FORMATION OF THE PROFESSIONAL CULTURE OF FUTURE TEACHERS-SPEECH THERAPISTS THROUGH THE USE OF INNOVATIVE TECHNOLOGIES

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Education is aimed at individualization, improvement of the professional route and the process of professional training of future speech therapists. Of particular importance are issues of professional, personal and moral culture, which embody the positive socio-personal achievements of pedagogical skills, personal values and communicative interaction in the system of special and inclusive education to be followed by both children and their parents.

The purpose of the work is to determine the criteria, indicators and diagnostic tasks of formation of the professional culture of future speech therapists, to diagnose the state of formation of the professional culture of future speech therapists.

Diagnostic sections allowed us to determine the criterion-indicator base of formation of the professional culture of future teachers-speech therapists.

The culture of professional communication reflects the level of proficiency in reference speech in compliance with all established requirements of the Ukrainian language (orthoepic norms, lexical and grammatical design, etc.), intonation and content saturation of expression, degree of erudition and general tolerance, conscious and respectful attitude to the subject process.

Personal and professional competence reflects the degree of formation of value professional orientations of the individual, dynamic activity, non-standard and flexible thinking, constant enrichment of special knowledge, interests, skills, broadening horizons, creative understanding of non-standard pedagogical problem situations.

We have developed a set of diagnostic tasks for each of the selected criteria and formed a scale for evaluating their implementation.

Since professional culture is a complex concept that includes integrated personality traits, we have identified the levels of its formation.

**Keywords:** technologies, innovative technologies, competence, personal and professional competence, professional culture, teacher-speech therapist

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1. Introduction
Continuous modernization of the education system in Ukraine highlights the need for innovative saturation of the content of professional training of scientific and pedagogical staff capable of working in the modern conditions of the New Ukrainian School. One of the priorities of higher education is to rethink the approach to educational and professional activities of students, which is based on the formation of applicants for professional competence, a stable personal and professional culture, a system of moral values and beliefs.

Educational space is aimed at individualizing the way to improve the professional route and the process of professional training of future teachers of speech therapy. In the conditions of correctional and developmental training the requirements to personal and professional qualities of the teacher-speech therapist constantly increase, therefore questions of professional, personal and moral culture which embody positive social and personal acquisitions of pedagogical skills, personal values and communicative interaction in the system of special and inclusive education acquire special value to be followed by both children and their parents.

2. Literature Review
Scientists understand professionally important qualities as multifunctional psychological qualities of personality that affect the productivity of professional activity, value orientations of personality, which are in constant interdependent dynamics and are manifested in the proper performance of professional duties, enshrined in the content of professional activities [1].

Various scientific and pedagogical works on the problems of preparing students of special education for professional activity emphasize a number of qualitative features of a speech therapist that form his/her professional portrait [2].
There is a group of professionally important qualities that form a professional portrait for each profession [3]. The main tasks of a teacher–speech therapist are the application of professional knowledge in their practical activities; implementation of speech therapy support for a child with mental and physical disabilities; successful implementation of educational and correctional activities; observation and analysis of the dynamics of the child’s speech development; establishing interpersonal relationships with all participants in the correctional and educational process; introduction of special, correctional and developmental and modern innovative teaching methods; development of mental processes and creative abilities of children; implementation of active educational activities; stimulating children to independence and self-sufficiency, constant improvement of their knowledge, professional development, self-educational activities.

Scientific achievements of modern scientists [4] show us that the structure of professional culture is based on moral and ideological attitudes and includes the relationship of personal orientation of the specialist to professional behavior and spiritual and moral self-improvement, the characteristics of the practical and professional activities of a teacher–speech therapist and his/her spiritual values, which exist as ego-spheres:

- self-conceptual is a sphere of reflection of reality, real state of events, real possibilities and further prospects, with all one's consciousness, identification of oneself as a person, awareness of one's desires and possibilities on the way to professional growth;

- self-ethical is the sphere of acceptance of the generally established system of norms and rules, standards of conduct, acceptance of the corresponding professional obligations, reasonable regulation and self-control of the professional activity;

- 1-ideological is a sphere of imagining oneself as ideal, modeling one's priority future and purposeful activity towards a clearly set goal, desire for professional development, self-improvement and self-awareness in one profession.

