Technology of Training of Future Teachers of Preschool Education Institutions to Work with Creatively Gifted Children

1*Tetiana Potapchuk, 1Galyna Boryn, 2Ivanna Pukas, 2Nataliia Kanosa, 2Tetiana Babiuk, 2Mariana Hordiichuk

1Vasyl Stefanyk Precarpathian National University, Ivano-Frankivsk, Ukraine
2Kamianets-Podilskyi Ivan Ohiienko National University, Kamianets-Podilskyi, Ukraine
*Corresponding Author: t.potapchuk73@gmail.com

Abstract

In the new conditions for the development of the Ukrainian society, studying intelligence, psychological mechanisms, and pedagogical means of developing creative talent becomes especially relevant, which is becoming one of the priority tasks of scientific research. This is due to several factors the intellectual abilities of humans are considered a powerful potential of human civilization, the development of which can significantly improve the quality of any social reforms. Creativity is an integral part of human spirituality and a prerequisite for personal freedom, serves as a social mechanism that resists the regress of society, taking into account that only the work of the intellect can provide the possibility of new knowledge. Components of giftedness are given: high intellectual level, the person’s ability to creativity, persistence. The main characteristics of a creative personality are highlighted.

It is noted that an educator’s training consists of the innovative nature of the pedagogical activity, which requires adjustment of the teacher’s professional culture and his/her value orientations, a fundamental change of direction in the methodology and methods of work. It is emphasized that the main purpose of our experimental research is to test the effectiveness of the technology of preparing future educators to work with creatively gifted children; confirmation or refutation of the research hypothesis; making a description of the experimental study, analysis of its results.

In pedagogical theory and practice, a significant amount of research related to the identification of giftedness has been developed, and programs have been developed to help children realize their abilities. These issues are reflected in such state documents as the Law of Ukraine "On Extracurricular Education" (2000), the Decree of the President of Ukraine "On State Support of Gifted Youth", "Program of Work with Gifted Youth for 2006-2010", the purpose of which is creation of favorable conditions for the realization of the creative potential of the Ukrainian people, search, support and stimulation of intellectually and
Technology of training of future teachers of preschool education institutions to work with creatively gifted children and youth, self-realization of the creative personality in the modern educational space.

**Keywords**: creativity, talent, preschooler, future educators.

**Introduction**

At the present stage of the development of Ukrainian society, it is urgent to involve citizens who can take a new approach to solve important social problems in the processes of state formation. As a result, there is a need to develop active, creative individuals, which, in turn, raises the issue of talent. Early detection, education, and upbringing of creatively gifted children are considered as one of the main directions of improving the education system.

Talented children are a huge universal wealth, an invaluable national asset. Every child is gifted in their way. To preserve the national wealth, increase it and use it to the maximum possible benefit, it is necessary to learn to help individuals discover themselves and properly assess, carefully support their development.

The intellectual, artistic, and spiritual potential of the creative personality, the phenomenon of giftedness, the problems caused by the presence of a certain talent, have been studied during the twentieth century by scientists, educators, psychologists from leading countries. The problem of the creative development of the individual has never lost its relevance. It was the subject of research of the following philosophers, teachers, psychologists: B. Ananiev (2001), S. Rubinstein (2002), and others. The system of abilities in the structure of a creative personality was studied by V. Druzhynin (2011), L. Popova (2003), and others. The essence of creativity as a specific type of activity was analyzed in the works of O. Muzyka (2006), O. Kulchytska (2004), V. Strelnikov (2003), and others.

In general, the analysis of the scientific literature proved that the problem of creativity has acquired the status of state importance in most countries, which caused the formation of social and pedagogical demand for its study, in particular, there was an urgent need for special training of preschool teachers for children's creative development.

Among the types of creativity identified by researchers, a special place belongs to the intellectual, which determines the child's ability to acquire knowledge in the learning process. It is characterized by a stable cognitive need, research activity performing any tasks, the ability to analyze and predict.

At the same time, the problem of studying creativity, psychological mechanisms and pedagogical means of developing creative talent becomes especially relevant, which is becoming one of the priority tasks of scientific research. This is due to several factors, among which the intellectual abilities of a person are considered a powerful
potential of human civilization, the development of which can significantly improve the quality of any social reforms. The problem of diagnosis and development of children’s creative talent in modern domestic science is developed at a sufficient level. However, in the implementation of education for creatively gifted children, particularly preschoolers, the shortcomings of the educator's professional training to carry out the relevant activities are becoming more noticeable.

METHODS

The purpose of the presented research is to theoretically substantiate the essence, structure, and specifics of creative development of preschoolers, determine the structure of readiness and develop technology for preparing future preschool educators to work with creatively gifted children.

According to the purpose, the basic tasks of research are defined:

1. To analyze the state of the researched problem in the psychological and pedagogical literature.
2. To determine the current level of readiness of educators-practitioners and students to work with creatively gifted children.
3. Theoretically substantiate and develop the technology of readiness of future preschool educators to work with creatively gifted preschoolers.

The methodological basis of the study is the unity of theory and practice of learning, theoretical and practical cognitive activity, basic didactic principles, psychological and pedagogical theories of development, and self-development of professional qualities of the individual in the learning process.

Research base. The experimental work was carried out at the State Higher Educational Institution "Vasyl Stefanyk Precarpathian National University". In total, the study covered 45 4th year students of the Faculty of Pedagogy: group A-42 was defined as a control group (CG), group A-41 - experimental (EG).

At different stages of research work to solve problems and test the hypothesis, the following research methods were used: theoretical - analysis of psychological and pedagogical literature, regulations on the research problem; modeling to develop the structure of future educators’ readiness to teach gifted children, to build the technology of preparing the future educator for the development of children's creative talent; empirical - questionnaires, observations, oral interviews, outcomes analysis, methods of statistical processing of experimental data to determine the level of development and formation of knowledge, skills and personal qualities of
students; *pedagogical experiment* (ascertaining, formative stages) was used to test the effectiveness of the proposed technology to prepare future educators for the development of creative talent of children.

