Strengthening subjective and professional the potential of the future teacher

Fortalecer el potencial subjetivo y profesional del futuro docente

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ABSTRACT:
The practical significance of the research results consists of the interactive techniques used in the forming experiment to enhance the subjective and professional potential of future teachers related to the development of its subject components. Reserves for increasing the potential of the future teacher in the higher educational establishment are in the sphere of activation of the basic (subjective) components of the potential: an internal locus of control, reflection, self-determination, subjective-reflective position, etc. Keywords: Subject-professional potential of the future teacher; subject-professional competence; interactive pedagogical technology.

RESUMEN:
La importancia práctica de los resultados de la investigación consiste en las técnicas interactivas utilizadas en el experimento de formación para mejorar el potencial subjetivo y profesional de los futuros docentes en relación con el desarrollo de sus componentes. Las reservas para aumentar el potencial del futuro docente en el establecimiento educativo superior se encuentran en la esfera de la activación de los componentes básicos (subjetivos) del potencial: un locus interno de control, reflexión, autodeterminación, posición subjetiva-reflexiva, etc. Palabras clave: potencial sujeto-profesional del futuro docente; competencia sujeto-profesional; tecnología pedagógica interactiva.

1. Introduction

1.1. Introduce the problem

A stable complex of basic resources of the personality of the future teacher manifested in an active, transforming attitude towards the profession and towards own self-development,
attests to the formed subject potential of the future teacher. In addition to the subject component, the content of the future teacher's potential is correlated with the concepts of “competence” and “competence” and is associated with the formation of the teacher's professionalism. Consequently, the potential of a future teacher can be defined as an “alloy” of the subject and professional components and designate it as the subject-professional potential of the future teacher. Accordingly, it is relevant to study the pedagogical conditions for increasing the subject-professional potential of the future teacher as an integral unity of subjectivity and professionalism in the educational process of the higher educational establishment.

The concept of human potential was considered in the works of B.G. Ananiev (1977), B.F. Lomov (1984), etc. B.G. Ananiev believed that the potential of the individual lies in the relations of the properties of the various levels of their psychic organization (Ananiev, 1977). Human potential, according to B.F. Lomov, is represented in his abilities, systems of knowledge and skills (Lomov, 1984). The concept of “personal potential” is studied in detail in the works by D.A. Leontiev, in the content of which he includes: personal autonomy and independence, internal freedom; meaningfulness of life; viability in difficult circumstances, etc. (Leontiev, 2001).

Over the past ten years, the development of general patterns in the formation of a potential sphere or functional human resource is carried out in the study of the adaptive potential (A.G. Maklakov), creative potential (D.B. Bogoyavlenskaya, E.L. Yakovleva), intellectual potential (J.A. Balakshina, L.N. Kuleshova, etc.), personal potential (L.A. Alexandrova, O.E. Dergacheva, etc.), personal and professional potential (V.N. Druzhinin, K. Spearman, L. Terstou and others), etc.

Foreign psychological studies of the potential possibilities of a person's personality, including as a subject, there is a variety of approaches and theories: psychoanalytic concepts (A. Adler, S. Freud, etc.), concepts of representatives of humanistic psychology (A. Maslow, C. Rogers and etc.), research in the field of personality motivation (Lewin K., Rotter J., etc.).

1.2. Explore importance of the problem

The analysis of the works devoted to the formation of the potential of the personality of the future teacher in the conditions of modernization and innovative reforming of the education system and the development of society made it possible to formulate a general scientific research problem, the main contradiction, which, on the one hand, is the high maturity requirements and professionalism of the future teacher's personality, - lagging of professional and pedagogical training in the development of subject competencies that make up the core of the potential of their personality. This problem gives rise to the main tasks of this study: to study the essence, content and structural components of the subject-professional potential of the personality of future bachelors of education (teachers) using the example of the “Russian language” and “fine arts” profiles; to study the role and importance of subjective and general professional components in the structure of the potential of future teachers; to develop and experimentally test pedagogical conditions for increasing the potential of future teachers in the educational process of a pedagogical higher educational establishment through interactive pedagogical technology.

The research was based on the assumption that the process of increasing the subject-professional potential of the future teacher in the educational process of the higher educational establishment will be more effective if: the subjectivity of the future teacher is enhanced, contributing to the increase in the system-forming role of subject-professional competencies in the structure of the cluster of general professional competencies and the potential of the individual as a whole, and pedagogical conditions (organizational pedagogical, psychological, pedagogical, and didactic) that enhance the potential of the future teacher’s personality in the educational process higher educational establishment.

