

## The Concept of Personological Information-Educational System of Forming Professional Effectiveness of a Specialist

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### ABSTRACT

Professional self-effectiveness - is a key quality of a modern specialist together with cultural, general professional and professional competences, which are realized in his further activity. But in normative documents regulating preparation of a specialist, this quality is not present. The aim of the article is in working out a conception of personological information-educational system of teaching specialists. The major approach to the investigation of this problem became: instrumental-active, competitive and subadjecive approaches which enable us to project a teaching computer program, as well as formulate a conception of personological information-educational system, directed at formulating a professional self-effective specialist when tutoring specialists. The concept of the article may be useful for practical use for specialists and heads of educational-business centers for forming professional self-effectiveness when educating young specialists; for refresher courses and re-training courses; specialists who are interested in increasing personal self-effectiveness.

### KEYWORDS

Personological information-educational system, personization, personification, personalization, professional self-effectiveness of a specialist

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## Introduction

Under the conditions of Russian reality more and more attention is paid the problem of self-effectiveness of human activity, as the society demands highly-effective people, able to estimate correctly not only their own potential and possibilities, but also the results of their professional activity which are realized in their addressing to the interior resources, possibilities of choosing ways of acting

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and building certain strategic activity. The labour market requires professionals who differ from usual specialists by their characteristics as objects of professional activity, who preserve their subjectiveness under multiple changing conditions and able to self-actualization, self-development and self-effectiveness (Gabitova & Vahidova, 2016).

The analysis of Russian and foreign specialists showed that, the conception of self-effectiveness cannot be considered being worked out to full degree. Both Russian and foreign authors pay attention to the so-called self-effectiveness which is divided on: self-effectiveness in one's activity and self-effectiveness in communication. Analyzing the questions of effective tuition of specialists, we think it important to introduce the notion of professional-personological self-effectiveness.

A. Bandura (2000), the American psychologist, the author of the self-effectiveness conception claims that a human being needs self-effectiveness as the optimistic notion of his own success for being successful in his activity. A. Bandura (2000) defines self-effectiveness as "human conviction in his ability to rule events, which influence his life". We define professional-personological effectiveness as a concept and technology of developing self-effectiveness on the levels of "probationer", "craftsman", "expert", which are realized in micro-, macro-, mega- environment and corresponding transformation of its characteristics (invariant part, logical-semantic modeling, visual micro-, macro- navigation) with types of interaction (autodialogue, natural polylogue, translational polylogue) with corresponding levels of control and reflexes of the given interaction (figure 1) (Vahidova, 2014).

