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PEDAGOGICAL TECHNOLOGIES OF CREATIVITY DEVELOPMENT IN FUTURE TEACHERS

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Annotation
The article examines the features of the development of creativity in future teachers in the conditions of higher education. The psychological and pedagogical conditions for the formation of creative potential of students are described. The expediency of using heuristic methods in the process of professional training of future teachers is based and their use in the organization of training is analyzed.

Keywords: creativity of future teachers, heuristic teaching methods, professional training, creativity, creative thinking, creative thinking, creative ability, creative, motivation, creative environment.

INTRODUCTION

One of the important shortcomings of modern professional pedagogical education is its weak influence on the development of the creative potential of future teachers. The analysis of the activities of teachers of modern higher educational institutions shows that the level of pedagogical practice aimed at developing their creative abilities is not sufficient. In the future professional and pedagogical activities of most teachers, the creative work system, stereotyped methods and methods focused on the algorithmic actions of students prevail. Therefore, one of the most important tasks of pedagogical higher education institutions that prepare teachers is to develop creativity in future teachers, to increase their creative potential, to apply elements of creativity in professional and pedagogical activities of future teachers. consists of preparation.

LITERATURE ANALYSIS AND METHODOLOGY

Pedagogical aspects of creativity in professional training of teachers in higher education Yu.P. Azarov, O.V. Akimova, R.S. Gurevich, I.A. Ziazyun, N.V. Kichuk, N.V. Kuzmina, O.N. Kutsevol, L.M. Luzina, M.D. Nikandrov, N.G. Nichkalo, M.M. Potashnik, S.A. Sysoeva, M.I. Smetansky, G.S. Tarasenko, A.V. It was studied by Temchenko and many other scientists.

By teacher creativity, we understand the overall quality that determines the teacher's ability to create original, unique, innovative ideas for various solutions to pedagogical tasks that arise in the educational process. It is characterized by the fact that the teacher sees the pedagogical problem in time, develops creative ways to solve it, and acts not according to a certain template, but in a unique way [1].

One of the main conditions for the development of creative thinking of future teachers is to direct the educational process to the student's personality, taking into account his personal characteristics, inclinations and aspirations. That is, the professional pedagogical education of students involves the use of various approaches of creative teaching focused primarily on the individual qualities of a person.

The formation of the creative potential of the future teacher in higher educational institutions will be helped by the introduction of non-traditional forms and methods of teaching, innovative pedagogical technologies, and the organization of various psychological and pedagogical trainings. Active participation in professional and pedagogical tasks, scientific conferences, contests, discussions on higher education problems and other educational and scientific-methodical activities is organized. In this, conditions are created for professional self-development, self-affirmation and self-expression of the teacher.

First of all, let's describe the creative qualities of future teachers, including the psychological-pedagogical conditions that stimulate the development of creativity in pedagogical HEIs. For example, E. P. Torrens distinguished the following conditions that contribute to the development of a person's creative thinking and creativity: the presence of creative abilities and creative motivation [2]. At the same time, if these three factors coincide, a high level of creative abilities can be manifested.

1) incomplete cases that differ from clearly defined and strict control;
2) creation and development of strategies and tools for future activities;
3) encourage responsibility and independence;
4) pay attention to independent developments, generalizations, observations.

In the process of forming creative thinking of future teachers, it is important to use problem-based educational technologies in forming and solving educational, scientific and professional pedagogical problems. Therefore, it is necessary to subordinate all organizational forms and methods of teaching in modern higher education institutions to the development of creative thinking of future teachers: lectures, practical and seminars, independent and individual work. It is known that a problem lecture arouses students' interest in the studied issues, encourages activity and independence in searching for additional information. At the same time, in the process of solving the problems proposed by the teacher, they get independent

additional knowledge. Problem lectures include: lecture-dialogue, lecture-discussion, lecture-discussion, etc.

DISCUSSION AND RESULTS

Problem-based practical and seminar training can be conducted in various forms, for example: in the form of discussions on individual issues of the topic; in the form of discussion, debate (requiring independent study of additional educational material); in the form of defense of theses that activates the attention of all students and contributes to the development of evidence-based thinking; in the form of solving professional and pedagogical problems that develop the skills of practical application of theoretical knowledge of future teachers; in the form of business games, which are an active method of training specialists, because they include the use of research, teaching and some forms of education.

Practical training, which is an integral part of the professional training of future teachers, should be organized on the basis of the project method. The topics of the project aimed at solving current problems related to the modernization of the educational system and the organization of innovative education, conducting scientific and practical research are studied by students in small groups or individually, and after completing the project, each student or small group o This form of practical work of future teachers is, in our opinion, the most appropriate and useful, as he defends his project work through a suitable presentation and answers various questions.

