features of which (modes, opportunities, limitations) are associated with the features of personal, interpersonal, and professional development of the subjects of interaction, manifested in the features of their understanding of themselves and the surrounding world, situations (tasks) of educational and professional activities. The main features of didactic communication are associated with its modes (orientation): learning, self-learning, and mutual learning. Didactic communication in various modes has different opportunities and limitations for the training and development of subjects of interaction, largely regardless of the subject area or specialization to which the student(s) belongs. As for the possibilities and limitations of various modes of didactic communication, in the reality of which all modes coexist in different proportions, depending on the level of personal, interpersonal, and professional development of a person, we can note the unproductiveness of learning and learning modes in working with subjects who have reached a high level of development in these areas. On the contrary, in didactic communication with children and beginners and specialists (students), these modes will be the basis for productive learning.

Keywords: dialogue, didactic communication, understanding, metacognitive procedures, modes of didactic communication, possibilities and limitations of didactic communication, personal development, interpersonal development, professional development.

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Introduction

Didactic communication is the communication of subjects about learning: its various components and processes. The communicative approach to various types of social activity is becoming more widespread in modern research, it is not surprising that didactics is also included in this epistemological paradigm. Didactic communication serves to solve educational and cognitive problems and is also a means of communication between people, the exchange of ideas, and experiences between the teacher and students in the course of joint activities. It helps to overcome difficulties and barriers in the process of educational and cognitive activity including establishing contact with students, involving students in the learning process, and partnership in the process of extracting, transferring, and processing educational

information (Andrews, Auerbach, & Grant, 2019; Dunlosky et al, 2013; Hartwig & Dunlosky, 2012; Li, Yuan, 2022; Schraw, & Moshman, 1995; Stanton, Sebasta, and Dunlosky, 2021; Arpentieva et al., 2022).

The beginning of modern research on didactic communication, in addition to psychological research, is associated with the work of philologists, historians, culturologists, and other specialists. V.I. Tyupa and Yu.V. Troitskiy introduce the concept of "communicative didactics" (Tyupa, 1996, 2009, Troitskiy, 2010); L.I. Gurye speaks about didactic communication (Gurye, 2004). A powerful source of this approach in Russian psychology is the study of communication as an exchange of information within the framework of theories of cognition, persuasive communication, and, more recently, psycholinguistic studies (discourse), in which the linguistic, cognitive, and interactive aspects of didactic communication receive the most convex, detailed understanding.

Scientific research reveals many aspects of didactic communication as an interaction aimed at the formation and development of students' cognitive activity, including in the context of their interpersonal, interpersonal development, for example, the work of A.A. Bodalev and G.A. Kovalev, I.A. Zyazyun, K.M. Levitan, A.A. Leontiev, A.V. Petrovskiy, M. Stefanova, others. However, methodological issues concerning the role, place, and essence of didactic communication in educational and cognitive activity and educational and professional activities of different groups of students (students) are still relatively little developed. The statement of various approaches to the organization of learning, including for children and adults (which is fixed, for example, in the concepts of "pedagogy" and "andragogy") is combined with the need for a systematic, integrative description of didactic communication as a leading component of the learning process (Arpentieva (Minigalieva), 2014; Arpentieva et al., 2019; Arpentieva (Minigalieva), 2017; Arpentieva, 2018; Kassymova et al., 2019; Korchagina & Arpentieva, 2017; Minigalieva & Minigalieva, 1999; Sanguineti, 2007; Kassymova et al., 2021; Fang Yuqi et al., 2022).