1.3. State hypotheses and their correspondence to research design
In the scientific psycho-pedagogical literature, along with various variants of the concept of "potential", the term "subjective potential" is used. Studies of the potential of the individual as a subject are devoted to the work of L.I. Antsyferova (1989), T.I. Artemieva (1981), et.al. The subject potential, these scientists are understood as the form of existence of subjectivity, the basis of which is "integrative" and "nonadaptive" activity, the motivational and value sphere of the individual, the capacity for reflection, responsibility, the capacity for self-determination, self-realization, and self-determination.

The subject-professional potential of the personality of the future teacher can be defined as an integral personal new education - the unity of professional and subject components, including a locus of control, reflection, responsibility, a temporal and value-semantic perspective, adequate to the content of pedagogical activity, formed as a result of the activity of the personality as a subject - professional activity. The main components of the subject-professional potential of the teacher are understood and defined by us as "spheres" of the potential and resource capabilities of the teacher's personality and associated with a certain space in the content of which the structural elements of the phenomenon are found. Such space can be various forms of self-determination of the future teacher's personality (personal, professional, etc.). According to A.A. Derkach, in the process of professional self-determination, a “merging of the life and professional path into a single goal-path” takes place (Derkach, 2003; Derkach et.al., 2000).

2. Literature review


In analyzing the content and structure of the teacher's subject-professional potential, V.A. Slastenin defines reflection as a system-forming factor of professionalism. Reflexive competence often acts as a resource to overcome the problem situation in professional activity (Slastenin, 1995). S. Muddy includes reflection in the structure of vitality - a special personal dispositions of a person who has high resources of behavior in a problem situation. This personal property S. Muddy designated as “hardy” - viability (Muddi, 2002). This opinion is shared by Schön D. (1991), Seifert K.L. (1999), Roskos K. (2001), and Henderson J. G. (1992), et.al.

The ability to arbitrarily manage one's own value-semantic and motivational sphere is one of the most important characteristics of a person's subjectivity, an indicator of its maturity and potential. According to D.A. Leontiev, the phenomenon of self-determination is a form of manifestation of the personality potential, which can be presented as an integral characteristic of the level of personal maturity (Leontiev, 2001).

The subject actualizes his potential and self-determined as a person through the formation of a responsible attitude to life (S.L. Rubinstein). Before doing this or that, a person, as a rule, ponders them, plans ways and means to achieve the set goals, and foresees the consequences of their actions, realizing that he is responsible for the taken decisions. Consequently, the formation of responsibility is also closely related to the development of reflection. If at the early stage of personality formation the level of responsibility is dictated by adults, then in adolescence, it is determined by the growth of individual self-awareness, self-regulation - moral motives, values, sense of duty and responsibility. The value-semantic sphere of personality determines the goals that the person sets himself, the aspirations that are peculiar to him, and the motives in accordance with which he acts, the interests with which the person is guided in their activity. The potential of the individual, therefore, can also be examined from axiological positions in the context of problems of value orientations.
The content of the subject-professional potential of the teacher's personality can also be rightly correlated with the so-called “subject competencies” and, ultimately, - with the overall professional competence and professionalism of the teacher - the willingness and ability to effectively solve various professional and pedagogical tasks in a wide variety of conditions.

3. Materials and methods
A number of methods were used to solve the problems posed in the study and test the hypothesis: analysis of scientific literature on the research problem, and empirical methods: observation, expert evaluation, author's questionnaires and questionnaires, and methods of statistical data processing.

In connection with the objectives of the study, the first stage was used to diagnose the basic (subjective) components of the potential: control locus (internality-externality), the content and structure of value-semantic structures, values and sense of time perspective, reflexivity, responsibility, resilience students Philology (future teacher of Russian language) and art department (future teacher of fine arts), a total of 96 subjects. Competent judges (teachers and methodologists of the higher educational establishment) in this category of students also assessed the formation of general professional competence.

At the second stage of the research, in experimental groups, such forms of activation of interactive interaction were used, such as a business game of the role type “Academic Council”, the “Summer Children's Camp”, an assessment center that can be used as teaching interactive techniques, but also as an instrument assessment of the formation of professional competencies among learners.

4. Results
Results, diagnostics according to our modified “Professional Autobiography” method by L.F. Burlachuk, E.Yu. Korzhova (1998), witness that most of the indices of a group of students of the art and graphics department surpass those of the tested groups of students-philologists. They are distinguished by the high productivity of the reproduction of events that have affected the professional development exceeding the normative indicators, the ease of actualization of significant professional events in the past and the future, the comparatively low realization of the events of the future professional career.

