

The Technology of Forming the Professional Culture of Future Teachers: from Reflection to Creativity

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Abstract: The authors devoted their article to the theoretical study of the formation of children's personal and collective culture in the training of future teachers. In particular, we studied the combination of neuropsychological and cultural-educational aspects in the formation of personal and collective culture as an acquired psychological structure based on the nature-defined deep functions. The aim of the article was a theoretical analysis of related neuroscientific and educational approaches, formulation of components of professional culture of future educators on the basis of this analysis and development of the author's comprehensive program "The wheel of professionalism of a future teacher". To achieve this goal, the authors used theoretical methods of systematic analysis of the literature, comparison, extrapolation of pedagogical provisions to the neuroscientific plane; structuring and systematization of methodological provisions (components of professional culture of future educators). Among the empirical methods - explication and creative development of didactic material (integrated program) and elements of sociological research (survey) to find out the students' satisfaction with the implemented program. The relevance of the article lies in the significant discrepancy between the content of higher pedagogical education of future educators (particularly in Ukraine) and the reality of pedagogical activity, which does not take into account the general cognitive imitation and imitative mechanisms of learning culture.

As a result, the neurocognitive and pedagogical reasoning for the development of the program was carried out. We also identified the main criteria for the formation of professional culture (spiritual-creative, cognitive, motivational-value, reflexive-perceptive, instrumental) and modeled a comprehensive program of formation of the basics of professional culture of future educators of educational institutions, which consists of training work on each of the components. The main result is the materialization of the program itself and the determination of a high degree of satisfaction with the students among whom it was implemented.

Significance of the article. The formulated patterns of formation of professional culture and development of the culture of students on the principle of imitation are universal, and each of the above components is illustrated by specific practical and activity material, which may serve as recommendations for improving both the formation of future educators, and educational work in a preschool institution.

Keywords: *Imitative mechanisms; interdisciplinary approach; components of professional culture; integrated program; social and cultural roles.*

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Introduction

The driving force of the progressive development of the state is culture, which acts as a weighty element of social reproduction and an important characteristic of the subject. In contrast to the subject of mere reproduction, focused only on adaptation to existing rhythms, the subject of the dynamic type of culture is aimed at self-improvement in unity with the improvement of the human world, which was previously created by the activity of people.

A person's culture is always individual and unique. It is individuality, originality, free creation of oneself and the world around that represent the most important features of human culture as a person.

Considering the concept of personal culture, S. Macheevich (1991) believes that personal culture is the result of creative, internal, spiritual activity of the individual, the transformation of external images, texts and values in the unique world of man. The content of personal culture is formed by history, living conditions, the nature of the era, social and national relations, the main types of activities, everyday life, etc. This is the nature and level of individual assimilation of past and present values, the degree of activity in improving the inner spiritual world, the humanization of his attitude toward society and other people, the desire for creativity in all spheres of life.

However, it is not the aforementioned (mostly positive) formation factors that add to the relevance of the article, but rather negative ones: problems of psychological defense (boundaries), formulaic approaches and the prevalence of stereotypes.

Therefore, close to our study is the opinion of Danielle E. Kaplan (2019) on the need to develop creativity as a component of inventive thinking of future teachers. The results of the author's study suggest that creativity theories should be incorporated into teacher education to build the knowledge and skills necessary to develop students' creativity. At the same time, attention should be paid to cultural norms and conventions in creative extension, exploring and being careful about personal boundaries.

The Iranian researcher A. Hoseini (2014) holds a similar view, believing that teachers have a narrow and formulaic view of creativity, do not allow deviations in children's behavior, and place the main emphasis on students' obedience rather than on their fantasies and imagination. Therefore, according to the scholar, teachers must create a classroom environment in which students feel safe taking risks. This begins with the

acceptance of learners' unique responses, even if those responses are not directly related to the topic. To do this, the educator should change his or her own frame of reference for creativity. And it is better to do this while still in higher education (Melnyk et al., 2019; 2021).