There is an example of level assessment in the modern psychological and pedagogical literature, which is based on personal and professional regulators [5]:

1. The level of elementary activity, it begins with the birth of a child, when its moral potential is established, which is an incentive to improve the moral feelings of the individual throughout life and the formation of professional motivation in the future. With the emergence of a new consciousness of the individual, by child's imitating and copying the behavior of adults and children and direct suggestion, the child intensively learns the fundamental basis of labor and moral culture of society [5]. Thus, the first level can be considered basic for the child's mastery of the simplest norms of behavioral culture, the development of basic pedagogical concepts, such as friendliness, humanity, empathy and others.

2. The level of focus on external factors of professional regulation [6]. At this level, the leading role is played by a person's intrinsic motivation to perform a certain type of work, although in moral behavior there is still a focus on visual patterns, but is already actively developing and gaining importance of self-esteem and place in society.

3. The level of professional self-regulation [7]. This level is characterized by arbitrary professional behavior, its perception as a norm of life, is expressed by a high degree of creative dedication, broad professional outlook, a large amount of special knowledge, interests, skills, creative understanding of problem situations, developed productive abilities.

- Openness and accessibility to education, introduction of new tools, methods and educational and developmental technologies into the practice of special teachers, make new demands on the saturation of the content of professional training of teachers–speech therapists.

- Effective solution of correctional and educational pedagogical tasks, facing the national education system of Ukraine, is possible due to the introduction of innovative approaches in the process of professional training of future speech therapists.

The processes of development and implementation of innovations in the system of special and inclusive education have attracted the attention of many Ukrainian scientists [8].

Innovative activity (according to the Ukrainian explanatory dictionary) is the creation of original ideas, holistic concepts, which changes the usual view on the essence of the problem [9].

The essence of the integrated concept of “innovation in the system of special education” is defined by us as the renewal of educational practice by mastering the latest ways and means to achieve established pedagogical goals.

Today there is a great variety of educational technologies [7]. Consider a few of them.

- The traditional (more used, familiar) learning technologies include:
  - explanatory-illustrative technologies – a kind of learning technologies, in which the teacher through the use of illustrative material transmits already "ready" knowledge, without stimulating the creative abilities of applicants (the percentage of use of this technology in the educational process is 28.5 %);
  - problem technologies – a kind of learning technologies, in which the student is part of research activities and carries out a scientific search for solutions to ambiguous pedagogical problems (the percentage of practical implementation of this technology is 19.7 %);
  - programmable technologies – a type of educational technology, in which learning activities take place according to a clear pre-planned teacher algorithm, which outlines the knowledge, skills and abilities to be acquired, dividing them into "portions" in a precise logical sequence (introduction of this technology in the educational process is 36.4 %);
  - differentiated technologies – a kind of learning technologies, during which conditions are created for the disclosure of the capabilities of each student, their potential (introduction of this technology is 15.4 %) (Fig. 1).
The latest learning technologies are more modern and modernized, their introduction into the educational process makes it high quality and provides a focus on creativity of ideas and independence of students in achieving pedagogical goals [7].

The teacher-speech therapist must have the skills to develop and effectively implement innovative approaches, including the ability to reflect, the ability to compare, juxtapose different points of view, express their own position, scientifically substantiate and defend it professionally, independently design the educational process within certain positions and languages, ensuring the effectiveness of the correctional process, the progressive development of each student, his/her emotional comfort, the most favorable conditions for individual development, the disclosure of the student's personal potential and further prospects for their own activities.

The analysis of the scientific literature allowed us to develop and present innovative technologies for the formation of the professional culture of future speech therapists.

The technology of active-game learning is a procedural part of the pedagogical system, a set of methods, tools and forms of work, during which the educational process introduces one of the types of active educational games, aimed at forming professionally important qualities of the speech therapist (theoretical foundations, practical knowledge and skills), professional ethics, personal culture, pedagogical skills and others) [10].

We will illustrate with examples:

Educational and planned games – a kind of didactic game, the content and essence of which is to outline the system of measures and actions, reflecting the content of logo-correction work, strategic plans, project blanks and organizational-regime moments of the correction process.

Educational-analytical games are a kind of didactic game, the content of which consists in analytical investigation of scientific literature and in comparison with it of own practical experience, which makes the process of studying a pedagogical problem comprehensive, and its solution expedient and reasonable.