**MATERIALS**

Philosophical aspects of creativity, its role in personal development, culture, science, and society are analyzed in the works of G. Batishchev, N. Grishchenko, V. Kremen, B. Novikov, G. Skovoroda, A. Shumilin, and others. The problem of creativity was most thoroughly studied in psychology in connection with the identification of mechanisms of creativity and human abilities to creative activity, and ways to diagnose and develop them (E. Kulchytska, 2001; L. Popova, 2003, etc.). Particular attention is paid to the work of the teacher as a specialist who, in terms of the purpose and content of their professional activities, creates conditions for the development of creative abilities of their students (M. Fedorov, 2000 and others). In pedagogical research, issues of creativity are raised mainly in connection with the search for ways and means of optimization, improving the efficiency and quality of training of future teachers (M. Birzheva, 2007; V. Dorotyuk, 2001; E. Lodzinska, 2001; M. Fedorov, 2000; etc.), the formation of their readiness for creative activity (G. Tarasova, 2005).

Having proclaimed a human being the highest value, our state has embarked on the path of embodying humanistic ideas in pedagogical theory and practice. Therefore, educational activities at the present stage should provide optimal conditions for self-realization of the preschooler's personality, the disclosure of all the inherent natural abilities, ability to self-affirmation, and creativity (O. Muzyka, 2006).

The problem of creative development is one of the main and important in psychological and pedagogical research. Consideration of the problem of the development of abilities and talents of a person will be largely determined by the content that is embedded in these concepts. Problems of inclinations and abilities have been of great interest for scientists since ancient times. Scientific research in this direction was especially intensified in the second half of the XIX century when psychology was completely separated into an independent science and divided into separate branches (general psychology, pedagogical psychology, child psychology, psychophysiology, art psychology, etc.). In the course of rather long scientific research, the more or less coordinated understanding of the essence of inclinations and abilities have been gradually formed, the basic provisions of their theory were defined, thanks to such scientists, as B. Ananiev, 2001; C. Rogers, 2016; S. Rubinstein, 2002. Thus, abilities are mainly considered as the individual’s qualities that ensure the fulfillment of certain activities. "In essence, ability," -wrote T. Artemyeva, "is part of the system of qualities inherent in this personality and is an expression of individuality". Inclinations are manifested in the desire for a certain activity and are the initial sign of abilities.
Creativity is considered by teachers as an important condition for the formation, self-knowledge, and development of the individual - the subject of creative activity; an important form of human practice that affects the process of personal growth.

S. Sysoeva defines creative activity as one that promotes the further development of a child's creativity as the "core of her/his personality" (S. Sysoeva, 2005).

The phenomenon of giftedness, its types, methods, and characteristics of manifestation are combined with such concepts as inclinations, abilities, talent, genius. According to E. Lodzinska, the psychological and pedagogical aspect of the study of giftedness has always been dominant. Despite the long history of scientific research, there is no single approach to determining the essence of the phenomenon of giftedness (E. Lodzinska, 2001).

There are over a hundred definitions of "giftedness." This term was first used in 1839 by A. Trey, in the sense of "genius". During the nineteenth and twentieth centuries, the term "giftedness" has been changed.

Thus, giftedness is a high level of development of abilities, which is accompanied by significant achievements. There are two different groups of abilities - general and special. The general abilities of a person determine the range of his/her capabilities: the ability to master culture, learning, and various activities. A child demonstrates general abilities in the learning process. That is, he/she shows a high level of attention, perception, memory, thinking, and attention.

Special abilities are the individual's qualities, which ensure the success of certain activities: certain arts, mathematics, etc. (E. Bondarchuk, 1999, p.54). Special abilities require systematic and persistent exercises that develop abilities.

General or special talent is a high level of development of general or special abilities. General or special talent is a prerequisite for creative achievement.

N.S. Leites defines the term "giftedness" as a set of abilities that distinguish one person from another (L. Lypova, 2003). He points out that giftedness is manifested in the propensity to work, i.e. in the child's need to be engaged in a certain type of activity with positive emotions.

Thus, giftedness is not only a particular combination of human abilities but also a set of personal characteristics as explained by L.I. Slobodyanyuk. (L. Slobodyanyuk, 2000). Supporting this opinion, O.I. Kulchytska (2004) notes that giftedness is a complex phenomenon that covers a set of cognitive, sensory, and personal qualities of the child. Giftedness includes the following components: high intellectual level, human ability to be creative, persistence (O. Kulchytska, 2004).
Modern psychological science characterizes giftedness as a creative activity of a person. From this point of view, giftedness is:

1) systemic quality of the psyche, which appears as a result of cognitive or other active interaction between the individual and the educational environment;

2) the property of the developing psyche, for the manifestation and development of which not only the existence of natural inclinations but also the appropriate developmental, educational environment, in particular, the relevant activities are required;

3) individual characteristics of cognitive, emotional, and personal development of the preschooler, manifested in the individual - a combination of properties of cognitive, emotional, and personal spheres of consciousness of the individual, which provides the opportunity to achieve the highest results of the development of abilities in socially significant activities.

Essential for our study are L. Popova’s (2003) scientific statements, she notes that the manifestation, development, and realization of talent of great importance are cultural and educational conditions the child lives in, the emotional atmosphere in the family, and the material conditions (L. Popova, 2003, p.4-6). L. Popova presents a model of the environment, which consists of the following components:

- The state, which stimulates education, upbringing, creative work, and protection of talents;

- The family, which shows increased attention to the child, determines the high value of education;

- Mass media that meet the cognitive interests of the child and the needs of gifted preschoolers;

- Extracurricular and out-of-school institutions that develop the child's abilities according to his/her interests;

- Educational institutions that are aimed at developing abilities, talent.

Considering the above mentioned, we can say that among modern concepts of giftedness the model, which assumes the existence of cognitive (intelligence, special abilities, creativity), personal (motivational, emotional, volitional), and social (conditions of education and training) components is the most common (L. Popova, 2003, p.4-6).