In recent years, there has been a growing tendency to pay attention to activity as the main quality of the personality, as its integrative manifestation, which provides the desire and ability to expand the scope of knowledge, to transfer the acquired methods of cognition from one subject to another. The activity of the individual in the system of cognitive and interpersonal relations was noted by many domestic and foreign scientists (A.G. Asmolov, A.A. Bodalev, L.P. Bueva, B.C. Bibler, K.V. Gavrilin, P.Ya. Galperin, V. V. Davydov, N. G. Dairi, A. B. Dobrovich, I. S. Ilyasov, M. S. Zimina, M. S. Kagan, V. A. Kan-Kalik, A. N. Leontiev, B. F. Lomov, A. V. Mudrik, S. L. Rubinshtein, C. Rogers). In many works of modern researchers, the role of communication between a teacher and a student, a student, transmission by a teacher to a student in the learning process of value relations and "orienting foundations" (fragments) of educational and professional activities are shown. In modern domestic pedagogy and psychology, the beginnings of the communicative approach are contained in the works of G.P. Shchedrovitskiy (Shchedrovitskiy, 1993, others), in the school of dialogue of cultures of V.S. Bibler and S. Yu. Kurganov (1999, others) and many other theorists and practitioners of education and pedagogical psychology. Orientation to the student as a subject of educational and professional activity, focusing on creating opportunities and overcoming the limitations of self-realization of the individual in (education) implies attention to such aspects of the cognitive activity of the subject as the discovery of oneself in the cognitive process and the discovery of the cognitive process in oneself: the study and transformation of metacognitive structures. Didactic communication acts as a system of pedagogical conditions for the success and development of cognitive activity (Nine, 1995, etc.). Cognitive activity of students, its formation, functioning, and development are more successful if:

a) educational and cognitive and educational and professional activities of students are organized as dialogical;

b) didactic communication is aimed at mastering and developing students' understanding of themselves and other people;

c) cognitive activity by means of didactic communication is included in the context of the leading (playing, educational-cognitive, educational-professional, professional) activity for the student, contributing to the fulfillment of the tasks of this activity in the development of a person, his / her relationship with himself, people, the world as a whole.

It is important to note that the deployment of didactic communication in the classical teaching model is associated with numerous contextual semantic repetitions: the teacher seeks to make his knowledge recognizable to the addressee, therefore the student's activity is largely non-interpretive: the text "presented" to the student is organized by the teacher to implement the intention "information

communication" and meets the principle of accessibility, the rhetorical requirements of informative and impactful speech:

- in a consistent way includes the "new" in the well-known facts ("background" knowledge) and every day (subjective) experience of students, coordinates information of different levels, different completeness and depth;
- specifies (using comparisons, assimilations, and examples), providing an opportunity to use knowledge in everyday life;
- creates the effect of ordered development (experiencing a logical and chronological sequence, a gradual transition from one component of didactic communication to another, the use of guiding questions, etc. (Soper, 1999, pp. 200-236).

These features, although to a lesser extent, in a transformed form, are also characteristic of other modes of didactic communication, so there is its stylistic uniformity, the stereotypy of the communicative behavior of subjects within the framework of institutional discourse, the correlation of communication situations with a typical "context model" that defines a typical image of the addressee - speech (discursive) role, the behavior in which is regulated by the mutual expectations of the teacher and students and social prescriptions (Oleshkov, 2006, Dijk, 1989). Where we are talking about repetitive, more or less ordered (stereotypical) structures, the question of metacognition arises: the emergence of metacognitive structures that regulate the processes of cognition and control of cognition, and, in the case of their purposeful research and training, which can significantly optimize the processes (self)learning.

The contribution of domestic pedagogical psychology to the study of didactic communication is associated both with studies of pedagogical communication and with studies of ways to organize the cognitive activity of students. In a general sense, the problem of didactic communication within the framework of various concepts and concepts was studied by almost all the leading psychologists in Russia. One of the most popular focuses of these studies has been ideas about the types of learning and learning activities, approaches to learning, practices of the self, and mutual learning.

In the context of the theory of persuasive communication and rhetoric, in addition to pedagogical and cognitive psychology, social psychology contributed to the development of ideas about communication (L.A. Petrovskaya, A.Yu. Panasyuk, M.Yu. Zhukov, and others). Their work is also largely related to the study of speech impact, the conditions for its effectiveness: competence in communication and, in fact, communication, the study of semantic and other communication barriers, feedback and cycles (repetition) in communication, and the conditions for understanding and mutual understanding of people.

Modern researchers note that in educational and cognitive activity the concept of "communication" includes not only the quantity and quality of knowledge transferred but also the quality of relationships that encourage or hinder further communication. The task of researching and developing communicative skills (competence) is relevant to a greater extent for teachers dealing with the transfer of didactic information, and also - at the stage of achieving professionalism - for specialists from other groups in the process of more or less institutionalized exchange of experience, mutual learning and self-learning, advanced training.