With the help of D.A. Leont'ev’s meaningful orientations test (Leontiev, 1994), the authors undertook an experimental study of the value-mental components of the subject-professional potential (value potential): the degrees of the meaningfulness of life by the future teachers of the fine arts and the Russian language, their life goals for the future, and the emotional richness of life with meaning. The results of the research lead to the conclusion that the majority of students in the art and graphics department have clearer ideas about the goals and meaning of life, more accurately represent their own way of life than the students of philology, and therefore set themselves more specific goals. Students-“artists” evaluate their life as more interesting and filled with meaning.

In the process of professional-personal self-determination of the future teacher, a perspective of the future is built, the reflection of the life and professional path of the individual is actualized. The authors have studied the level of reflexivity of students of the art-graphic and philological faculties according to A.V. Karpov's method (Karpov, 2003). The results obtained using the technique “Professional autobiography” by L.F. Burlachuk, E. Yu. Korzhova (1998) indicate that the students-artists demonstrated a higher reflection of the professional path than the students-philologists: ease of actualization of significant professional events in the past and the future, relatively low implementation of the events of the future professional career, the presence of interest in the future, a greater number of events related to the development of skills, career growth, and future work.

Assessment of the viability of future teachers of fine arts and the Russian language as one of the components of subject-professional potential associated with coping strategies was
5. Discussion

Experimental differences in the structure and content of the subject-professional potential of future teachers of fine arts and the Russian language can be interpreted within the framework of differences in the specifics of the professional orientation and personal qualities of future teachers. If the profession of the teacher of fine arts assumes more “freedom” in employment (general education or art school, advertising, museums, exhibition halls, etc.), then the profession of the Russian language teacher has a rather narrow scope (general education school, editor in the newspaper, journal). Based on the received data, the authors may explain the differences in the empirical indicators of the subject components by the orientation and personal qualities of the entrants and, accordingly, the different level of their subjectivity.

The next stage of the study, among the general list of competences included in the standard of pedagogical education, has “professional-pedagogical” and “subject-professional” competencies identified. The authors included competencies related to the sphere of solving specific professional and pedagogical tasks in the first category. The content of “subject-professional” competencies along with professional abilities implies the actualization of the subject’s personal qualities: active “me”, initiative, ability to overcome obstacles, etc. This category includes interactive, communicative, organizational, reflexive and implementing competence.

Further, students - future teachers of the Russian language and fine arts by competent judges (teachers and methodologists of higher educational establishment) on a specially developed questionnaire in grades assessed the formation of general professional competencies. The authors have revealed that in the structure of the correlation galaxies of these competencies of the future teacher of the visual arts, the interactive, reflexive, subjective-professional competences act as system-forming competencies, moreover, the greatest number of correlation links is observed in the interactive competence. In the cluster of correlation groups of future teachers of the Russian language, the communicative, didactic, methodological competence plays the role of system-forming, however, the communicative competence possesses the greatest number of correlations. Thus, it is the interactive and communicative competencies that are the spheres of communication competence that act as the structure-forming (core) components of the subject-professional potential of future teachers of the Russian language and fine arts.

The next stage of the study was devoted to the development of pedagogical conditions for increasing the subjective and professional potential of future teachers through strengthening the role of subject-professional competencies in its structure. The authors may assume that developed forms of interactive competence form the basis for the formation of many competencies of the teacher, including communicative, informational, organizational, reflexive, etc. Consequently, the development of general education competencies in the structure of the potential can be achieved through the activation of its core (system-forming) component - interactive competence.

In accordance with the revealed regularity, the authors proposed as the main interactive technology proposed by M.A. Petrenko (2010) - a special form of organization of students' activities and enhancement of their subject-professional potential, based on the wide interaction (interaction) and communication of students with each other. In the course of experimental work in experimental groups, such forms of activation of interactive interaction were used, such as a business game of the role type “Academic Council”, the “Summer Children's Camp”, an assessment center that can be used not only as teaching techniques, but also as an instrument assessment of the formation of general professional competencies among learners, and, in particular, subject-professional competencies. The goals of
interactive interaction served as an indicator of the actualization of one or another competence. The number of acts of interactive interaction served as a criterion for the frequency of actualization of the relevant competence. The activity of the students in control groups was organized in the course of pedagogical practice in the form of a group discussion of the psychological and pedagogical analysis of the lesson, during which the group of experts carried out a diagnostic assessment of the manifestation of competencies based on the frequency of their actualization.

Then, the authors carried out a correlation analysis of the tightness of communication within the clusters of competencies of the experimental and control group subjects (Figure 1, 2).