To summarizing, we identify the main characteristics of a creative personality:
• can find many strange properties of different subjects, constantly asks questions, has a wide range of interests in different fields, often collects unusual things;

• easily generates a large number of ideas, options for solving problems, using unusual, non-standard, often even unique techniques and methods;

• can be unrestrained, radical, stubborn, extremely stubborn, especially when defending her/his own opinion;

• prone to risky actions, even adventures, likes to get new unexpected and previously unknown impressions;

• is interested in various intellectual games, easily immersed in fantasy, dreams, thoughts, imagination; often use the expressions: "I wonder what would happen if ..." or "What will happen if we change ..."; manipulates ideas, easily modifies them, adapting to other conditions, modifying their original or other people's thoughts;

• demonstrates lively, witty humor notice something funny in ordinary objects and situations that others do not find funny: his/her humor may even seem too eccentric;

• is prone to unusual behavior, more willing to act irrationally; doesn’t hesitate to show contradictions of their nature;

• extremely emotional and sensual, prone to conducting independent aesthetic experiments (in painting, literature, music);

• allow disorder, chaos in their environment, are not interested in details that they consider not important; manifest themselves as nonconformists, are considered selfish, individualistic; they can not be attributed to the "average person", without thinking, if necessary, oppose the majority;

• any categorical statements are subject to self-analysis to test the generally accepted critical review, but, as a rule, quite constructively; the courage of the mind allows them to follow their intuition (E. Kulchitska, 2001, p.111-112).

Questions about preparing an educator to work with creatively gifted children have been considered since ancient times. Personal and professional requirements were put forward to the teacher. The educator must operate active teaching methods and use an individual approach as much as possible.

Thus, G. Tarasova (2005) argues that the issues regarding the training of preschool educators are not sufficiently studied at the moment and need thorough research. The
Technology of training of future teachers of preschool education institutions to work with creatively gifted children

researcher identifies three main problems: to develop ways to identify and typify creatively gifted children; experimentally test these methods; selection and preparation of educators to work with creatively gifted children (G. Tarasova, 2005). According to N. Peregudova (2003), a future teacher must have such professional qualities as professional maturity, emotional stability, self-analysis, sensitivity, friendliness, and a sense of humor to work with creatively gifted children (N. Peregudova, 2003).

However, M. Birzheva (2007) notes that the training of educators is an innovative nature of pedagogical activities, which requires adjustment of the teacher’s professional culture and his/her values, a fundamental change of direction in the methodology and methods of work. The researcher identifies several main requirements for the teacher: deep knowledge of the subjects, broad cultural context, awareness of philosophical, humanitarian, environmental, and other aspects of problems in related disciplines; positive self-concept; the desire for continuous self-education, in particular, to master the basics of information culture and the formation of skills for the development of information space; openness to pedagogical innovations ideas; ability to use knowledge of human sciences and to make a positive impact on the spiritual and ethical state and a preschooler’s personality development (M. Birzheva, 2007, p.14).

Therefore, M. Fedorov (2000) in his dissertation research "Pedagogical conditions for preparing students to work with gifted children" draws attention to two important aspects of working with gifted children:

- creation of a system of training specialists to work with this category of children based on the development of new technologies of the educational process;

- study of pedagogical conditions and factors that provide opportunities for the manifestation, preservation, and development of individual potency of children's giftedness (M. Fedorov, 2000, p.8).

The researcher considers it essential to improve teacher training, namely professional and pedagogical skills and creativity. Accordingly, the scientist has developed a system of requirements for educators who work with gifted children: the availability of special educational programs, a certain amount of knowledge about the nature of children's giftedness, structural types and features of its manifestation, the ability to communicate with unusual children, to organize educational and cognitive activities taking into account the levels and areas of expression of talent of each student, to consider each of them a creative personality, to introduce elements of new technologies in their professional activities, etc. (M. Fedorov, 2000, p.11-12). M. Fedorov focuses on the necessity to restructure curricula, create new learning technologies, apply the principles of differentiation and individualization of education and upbringing; creating a comfortable atmosphere and emotionally friendly attitude to the child's personality. The author
argues that it is necessary to vary the teaching process, to organize groups of pedagogical alignment, creative groups for gifted children (M. Fedorov, 2000, p.10). The researcher notes that not every teacher can work with gifted children. M. Fedorov put forward the following requirements for the teacher: professional training and continuous self-improvement, the teacher’s creative personality, and developed social and professional motives.

L. Mokridina (2008) notes that the teacher’s professional readiness is a systemic professional quality, which is manifested in the ability to implement effective professional activities, creating comfortable conditions for the comprehensive harmonious development of personality (L. Mokridina, 2008, p.76).

Thus, we can conclude that the readiness of the future educator to develop the creative talent of children is a holistic internal personal education of a higher education graduate, which is formed on the acquired knowledge, skills, ways of working, experience, and personal qualities of the future educator to ensure effective work with creatively gifted children.

RESULTS

In the process of formative experiment, to acquaint future educators with creatively gifted children we used in addition to lectures on disciplines "Preschool Pedagogy", "History of Pedagogy", "Practical Pedagogy", "Art and Design Basics", "Decorative Arts", "Fundamentals of fine arts with methods of guiding children's art", "Music education" and others in the form of theoretical information, as well as allowing students to communicate with creative children and study the best pedagogical experience of educators who work with gifted children. Future educators fulfilled practical tasks to determine the creative development of children and compiled a "Profile of creatively gifted children", tested the most effective methods of working with gifted children.

The main tasks of the technology of preparation of future preschool educators to work with creative children can be defined as follows: acquaintance with the basic concepts of creativity, talent, understanding the essence of these concepts; deep understanding of goals, tasks, specifics of the process of children's creative development; development of future educators' positive attitude to gifted children and stimulation of interest in communication with such preschoolers; creating conditions for preparing the future educator for the conscious choice of optimal forms, methods, means of creative development of the child (M. Birzheva, 2007).