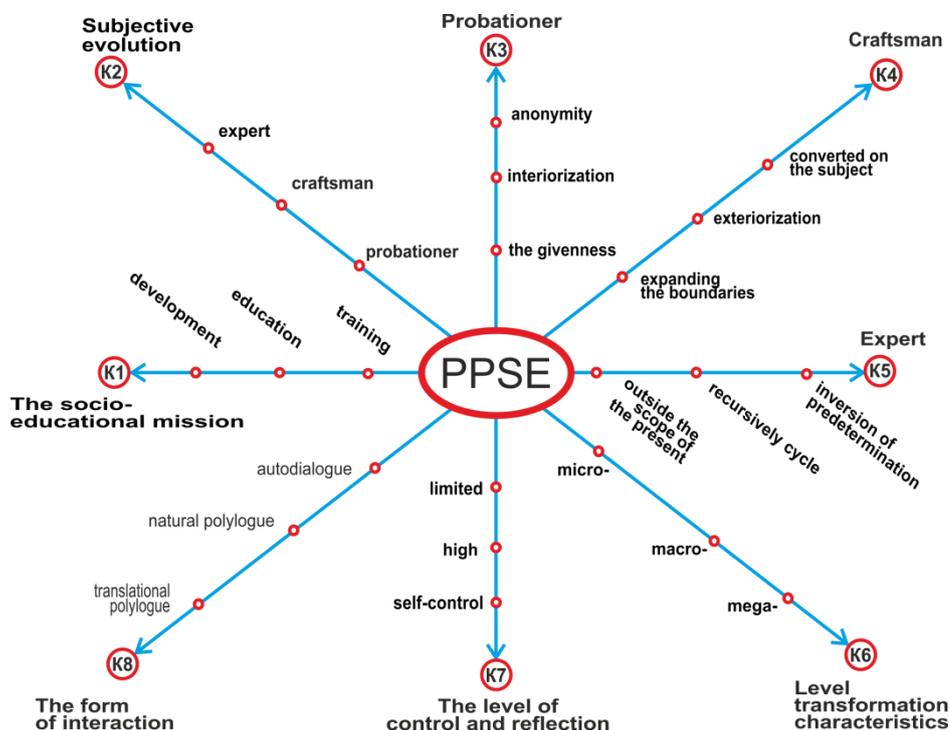


Figure 1. The portrait of professional-personological self-effectiveness.

The problem of professional-personological self-effectiveness is opened, in organizing context, at a new angle of vision of interaction in the system of tutoring specialists and forming professional qualities, demanded by the labour market (Gabitova, Vahidova & Steinberg, 2015). Our investigation is devoted to working out psychological information-educational system, in which accents are shifted not on providing the system itself, but on the learner, his trajectory of self-effectiveness. Many investigations deal with educational environment, information-educational, etc (Starodubtsev, 2012), we investigated the system of tuition of specialists, as the environment serves as a component of this system, and form a train with information and process.

The concrete task within the problem, to which our investigation is directed, is in working out and approbation or a new model of professional teaching. The essence of the phenomenon of personological information-educational system (further PIES) is in the necessity to create a certain educational logics of educating specialists, meeting the requirements of the modern society. The social commission is in our case an integrator, including the employee, higher authorities, the learner himself, consequently, the key element will be forming traditions, pedagogical and organizational conditions in the logics of the personological system (Shteinberg, Vahidova & Davletov, 2014).

In the conceptual space of Western model of personology the modus "persona" points out on physiognomic features, externally determined psychological qualities, types and ways of human behavior, their prevalence in society, their specifics, similarity and identical features of a personality compared with other people.

"A personality - is a concrete unity of characteristics and aspirations, which stipulate those common and individual peculiarities of behavior, which are stable in time and can be explained. Through analysis of biological and social factors, which influence the situation of human functioning" (Muddy, 2002).

Personology is focused on its subject-personality – in its different gnoceological, ontological and cultural realization. Contrary to most sciences, concentrated on a definite object in its relative resistance to the object of cognition, it states the coincidence, unity of its object and subject, stressing their interaction, mutual influence, vital realization thanks to each other. (Petrovsky, 2010). The above statement presupposed, among others, the levels of information-educational systems, which will be mentioned later.

Thus personological information-educational system is a specially organized process of the subject transformation on the basis of his interaction with his tutor in the educational process with the help of informational technology.

Note should be made, that the given system is presented by a small environment, i.e. the subject is dealt as a "person" with his requirements, possibilities, interests, specific at realization of his activity (under the influence of external instrumental means in the share of the educational program), that is it realizes the subject with the help of instrumental means, that enables the learner to cover the way of personization, that is search of himself in the environment, through personification, further personifying-reflecting in the actions of other subjects while doing some actions; it means that he shows his professional and personal position at forming conditions by other subject of the environment (Steinberg, Vahidova & Davletov, 2013).

The personality of a subject is formed only in the environment, in which there are special conditions such as subject space, socio- and creative cultural, intellectual. The problem of projecting information-educational system builds up the idea of concrete-visual and theoretical cognition in educational activity. That is visual perception, visual cognition became a prior conception for us, which takes a proper place in modern pedagogical technologies.

