Psychological and Pedagogical Technologies of Selection of Students in the Pedagogical Higher Educational Institutions

Olena Ihnatovych and Oksana Liashch
PSYCHOLOGICAL AND PEDAGOGICAL TECHNOLOGIES OF SELECTION OF STUDENTS IN THE PEDAGOGICAL HIGHER EDUCATIONAL INSTITUTIONS

Abstract.

The article presents the results of the fundamental research «Psychological and pedagogical technologies for the selection of students in higher educational institutions of pedagogical profile», conducted at the Institute of Pedagogical Education and Adult Education of the NAES of Ukraine; an innovative project of professional psychological selection of future teachers and monitoring of their professional fitness during the period of study in higher educational institutions is presented.

Keywords: professional self-determination, professional psychological selection, professional fitness, assessment and monitoring of professional fitness.

Introduction.

The urgency of the problem of professional psychological selection of future teachers is due to the process of updating and further improving the system of vocational guidance in Ukraine, in particular the introduction of new forms and methods of career guidance, the definition of promising approaches for professional diagnostics and psychological professional selection of an individual in the activities of educational institutions levels and employment services (Ihnatovych, 2014). Thus, in the project «National Strategy for the Development of Education in Ukraine for 2012–2021», it is indicated that improving the system for selecting young people in the pedagogical specialty is one of the most pressing issues for teacher education.
The relevance and feasibility of solving the problem of professional selection of future teachers is determined by several reasons. First, professional selection at the stage of admission to a higher pedagogical educational institution ensures the possibility of predicting the success of professional training of a future teacher on the basis of determining and further shaping the personality suitability for pedagogical activity. Secondly, the professional training of future teachers involves other expenses, which are not always justified. In the context of this, the statement of K. Hurevych is appropriate: «Everyone ... can master any profession (or almost any), but the point is how much time and effort it will take. The period of human activity is limited, as unproductive, joyless activity is not only a personal misfortune - it ultimately manifests itself in the whole society. Therefore, the prediction of professional suitability and methods of its formation will never lose its current value» (Hurevych, 1988). Another reason is that the results of external independent assessment do not always allow predicting the success of training in a higher pedagogical educational institution. Psychophysiological features, psychological qualities and personal qualities necessary for successful educational and professional activities of future teachers, are the most prognostic criterion.

**Development of theory and hypotheses.**

The problem of psychological professional selection has been developed in domestic and foreign psychological theories of personality, psychological theories of motivation, psychological concepts of activity and cognitive processes, psychological concepts of vocational guidance. Scientific researchers are also interested in the scientific, methodological and practical aspects of professional psychological selection and vocational guidance (Baluku, M.M., 2019; Barclay, S.R., 2019; Sampson, J.P., 2019).

The problem of developing scientifically grounded, relevant to the current state of society development and the formation of psychological technologies of professional selection of future teachers, aimed at determining their professional
suitability, as well as preserving human professional health, remains open to psychological and pedagogical science and practice.

Taking into account the objective necessity and social importance of high-quality teacher training and the extreme urgency of this problem, at the Institute of Pedagogical Education and Adult Education Ivan Ziaziun National Academy of Pedagogical Sciences of Ukraine in 2014-2016 the fundamental study «Psychological and pedagogical technologies for the selection of young people in higher educational institutions of pedagogical profile» was conducted. The basis for its implementation was the Resolution of the Cabinet of Ministers of Ukraine of September 11, 2008 on the approval of the Concept of the State System of Career Guidance of the Population No. 842 of the Law of Ukraine «On the Professional Development of Workers» of January. 12, 2012 No. 4312-17 and the draft «National Strategy for the Development of Education in Ukraine for 2012–2021». The purpose of this article is to present the main results of this study.

In the process of the study, an innovative project of psychological professional selection of young people in higher pedagogical educational institutions and monitoring the professional suitability of future teachers in the learning process was developed, tested and implemented, including an assessment of their individual-typological features, emotional-volitional, communicative, and cognitive spheres. The monitoring of professional fitness covers the diagnosis and monitoring of the state and changes in the indices of individual preparedness for professional development during training in a higher pedagogical educational institution. On the basis of the results obtained, the success of mastering the teaching profession and success in professional activity is predicted.