Relevance of the article. The above-mentioned views of scientists prove: it is not only necessary to get rid of stereotypes and one-sidedness, but on the contrary, to take into account the broadest factors in the formation of children's personal and collective culture: from the biological, neurocognitive - to social and creative. These arguments, as well as the absence of similar studies in Ukrainian pedagogy, led us to the idea that the culture of teachers, students, and their future students, though different, is mutually deterministic and based on common mechanisms, the deepest of which are subjectivity and imitation. We took this thesis as the main one in developing a comprehensive program.

Domestic researcher S. Supereka (2005) identifies three levels of personal culture:

- 1) personal culture as a totality of human knowledge about the outside world, society, himself, his own worldview and world understanding. It is formed in the process of cognitive activity of the person, his training at school, institution of higher education, etc., self-education, daily activities;

- 2) the culture of the person as a set of human feelings, experiences, mental aspirations. It is formed spontaneously under the influence of the social environment in which a person is.

- 3) personal culture as a set of skills, abilities, methods and norms of activity of an individual. It is formed in the process of human life activity.

According to the scientist, these three levels are closely related and cannot exist without each other, so the culture of a person is the unity and close connection of internal and external culture, its inner world (spiritual wealth of personality, knowledge and feelings) and external behavior (the degree of implementation of internal culture in daily activities). Although S. Supereka does not take into account age differences, but most of the spheres that the author calls levels are universal for a person of all ages.

Consequently, personal culture can be: depending on its nature (general, professional); depending on the level (culture of thought, culture of behavior, culture of communication, culture of activity); depending on the types of activities (economic culture, political culture, legal culture, religious culture, aesthetic culture).

The current approach to the study of the problem of professional culture formation is reflected in the studies of many educational theorists and methodologists. Domestic scientists have developed mainly pedagogical

aspects of the formation of professional culture of a specialist. Thus, N. Alova (2013) worked on the structures of pedagogical culture for institutions of different accreditation levels; G. Korchagina (2017) worked on the culture of pedagogical thinking on the professional culture of social pedagogues. Many publications can be named, but they do not take into account the underlying mechanisms of personal and collective cultural formation, which we consider a natural phenomenon for a person of any age.

The aim of the article is a theoretical pedagogical, psychological and neurocognitive justification of the comprehensive program of formation of the bases of professional culture of future teachers and its didactic content (exercises, games) for use both in the educational process of the teacher training university and (if necessary, in modified form) in the work activities. Also, the purpose of the study was to develop and pedagogical and neuropsychological reasoning components of professional culture of future educators, on the basis of which the author has developed a specific didactic material.

Methods of research. The study used theoretical methods - analysis, synthesis, systematization, comparison; empirical methods - development and implementation of a comprehensive program to form the bases of professional culture of future teachers of preschool education, methods of the author's design and selection of didactic development and game materials. We achieved the main results using the method of structuring and stratifying the components of future educators' professional culture with the subsequent extrapolation of educational phenomena to their neurophysiological nature. We also used the transition scale method to demonstrate the decrease of natural neuropsychological and social (cultural) components in the component indicators of readiness (see Table 1). We prepared the methodological material by the method of personal creative explications by the authors of the article according to the corresponding task settings.

In the article by K. Anderson et al. (2020) we found an interesting assumption that formed the basis of the **hypothesis** of our study. The assumption is that if a university teacher experiences difficulties or barriers in communication with a student (future educator), the latter will bring these difficulties to children. Since children are not yet socialized and immediate, this can be a reason for impairment of their adaptive, communicative, and even mental functions. In further discourse, we have developed the author's model of forming the professional culture of a future educator on the basis of integral criteria - reflexive-perceptual, motivational-valuable, cognitive spiritually creative and instrumental, with methods and practices of

formation similar to those that will be used in a preschool institution. And it is this ordering of these criteria that corresponds to the deeper neurophysiological mechanisms involved at the level of this or that criterion.

The culture of the educator and the student in an interdisciplinary proceeding

One of the problems of the culture of the preschool institution is its discipline - traditionalism, commonplace, which can be explained pragmatically. Some scholars believe that it is necessary to change preschool culture through regular professional development and educators' participation in continuing education programs (Vujičić & Čamber Tambolaš, 2017). In this case, we observe a typical sociocultural chain: influence on the educator turns into influence on the preschooler, and in mass manifestation - it changes the educational space, emotional and cognitive activity, communication, culture.