The correlation analysis according to Spearman (in all cases \(*p<0.05, **p<0.01, ***p<0.001\) within the competence cluster in the experimental group of future art teachers in the context of interactive learning methods introduced into the learning process revealed the closest correlation of interactive competence with the implementation (\(\rho = 0.871^*\)), reflexive (\(\rho = 0.782^*\)), communicative (\(\rho = 0.761^*\)), organizational (\(\rho = 0.734^*\)) competencies. A moderate correlation relationship was noted in this competence with the methodological (\(\rho = 0.464^*\)), didactic (\(\rho = 0.408\)), diagnostic (\(\rho = 0.455^*\)) information (\(\rho = 0.471^*\)) competencies. The control group of students of the same training profile demonstrated moderate correlation between interactive competence and reflexive (\(\rho = 0.431^*\)) and implementation (\(\rho = 0.415^*\)) competencies, and weak - with methodical (\(\rho = 0.212^*\)), didactic (\(\rho = 0.303^*\)), diagnostic (\(\rho = 0.298^*\)) and information (\(\rho = 0.271^*\)) competencies. The experimental group of future teachers of the Russian language, with the introduction of interactive teaching methods into the learning process, demonstrated the closest correlation between interactive competence and communicative competence (\(\rho = 0.826^*\)), reflexive (\(\rho = 0.754^*\)) competencies. Moderate correlation was noted in the interactive competence with the implementation (\(\rho = 0.445^*\)), organizational (\(\rho = 0.467^*\)), methodological (\(\rho = 0.488^*\)), didactic (\(\rho = 0.501^*\)), information (\(\rho = 0.499^*\)) and weak diagnostic (\(\rho = 0.110\)) competence. The control group of students of the same training profile shows a moderate correlation of communicative competence with the methodological (\(\rho = 0.577^*\)) and didactic (\(\rho = 0.462^*\)), reflexive (\(\rho = 0.431^*\)) competencies and weak - with the implementation (\(\rho = 0.281^*\)), diagnostic (\(\rho = 0.212^*\)), information (\(\rho = 0.231^*\)), interactive (\(\rho = 0.115^*\)) competencies.

**Figure 1**

*Spearman’s correlation pleiads of general professional competences in the structure of subject-professional potential of future teachers of the Russian language (n = 24)*

Note: The arrow indicates a positive correlation. The dark color indicates the competences having the largest number of correlations with other competences.
The results of a specially organized learning process in the experimental groups of the subjects testify to positive quantitative and qualitative changes in the cluster of general professional competencies. The subjects of these groups demonstrated not only an increase in the quantitative indicators of the formation of competencies, but also an increase in the number of correlation links between “subject-professional” and “professional-pedagogical” competencies, which can serve as one of the markers for their integration as a reflection of positive changes in the structure of the subject-professional potential of future teachers in the direction of its increase and strengthening.

6. Conclusions

Theoretical research and the empirical research done give grounds for the following conclusions:

The subject-professional potential of the future teacher can be defined as a systemic personal neoplasm in the following structural components: the internal locus of control, the temporal and value-semantic perspective, reflection, responsibility, vitality and professional, including subject-professional competencies, adequate to the nature of pedagogical activity, formed as a result of the activity of a person as a subject of pedagogical activity and a purposeful process of education in a higher educational establishment;

The content and structure of the subject-professional potential of the future teacher is determined, on the one hand, by the subject's personal potential (an internal locus of control and other personal qualities of the individual), on the other hand, by the general professional competencies of the future teacher, who integrate into systemic constellations - the Pleiades, depending on the learning profile. Subject-professional competences (interactive, reflexive, implementation) are more often system-forming in the structure of the correlation groups of professional competencies of the future teacher of the visual arts, whereas in the structure of the correlation groups of future teachers of the Russian language, the role of system-forming students is mainly played by professional-pedagogical competences (communicative, didactic, and methodical);

It has been experimentally revealed that the effectiveness of methods of the interactive technology of increasing subject-professional potential is associated with the development of its subject components: the students of the Faculty of Arts and Graphics, as compared the students-philologists before the experiment, noted higher subjectivities and, accordingly, as
a result of the forming experiment, higher indicators of integrative links between subject-
professional and professional-pedagogical competencies as a reflection of positive changes in
the structure of the potential of future teachers.
Reserves for raising the subject-professional potential of a future teacher in a higher
educational establishment may be in the sphere of creating the following pedagogical
conditions:

- **organizational and pedagogical**, aimed at developing the personal aspect of the
  pedagogical system - the formation of general professional competence through interactive
technology (competence approach);

- **psychological-pedagogical**, based on methods of interactive technology, aimed at
developing the personal aspect of the pedagogical system - activation of the basic
(subjective) components of the potential: an internal locus of control, reflection, self-
determination, subjective-reflective position (subject-activity approach);

- **didactic - aimed at selecting**, constructing elements of the content of the educational
  process, including the development of a module of disciplines based on Federal State
  Education Standards, the relevant objectives of strengthening the subject-professional
  potential, increasing the proportion of interactive classes in curricula and programs (didactic
  approach).

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