Currently, there are numerous approaches to education that differ significantly from each other in their ideas about the essence of didactic communication and its implemented models. The closest internal conjugation of the educational approach with the model of didactic communication embedded in it is indisputable. The understanding of what education is directly reflected in the model of didactic communication that practitioners implement.

The study of didactic communication in line with the problems of the professional image of oneself and the world, understanding oneself and the world, in our opinion, is one of the most productive aspects of considering this phenomenon. As one of the leading researchers of communication in our country, L.A. Petrovskaya (Petrovskaya, 1989), competence in communication, which determines the success of communication, and hence learning, is determined by how much a person knows and understands himself, his partner, and the situation of interaction (the world). Within the framework of this presentation, the goal, objectives, object, and subject of our study were formulated.

The purpose of the ongoing research is to develop an integrative model of didactic communication as a system of components that allows didactic communication to be carried out as a process of translation and comprehension (understanding) by the subjects of the interaction of knowledge, skills, values and related psychotechnologies and metaknowledge, professional activities.

Research Methodology

The object of the study is the structure and content of didactic communication in various age and educational and professional groups.

Subject of study: modes, possibilities, and limitations of didactic communication in various age and educational and professional groups.

The main hypotheses of the study are related to the assumptions that didactic communication can only be studied as a multi-component, multilevel and multistage phenomenon, the features of which (modes, opportunities, limitations) are associated with the features of personal, interpersonal, and professional development of the subjects of interaction, manifested in the features of their understanding of themselves and the surrounding world, situations (tasks) of educational and professional activities.

The main features of didactic communication are associated with its modes (orientation): learning, learning, self-learning, and mutual learning. Didactic communication in various modes has different opportunities and limitations for the training and development of subjects of interaction, largely regardless of the subject area or specialization to which the student(s) belongs.

a. Didactic communication in various modes is aimed at the formation and development of professionalism, personality, and its relationship with the world. In different modes of didactic communication, the processes of translation, retransmission, and transformation of knowledge, skills, values, psychotechnologies, and metaknowledge of various subject areas (components of professional activity) are expressed in varying degrees and forms. The most productive modes of learning can be considered to be those aimed at the formation of the value-semantic and metacognitive aspects of the studied reality.

b. Didactic communication in various modes is aimed at the formation and development of various types of learning. In various modes of didactic communication, the processes of translation, retransmission, and transformation of the ability to learn (knowledge, skills, values, psychotechnologies, and metaknowledge) are expressed in varying degrees and forms, developing and enriching in content and structure as the transition from passive learning to mutual learning in dialogue. Mutual learning is the practice of transferring meta-knowledge and value-semantic aspects of professional activity, classical traditional learning, which is directed to the transmission of knowledge in itself, is productive to the extent that it is also directed to the transfer, along with the actual "knowledge", value and metacognitive aspects of educational and professional activities.

Research Results and Discussions

Thus, the development of didactic communication as part of the personal and interpersonal development of the subjects of communication, development is associated primarily with the development of values and metacognitive abilities of the subjects of communication. This is reflected in the development of a person's understanding of himself and the world around him: a change in the types of understanding of himself, his interlocutor, situations of educational and professional activity, and world outlook in general.

As a person develops as a professional and a subject of interpersonal relations, integration, expansion, and deepening are observed, as well as an increase in flexibility in the ways of learning and self-learning, the development of understanding in the direction of dialogization of the type of understanding, the inclusion of components of different modes of communication in dialogue with a significant other. This dialogue outgrows the framework of educational and professional interaction, becoming - as shown, in particular, by studies of supervision and self-supervision, as well as the psychotherapy-oriented model of educational interaction converging with them in general - a dialogue of life worlds.

The empirical part of the study was and is being carried out on the basis of universities in Moscow and Kaluga: Kaluga and Moscow State Universities, at the Russian State Social University and Moscow State Pedagogical University, from the late 90s of the twentieth century to the present, including under the guidance and with the participation professors E.I. Gorbacheva, V.A. Goryanina (Rakhmatshaeva), L.A. Petrovskaya, A.E. Steinmetz, whose ideas and technologies for optimizing didactic communication served as the basis for theoretical research and the construction of empirical research at different stages of their implementation: the idea of understanding didactic communication by E.I. Gorbacheva, the idea of spiritually oriented didactic communication by V.A. Goryanina, the idea of a psychotherapeutically oriented

model of pedagogical communication by L.A. Petrovskaya, the idea of educational and professional tasks as the basis for effective didactic communication by A.E. Steinmetz.