There are inconsistencies in the theory and practice of early childhood education as well. In this context, it is appropriate to refer to the findings of Greek researchers (Androusou & Tsafos, 2018), who point to the mismatch between the content of university education and professional activities. Although the university curriculum emphasizes changing established ideas about the profession, the authors point out, it seems that this does not actually succeed.

There are countries in which local, often local, parochial traditions and culture are well developed. As a rule, this is due to the great distance between cities (USA, Australia). Scientists have long proved that in such small, relatively isolated communities the cultural interchange between people of different generations occurs automatically, on a reflexive level. For example, 30 years ago O'Brien studied the nature of the values of kindergarten teachers, as well as the ways of their transmission to the younger generation. He researched a pilot-type preschool called Head Start. Its focus and operating principle was compensatory. That is, there was an "adult" model" that focused on the academic and cultural educational practices of early childhood (O'Brien, 1993). It turned out that for the mentality of small territorial communities the interaction of elders with preschoolers occurred more naturally and had fewer psychological obstacles. For example, in this particular case, the cultural picture of the group was investigated by the scholars according to the simplest defining parameters with a general functional "use" attitude: use time, space, interaction objects and activities.

It is clear that in Ukrainian realities there are no traditions of preserving and maintaining the microculture of a particular settlement, which makes children initially exhibit clear boundaries between the children's world and the adult world as separate cultural phenomena. Recently, the problem of obstacles and boundaries of preschool children has again become a topical issue in the world. Particularly difficult for young caregivers are the shifts between learning and play in expedient or seemingly shifting social roles (Anderson et al., 2020).

In connection with the proposed concept, the peculiarity of further consideration of the literature is that we will minimally discuss the culture of students and the impact on it, but more on the symbiosis of the culture of educators and children. According to the hypothetical provisions of our article, it is important to study the specificity of children's cultural environment and the professional interaction of educators with this environment. We believe that the main goal of the future educator's acquisition of cultural competence is an effective, simulating (models social reality), trust-based developmental communication in order to transmit basic cultural and ethical rules, promote adaptation, development of social and communication skills of the child in the mode of learning or play. Therefore, we are impressed that American scholars (Vescio et al., 2008) also note the positive impact on the teaching practice and morale of teachers of their participation in collaborative activities, labor in professional learning communities, which contributes to a fundamental shift in teacher culture, in the way the organization of teaching activities, which, in turn, positively affects the culture of students and their success in learning.

We consider the experience of Romanian scientists (Trif & Popescu, 2013) as important for our study, who suggested that future teachers use reflective diaries during internships. It is a peculiar first step to the observation of one's subjectivity as a neurophysiological basis of personality.

In our article we will pay more attention to the nature and relationship of the culture of educators and children, focusing on the innate, neurocognitive mechanisms of cultural appropriation of the world.

The first such feature is imitativeness or, as Aristotle said, *mimesis*, imitation. Let us give more current proof: the study of themes of children's games has shown that plots, images, conflicts to a large extent reflect similar phenomena of the adult world, but in a fantastic allegorical form (Lázár, 1999). It often seems that children's games, rituals of fairy tales contain ethno-cultural potential and meaning, but we pay little attention to the depth of neurocognitive mechanisms of such activity and reflection of the world by a child. In fact, the duality of reflection of the real and the magical, the

reductionism of children's representation of the world, the cultural elimination are neurocognitive phenomena characteristic of adults and children (Reid, 1999). It is just that adults have normalized these relic mechanisms and clearly regulate their manifestation. In children, they turn out directly, so we believe that an educator who has skills in empathy, role-reversal, imitation and is aware of the mechanisms of these processes can easily establish emotional and cultural contact with children and effectively carry out professional activities.

In addition, neuroscientists have proved: there is a determinant relationship between a) bodily, motor, play; b) neurocognitive (reaction, reflection, motivation, interest) and cultural (identification, value, reality modeling, story play, evaluation) plans (Gruart, 2014). In our opinion, the maturity of the educator's professional culture lies in the constant and natural stimulation, facilitation of holistic manifestation of these three plans with an integrative learning and developmental goal.