Practical-organizational games are a kind of pedagogical game, during which the task of the participants of the educational process is to adapt their actions to the conditions of the environment (a certain situation), which contains the rules of behavior and communication between all subjects of the pedagogical process.

Practical and simulation games are a kind of role-playing games, the content of which is to present the real actions of a speech therapist in artificial conditions, to determine the ability of students to professionally find solutions to certain pedagogical situations, to show pedagogical skills, creativity, flexibility of thinking, originality of ideas and non-standard approaches.

Practical-professional games are a kind of pedagogical game, which is characterized by practical orientation, motivation of students’ activities, creative comprehension of real problem situations that arise in the correctional process and activation of one’s own way of resolving contradictions.

The proposed types of games, in addition to effective learning, give students the opportunity for professional growth and self-awareness as a specialist in special education, improve business communication skills of all participants in the educational process, form skills of professional behavior in non-standard practical and moral and ethical situations, promote positive emotional support in the educational process, develop the skills of pedagogical intuition, creative imagination and creativity of ideas, encourage further self-development and independent educational activities of higher education.

The technology of interactive-integrated learning is a procedural part of the pedagogical system, a set of methods, tools and forms of work, which consists in directing the professional activities of speech therapists to achieve educational goals by implementing in practice the personal experiences and ideas of future speech therapists. Each student paves his/her own professional route and he determines the pace of innovation, but he/she is constantly in a dynamic professional movement, maintains a stable relationship with other participants in the educational process and is active in his/her educational exercises. Modeling life and professional problem situations helps to find the best ways to overcome pedagogical conflicts. This technology involves the practical improvement of acquired theoretical knowledge and skills, characterized by active interaction between all participants in the educational process, a high level of intensification of cognitive activity and efficiency.

Multimedia learning technology is a part of the pedagogical system, a set of informatized methodical...
recreations, means and forms of work, which consists in active inclusion of complexes of visual and audio effects, software with use of technical means, combining photo, text, video, sound, graphics in digital reproduction (computer, multimedia projector, graphics tablets, interactive whiteboards, etc.) in the educational process. This technology involves the discovery of the possibilities of computer-based learning tools and their scope in the speech correction process. Multimedia learning technology forms students' information and communicative competence, the ability to structure information and visualize its elements, implements in practice an individual approach to learning, develops cognitive processes and motivates students to creative activities to perform multimedia computer projects (multimedia complex articulation gymnastics, musical, logarithmic exercises, interactive albums of the child's motor activity, etc.).

Network and remote technology. According to the letter of the Ministry of Education and Science of Ukraine dated 05.08.2020 No. 1/9-420 "the educational process in the 2020/2021 academic year should be organized taking into account the epidemic situation in the region" [11], so the separation of this technology is caused by today's conditions. Network and distance technology is a set of network technologies that provide remote access of learners to educational material via the World Wide Web and on official educational Internet platforms (Moodle, Google Classroom, Web-application Edmodo and others). Its purpose is to make the educational process accessible to all students in all conditions of stay, to realize the continuity of the educational process, to improve the self-motivation and self-regulation of students' learning. Network-distance technology provides students with the main amount of educational material and provides interactive, virtual, remote interaction with all participants in the educational process [1, 2]. Students have the opportunity not only to visit virtual tours, performances, but also to conduct individual or microgroup logo-correction classes using educational and developmental interactive platforms ("Levko", "Our children", "Pustunchik", others) and video conferences (Skype, Zoom, Google - meet and others).

3. The aim and objectives of the study

The purpose of the work is to develop the latest innovative learning technologies, identified criteria and indicators of formation of the professional culture in future speech therapists.

Achieving the goal is ensured by solving the following tasks:
1. To define criteria, indicators and diagnostic tasks of formation of the professional culture of future teachers-speech therapists.
2. To diagnose the state of formation of the professional culture of future teachers-speech therapists.

4. Materials and methods

Training of applicants for higher education in specialty 016 "Special Education" of V. O. Sukholinsky National University of Mykolaiv to professional activity is through the systematic use of comprehensive tools to enhance the cognitive activity and efficiency of students, improving their theoretical knowledge and skills, active interaction between all participants in the educational process.