1) The study is carried out by us in the context of studying the processes of becoming professionals of the human-human system, professionalizing their understanding of themselves and the world: starting with students in the humanities, including pedagogical classes and colleges, ending with professionals and supervisor teachers in the field of pedagogical, psychological and social activities.

2) In the process of studying didactic communication in the practice of teaching (vocational training and retraining) as well as supervisory support of psychosocial and pedagogical staff, special attention was paid to the development of such an aspect as understanding. In the developed model of didactic communication, understanding acts as the leading focus and task of both sides of the learning (learning) processes: to understand means to comprehend, to combine into a single whole, to correlate, while in understanding the subject (knowledge of the world), the method of transmission (technology) and value are connected. attitude (to knowledge and the world). Information about their relationship forms a significant layer of meta-knowledge (metacognitive structures), the main place in which, in contrast to "knowledge in itself", is played by the value-semantic attitude of a person to the world and its individual phenomena. Thus, understanding in didactic communication and didactic communication itself, in addition to the transmission of knowledge per se, is associated with the activity of metacognitive structures.

3) Thus, didactic communication is a multi-component, multi-level and multi-stage phenomenon, the features of which (modes, opportunities, limitations) are associated with the features of the personal, interpersonal and professional development of the subjects of interaction, manifested in the features of their understanding of themselves and the world around them, situations (tasks) of educational and professional activity;

4) The main features of didactic communication are associated with its modes (orientation): learning, learning, self-learning, and mutual learning. Didactic communication in different modes has different possibilities and limitations for the training and development of subjects of interaction.

a. Didactic communication in various modes is aimed at the formation and development of professionalism, personality, and its relationship with the world. In different modes of didactic communication, the processes of translation, retransmission, and transformation of knowledge, skills, values, psychotechnologies, and metaknowledge of various subject areas (components of professional activity) are expressed in varying degrees and forms;

b. Didactic communication in various modes is aimed at the formation and development of various types of learning. In various modes of didactic communication, the processes of translation, retransmission, and transformation of the ability to learn (knowledge, skills, values, psychotechnologies, and metaknowledge) are expressed in varying degrees and forms.

5) The development of didactic communication is associated primarily with the development of values and metacognitive abilities of the subjects of communication. This is reflected in the development of a person's understanding of himself and the world around him: a change in the way ("type" or "level") of understanding himself, his interlocutor, situations of educational and professional activity, and worldview in general.

a) Locutionary (subject-content related to a specific area of professional knowledge and skills),

b) illocutionary (tele-oriented, associated with the value aspect of interaction) and

c) perlocutionary (mutable, closely related to the psychotechnological aspect of interaction)

aspects of the didactic message make it possible to understand the transmitted knowledge in one way or another. At the same time, in understanding, the messages of the teacher (or tutor, fellow student) are correlated with similar substructures of their own communicative message (messages) (preceding and subsequent): not only knowledge is correlated, but also ways of understanding them, metacognitive structures.

As the conscious and unconscious accumulation of knowledge and skills, psychotechnologies and values, maturation and professional development of a person, there is a natural change in the modes of didactic communication and the corresponding types of training:

1) Educational didactic communication assumes that the learning of children and young people involves a movement from the teacher to the learner: to varying degrees, the conscious appropriation of knowledge and skills transmitted by the teacher (teacher) that are understood with greater or lesser completeness and depth, more or less unconscious appropriation of psychotechnologies and values of

activity associated with the subject-specific (but not yet professionally specific) knowledge and skills that are being sown. Typically, unconscious appropriation of the components of learning activity (the ability to learn): knowledge and skills about learning activities, values, and psycho-technologies (characterized by relative passivity) of learning.

Within the framework of this modus of didactic communication, the world surrounding a person, and its various components, are understood to a greater or lesser extent. This is the pre-professional stage of formation, at which the "becoming of the student" takes place: in parallel with the development of knowledge about the world and the ability to act in it, the ability to learn is formed: to change behavior in the learning process. Understanding has an objective, reproductive-stating character (stating explanations or, in terms of humanistic psychology, "objective knowing").