We singled out three levels of personal development in the personological system – personization, personification, personalization. Here the system gives certain patterns of exterior view, model and stereotype of behavior. A person understands himself as a result of comparison and reflexes, he understands his abilities, possibilities and makes an individual choice in life.

Let us deal in detail on these levels, observing the concepts of leading scholars which became the basis of our work.

A.N. Leontiev (1975) thinks, that “A person is not an individual, it is a special quality, which is acquired by an individual in a society, as a unity of relationship, social in its nature, into which an individual is involved”. This quality defines the condition of forming and functioning of a personality. Besides it presents a concrete strategy, certain landmarks, which define the general logics of studying the development of a personality, and also singling out a new scheme of determining his development. The basic peculiarity of the given characterization of a person’s psychology is that it is an expression of polysystematic view of a personality.

Figure 2 gives the analysis of activity and conscience and brings inevitably to exacting the egocentric, traditional for empirical psychology, “ptolemeen” understanding of a human being in favour of understanding “copernican”, which analyzes the system of human relationship in society. It is necessary to stress, that being included into a system does not mean to dissolve in it, but, on the contrary, to acquire and realize the power of one’s own influence in it (Leontiev, 1975).

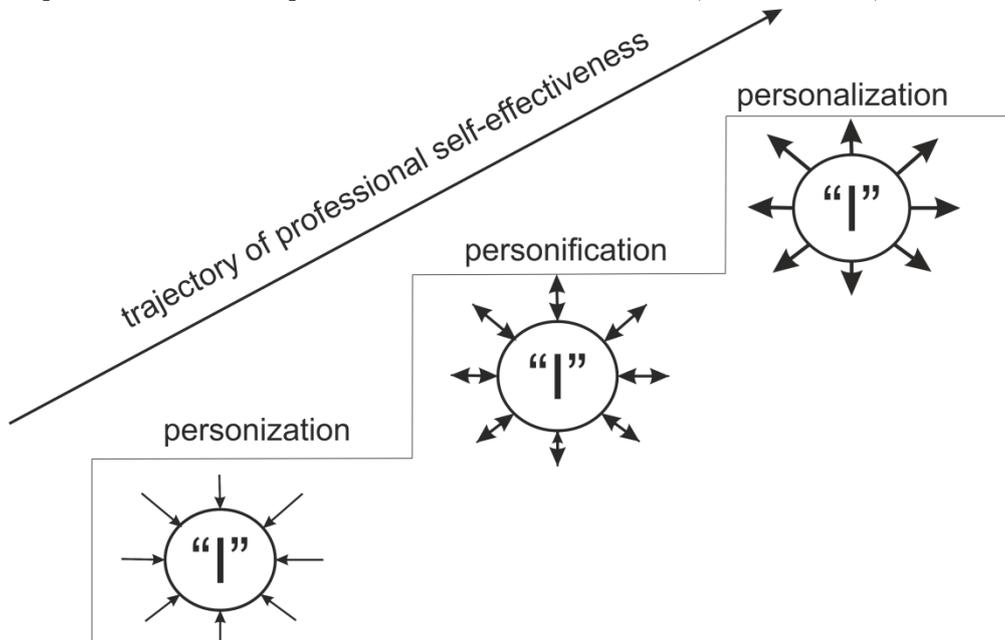


Figure 2. Relationships “I” on different levels of PIES

The external influence on a learner is realized on the personization level, the process of tuition is given from outside, as well as information an environmental conditions. The given level is characterized by prevalence of the given environment, information, process, activity of the learner, etc; the process of interiorization is realized. The second level – personification – has changes concerning perception of the information by the learner, as well as environment and process, his response and a certain transformation of the components, coming from the subject. Personalization, as the level of specialist's development differs, because the learner tries to break the frames, given on the initial level. At this level the subject of the educational process creates conditions himself from the position of personal and social, like at the initial level.

Thus, we singled out three levels of development of a personality and a professional, namely: personization, personification and personalization.

Let's explain these notions.