We conducted a survey of higher education students in order to determine the state of formation of the professional culture of future speech therapists. 135 students of specialty 016 "Special Education" of I (bachelor's) and II (master's) levels of higher education took part in the diagnostics. Using the innovative S.T.A.R. approach (S – situation, T – task, A – active actions, R – result) allows to structure the revealed knowledge, abilities and skills of respondents, having distributed them on components (professional culture, personal culture, moral culture). We received informational consent from all participants in the study (Minutes of the meeting of the Department of Special Education of the O. Sukhomlynskii National University of Mykolaiv No. 3 from 01.10.2021).

5. Results and discussions

The first stage "S – situation". The main goal is to find out what motivates students to pursue professional activities.

We understand that "professional motivation" is the action of complexes of internal stimuli of the individual, which determine his/her professional self-determination and direct activities to achieve certain goals. The results of the survey at the first stage showed that 31.4 % of all applicants were motivated by the prestige of the profession (its social definition in society); 42.9 % were led by professional activity self-orientation (based on the focus on improving themselves and their certain qualities or motives to help someone in their immediate environment); social motives (trends in special and inclusive education, increasing the number of children with speech disorders in society) led 22.9 % of students to the choice of the profession, coercive motives (parental authoritarianism, budget proposal of forms of education, etc.) played a crucial role for 2.8 % applicants (Fig. 2).

The second stage is "T – task". Objective: To find out what professional tasks students set aside for their activities.

48.6 % of respondents stressed that the professional responsibilities and necessary obligations to perform the tasks are approved by the job description of the teacher-speech therapist; 37.1 % of applicants, in addition to job descriptions, outlined the personal, moral and social tasks of the teacher-speech therapist as a person; 14.3 % of respondents could not accurately outline the scope of activities and their own professional tasks (Fig. 3).

The third stage, "A – Active Action", was to find out what additional activities students perform for their own professional growth.

42.8 % of students witnessed their professional development by taking part in conferences, seminars, courses, trainings of international and national level; 48.6 % are engaged in self-educational activities on the use of technical teaching aids (online webinars, study of scientific and pedagogical literature, etc.); 8.6 % of higher education applicants do not use additional sources to improve their level of professionalism (Fig. 4).
The fourth stage "R – result". The main goal is to find out what students plan to do after graduation.

The results showed that 71.5 % of students in the future plan to become typical full-time employees of secondary schools, children's education institutions, inclusive resource centers, rehabilitation and special institutions; 11.4 % of students in the future plan to perform the duties of heads of schools, kindergartens, rehabilitation centers; 11.4 % of students plan to open their own business in the future (developing children's centers, private schools and kindergartens), and 5.7 % of students focus on continuing education at the second (master's) and third (educational and scientific) levels of higher education (Fig. 5).
We have determined the criterion-indicator base of formation of the professional culture of future teachers-speech therapists with the help of diagnostic sections.

The first evaluation criterion: the culture of professional communication reflects the level of mastery of reference speech in compliance with all established requirements of the Ukrainian language (orthopaeic norms, lexical and grammatical design, etc.), intonation and content saturation of speech, degree of erudition and general tolerance, conscious and respectful attitude to the subject of the pedagogical process.

The criteria are:
1. Stylistic and semantic design of speech is characterized by the ability to comply with the normative and appropriate presentation of information, stylistic sense of words, correctness and management of speech activity, the ability to express themselves appropriately in accordance with the situation.

2. Professional-pedagogical communication is characterized by a complex of speech skills, a set of components of consciousness (intellectual, emotional and practical), the ability to build communication based on the destruction of psychological barriers, to convey personal interest, friendliness, to adhere to ethical and professional norms, to improve effective verbal and nonverbal skills of interaction with all subjects of the educational process, to establish trusting relations with them on the basis of moral and legal balance, trust.

The second evaluation criterion: personal and professional competence reflects the degree of formation of value professional orientations of the individual, dynamic activity, non-standard and flexible thinking, constant enrichment of special knowledge, interests, skills, broadening horizons, creative understanding of non-standard pedagogical problem situations. Personal and professional activity is characterized by the cognitive and pedagogical orientation of the teacher-speech therapist, his/her social and moral maturity, a set of systematized knowledge, readiness for creativity, humanistic beliefs, justice, endurance and self-criticism.