2) Educational didactic communication assumes that the training of adults and professionals is aimed not only at the assignment of knowledge and skills, but at changing the behavior of the student on their basis, the implementation of (quasi)professional activities: at this level, a conscious transmission of knowledge and skills, acting as a support for the organization and implementation (change) of activities, there is a more or less conscious transmission and retransmission of values, psychotechnologies and meta-knowledge of (quasi)professional activities that ensure the implementation of activities (real actions, transformations of the subject's behavior). Typically, unconscious development of the components of educational, educational, and professional activities (having a relative activity of learning).

Within the framework of this mode of didactic communication, self-understanding is carried out through the understanding of educational, professional, and professional activities, the requirements of which allow one to compare oneself with it, determining the measure of compliance with the requirements, "objective success". This is the initial level of the development of professionalism, at which the person is faced with the task of changing in accordance with the requirements of the activity, the ability to learn develops, that is, to change the activity and oneself in the learning process. Understanding (type of understanding) has the character of largely subjective, personified explanations and interpretations (subjective knowing), and an empathic-experiential mode of understanding in learning is formed (in humanistic psychology, denoted by the term interpersonal knowledge, "interpersonal knowing").

3) Didactic communication in the process of self-learning involves a qualitative transformation of learning activities: more or less conscious, detailed, and deep understanding and transformation of the components of educational and professional activities, learning to learn, i.e. changing the educational, professional activities and life of a person teaching himself on the basis of values, psychotechnologies and metaknowledge, knowledge and skills of educational, professional and professional activities mastered and transformed by him in the process of mastering.

In the context of the third mode of didactic communication, realized and selective assimilation of values, psychotechnologies, and meta-knowledge of (quasi)professional activity is carried out to a different extent, ensuring the implementation and qualitative development of activity (transformation of the activity and life of the subject). Changing these "supports" of the organization and implementation (changes) of activities is also associated with further selective search and development of professional knowledge and skills. Typically, conscious development and research of the components of educational and professional activity (having a pronounced learning activity). A more or less conscious, detailed (multi-component), and deep reintegration of the personality of the self-taught person, of the system of activities and related relationships that were formed in the course of his personal development and professional development, is carried out.

A person begins to understand himself as inseparable and changing integrity, each component and process of which has significance (for himself/herself and the world). Achieving self-understanding is a condition for deeper and more extensive communication with the world. The ability to learn acquires the status of the ability to change - to change external and internal activities. It is described by researchers as an important first step in becoming a person: "becoming a person", "becoming a professional", including, in terms of existential-humanistic psychology, or "self-efficacy" (self-efficacy), as described in the behavioral tradition). At the "professional" level, a person freely chooses the direction of his development and proceeds to a creative rethinking of professional activity. The type of understanding characteristic of this level is interpretation, more rarely, the dialogization of the experience of experiences (in humanistic psychology, this is denoted by the terms "field of experience", emergent, emerging in co-existence, and transpersonal cognition).

4) Dialogical didactic communication involves mutual, to varying degrees, conscious or unconscious training by people of each other to change activity and life activity in the process of transforming the meanings of these activities and life activity through the exchange of values, psychotechnologies, and metaknowledge, as well as knowledge and skills of interaction, which are more experienced as changing and according to in relation to activity, and in relation to the reality behind it (the world).

Transformation and awareness of the transformation (in the process of mutual learning interaction) of values, psychotechnologies, and metaknowledge, knowledge, and skills of educational, professional, and professional activities, leads to a more or less detailed and deep transformation of the life of subjects. Learning, as well as the life changes associated with it, act as a leading aspect of the development of life, and subjects in general. Thus, mutual learning changes those who teach each other as individuals, changing their lives through the development of awareness (change) of themselves and the world. A person begins to understand himself and the world in an inseparable unity: as inseparable and changing integrity, each component and process of internal and external life has equal significance - for a person and the world. This state of "flow" is described as a state of "(self)efficiency" - in the behavioral tradition and as states of "full functioning" and self-actualization, "becoming oneself, partner, professional", "co-being" or "meeting" in existential-humanistic psychology. On the one hand, a state, that happens, arises (emergent), but is not guaranteed in each specific situation of interaction. On the other hand, as inevitable, although often not realized, a component of any communication (or, more precisely, the essence of communication). The ability to learn becomes the ability to be in a transformative dialogue with the world.