The key idea of the study was that the assessment and the formation of the professional suitability of future teachers are elements of a unified system of preparing a young person for teaching activities and ensure successful implementation throughout the professional path. Adequate assessment of the suitability of a young person with educational and professional activities in higher
pedagogical education predetermines the achievement of an appropriate level of professional competence, ensures success in training, job satisfaction and the individual’s aspiration for professional self-improvement.

The conceptual foundations of the study were personal-activity and professional approaches, the principles of psychological professional selection of future teachers, professional and psychodiagnostic methods, and prognostic criteria by which an individual is suitable for educational and professional activities in the field of pedagogical education (professional orientation of the individual, moral and ethical qualities, thinking and information literacy, innovative culture, communication and organizational skills, empathy, individual-typological properties). The performers of this study studied the professional orientation of the individual as a complex motivational complex, including conscious and unconscious motives for choosing a profession, as well as aspiration, intentions, interests, motivations, expectations, inclinations and the ability to realize their creative potential in the future field of activity. The study of the moral and ethical sphere of the personality of the future teacher was conducted with the aim of determining the criteria for the moral development of the individual. Such criteria determine the moral reliability and psychological health of the personality of the future teacher. Criteria for the development of the future teacher's cognitive sphere are information literacy and constructive thinking, defining a system of mental operations with images, symbols, signs, combining a certain cognitive style and strategy for solving educational and professional tasks, mental abilities, pedagogical abilities, and pedagogical talent. Didactic, constructive, perceptual, linguistic, expressive, organizational, suggestive, prognostic abilities, abilities to pedagogical reflection are defined as components of the communicative sphere of personality, reflecting the communicative aspect of professional suitability of future teachers. Emotionality (emotional sensitivity), empathy, emotional stability, positive emotions of joy and their advantage over the emotions of fear and anger, the ability to express their feelings (expressiveness), self-control, dedication, perseverance, diligence,
determination, courage, organization are integrated into the structure of emotional-volitional the scope of the future teacher. The individual-typological characteristic of young students is one of the factors of professional suitability of future teachers, the formation of their individual style of educational and professional activities.

**Methods.**

The leading methods of psychological professional selection of future teachers were observation, psychological and professional analysis of teaching and pedagogical activity, determination of criteria for assessing the professional fitness of the personality of a future teacher, developing procedures for evaluating the professionally important qualities of a future teacher as individual components of the professional fitness of an individual.

The components of the suitability of future teachers for educational and professional activities are the professional orientation of the individual, moral and ethical qualities, thinking and information literacy, innovative culture, communication and organizational skills, emotional and volitional qualities, empathy, individual typological properties. Among them, the most significant and informative are: 1) the ability to constructively communicate in the process of implementing the main tasks of innovative educational activities (exchange of innovative information, interaction and understanding with others); 2) innovative orientation (needs, motives, values of innovative educational activities); 3) features of an innovative teacher (initiative, creativity, responsibility, determination, etc.); 4) understanding of oneself as a subject of innovation and media innovation culture (I-concept of an innovative teacher); 5) individual characteristics of cognitive processes and intellectual activity (willingness to overcome inertia of thinking, a stable system of knowledge, revealing the essence, structure and types of innovation; 6) the ability to purposefully generate new non-standard ideas using intellectual abilities and mechanisms for their self-realization, knowledge of mastering and the introduction of innovations into practical activities, special methods, techniques and means, the use of which allows us to actively to promote
innovation); 7) individual typological features (strength and mobility of neural mental activity).

Means for assessing and monitoring the professional suitability of future teachers are: 1) assessment and monitoring of individual-typological features of future teachers: methods «Determining the strength of the nervous system», «Determining the equilibrium of the nervous system», «Determining the mobility of the nervous system», «Determining the temperament with the prevailing type», «Determination of the type of temperament» (A. Belov), Tapping test (E. Ilyin); 2) assessment and monitoring of the emotional-volitional characteristics of future teachers: methods «Characteristics of emotionality», «Study of the volitional organization of the individual» (E. Ilyin); 3) evaluation and monitoring of the communicative sphere of future teachers: methods «COI-2» (identification and evaluation of communicative and organizational inclinations), «Definition of communicative inclinations», «Definition of the level of belonging» (R. Ovcharova), «Study of the level of communicative control» (M. Schneider), «Diagnostics of a communicative attitude», «Diagnostics of communicative tolerance», «Diagnostics of emotional barriers in interpersonal communication» (V. Boyko); 4) assessment and monitoring of the level of empathy of future teachers: the methodology «Diagnosis of the level of empathy» (I. Yusupov), «Diagnosis of the level of empathy» (V. Boyko); 5) assessment and monitoring of the cognitive sphere of future teachers: the methods «Red-black table» (F. Gorbov), «Memory for numbers» (O. Melerian), «Quantitative relations» (N. Kramer), test of mental development of ASTRP (O. Borisov, K. Hurevych and others), R. Amthauer's test, R. Kettel questionnaire, «Self-esteem of the teacher’s professional innovative culture» (O. Ihnatovych); 6) assessment and monitoring of professional orientation: methods «Motivation for success» (S. Pakulin), «Educational motivation of students» (A. Rean, V. Yakunin, modified by N. Badmaeva), «Morphological test of life values» (V. Sopov, L. Karpushyn); «Anchor career» (E. Shane, translation and adaptation by V. Chiker, V. Vinokurov), «The level of student's vocational
orientation» (T. Dubovitskaya), «Self-realization of a person» (E. Shosstram, N. Kalina).