One of the biggest contradictions in the pedagogy of preschool and elementary school age is the different nature of the behavior of the educator and his students, which puts an invisible protective barrier between them. Consider in terms of personal culture: the educator is cultured, competent, disciplined, and the pupils are socio-culturally unformed, unfamiliar and chaotic. Children's natural means of modeling and transforming reality are emotion, imagination, and play, which are correlates of corresponding qualities in sociologized adults. There are other factors in the formation of a common cultural space of educators and students. Thus, neurosociologists have proven that strong emotions and modeling of reality in fantasy or rational plans are powerful force of activity, communication, and development in both adults and children (Li et al., 2020).

Neurocognitive parameters of personal and collective culture

Neuroscientific aspects of culture were discovered later than personality-psychological ones.

After the discovery of mirror neurons, scientists better understood the nature of identification in the society, projective mechanisms of the psyche and culture-creative unifying mechanisms. Thus, M. Brass and K. Heyes already in the twentieth millennium realized that there were functional and neurological mechanisms designed to control imitation. associative learning and cultural control of actions" (Brass & Heyes, 2005, p. 489).

Earlier, K. Heyes argued that in animals imitation (learning by observing the behavior of another species) is also a means of transmitting

social information, but in highly organized animals it "does not play an important role in maintaining behavioral traditions or culture... because it does not involve self-awareness, representation, meta-representation or the ability to act purposefully". However, later the opposite was proved: neuroscientists proved: there is a determinant connection between a) bodily, motor, play; b) neurocognitive (reaction, reflection, motivation, interest) and cultural (identification, value, reality modeling, story play, evaluation) plans (Gruart, 2014). In our opinion, the maturity of the educator's professional culture lies in the constant and natural stimulation, facilitation of holistic manifestation of these three plans with an integrative learning and developmental goal.

The phenomenon of subjectivity is the most obvious "bridge" that combines neurophysiology with its personal extroverted, "cultured" expression. That is why scientists agree with the idea of a multi-parameter essence of human creative and cultural potential - neurophysiological (including individual, neurohumoral, profile lateral, etc.), neuropsychological and neurosociological.

Now that neuroscientists have found deterministic connections between neurophysiology and the cultural-human manifestations of human personality in society, we can identify the main epistemological and methodological connections between neurophysiology, neuropsychology, and pedagogy. The first and the main such deterministic aspect is consciousness as the highest form of reflection, within which we identify reflexion (sometimes self-reflexion is identified). The latter, refracting through a personal picture of the world, forms an image of "Ego". It is a certain highly organized or primitive introverted artifact that is the subject of both culture and neuropsychology. In this regard, we agree that subjective reflection as a pedagogical phenomenon requires reinforcement of expedient cues and perceptual feedback to form a more cultured self (Kazlauskienė, & Barabanova 2020).

We agree that the main psychoenergetic source of human cultural development is the natural neurophysiological capacity for subjectivity and its self-development (Baddeley, 2017), but we believe: constant projection of such subjectivity onto the collective, the group, reinforces the resource (although, as we know, projection can become a defense mechanism in cases of weak socialization or neuroticism).

Researchers have understood what lies behind neurosubjectivity as a personal and socially oriented phenomenon: subjectivity is stimulated less by primitive stimuli (praise) and more by highly organized ones: the search for

self-identity against society/culture, confronting uncertainty, etc. (Yee Fan Tang, 2011).

Consequently, when forming a culture of professional behavior and activity the student (future teacher) must necessarily take into account this analogy and the power of its neuropsychological factors. He should learn to enter into emotional or cognitive resonance with children, which is based on common brain mechanisms. The difference is that these mechanisms of the socially mature, experienced, cultured adult are more highly organized and are under moral control, but they are less flexible and spontaneous.

The author's model of formation of professional culture of the future educator. Imitation and subjectivity

In order to form the basis of professional culture of future teachers of preschool education, we have developed *a comprehensive program "Wheel of professionalism of the future teacher,"* which included training sessions aimed at forming each of the defined components of professional culture of the future specialist. We believe that a number of trainings developed by us will contribute to the further professional development of students of specialty "Preschool education". The comprehensive program provides future specialists with competencies that will be useful to them in their future pedagogical activities.