At this level, in the dialogue of subjects given to each other as interlocutors, in their integrity, similarity, and difference ("alienness"), a largely conscious, detailed, and deep transformation of values, psychotechnologies, and metaknowledge of educational and professional, and professional activities are carried out. This transformation is bilateral, although not completely symmetrical. It determines the inevitable qualitative constant transformations and transformations of the activity and life of the subject. Knowledge and skills, values and meta-knowledge, psycho-technologies of activity - newly acquired and acquired in the previous life, go through a more or less unfolded in time, generalized and deep process of transformation, rethinking. At this level, the super-professional, a person changes the activity, creates its new forms (and the components that provide the activity), and abandons the old ones.

Mutual learning involves the transformation of people's relationships, a multi-stage, multi-component, and deep process of change, and reintegration of people's relationships. The type of understanding is dialogization (empathic understanding).

A separate type of didactic communication is didactic analysis or supervision. In general, it can usually be carried out within the framework of a model of learning, self-learning, and mutual learning. Sometimes - in the form of separate components - it includes a learning model: with the introduction of information that is sufficiently new for the subject, with respect to which presentations (concepts and conceptual structures, ways of processing them) have not been formed. However, it is in the supervisory model that the weight of the metacognitive aspects of learning is most significant.

The transformation of the didactic system thus includes:

1) transformation of components and the didactic system as a whole (change in the type of (re)presentation) of knowledge and skills, psychotechnologies and meta-knowledge, change in the values of the didactic system)

2) transformation of the ability to learn (transition to a new level of learning, transformation of values and psychotechnologies of learning);

3) transformation of professional activity, change in values, psychotechnologies of activity, selectivity of search and acquisition of knowledge and skills;

4) transformation of the personality and its relations with the world, the didactic system as a whole (values, psychotechnologies of learning activity; knowledge and metaknowledge) (Table No. 1).

As for metacognitive (metacognitive) structures, it is important to emphasize that metacognitive structures in a person's life are formed and reformed throughout his life. Metacognitive structures by their nature reflect predominantly procedural knowledge concerning the rules for processing information in various educational and professional situations. These, first of all, include knowledge about logical and quasi-logical abductive transformations, and knowledge about cognitive processes as such. Therefore, metacognitive structures most often appear as metacognitive processes. The phenomenology of metacognitive processes (structures) affects a variety of spheres of life, most clearly manifested in

interpersonal communication and learning: both here and there, the most important task is understanding, as well as a reconciliation of understandings, the task of correlating sometimes fundamentally different ways of understanding reality and its fragments. It is in this correlation, reconciliation, that, in our opinion, lies the essence of metacognitive procedures, whether they are called reflection or self-reflection, the ability to learn or learning of the second (third or even fourth) type, self-regulating or developmental learning, whether they arise as "non-guaranteed", the emergent result of a deep intimate-personal contact or are set by a learning task with a clearly formulated, complete "orienting basis of activity".

In all these cases, the task of understanding facing the subject activates, in addition to the procedures for studying the actual content of concepts and images, the procedures for comparing 1) their structural relationships within frames and behavioral patterns associated with the concept or image, 2) procedures for the formation and transformation of meaningful and structural knowledge, contained in a given image or concept. Thus, metacognitive processes, relatively speaking, can be of two types: reflecting the tasks of understanding in relation to the structural relationships (outside and inside) of concepts, and reflecting the procedural aspects of the existence and changes in the content and structure of concepts. Conventionality is revealed at the stage of comparison: the subject learns that the content, structural connections, and processes of obtaining knowledge about the object are closely related. An example is interpersonal communication, in which understanding oneself, another person, and the situation of interaction with him are a single complex, the transformation of one of the components of which automatically leads to the transformation of the rest.

Metacognitive processes give a person an idea of the deep interconnections of the phenomena of the world, those concepts, and images that he has formed in a particular situation. Contextually, emergence (a character arising in a situation of cognition or communication), and relativity of understanding demonstrate to the subject the plurality of worlds of his life, and its fluidity. The lifeworld is, in fact, not a guaranteed and fixed objectively given, not an arbitrarily declared subjective, not related either to others or to the situation, but taken on faith and arising as a result of coordination with specific subjects and in a specific situation, an intersubjective representation. In that representation, images and concepts are correlated in such a way as to provide a person with an understanding of the tasks of his activity, including learning and communication.