Thus, the process of formation of future teachers, including creative thinking, is based on purposeful interaction, cooperation between teachers and students, using the necessary forms and methods of organizing the educational process. organization, it is possible to distinguish some groups of methods that contribute to the formation of professional creative thinking of students [3], they are classified as follows:

1. On methods of organizing educational activities:

structural and logical methods characterized by step-by-step organization of didactic tasks, selection of methods for solving them, diagnostics and evaluation of the obtained results; training methods aimed at developing specific algorithms of educational and cognitive activities and solving common problems during training (these can be tests and practical tasks, it is desirable to add creative elements to their content); game methods characterized by the interaction of subjects of the educational process (if educational tasks are included in the content of the game), etc.

2. According to the formative direction, in turn:

a) methods of developing experience of creative activity:

methods of using complicating conditions, namely: time limit method, sudden prohibition method, new options method, lack of information method, denial method; group solving methods of creative tasks: Delphi method, "black box" method, diary method; methods of stimulating collective creative research: brainstorming, synectics and other methods.

b) methods of emotional influence that contribute to the formation of experience and create a positive attitude through the experience of their professional, creative and educational activities: emotional reaction to it, stimulation, educational and emotional game, state of success creation, free choice of creative tasks, motivation to choose alternative solutions.

Of course, there are many other approaches to classifying methods that help develop professional creative thinking and foster creativity in future teachers. But there are factors that have a negative impact on the manifestation of creative thinking in future teachers. S.D. Smirnov [1], this includes: time limit; or increased anxiety; strong or weak motivation to learn; striving to find a solution quickly, which usually leads to a decrease in the quality of tasks by reducing the time of its completion; the method of forming task conditions that trigger the incorrect solution method; lack of confidence in their abilities due to previous failures and other reasons.

G. Ouch, a well-known creativity researcher, calls the factors that prevent creative thinking "mental locks", that is, a strong attitude of the mind that prevents a creative approach to solving life and professional situations. According to his opinion [3], which includes: self-doubt; fear of looking worse than others; the habit of evaluating all life and educational situations from the point of view of logic; always try to be practical; the habit of following generally accepted rules; mark only one correct answer; tendency to avoid uncertainty; subconscious thinking that it is impossible to make mistakes in general and others.

We support the opinions of researchers who believe that heuristic teaching methods should be widely used at the stage of professional training of future teachers [4], which actively encourages the development of creativity in students and forms their creative qualities. .

In our opinion, let's analyze the main methods that are appropriate to use in professional training of future teachers in the conditions of higher education. For example, the Agglutination method is designed to develop students' abilities to combine qualities, properties, or parts of objects that do not match in the real world, such as hot snow, volume void, sweet salt, black light, etc. The use of this methodology helps to develop the ability to put forward fantasy, imagination, bold ideas and

hypotheses in future teachers. It is appropriate to use this methodology during active lectures and practical (seminar) training on the methodology of teaching science.

The main task of the brainstorming method is to collect the most ideas from the participants. This is an operational method of solving group problems, and its participants are encouraged to express as many options as possible to solve it, encouraging creative activity. After that, the most successful ones that can be used in practice are selected from the total number of opinions expressed. It is appropriate and useful to use this methodology in practical work in small groups, when each student has the opportunity to put forward his idea to solve the problem, it is possible to create an algorithm and implement its software.

The method of projects is a method aimed at strengthening the learning process, taking into account the personal needs and individual qualities of students. The goal of the project method in education is considered to be a unique transition from personality development, self-development, reveals his intellectual and creative potential, and the possibility of organizing project activities in the process of training future teachers. forms and methods can be as follows: performing small groups or individual projects during planned laboratory work; combining learning material on certain topics in the form of a creative assignment or project in the form of a final repetition.

The Delphi method allows a group of researchers to reach the maximum agreement of their opinions in search of the right solution through surveys, interviews, brainstorming, and the like. This method excludes the possibility of open conflicts between carriers of opposing views, since direct communication between experts is not possible. It can be used in conducting scientific-practical Internet conferences or discussing problems in relevant forums.

Game methods that can be used during lessons of any form can be used [5]. For example, solving or creating crosswords, rebuses, charades, especially related to the subject in practical and seminar classes for students; computer graphics contests; may conduct quizzes on specific topics.

CONCLUSIONS AND SUGGESTIONS

We will consider some examples of educational tasks that are suitable for use at the stage of higher education of future teachers. For example, on a computer, you can offer such tasks: students will be shown part of the information related to the subject being studied on the screen.

Asks them to identify what the topic is about. Or he will have to find errors that were deliberately introduced in certain information.

Thus, at the current stage, there are various ways to develop the creativity of future teachers. When forming an individual style of pedagogical activity, each teacher of higher education can choose any heuristic forms and methods of teaching students. At the same time, it is necessary to ensure that the results of their application have a positive effect on the development of creativity of future teachers.

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