The program provides activities to activate the mental and creative activity of students, in particular, such methods of teaching as: research methods, methods of realization of creative tasks, case method, creative teaching methods ("brainstorming", heuristics, synectics, theory of inventive tasks), business, role-playing, interactive games, essays, etc.

The main neuroscientific presupposition of our further theoretical and methodological development was the following thesis: the components of the professional culture of future educators include a chain of neuropsychological mechanisms: from the collective simplest (imitation) - to the personal, self-creative (subjectivity). This thesis is the author's thesis and is based on a theoretical analysis of neurophysiological, sociocultural, and pedagogical provisions, an overview of which we gave in the previous sections.

We took into account pedagogical and neuropsychological regularities and came to the conclusion that the professional culture of future preschool teachers is a multilevel and integrated education, which includes 5 main components. We have placed them in order of decreasing role of neurophysiological (less controlled) and growth of conscious, mature

mechanisms of higher nervous activity. This hierarchy concerns both children and adults, as well as representatives of different professions, but we filled each component with professional competencies of a future educator (Table 1).

Tab. 1. The components of professional culture of future educators. The systematization was developed by the co-author of this article and tested in print

Components	Characteristics of formation in a professional context of culture
1. Reflexive-perceptual.	Ability to reflection, self-knowledge, knowledge and understanding of other people, high level of empathy.
2. Cognitive.	Active attitude to educational and cognitive activity, an attempt to get deeper into the essence of the preschool teacher's profession.
3. Motivational and value.	Personal attitude of the future specialist to the chosen profession, determining its place in the general structure of professions, identifying the leading motivation in the work of the educator - a humane attitude towards the child, faith in his strength and opportunities.
4. Spiritual and creative.	A high level of spirituality and creativity, the ability to self-regulation and self-development, a certain way formed life strategies, goals, plans, projects, skills of life creation, as the leading characteristics of the creative individuality of the student.
5. Instrumental.	Life experience, a high level of general culture, organizational skills, professional competence, the need for transformative activity, etc.

Source: The authors' own conception

As we see, the content part (qualitative indicators) is formulated with appropriate pedagogical clarity, but our pilot model, based on the hypothesis (see introduction) involves students' application of formative and developmental exercises and tasks on the principle of mimesis (imitation).

However, we have also noticed that the component part (on the left side of the table), arranged in descending order of importance, in each component contains a neurophysiological or neurocognitive component, which comes to the instrumental plan. Let us speculate: the reflexive-

perceptual component is actually innate, although it has an individuality and can be developed by psychological and pedagogical methods. The cognitive component proper also reaches a neuropsychological level, but it is more susceptible to self-development (self-creation through the cognitive instinct). Motivational and value-based - the heart of subjectivity, which includes the neuropsychological aspect (volitional qualities determined by psychotype, temperament, etc.) and the cultural, externally stimulated aspect (values, principles). The last two components are based on the previous ones, but are determined entirely by external formative influences.

Let us consider in more detail the key exercises and ways of acquiring competencies aimed at forming the foundations of professional culture of future preschool teachers in each of the above-mentioned components.

Spiritual and creative component includes such indicators as a high level of spirituality and creativity, the ability to self-regulation and self-development, formed life strategies, goals, plans, projects, life-creation skills as the leading characteristics of the creative individuality of the student.

Exercise "Rhyming names".

The aim of the game is to develop the students' ability to find rhymes to their own name, first on arbitrary topics, and then on professional topics.

Equipment: a sheet of paper and a pen.

Instructions for the game: the participants need to put together rhymes for their name within five minutes, which begins with the words: "My name is...", for example: "My name is Nadezhda, my dreams come true!" or "My name is Emma, I am a polite teacher" etc.

Exercise "Creative insight".

Task: to develop students' creative thinking and ability to concentrate.

Equipment: sheet of paper, a pen.

Instructions for the game: within 5 minutes, using 14 words (the instructor picks up the words himself in advance, for example: educator, child, game, ball, book, class, jump, run, play, parents, morning, evening, lunch, good), come up with a coherent story. You can put the words from the list in any order and add other words.