Following these tasks, we have ensured the fulfillment of the following requirements for the preparation of future educators for the creative development of children: acquaintance with the problem of creativity and talent in modern society; defining the essence of a general and special talent; acquaintance with psychological features of creative children of preschool age; determine the goals and principles of organizing the creative development of children, defining the main forms and
methods of teaching creative children; to acquaint with features of teacher work with creatively gifted children; apply the acquired knowledge in modeling the elements of the educational process with creatively gifted children.

The main task of our technology is to train a qualified teacher who clearly understands the essence of creativity, its varieties, and features to choose appropriate forms and methods of working with creative children and implement this knowledge and skills in practical teaching.

The semantic component of the technology included the introduction of additional topics in the discipline "Preschool Pedagogy", which allowed to expand the theoretical knowledge about creatively gifted children.

Theoretical additions to the disciplines "Preschool Pedagogy" and "Practical Pedagogy" were made on the following topics: "Preschooler, his/her development and education", "Planning the work of an educator", "Pedagogical diagnostics in the work of an educator", "Mental education of preschoolers", "Individual work with preschoolers" and others.

The topic "Preschooler, his/her development and education" - special attention was paid to such concepts as "talents", "abilities", "creativity", "giftedness". As a result of studying the essence of these concepts, students conclude that giftedness is a level of development of personality abilities that exceed the average level and allows a person to achieve high results in a certain type of activity. Students clearly define the types of abilities that are a prerequisite for the development of creative talent. There are general and special abilities and their role in the formation of talent. Future educators characterize the main factors influencing the structure of creative talent: cognitive, personal, social. Students express the role of these main factors in the formation of their talents and abilities. Future educators conclude that cognitive, personal, and social factors influence the formation of creative talent of preschool children. The practical lesson included a test of students' abilities according to Voltaire McKenzie’s method "Determination of multiple intelligence".

The topic "Planning the work of an educator" was supplemented with information about the individual development of the child's creative talent, principles, and rules of creation. Students compiled a "Creatively Gifted Child Profile" during a practical lesson, based on which they monitored children's educational achievements. "Creatively Gifted Child Profile" includes general information about the child (name, surname, date of birth, home address, an educational institution he/she attends, etc.), data about the family and family upbringing; the status of the child in the family (only, older, younger child); the status of the family in which the child is brought up (complete, incomplete, large); the state of health and physical development of the child (sight, hearing, motor system, speech defects, crisis and traumatic situations in the child's life); the child's interests and special abilities (academic sphere - linguistic, literary, social, natural, economic, mathematical; the
sphere of movement and artistic activity - visual, vocal, musical, choreographic, acting, sports); features of psychological adaptation to educational activity in the preschool institution (levels: full, expressed, moderate, initial, lack of adaptation); features of psychological adaptation to the class team (levels: leader, popular, unpopular, isolated). Thus, we can characterize the level of child's development by the following criteria: general orientation in the environment (high, average, low level); intellectual development; communication skills; self-criticism in assessing their actions; purposefulness, persistence; focus on obtaining the maximum necessary information; speech culture; features of the nervous system, temperament (balance, imbalance, weakness of the nervous system, right-handed, left-handed, level of creative development). The next step is to characterize the child's mental development on the following indicators: systematic knowledge, attention, the flexibility of thinking, logic, memory, observation, ability to analyze, draw conclusions, establish links between events, cause and effect, and so on.

Thus, the preschooler's abilities depend on several indicators: the ability to express thoughts clearly and distinctly; the level of development of motor memory; understanding of abstract concepts; the ability to generalize; interest in children's literature; the ability to formulate the purpose and tasks of research, to plan the activity; propensity to experiment; the need to find non-standard solutions; the need for new knowledge, etc.

**METHODOLOGY OF EMPIRICAL RESEARCH**

The result of creating the "Creatively Gifted Child Profile" is recommendations for the development of a child's intellectual and creative abilities. The topic "Pedagogical diagnostics in the work of an educator" is supplemented by methods of diagnosing the preschooler's abilities. There are the following psychological tests (G. Eisenko's test methods, Raven's progressive matrices, G. Gardner's questionnaire of dominant abilities, and others), designed to study the logic of children's thinking, determine the IQ, the distribution of abilities, and so on. Future educators learn to use these techniques in practical classes, checking their level of creative development, dominant abilities, and so on. In particular, G. Garner's questionnaire to determine the dominant abilities.

The topic "The content of education in a modern preschool institution" is supplemented by the latest strategies for teaching creatively gifted children, including intellectually gifted. We introduce future educators to the strategies used in foreign preschools: acceleration, enrichment, deepening, problems, etc. During practical lessons, students analyze the content of modern textbooks for preschool education, to determine the possibilities of implementing these strategies.

Topics "Forms of teaching organization" and "Methods and tools of teaching" are supplemented by theoretical material that reveals the need for teaching creatively gifted children using creative teaching methods, which are aimed at recognizing
previously unrecognized or unused opportunities; respecting children’s desire to work independently; formation of the ability to refrain from interfering in the process of creative activity; giving the child freedom of choice; individualization of the curriculum depending on the characteristics of the preschooler, etc. Working with children various forms of teaching can be used: frontal (discussions, elements of problem-based learning, didactic games), group (pair, permanent groups with changing functions of their participants, class divided into groups with the same task, with different tasks), individual, etc.

The topic "Individual work with preschoolers" fully characterizes the features of the educator's work with creatively gifted children. We help future educators to form ideas about modern concepts of gifted personality, features of giftedness, its types and spheres, possibilities of creative giftedness development, in particular, development of the cognitive sphere of personality, and about possibilities of formation of the giftedness of children in the context of educational process in preschool education.

Practical lessons included determining the behavioral characteristics of gifted children to identify a gifted child.

Thus, supplementing the content of the courses "Preschool Pedagogy" and "Practical Pedagogy" with theoretical and practical knowledge and skills allow future educators to form an idea of the essence of creative talent, teach students to identify its types, familiarize with basic strategies, forms, methods, and teaching aids of the upbringing of gifted children.

We supplemented the course "History of Pedagogy" with theoretical information about the development and formation of ideas of famous teachers and thinkers of the past about the nature of giftedness, the need and specifics of education and upbringing of gifted children, and more. Students study the ideas and views of J. Comenius, J. Locke, J. Pestalozzi, and other published teachers, analyze the work of these thinkers, paying attention to their advice on organizing the education of creatively gifted children.