Personization is a level of educating specialists, when a specialist is shaped with given characteristics (educational conditions, forms and contents of education, taking minimal requirements of educating a specialist, requiring standard educational conditions (contents of education, presence of staff potential, material-technical providing of the educational process, etc), formation of professional-personological self-effectiveness, based on traditional forms of tuition, using active methods and forms of tuition, and modern information-communicational technology.

Personification – is a higher level of educating specialists, when the educational process directed on the subject (object) is intensified, when his requirements and interests, as well as possibilities are taken into a closer account. The organizing and technological regularities of the educational process are changed, as non-traditional forms of tuition are need and condition of realization of the educational process.

Personalization – is the high level of specialist's tuition, when the role of subjects of educational process change. The technology of tuition acquires alternative character, changing the organizational forms of tuition.

### **Methodological Framework**

The transition of the educational process subject from one (initial) condition to the following (brought closely to the given state pattern of modern and competent specialist, ready to professional activity in the frame of the given profile) is in intensification of interaction, thanks to autodialogue, triad of external and triad of internal plans. It is necessary to create pedagogical conditions that put into work mechanism necessary for transforming the subject; firstly – to organize the structure of activity in a special way; secondly – to set a task of modeling and projecting before the subject (at this level of tuition the higher forms of mental activity are activized, works of macro- and micro- navigation are done, thanks to which professional and personal competences are realized) (Shteinberg, 2015). The major means of realizing pedagogical conditions are mechanisms of personological information-educational system, are the logical-semantic models, cognitive visualization of knowledge (they tie the educational process subject with visual aids, which support the cognitive activity); activation of three mechanisms of reflection – sense-image, verbal-logical, and modeling. In this respect it is possible to speak about intensification of interactions of external and internal triad plans of educational cognitive.

The result of transformation of the learner is understood as transition from the initial position (that is able to fulfill the actions which can only be done by learners) to final (that is readiness to fulfill professional operations), when professional-personal definition and aim for further position are formed.

Having singled out all the key aspects of personological information-educational system, let us define the generalized characteristics of the key definition. Personological information-educational system is a specially organized process of transforming the subject by fulfilling some activity of a definite structure for improving the contents of the system according to the given indicators and with the help of informational technology, which realize macro- and micro navigation, interactive interaction and subagent approach.

The unity of principles of building of personological information-educational system includes:

- determining functions, structure and contents of the didactic multilevel technology system;
- sociocultural foundation technology – variable bases of contents building and stages of educational activity process- subject acquaintance, analitico-verbal and modeling-fixing;
- cognitive notion of knowledge in the system- creation of semantically connected system by structuring; tying and rolling of educational material elements;
- macro- and micro- navigation in educational material by organizing educational activity with the help of macronavigator, interface and didactic multiple instruments (micronavigation) ;
- logical-semantic of knowledge and skills by their multiple image notional representation.
- coordination of external and internal plans of educational cognitive activity with the help of multiple didactic instruments,
- didactic-instrumental autodiologue of the learner with the educational material, initiated thanks to multiple didactic instruments logical-semantic modules presented in the external plan of the educational activity;
- bi-level control of pupils' activity according to parameters “acquaintance” and “comprehension” working with text and graphic material;
- elements of personification of the system at authorizing, regular control, accumulation of educational results into a portfolio;
- elements of didactic design in the system , which are used at projecting the interface and educational material;
- subagent organization of the system, which is integrated with the structure, determining its didactic multiple technology.

In view of the above, we can define, in the first approach, the phenomenon of cognitive navigation as a process of visual unfolded cognitive self-movement of learners to results (Vahidova, 2013).

## Results

Integration processes in education embrace aims and contents, forms and methods, technology and educational means, and integration processes in education are especially intensive and varied. This specifics of the pedagogical science is especially notable on the level of notional apparatus and becomes objectively the reason of its ‘vagueness’ and ‘obscurity’, ‘indefiniteness’, ‘non-monosemantic’. Integration, in various forms of synthesis, of interdisciplinary investigations is meaningful both for the process of forming professional self-effectiveness of future teachers in the process of education and for further professional activity.