**Results.**

Technologies for evaluation and monitoring of individual-typological features, empathy, emotional-volitional, communicative, cognitive spheres, and professional orientation of future educators developed for the results of psychological and occupational analysis of pedagogical activities. Psychological and occupational analysis of pedagogical activity carried out on the basis of a functional-algorithmic approach, method of structural analysis, structurally-algorithmic approach, structural-psychological concept, the concept of analysis of integrative mental processes. The main result of psychological and occupational analysis pedagogical activity became a psychological and professional profile of the professional activity of a student of higher pedagogical educational institution. Such profile includes: 1) the characteristics of educational and professional activities student of the Higher Educational Institution (functions: goal-setting functions - orientation, mobilizing (stimulating), developing, informational; organizational and structural functions – constructive, organizational, communicative and gnostic; activities: educational, educational, organizational, advisory, self-education; typical task: forecast and planning, design and implementation, regulation and adjustment, evaluation of results and determination of new professional tasks training and personal development; skills and abilities: social – readiness take responsibility, be active in making decisions and their decisions realization, social perception, emotional stability, self-regulation, self-development and self-education; communicative – expressiveness, imagery and brightness speech, multi-language skills, organizational skills; information – possession of information technologies, ability to determine, critical comprehend and use information; intellectual – visual and auditory sensitivity, attention, perception and comprehension of texts, perceptions of lexical units and semantic segments of text, visual-auditory, verbal-logical memory; theoretical, abstract and constructive thinking, creative imagination, innovation; 2)
professionally important qualities of an undergraduate student (prosocial nature motivation, perseverance, self-control, self-perception, ability to persuasion and suggestion; gnostic, projective, creative skills; communicative, organizational and constructive skills; empathy, emotional stability, volitional regulation, mobility of nervous processes).

Technology of individual-typological evaluation and monitoring the features of future teachers include diagnostics and tracking the dynamics of the properties of the nervous system (strength, mobility, equilibrium and etc.) that reflect the peculiarities of the course of the nervous processes of excitation and brain in the central nervous system, determine the temperament and predetermine the individual style of educational and professional activity personality.

Technology of assessment and monitoring of empathy of future teachers covers diagnostics and monitoring of changes in empathic properties (altruistic orientation, emotional activity, latitude emotional repertoire, adaptive flexibility of emotions, communicative tolerance, development of expression, observation, imagination, intuition, the ability to identify) future educators as an important component of them professional suitability.

Technology of evaluation and monitoring of emotional and volitional areas of the future teachers cover diagnostics and tracking of changes in the indicators of emotional and personal spheres (emotional sensitivity, emotional excitability, intensity of emotions, duration of emotions, negative influence of emotions on efficiency of activity and communication value-semantic organization personality, organization of activity, determination, persistence, self-ownership, autonomy, general indicator of voluntary organization of personality).

Technology of assessment and monitoring of the communicative sphere of the future teachers include diagnostic procedures and tracking dynamics communicative personality potential (communicability, openness, compassion, empathy, expressiveness, imagery and brightness of speech), communicative inclinations;
communicative abilities; communicative culture (communicative installations, communicative control, and communicative competence).

Technology of evaluation and monitoring of the cognitive sphere of future teachers as the process of determining the suitability of future teachers for educational activities covers the diagnosis of cognitive processes and forecasting on this basis the success of mastering the chosen student’s pedagogical specialty, as well as monitoring and development of professional the intelligence of future teachers.