Future educators learn to identify the individual characteristics of each child and master the methods of identifying giftedness; develop their research methods; hold discussions, conversations; learn to make programs for the development of abilities and talents of children, plan the relevant work of the educational institution; solve pedagogical tasks; make a conversation plan for parents; develop plans for optional classes, design educational activities, competitions, presentations of creatively gifted individuals, etc.

In our opinion, the individual characteristics of the teacher, the level of development of his/her abilities, and professional skills are also extremely important. These factors have a significant impact on the success of the creative potential of gifted
children. That is why it is no less important to form a teacher’s creative personality who can teach, develop, and understand children’s characteristics and needs; who has the methods of creative activity and does not stop development.

To develop the creative personality of the future educator, it is necessary to follow a set of measures to improve the learning process: increasing the role of hypothetical thinking; training at a high level of complexity; discharging of the person from total all-encompassing regulation; creating a situation of choice for students; increasing the role of the dialogical form of learning as a special "interaction of full-fledged understandings", which determines the combination of external and internal dialogues.

Preparing the future educator of preschool education for creatively gifted children involves the transformation of pedagogical consciousness, namely the change of previously formed stereotypes of perception (of a child, learning process and himself/herself), communication and behavior (ways of interaction) and, finally, methods of teaching and education. That is why we have prepared the following basic requirements taking into account the psychological, physiological, didactic features of education and development of creatively gifted children: the formation of a set of knowledge about giftedness, acquaintance with gifted children in preschool; formation of personal attitude to a creatively gifted child; training of basic organizational forms, psychological and didactic methods of practical work with creatively gifted children in educational institutions of different types and educational environments; practical acquaintance with creatively gifted children.

Since the leading form of organization of the educational process in a higher education institution is a lecture, we conducted lectures on "The essence of talent and its role in the structure of personality", "Modern models of creativity and its main components". A lecture is detailed, organized in an accessible form, a systematic presentation of the essence of a particular problem. The didactic task of the lecture is not only to acquaint students with the main content, patterns, main ideas, but also the direction of reasoning in the process of further independent work.

Another form of organization of the educational process in a higher education institution is a practical lesson that provides the development of creative professional thinking, cognitive motivation, and professional use of knowledge in the educational environment. The simplest form is to discuss a problem for a short time in groups of several people and then analyze the results in the whole group. Seminar-discussion on the topic: "Experience of developed countries on the organization of education and upbringing of creatively gifted children."

Seminar-mutual learning on "Didactic advice on the development of creative abilities of preschool children." Each student considers a separate exercise for the development of creative abilities in preschool. Students sit in rows, according to their
topic, and teach each other the content of the exercise, discuss contradictory points, and come to a common conclusion.

The method of conversation is widely used in lectures. The main task of the teacher is to monitor the students' answers, their completeness, correctness, and validity. If the answer is incorrect, it is necessary to ask questions such as: "Who has a different opinion on solving this problem?" or "Who wants to add?". Only after listening to other answers, the teacher tells the correct answer. The effectiveness of the conversation depends on the teacher's ability to manage its course, ask basic and additional questions, and listen to students' answers carefully. The teacher must also use the method of Socratic conversation. That is, ask questions in a clear logical sequence to find the correct answer.

The method of explanation is the most difficult one. This method is used to teach new material, the success of the explanation depends on its probability, the logic of the selection of arguments. The clarity of speech, pace, imagery of speech are important.

The discussion method is an effective method of discussing the issue being studied. This method involves a collective discussion of a contradictory statement, during which the truth is determined. The teacher should be guided by the following recommendations: wrong answers should be commented on with respect and kindness, avoiding inappropriate jokes from other participants. During the discussion, there should be an atmosphere of creativity, sincerity. (S. Sysoeva, 2005).

The important role of visual methods in the educational process in higher education has long been known. It is known that students remember 40% of what they saw, 20% of what they heard, and 80% of what they saw and heard at the same time. A demonstration is an educational method, which is a set of techniques, actions, and means for the creation of a visual image of the subject. Two types of display are well known: illustration and demonstration. The value of illustration is that they more clearly express the teacher's opinion: posters, diagrams, tables, drawings on the board. The demonstration is characterized by the mobility of the means of showing: educational film or its fragments, educational television. The method of illustration and demonstration requires strict adherence to several techniques and rules.

In the process of formative experiment, we were convinced that the method of play is appropriate, in particular, subject, plot, role-playing, business, simulation games, and game-dramatization. Simulation games simulate events, specific activities of children, educators, and role-playing games help to practice tactics of behavior. For the correct methodical carrying out of the game the model of a situation is developed, roles are distributed. The game "Aquarium" is used to intensify the activities of participants. Host: Now you are in a circle, clockwise, passing the microphone, giving a short answer to the question: "How can you show talent?"
(Answers should be written in the form of rays. The conclusion is made based on the received answers). It is worth knowing that early diagnosis of gifted children benefits the child and society as a whole. If talent is not discovered and conditions are not created for development, talent may not be revealed.

Game "Brainstorming". Participants are asked to answer the following questions:

- What conditions should be created for working with creatively gifted children?

- What are the typical conditions created in the new type of institutions?

(Participants give ideas and write them on the board.)

Conclusion:

- Are sufficient conditions created to work with creatively gifted children?

- What do you need to work with creatively gifted children?

Roleplay. The essence of role-playing games is the ability to analyze the problem from different points of view.

Situation 1.

The schoolgirl, studying in the gymnasium, revealed artistic abilities (singing, reciting poems). Due to frequent performances, both in the gymnasium and various competitions, the child's academic success decreased, and even in her character, there was arrogance, indifference to the life of the gymnasium. The question arose that the girl did not comply with the rules of the "Charter of the gymnasium." (Discussion of the problem.) (M. Fedorov, 2000).

Roles: a principal, a headteacher, a teacher, a class teacher of the girl, parents, classmates, a girl.