We defined the problem block of our investigation by three blocks, movement trajectory of our subject educational process by the following levels- personization,

personification and personalization. Personification has the level of a probationer with features defined by Federal State educational standard, i.e. as the society sees a graduate, and the educational minimum he should possess. Further on, the subject is changed according to the level of personification and further to personalization. All the patterns, stereotypes, clichés are tied according to external and internal requirements of the learner in his activity.

This process will always take place and be directed on professional-personological self-effectiveness. Each time the subject of activity will face tasks, create a certain environment, will affect the environment and its results.

Further on we defined the meanings of our investigation in three directions - social, educational and technological, the essence of which is the following- the phenomenon of personological information-educational system on the social level is defined by the commission of the society on a corresponding specialist, i. e. initially self-effective, and professional-personological self-effectiveness must be its result. We are to define its determinant on the educational level. On the technological level the following question must be answered: which instrument will form components of professional-personological self-effectiveness in the educational process.

Four tendencies determine professional-personological self-effectiveness in our case.

Today a specialist is estimated according to rigid scheme of formulated competence, if it is formed- he can work at an enterprise. But the problem is that besides his readiness to fulfill his professional activity, it is necessary to possess such a quality as to take decisions.

Modern specialist is limited by the federal state educational standard, existing enterprise conditions, rigidly fixed functional, where non-standard industrial situations the actions of a specialist and his possibilities are often not taken into account.

The rigid frames are widened when we speak about professional effectiveness of a specialist in personological information-educational system. For example, Federal State educational standard remains, but professional standard is added to it, which consider labour functions of a specialist, not always competences of Federal State educational standard correspond to labour skills from the professional standard.

The next level is determined when a specialist comes to the enterprise and faces the situation from the inter-firm standard. Here two things happen simultaneously: narrowing of professional standard understanding and increase of functions on the basic and adjacent field of professional activity.

Speaking about the second side- limitations of the enterprise- we can say the following. The first level- is the level of material technological provision and existing technology. They say that education must be ahead of it. But we train specialists not only ahead, but backwards. The second and third levels presuppose education in the system of personological information-educational system 20 years ahead.

The third side of limitations- functional duties. The first level- standard position functional. That is we know professionogram of the specialist, we know his algorithm of professional actions. This is what we train a specialist for, not always forming competence of his activity in non-standard situations. But our specialist comes to the enterprise and besides basic functions he is forced to fulfill actions and

get knowledge of adjacent fields. On the third level we have to deal with relative group of knowledge and skills.

And, at last, the fourth side of limitations, especially significant for our investigation- possibilities and potential of our specialist. His is his possibilities and what we consider on different levels his becoming a professional and, finally, his professional self-effectiveness. As a result of his becoming, his dynamics of a future specialist

The essence of the phenomenon of the personological information-educational system is that it is necessary to create certain educational system which meets the requirements of the modern society. The social commission is, in our case, an integrator, including the employee, authorities, the specialist himself, etc. Consequently the key element will be forming traditional conditions based on the essence of the personological information-educational system in education.

In view of solving this problem, a technique of tuition is realized in the educational program to the effect of fulfilling simple universal educational actions and more complicated ones in educational cognition activity. This is achieved thanks to the agent approach and psychological-pedagogical foundation of active, developing tuition. Active investigations in the field of artificial intellect brought to the usage of agent approach in the subject field - pedagogic and search of possibilities of subject-agent interaction. The teaching program is interpreted by specialists as "active electronic textbook" – intellectual system which realizes definite functions of a teacher in the teaching process accenting the applied functions, which intensify the process of tuition – wide and active presentation of information; generalization or detailed explanation of the material, definition of the key notions, demonstration of ties between different subjects, analysis of the problematic situation. It is supposed, at that, that the learner will realize navigation himself (macronavigation) in the informational space, and form his own "route of tuition", etc. (see figure 3).