The game "Fortunately... Unfortunately...".

Task: to develop students' creative imagination and abilities.

Equipment: sheet of paper, a pen, a small ball.

Instructions for the game: players should write a story. Each participant comes up with his or her own sentence on the proposed topic,

which must necessarily begin with the words "Fortunately..." or "Unfortunately..." (alternately). The one who is ready to be the first gets the ball. Having finished the sentence, he or she passes the ball to another participant and the story continues. The leader can begin: "Fortunately, the profession of an educator is associated with children. And children inspire creativity...".

Summarizing. Getting feedback.

The cognitive component implies an active attitude of students to educational and cognitive activity, attempts to get deeper into the essence of the profession of a preschool teacher. In the process of mastering the educational components of professional training curricula students acquire competencies (general and special (professional)). Here is an example of professional competence, which, in our opinion, most of all reflects one of the most significant indicators of the formation of professional culture of the future educator of preschool education institution (PEI) (namely the personal, subjective factor): the ability to self-education, self-development, to continuity in education for continuous deepening of general education and professional training, transformation of getting education in a process that lasts a lifetime of man.

Motivational and value component of the professional culture of a future educator is defined as a system of positive emotional attitude and professionally significant needs (in conscious work, responsibility, integrity, respect, performance, self-actualization, etc.) that motivate future educators to purposeful educational and professional activity.

The formation of this component of professional culture allows the future educator to be active, proactive, to show persistence in achieving the set goals. Teachers with positive motivation are not afraid of difficulties and obstacles, looking for ways to overcome them, prefer non-standard tasks, need effectiveness of their actions. They experience satisfaction and joy when their actions lead to the achievement of the set goals. A teacher who is motivated to succeed is characterized by determination in non-standard situations, readiness to take responsibility, adequate self-esteem, and confidence in their own abilities. Example of a practice:

Exercise "What kind of flower am I when working with children?"

Task: to create conditions for effective work of the group, to develop a valuable attitude toward the chosen profession, creative thinking and imagination of the participants.

Equipment: sheet of paper, colored pencils, a pen.

Instruction: the trainer invites you to name your name and the flower with which the participant associates himself or herself in the future

pedagogical activity. Then on the petals of the daisy offers to write their expectations from the training to develop the motivational-value component of the professional culture of the future teacher of PEI.

Exercise "I am the sun of goodness".

Task: to form a sense of inner resilience, harmony and trust in oneself.

Equipment: a sheet of paper, colored pencils, a pen.

Instructions: the trainer invites the participants to draw themselves in the image of the sun of goodness, and at each sunbeam write their personal quality that brings others (future students, colleagues) goodness. Allow each participant to express what qualities bring goodness in teaching? Why?

Exercise "Caring".

Task: to teach students to take responsibility for their own lives.

Equipment: sheet of paper, river.

Instruction: the trainer invites the participants to write on a sheet of paper a list of the person (or persons) for whom the participants are responsible. After the exercise, asks them to find out what place on the list each of the participants is personally responsible for? And is he or she on the list at all?

Exercise "My Thoughts are Butterflies".

Task: to develop students' self-awareness and self-knowledge.

Equipment: "Unfinished sentences" technique, a model of a lawn with flowers and butterflies, a sheet of paper, pen.

Instructions: The trainer writes copies of unfinished sentences on a model of butterflies. The meadow with flowers and butterflies is placed in the center of the circle. Each participant in turn catches a "butterfly" and reads out the sentence, completing it with his or her own words. Then transforms the negative consequences into positive ones, and releases the butterfly. After each answer, there is a discussion, the duration of which is determined by the leader, who gives the signal for the turn to the other participant.

Unfinished sentences:

- My biggest fear is...
- I don't trust people who...
- I get angry when someone...
- I get bored when...
- I have a hard time when...
- Choosing between "active" and "passive," I would call myself...

- My most unpleasant experience as a child...
- I hate...
- Controlling my emotions to me....
- The thing I like most about people is...
- I like my chosen profession because...

Exercise "My Professionalism Machine".