The criteria are:
1. Personal and moral culture is characterized by moral and ethical norms and personal value orientations, a set of moral feelings, life orientations (ideals, traditions, norms, categories), inner ability to create, act according to the norms of inner consciousness and voluntariness, the degree of cultural norms and rules of conduct, which reflects the attitude of the teacher-speech therapist to the learning process, colleagues, students, their parents and members of society in general, awareness of their moral responsibility and willingness to perform their professional duties.

2. Self-educational activity is characterized by the focus on personal self-development and self-improvement of the speech therapist, involves constant updating and deepening of knowledge, generalization of promising experience of other specialists in special and inclusive education, is to meet their own educational practice-oriented interests and objective needs.

Future speech therapists learn basic values in the process of forming a professional culture. These values are embedded in the experience of professional activity and are manifested in the activity as a characteristic of the individual, which indicates the maximum level of development of personal and professional qualities and characteristics of the individual.

We have developed a set of diagnostic tasks for each of the selected criteria and formed a scale for evaluating their implementation in order to determine the levels of professional culture. Let's illustrate with examples:

**Talk show "Innovation Discussions"**  
**Purpose:** to determine the state of formation of the lexical and grammatical side of the design of the statement during an open conversation.  
**Equipment:** note paper, pen, thematic manuals and auxiliary sources.  
**Execution procedure:** The experimenter invites students to freely express their opinion on the latest trends in the educational process.  
**Scale for evaluating the implementation of the task "Innovation Discussions"**  
**High level (3 points)** – the student used professional vocabulary, grammatically correct speech, showed a high level of deontological culture, pedagogical skills and tact during open discussion, his/her speech is expressive and emotionally rich due to intonation-expressive accentuation of particularly important points, which should pay attention to.  
**Intermediate level (2 points)** – the student controls his/her own speech, shows restraint in his/her emotional manifestations, in tense situations can show intonation disruptions, during confusion makes several
grammatical or lexical errors in speech, which he/she corrects at once.

Low level (1 point) – there is a confused and irritating tone of communication, frequent intonation jumps, low level of self-regulation, mistakes are made in speech, which, due to excessive emotional stress, the student does not notice.

Coach task "Dialectics of education"
Purpose: to investigate the level of professional and pedagogical communication of future speech therapists
Equipment: a set of situational tasks.
Execution procedure: The experimenter suggests situations that have a certain emotional load, students should analyze the situation and find the best ways to restore an emotionally stable atmosphere, looking at the essence of the problem from another angle.

Situation No. 1. Ivanko brawls all the time and shows his dissatisfaction in a group lesson. The boy makes significant progress in individual lessons.

Situation No. 2. Parents were outraged about the teacher's qualifications after a long absence from a speech therapist. They noted that the speech therapist "did not work to the end" with their child, whose speech has deteriorated over the past month.

Scale for evaluating the task "Dialectics of Education"
High level (3 points) – the student has communication skills, responds flexibly to changes in the situation, shows conscious behavior regardless of the situation, shows friendliness, sensitivity, willingness to help others, has a positive impact on others.

Intermediate level (2 points) – the student has the skills of pedagogical tact, shows restraint in his/her actions, tries to make a positive impression and avoid trouble by any method available to him/her.

Low level (1 point) – the student's behavior is unstable, there is a high probability of neuropsychiatric disorders, low self-regulation, the dependence of behavior on the influence of others and on their own emotional state.

Open microphone "Organization of the help club"
Purpose: to check the state of formation of personal and moral culture of future teachers-speech therapists.
Equipment: red and black cards, pencil, basket.
Procedure: The experimenter hands out two cards to the participants and offers advice on "How to communicate with other pedagogical staff of the educational institution" and "What not to do in dialogue with the parents of children." All cards are laid out in two baskets and discussed in a group.

Method of self-organization "Pedagogical tact"
Purpose: to explore the ability to self-regulate their own behavior.

Equipment: Whatman, pencil.
Execution procedure: The experimenter asks the participants to choose two motivational sentences that help the teacher-speech therapist to find a way out of a difficult pedagogical situation. Other participants evaluate the correctness of the implementation.

Scale for assessing the performance of the task "Pedagogical tact" and "Organization of the help club"
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