Figure 3. Interface of a teaching program

## Discussions

The previous researches, which were made by A.P. Pavlov (2012) Personology of educational process for learning in small groups with the use of remit approach; N.K. Alimova, A.P. Pavlov (2011) Personology as a response to the challenges of global problems of modernity; I.V. Kisesova (2007) Personalised learning in the system of additional professional education; S.E.Krapivenskiy, E. Feldman (2003) the Devaluation of the individual and contemporary personology; S. Muddi (2002) theories of personality; V. A. Petrovsky, (2010) Logic "I": Personological perspective; E.B. Starovoytenko (2011) the Paradigm of life in personology. V.A. Jasvin Educational environment: from modeling to designing; M.B. Esaulova, (2010) *Personification of higher professional-pedagogical education: towards self-managed learning*; E.B. Starovoytenko (2011) The Paradigm of life in personology and other.

But the analysis of scientific works, devoted to the problem of professional-pedagogical self-effectiveness and personological information-educational environment showed that this question is practically not touched upon.

## Conclusion

Improvement of technological accumulation, analysis and usage of information presupposes searching and working out new educational models, which not only bring closer the intellectual activity in science, machine – building and informatics with the level of intellectual activity in the process of tuition but initiating complex processes of self – development of a person, his self- organization and, finally – self-effectiveness. The important direction of the search – is working out the

conception of personological information-educational system, that are based on necessary for it psychological – pedagogical, didactic and technical principles.

But, as the study of works shows, some works deal with evolution of the notion “information-educational environment”, it gradually aggregated such features as “pedagogical system”, “unity of informational means and resources”, “subsystems of providing”, standard pedagogical purposes are declared at that – formation of creative, intellectual and social development of a personality.

Speaking about working out a conception of personological information-educational system, which brings closer intellectual activity in the process of tuition, it is advisable to point out the following three groups potential, which are studied little:

accumulation in technology interactive interaction of the subject and PIES functions of logical-semantic modeling, autodialogue, cognitive presentation of knowledge and cognitive navigation along the trajectory of tuition, coordination of the external and internal plans of educational cognitive activity;

conceptual determination of structure organization and contents of PIES, i.e. realization of concrete pedagogical conception, sociocultural and anthropological basis of information – didactic space of personological character in the system, and also methods and means of instrumental didactics;

the usage of element agental (subagental) approach (technology of artificial intellect) at building PIES and also universal the methods of control of the pupils’ work with text and graphical materials, providing a two-level control on the parameters “getting acquainted” and “understanding”.

“Check” (at the same time model) system, which, supposedly, will enable to realize the didactic potential of PIES, presents a triad-triangular system “a learning subject” – “conceptual determined technology of educational activity” – “specially organized contents”.

Tuition in the process of interaction with PIES, must be built according with the above mentioned three groups of qualities when the didactic instruments of the modeling type are used actively. The results of tuition are:

learning the usage of didactic technology, which determine conceptually personological information-educational system (and basic version PIES);

learning educational disciplines in the logics of didactic technology, conceptually determining personological information-educational system (in the applied version of PIES);

forming skills of mentality in the logic of didactic technology conceptually determining personological information-educational system, and also basic universal educational actions(PIES)

Thanks to the above enumerated results, the learner should gradually formulate the following new formations, as ability to activate intuition and imagination: to establish reason – consequence ties; fulfill more complex scenario of educational – cognitive activity; formulate and solve tasks of creative character tasks with the undefined;

Summing it up, we can state, that the investigation and creating personological information-educational system, which realize psycho-pedagogical, didactic and technical principles, and also elements of didactic design, which are actual, socially significant and science – embracing problems, the solving of which is viewed as a considerable contribution in improving various systems of education.

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No potential conflict of interest was reported by the authors.

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