Task: decrease in participants' intrapersonal contradictions and emotional tension.

Equipment: for this game a sheet of paper and colored pencils or felt-tip pens are necessary.

Instructions: the trainer, addressing the participants, offers: "Now you will have to draw a car in which your professional and personal qualities are a separate element or an integral part. There is no need to be concerned about verisimilitude. This car may well be fantastic - it may have very many wheels, two steering wheels, etc. However, remember that all the constituent parts of the machine must be connected to each other".

Once the drawing is ready, you can move on to the discussion.

Discussion questions:

- Did you enjoy the game?
- What was difficult for you and what was particularly satisfying?
- Were you satisfied with the game?
- What conclusion did you draw about the qualities of your future profession?

Exercise "I believe that".

Task: practicing students' skills of short self-presentation, setting up for discussion of the topic.

Equipment: sheet of paper, a pen.

Instructions: Each participant, sitting in a circle, should take turns to continue a phrase that begins with the words: "I believe that the development of positive personal and professional qualities of a future educator is important because...". All participants should express themselves in the exercise.

Summarizing. Getting feedback.

The reflexive-perceptual component of the professional culture of future PEI educators includes the ability of a student to carry out the process of self-knowledge, cognition and understanding of other people, a high level of empathy. A teacher with a high level of empathy and reflection is able to understand himself better and get into the inner world of his students, making it spiritually richer and more harmonious:

Exercise "I don't want to brag, but I..."

Task: to develop students' reflection, the ability to perform self-analysis and to present their skills to others.

Equipment: a sheet of paper, a pen.

Instructions: Each participant in turn gives his or her name and says a phrase beginning with the words, "I don't want to brag, but I...". For example: "I don't want to brag, but I'm good at the piano."

As a complication, students can be asked to present skills that will be needed in their future professional lives, for example: "I don't want to brag, but I am good at drawing (dancing, embroidery, etc.)".

Exercise: "I want... I must..."

Task: to teach students to analyze life situations, transforming their negative manifestations into positive ones, to form an optimistic attitude towards life and oneself.

Equipment: sheet of paper, a pen.

Instructions: The trainer suggests writing 5 or more sentences that begin with the words "I want to..." and then 5 sentences that begin with the words "I should or I must...". Then asks participants to turn "I must" into "I want." This requires a conscious focus on the positive aspects of what needs to be done or accomplished.

After completing the task, the trainer asks: What was easier to write? How do you approach the task you don't want to do? How do you deal with it?

Exercise "Mirror image".

Task: to develop students' social perception, the ability to get deep into the inner world of another person, to understand his or her originality and uniqueness.

Equipment: sheet of paper, a pen.

Instructions: The facilitator invites the students to break into pairs and then answer the questions for their partner: Why did your partner choose the profession of educator? What are the most important qualities your partner thinks an educator should have? To what extent does your partner (from his or her point of view) match your chosen profession (rate on a 10-point scale)

Exercise: "I really need you".

Task: To develop students' empathic attitude toward their classmates, the ability to establish benevolent partner relationships.

Each participant chooses two colleagues to whom he/she says "I really need you," giving reasons for the utterance, why exactly. They say these words sincerely, looking into each other's eyes.

Summarizing. Getting feedback.

The instrumental component implies a high level of general culture, life experience, the availability of knowledge, skills and abilities of professional activity acquired in the process of learning at the university, communicative competence).

The formation of the instrumental component of the professional culture of future educators of preschool educational institutions is facilitated by the various types of practices provided in the curricula of the specialty: educational and pedagogical (2nd year of bachelor), industrial practices in early childhood groups (3rd year of bachelor), externship (4th year of bachelor in the chosen educational and professional program), research and teaching (1st year of master).

For example, the purpose of the practice of 4th year bachelor students is to provide conditions for the practical implementation of the students acquired competencies within the study of disciplines that provide professional training in the chosen educational and professional program. And the tasks of practice are: to expand the knowledge of trainee students about the peculiarities of preschool education in modern conditions (in accordance with the basic provisions of the professional standard of the teacher); to improve the ability of students to observe and analyze various forms of life activities of preschool children, to conduct the relevant documentation; to form the ability of trainee students to choose effective methods, forms and means of organizing the educational process in accordance with the needs of students, independently organize and conduct various forms of life activities of preschool children; to form the ability to organize and design educational centers on the principles of universal design; to improve the ability to establish effective interaction with all participants in the educational process in PEI (children, parents, teachers) on the basis of partnership and mutual responsibility; to form the ability to self-reflection and self-assessment of own professional activity.