Qualitative changes in activity associated with changes in a person's attitude to himself and other people, a change in the situation of interaction, suggest the activation of metacognitive processes. The underdevelopment of metacognitive processes leads to disorientation and misunderstanding, refusal to act or interact with people or the world, and in some cases - a violation of a person's relationship with himself: the inability to correlate differences in structures and formation procedures and the transformation of the content and structures of concepts and images, puts a person in a situation more or less pronounced disorientation. In this case, a collapse occurs associated with 1) the need to master a new way of learning, that is, to realize the existence and master metacognitive procedures, and 2) the need to correct the metacognitive illusions and errors of cognitive activity discovered at this moment: from cognitive rigidity to overestimation of one's cognitive abilities.

Uncertainty as the reverse side of cognitive optimism and overconfidence accompanies the awareness of the multiplicity and variability of life worlds: the worlds of life of oneself and other people. Awareness of the multiplicity and variability of life worlds puts a person in the position of a researcher, actualizes creative understanding and transformation of worlds, and leads to the formation of a new, freer, and more responsible, respectful attitude towards oneself, people, and one's life as a whole. On the contrary, the idea of a stably existing world with fixed meanings of concepts, cognitive simplicity, and overconfidence in the existence of the only correct way to comprehend the world, is associated with closeness, lack of freedom, and disrespect for oneself and the world around. A rigid consciousness limits both its own and someone else's world, trying to impose the learned meanings on the world, to deprive the world, for the sake of maintaining the illusion of control over it, mobility and fluidity (Arpentieva (Minigalieva), 2015; Arpentieva, 2017; Arpentieva et al, 2019; Bochkareva, 2018).

Understanding as a task for meaning, its formation, and transformation, is addressed, first of all, to metacognitive processes:

1) understanding-objectivization: accepts the world, and its facts as an "objective" reality that does not require reflection, actually refuse to understand, mystifying "objective knowledge" as a thing in itself;

2) understanding-explanation tries to reduce the world to already understood and understandable images and concepts, without going into the structural and procedural aspects of the formation of knowledge about the world,

3) understanding-interpretation is aimed at comprehending the structural aspects of knowledge, refocusing the situation, studying and correcting mistakes in one's own and others' (re)presentations,

4) understanding-dialogization is associated with an open dialogue with oneself and the world about the procedures used for understanding reality, their quality, comparing the process and the result, and understanding the multitude of possible ways and the results (presentations) associated with them.

Conclusions

Thus, understanding itself does not arise immediately: for a subject with undeveloped metacognitive procedures, it is rather an imitation of understanding that is characteristic. Learning and communication are built on the basis of the reproduction of existing images and concepts, a characteristic "pseudo-exchange" is manifested in the phenomena of "memorization" of educational material and the appropriation of sometimes disparate ideas about those phenomena of reality that the subject encounters for the first time, but will have to meet further. In both cases, we are talking about the forced nature of the appropriation of new knowledge.

For a subject turned to the analysis of the structural relationships of his own and other people's representations, the leading mode of cognition and communication is interest: the search for a new one and a value attitude towards it. The creative perception of reality as a field of one's own and other people's life activity is manifested in the desire to comprehend the educational material in its interconnections, in context, to form one's own, original idea of oneself and the world around. The idea of self-development in this case is leading, in the case of communication - it manifests itself as the idea of interchange and mutual development.

For a subject living in a world of changing processes, and developing strategies for understanding the world, the world appears as a game, the rules of which can change along the way. Education is not only and predominantly creative: the routine, indefinite, and impossible enters a person's life as existing givens, and the structures of representations contain, in addition to fixed contents and connections, the possibilities of new ones that provide more or less prompt transformation of the representation (content) or its meaning (structure of connections) generally. In this case, a person conducts a dialogue with the world, in the dialogue as a game both successes and failures are possible, mistakes and dead-end paths are considered as phenomena of experience, equivalent to correct decisions and successful paths.

As for the possibilities and limitations of various modes of didactic communication, in the reality of which all modes coexist in different proportions, depending on the level of personal, interpersonal, and professional development of a person, we can note the unproductiveness of learning and learning modes in working with subjects who have reached a high level of development in these areas. On the contrary, in didactic communication with children and beginners and specialists (students), these modes will be the basis for productive learning.

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