Technology assessment and monitoring of professional orientation of future teachers include the diagnosis and tracking of the dynamics of indicators of interest in vocational training, which manifest themselves in indicators of the strength or weakness of students' desire to master the teaching profession, features of the motives of professional development of the individual, as well as the hierarchy of attitudes and values of future teachers.

**Discussion.**

In the process of approbation of the developed technologies it is established that professional the suitability of future educators at the level of mental processes is revealed in features of activity of sensory-perceptual, mnemonic and linguistic systems (high levels of development of visual and auditory sensitivity; emotional stability, self-regulation; attention, perception and comprehension of texts, perception of lexical units and semantic segments of the text, social perception; visual-auditory, verbal-logical memory; theoretical abstract and constructive thinking, creative imagination, innovation; expressiveness, imagery and brightness of speech). At the same time, it was found that for the vast majority of entrants to higher pedagogical educational institutions are characterized by low (37.6%) and lower the average (38.1%) level of professional development. High level professional suitability was found in 1.6% of applicants, the indicator is higher the average level has 8.2% of the entrants, the average professional level Suitability is characteristic of 14.5% of university entrants. It is stated that that the peculiarities of
the temperament of future teachers are first of all on behavioural level, affect the
ability to work, the effectiveness of educational activities [4]. Also, future teachers
are high (34%) and moderate (45%) emotional (emotional sensitivity). Most of the
future teachers have a high (42%) and an average (36%) estimate of excitability.
Indicator intensity of emotions are respectively high (45%) and average (40%) equal
For most respondents (87%), the duration of emotions is high (34%) and the average
(43%) levels. A high level of negative was detected in 12% the influence of
emotions, while the average level is 26% and the low level - 62%. By the results of
the study, a general indicator of the volitional organization of the individual
characterized by a predominantly moderate manifestation (62%), a high level is
14%, the low level is 24%. It is determined that: 25% of future teachers have a low
level of empathy. Number of future students of higher educational establishments
with high level of formation of communication skills is 34%, sufficient level - 52%,
low level - 14%. Among all the studying 15% of entrants Approximate to a high
level of intelligence, 65% - received average figures, as well 20% - it is
recommended to work on raising the intellectual professional level. Among the
motives for choosing a pedagogical profession are certain professional (12%),
subject (10%), prestigious (7%), utilitarian pragmatic (28%), social (9%), infantile
(10%). Motives for imitation amounted to 8% and 16% of future teachers have
uncertain motivation. All studied signs of professional suitability were systematized
and generalized in the psychodramas of the future teacher, the main components of
which is: 1. Psychophysiological features - stress resistance, ability work in
conditions of chronic psycho-emotional stress, constant readiness for unpredictable
situations; contraindications – excessive slowness, inertia. 2. Communicative
features - high level of communication and empathy, clear and expressive speech;
contraindications – closeness incommunicability, increased egocentrism, speech
defects. 3. Cognitive (intellectual) features - high level of development of all
cognitive processes, erudition, competent speech, propensity to knowledge of new
and creative work; contraindications: rigid thinking. 4. Features of the regulatory
(emotional-volitional) sphere – skills enough to control your own behaviour and emotions, endurance, high level of responsibility; contraindications - weak self-control of behaviour and emotions, excessive vitality and irritability. 5. General personality features - proper social orientation personality as a system of high moral and civil values, as well selfless attitude towards people, love for children; contraindications - indifference to people in general and the lack of an unselfish interest in them. Institutions for the development of pedagogical abilities are: high level of activation and sensitivity of the nervous system; high lability nervous system; low levels of introspection; ability to emotional self-regulation General contraindications to pedagogical activity are: disharmonious I-concept, accentuation of character, expressed imbalance, tolerance to oppressive mood, increased irritability, defects analyser systems, cognitive processes, cognitive disorders, defects speech, psychosis, neuroses.

Conclusion.

Thus, the results of the study are of theoretical and practical importance for modern pedagogical education. The introduction of the technology of psychological professional selection of future teachers into the practice of pedagogical education creates conditions for the professional self-determination of young people, development of personality abilities for pedagogical activity, ensures optimal professional training of future teachers and preservation of health. Assessing and developing the professional suitability of future teachers is not only an urgent need, but also a multifaceted and complex process. This requires systematic, consistent and continuous work. To ensure the effectiveness of this process is possible only taking into account the psychological aspects and the variety of influences on the process of professional development of teaching staff.

References.