Situation 2.

Oksana studied very well, was a diligent, active, inquisitive student, and was interested in everything. Each teacher noticed the girls' abilities according to their profile and offered to develop them (clubs, sections, later Olympiads, defense of works in mathematics, history, literature). Because of her diligence, responsibility, the girl tried to keep up everywhere. In high school, Oksana chose a certain profile for her development, but often she heard from teachers: "We prepared you ...", "We hoped for you ..."
Roles: a principal, a headteacher, a teacher, a class teacher of the girl, parents, classmates, a girl.

Task: choose a flower petal with the role indicated on the reverse side, make a group according to the colors of the petal, i.e. roles, and consider this problem for each of their positions, weigh the pros and cons. Choose one speaker from the group. The group discussion takes 3 minutes. (Participants choose roles.) (M. Fedorov, 2000).

All the above forms, methods, and techniques allow the future educator to better understand the essence of creative talent, its types, and features. This, in turn, allows future educators to select correctly appropriate forms and methods of working with creatively gifted preschool children.

Thus, the purpose of the formative experiment, which took place during the 2020-2021 school years, was to determine the effectiveness of the developed technology and model of training future educators to work with creatively gifted preschoolers. The experiment was conducted during the assistant practice from 13.03.2020 to 31.04.2021. The experimental work was carried out within the framework of a comprehensive study conducted at the Precarpathian National University. The experiment involved fourth-year students, groups A-41 and A-42. A total of 45 students took part in the experiment. We have selected experimental and control groups. The main components of the educator's preparation for working with creatively gifted children were compared with the corresponding components of the control group students.

The tasks of the formative experiment were to expand, deepen, systematize the development of future educators to work with creatively gifted preschoolers; implement and test the effectiveness of technology to prepare future educators to work with creatively gifted preschoolers.

For the control group (A-41) the training process was carried out according to traditional methods. For the experimental group (A-42) lectures on the disciplines "Preschool Pedagogy", "Practical Pedagogy" and "History of Pedagogy" were supplemented with theoretical information about the role of giftedness, the essence of giftedness, its types, and features. Active teaching methods, role-playing games, and didactic games were used. Students were involved in practical activities with creatively gifted children and educators - practitioners how to work with creatively gifted children. Also, future educators tested the most effective methods and techniques of working with creatively gifted children, creating a "Creatively Gifted Child Profile". The final stage of our study - the control was to analyze the results of the introduction of technology to prepare future educators for the development of creative talent of children.

The purpose of the control experiment was to establish the real state of preparation of future educators to work with creatively gifted children.
Tasks:

1. To determine the level of formation of future educators’ training to work on the development of creative talent of children.

2. To identify the final level of formation - motivational, cognitive, operational, and personal components of the readiness of future educators to work with creatively gifted children, their real indicators.

We generalized the results of the formative experiment using a set of methods: Assessment of the reliability of differences between groups was carried out by Fisher's test, determination of multiple intelligence by Voltaire McKenzie’s method, G. Garner's questionnaire to determine the dominant abilities, a questionnaire to determine the behavioral characteristics of gifted children; psychological tests (in particular, G. Eisenko's test methods, Raven's progressive matrices, G. Gardner's questionnaire of dominant abilities and others), are intended for studying the logic of students’ thinking, coefficient of intelligence, distribution of abilities, etc. (Strelnikov V., 2003).

Based on the structure of readiness of future educators to work on the development of children's creative talent, we have prepared a questionnaire for students, which studied the degree of development of the relevant components of future educators’ personalities: motivational; cognitive; operating; personal.

Let's analyze in detail each component of the preparation of future educators for the development of children’s creative talent.

The motivational component is characterized by the existence of value orientations, motives, and the needs of the future educator, which contribute to the successful implementation of professional activities. Successful pedagogical activity is possible only under the condition of internal humanistic orientation, stable and conscious attitude to pedagogical work. To work with gifted children requires positive professional motivation, the desire to identify and develop the intellectual abilities of children. The cognitive component is characterized by the formation of the future educator's set of knowledge about the peculiarities of the identification and development of the intellectual talent of children. For a successful pedagogical process with intellectually gifted children, the educator needs general, psychological, pedagogical, socio-pedagogical, professional, methodological, research knowledge.

The operational component is represented by the appropriate skills and abilities for effective work with a creatively gifted child. There are five main groups of skills: gnostic, design, constructive, communicative, organizational.
Technology of training of future teachers of preschool education institutions to work with creatively gifted children

The personal component of preparing a preschool educator to work with creatively gifted children includes future educators' personal qualities: improvisation, ability to empathize, creating positive support for children, the ability to give teaching a personal color, mastery of informal communication, emotional confidence, emotional balance. That is, these are the qualities of the student's personality that will help him/her in the future to successfully cooperate with a creatively gifted child.

Accordingly, the questionnaire contains 4 blocks of characteristics that should be evaluated by students of control and experimental groups.

The first block of the questionnaire contained questions (items 1-3) aimed at studying the preconditions for the choice and attitude of future educators to the teaching profession.

The second block - (item 4) is aimed at studying the significance and level of formation of students' knowledge related to the specifics of teaching creatively gifted children.

The third block of the questionnaire - (position 5) - aimed to study the significance and level of students' relevant skills formation.

The fourth block - (position 6) - provided a study of the qualities and personality traits of the future educator, which contribute to the creation of effective interpersonal interaction with creatively gifted children.

Based on the criteria and indicators, 4 levels of students' readiness for the development of creative talent of preschool children were developed: low, average, sufficient, and high, according to which the assessment was conducted.

In the process of conducting lectures with additional theoretical information and practical tasks, students became much more active, participating with interest in role-playing games and situations. Conducting active forms of learning had a positive effect on students.

RESULT

The application of the developed technology of preparation of future educators to work with creatively gifted children had a positive effect on the results of the generalized test work with the help of a questionnaire. The data are given in Table 1, expressing a much higher success rate of the experimental group.