Conclusions

After the suggested discourse in accordance with the goal, we can draw a number of conclusions:

1. Pedagogical, psychological and neurocognitive justification of a comprehensive program to form the bases of professional culture of future teachers is determined by the conducted theoretical analysis. Thus, as a result of our theoretical analysis, we are convinced of the need for subjective, dialogic, neurocognitive synergetic, and other multimodal

approaches to shaping the professional culture of future professionals. Moreover, the current research does not take into account the mean and imitative mechanisms of forming the culture of expedient interaction and communication of both educators of preschool educational institutions and their future pupils. In this context, we should learn more about the study of age, individual, gender, ethno-psychological, ethno-cultural, and neurophysiological lateral differences of students. Such information will be important for creating an effective technology aimed at the formation of the bases of future teacher's professional culture in all components.

2. Extrapolation of pedagogical and culturological requirements and goals of the educational process to the neuropsychological plane allowed us to determine specific progressive-transitional levels (in the educational sense - components) of the professional culture of future educators. On their basis, we have developed our author's program. The comprehensive program of formation of the bases of professional culture of future teachers of preschool education "Wheel of professionalism of the future teacher" was developed by us taking into account pre-defined components, among which: spiritual and creative, cognitive, motivational and value, reflexive-perceptive, instrumental.

The concrete result of the study was a set of exercises and tasks (a comprehensive program. It is based on neurocognitive mechanisms of imitation and self-affirmation of their own subjectivity as ways of socialization and maintenance of cultural traditions of activity, behavior, activity. In this regard, part of the tasks of the comprehensive program "Wheel of professionalism of the future teacher" we have built on the "child type" - these are games, tasks which by their cultural connotation, emotionality and nonchalance form in the student a sense of children's worldview. The specificity of the professional activity of an educator is that in the process of interaction with a child creates a life scenario of a growing personality, in which the leading role belongs to the teacher, who must have the psychological and pedagogical tools to approach the child, an optimistic attitude, a broad worldview, a high level of self-awareness and creativity, the ability to lead, helping students create themselves, i.e. a high level of general and professional culture.

This program was implemented during the academic year 2020-2021 in the educational process with the students of the "Preschool education" specialty of the National Pedagogical University named after M.P. Drahomanov (Ukraine). According to the teachers' observation (qualimetric measurements were not carried out), the implementation of the Program led to a positive dynamics regarding the formation of the basics of professional

culture in future educators of preschool education institutions and created the prerequisites for their further professional and personal development. We came to this conclusion after using socio-psychological diagnostics of personality development in small groups according to the technique of N. Fetiskin and his colleagues (Fetiskin et al., 2014). These diagnostics involved a response-assessment to 14 statements, each of which was scored from 1 to 5 points. After the implementation of the program 86 2nd year students of the said university showed satisfaction with an average score of 4.1, which is a high score.

Recommendations and perspectives

Considering the positive feedback received after the implementation of the formative work from all subjects of the educational process, we are confident that the comprehensive program "Wheel of professionalism of the future teacher" can be tested by practicing educators in order to improve their professional culture, mastering the skills of social perception, self-development and self-improvement. We see the prospects for further research in the development of individual innovative technologies for forming the bases of professional culture of future educators of preschool education institutions.

Research limitation

We have substantiated, modeled and presented the author's model, preliminarily proved its validity, but did not present the results of experimental studies of the quality of the process and its academic results. These methodological gaps are waiting to be addressed.

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foreign researchers; the 4 author - analyzed the curriculum of the above mentioned university; the author 5 - analyzed and described the programs of pedagogical practice of students of specialty pre-school education: the 6 author - analyzed and selected practical tasks for adaptation and use in training to form the basis of professional culture of future educators of preschool education institutions.

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