Table 1.
Levels of formation of components of preparation of future educators for work with creatively gifted children after a formative stage of the experiment

<table>
<thead>
<tr>
<th>Groups</th>
<th>Components</th>
<th>Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>high</td>
</tr>
<tr>
<td>A-41(EG)</td>
<td>motivational</td>
<td>10(37,5%)</td>
</tr>
<tr>
<td>24 (%)</td>
<td>cognitive</td>
<td>11(45,8%)</td>
</tr>
<tr>
<td></td>
<td>operating</td>
<td>10(41,6%)</td>
</tr>
<tr>
<td></td>
<td>personal</td>
<td>10(41,6%)</td>
</tr>
<tr>
<td>A-42(CG)</td>
<td>motivational</td>
<td>4(19,1%)</td>
</tr>
<tr>
<td>21 (%)</td>
<td>cognitive</td>
<td>3(14,3%)</td>
</tr>
<tr>
<td></td>
<td>operating</td>
<td>4(19,1%)</td>
</tr>
<tr>
<td></td>
<td>personal</td>
<td>4(19,1%)</td>
</tr>
</tbody>
</table>

Comparing the data of the experimental and control groups, given in Table 1, it should be noted that we found a significant difference in the indicators for each of the levels of formation of the components of preparation of future educators for the development of creative talent of children. As for the control group, their indicators have increased, but these are not significant changes.
To better show how the level of preparation of future educators for the development of children's creative talent has changed, consider the levels of formation of training of each component separately.

According to the questionnaire as for the motivational component of preparing future educators to work with creatively gifted children, we obtained the following results, which are presented in Table 2.

Table 2.

<table>
<thead>
<tr>
<th>Group</th>
<th>Amount of students</th>
<th>Levels of formation of motivational component of student training</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-41(EG)</td>
<td>24</td>
<td>high 10(41, 6%), sufficient 14(54 %), average 1 (4,2%), low 0</td>
</tr>
<tr>
<td>A-42(CG)</td>
<td>21</td>
<td>high 4(19,1 %), sufficient 7(33, 3%), average 10(47, 6%), low 0</td>
</tr>
</tbody>
</table>

The results are well observed in Diagram 1.
Diagram 1. Levels of formation of the motivational component of the preparation of future educators to work with creatively gifted children

According to the questionnaire for the cognitive component (block 2) of preparation of future educators to work with creatively gifted children, we obtained the following results, which are presented in Table 3.

Table 3.

<table>
<thead>
<tr>
<th>Levels of formation of the cognitive component of the preparation of future educators to work with creatively gifted children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gr</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>A-41(EG)</td>
</tr>
<tr>
<td>A-42(CG)</td>
</tr>
</tbody>
</table>

The results are well observed in Diagram 2.
Diagram 2. Levels of formation of the cognitive component of the preparation of future educators to work with creatively gifted children

According to the questionnaire of the operational component (block 3) of preparation of future educators to work with creatively gifted children, we obtained the following results, which are presented in Table 4.

Table 4.

Levels of formation of the operational component of the preparation of future educators to work with creatively gifted children

<table>
<thead>
<tr>
<th>Group</th>
<th>Amount of students</th>
<th>Levels of personal formation component of students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>high</td>
</tr>
<tr>
<td>A-41(EG)</td>
<td>24</td>
<td>10(41,6%)</td>
</tr>
<tr>
<td>A-42(CG)</td>
<td>21</td>
<td>4(19,1%)</td>
</tr>
</tbody>
</table>
The results are well observed in Diagram 3.

**Diagram 3.** Levels of formation of the operational component of the preparation of future educators to work with creatively gifted children

According to the questionnaire for students (block 4) of the personal component of training future educators to work with creatively gifted children, we obtained the following results, which are presented in table 5.

**Table 5.**

<table>
<thead>
<tr>
<th>Group</th>
<th>Amount of students</th>
<th>Levels of personal formation component of students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>high</td>
</tr>
<tr>
<td>A-1(EG)</td>
<td>24</td>
<td>10(41,7%)</td>
</tr>
</tbody>
</table>
The results are well observed in Diagram 4.

**Diagram 4.** Levels of formation of the personal component of the preparation of future educators to work with creatively gifted children

Thus, it can be argued that the proposed method, which we conducted in the experimental group, had a positive effect on the formation of the main components (motivational, cognitive, operational, and personal) training of future educators to work with creatively gifted children. The students of the experimental group performed the test tasks much better than the CG students.

Compared with the beginning of the experimental study, the indicators of the formation of the main components of training have increased significantly in the experimental group. Due to the introduction of additional theoretical information about creativity, talent, its types, and features, a large number of practical classes as well as role-playing games to the disciplines "Preschool Pedagogy", "Practical Pedagogy" and "History of Pedagogy". As for the students of the control group, there were no significant changes in the context of the formation of knowledge, skills, and abilities of future educators to work with creatively gifted children.

To confirm the effectiveness of our experimental methodology, we conducted a comparative analysis of the dynamics of the levels of formation of the main components of the preparation of future educators to work with creatively gifted children.
Diagram 5. Dynamics of levels of formation of the goal-motivational component of the preparation of future educators to work with creatively gifted children

Diagram 6. Dynamics of levels of formation of the cognitive component of the preparation of future educators to work with creatively gifted children

Diagram 7. Dynamics of levels of formation of the operational component of the preparation of future educators to work with creatively gifted children

Diagram 8. Dynamics of levels of formation of a personal component of the preparation of future educators for work with creatively gifted children
As we can see from the data of diagrams 5, 6, 7, 8, the EG students can observe a significant dynamic of increasing the levels of formation of the main components of preparing students to work with creatively gifted children. At the beginning of the experimental work, 20% of students had a high level, 28% - a sufficient level and 40% - a medium level, and 12% - a low level of formation of the main components of preparing future educators to work with creatively gifted children. At the end of the experimental work, the number of students changed - so 41% of students have a high level of knowledge, 38% have a sufficient level of knowledge, and 16% - an average level of knowledge and 5% - a low level. In particular, high-level indicators increased by 21% and sufficient levels by 10%. Indicators of the middle level decreased by 24%, low -by 8%.

As for the CG students, there were no significant changes in the context of the formation of the main components of the preparation of future educators to work with creatively gifted children.

Thus, it testifies to the confirmation of the formulated hypothesis, as well as to the effectiveness of the technology of preparing future educators to work with creatively gifted children.

**CONCLUSIONS.**

Thus, the main purpose of our experimental study is to test the effectiveness of technology to prepare future educators to work with creatively gifted children; confirmation or refutation of the research hypothesis; performing a description of the experimental study, analysis of its results.

So, the results of the experiment indicate the advantage of average and sufficient levels of knowledge acquisition, formation of skills and abilities of students to work with creatively gifted preschoolers, which necessitates the development of special methods to improve the readiness of future educators to work with creatively gifted children. The average level of formation of the main components (motivational, cognitive, operational, and personal) of preparation of the future educators for work with creatively gifted children prevails. The results of the control and experimental groups do not differ significantly. That is why to effectively prepare future educators to work with creatively gifted children, we have developed a technology to prepare future educators to work with creatively gifted preschoolers.

The purpose of the formative experiment, held during 2020-2021, was to introduce and test the developed technology and model of preparing future educators to work with creatively gifted children.

In the CG (A-41) the learning process was carried out according to traditional methods. In the EG(A-42) lectures on the disciplines "Preschool Pedagogy", 170
"Practical Pedagogy" and "History of Pedagogy" were supplemented with theoretical information about the role of talent, the essence of creativity, giftedness, its types, and features. Active teaching methods, role-playing games, and didactic games were used. Students were involved in practical activities with creatively gifted children and educators - practitioners, how to work with creatively gifted preschoolers. Also, future educators tested the most effective methods and techniques of working with creatively gifted children, creating a "Creatively Gifted Child Profile".

The final stage of our study - the control was to analyze the results of the introduction of technology in the preparation of future educators to work with creatively gifted children.

Thus, after the formative stage of the experiment, the students of the experimental group can observe a significant dynamic of increasing the levels of formation of the main components of preparing students to work with creatively gifted preschoolers. At the beginning of the experimental work, 20% of students had a high level, 28% - a sufficient level and 40% - a medium level, and 12% - a low level of formation of the main components of the future educator's preparation for the development of children's intellectual talent. At the end of the experimental work, the number of students changed: so 41% of students have a high level of knowledge, 38% have a sufficient level of knowledge, and 16% - an average level of knowledge and 5% - a low level. In particular, high-level indicators increased by 21% and sufficient levels by 10%. Indicators of the middle level decreased by 24%, low - by 8%.

As for the CG students, there were no significant changes in the context of the formation of the main components of the preparation of future educators to work with creatively gifted children.

Thus, the implementation of the system of working with gifted children involves the developing of an efficient model of the educational process designed to harness students’ abilities and talents.

Work on developing students’ abilities and talents is arranged in three stages: diagnostic (identifying children who have abilities for certain types of activities, are distinguished by their synthetic skills and innovative approach to problem-solving); formative (establishing conditions for the full intellectual, physical, and moral development of the gifted children); motivational and stimulating (encouraging students to personal growth and self-improvement).

Psychologists often use psychodiagnostic techniques to help assess a child’s social development, creativity, and intelligence (Eysenck, Kettel, Torrance, Wechsler, and STTR tests, etc.). However, test results may not always identify giftedness to the fullest extent. This is due to a number of subjective factors – from the terms of testing to the respondent’s state at the time of testing. Given this, it is advisable to
Technology of training of future teachers of preschool education institutions to work with creatively gifted children

supplement psychodiagnostic data with information from parents, subject teachers, classroom teachers, and observation data on a gifted child.

Scholars I. Zaritskaya and S. Cherner (2000) have identified three factors that influence the implementation efficacy of pedagogical support for the academically gifted children (students). The first is the personal, subjective attitudes of the teacher (the teacher’s need for self-enhancement; positive value attitude towards oneself and a child; belief in the positive potential of a person; openess, empathy, availability for a dialogue, motivational focus on the partner; emotional self-adjustment; attitude towards personal behaviour; awareness of personal responsibility for the child’s life; positive focus on certain pedagogical activities, on the development of the student’s personality, teaching tact, delicacy).

The second factor is related to certain requirements for a teacher’s professional activity (mastery of professional knowledge in the field of education science and psychology; perfect mastery of pedagogical techniques, methods of individual and group work, developmental, personality-oriented, differentiated learning; assisting a child in fostering creativity and personal growth; constant analysis and reflection of one’s own professional activity, introspection, readiness for continuous enhancement of personal skills). The third factor is related to the organization of the professional environment, management of the educational system (availability of a team of like-minded people; personality-oriented approach to the organization of the methodical work of the educational institution; availability of a reflective and innovative environment in the teaching facility, marked by openness, trust, joint activities of teachers and children; collaborative planning, design of the educational process; availability of feedback on the state of development, prevailing problems, results of students’ and teachers’ activities)

So the system of working with gifted childrens usually involves: meeting the needs of gifted students for in-depth study of subjects; providing facilities for their diverse cognitive interests and, at the same time, for the development of abilities revealed in a particular field of activity; preventing gifted children from overestimating their capabilities and losing interest in learning.

Group and individual lessons during and after school hours, as well as electives, are effective in working with such students.

Social and psychological support has a ranking place in the system of working with gifted children: development of psychodiagnostic tools (tests, questionnaires, etc.) to identify and provide the necessary support to gifted students; establishing a database with comprehensive profiles of gifted children; development and implementation of individual educational programs.

Today, almost every institution of compulsory education has its own system of working with gifted children, which reveals the general provisions, guidelines and
ways to tackle this issue. Such a system is rooted in their own psychological and pedagogical research, as well as in the experience of other educational institutions.

REFERENCES


Maryanenko, L. (2001). Teacher's ability to treat gifted students as a factor in his professional growth. Practical Psychology and Social Work.8, 48–51.


Myzuka, O. (2006). Creativity from the point of subject-value analysis. Actual problems of scientific and methodical support of educational practice in the


