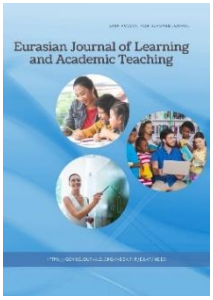

Using TRIZ to Activate Students' Creativity

Reymov Mukhamedali Kengesbaevich,
3 years student, Bachelor's degree
Nukus State Pedagogical Institute named after Azhiniyaz
(Nukus, Republic of Karakalpakstan)

Zueva Arina Viktorovna,
3 years student, Bachelor's degree
Nukus State Pedagogical Institute named after Azhiniyaz
(Nukus, Republic of Karakalpakstan)

Zueva Viktoriya Viktorovna,
3 years student, Bachelor's degree
Nukus State Pedagogical Institute named after Azhiniyaz
(Nukus, Republic of Karakalpakstan)
zuevaarina712@gmail.com

ABSTRACT

In the article the notion of creativity is specified and its components are revealed; the bases of the Creative Tasks Solving Theory are considered; the components of the Creative Tasks Solving Theory pedagogic are explained.

Keywords: Creativity; Creative Tasks Solving Theory; Creative Tasks Solving Theory pedagogic; creativity diagnostics; pupil's creativity development using Creative Tasks Solving Theory.

Introduction:

Throughout life, a person faces a variety of difficulties, every minute there are numerous problems and different events occur that we cannot always cope with. Having a creative mind can make life much easier, but how can you acquire it?

Relevance:

Today the socio-economic situation in modern society needs a creative person who can and is able to successfully solve emerging problems, independently obtain knowledge, analyze and apply it in the course of his creative activity, therefore, one of the tasks of modern education is the development of students' creativity.

Purpose:

To reveal the components of TRIZ-pedagogy for the development of students' creativity.

Tasks:

Consider the concept of creativity;
Determine its components;
Consider the components of TRIZ pedagogy.

Scientific novelty

Lies in an attempt to generalize knowledge about creativity, its components, study literature on the topic.

For the first time, the very concept of creativity was used by D. Simpson, designating it as a person's ability to abandon stereotypical ways of thinking. Also, a great contribution to the study of creativity was made by the work of

J.P. Guilford, who distinguished it as divergent thinking. It manifests itself when the problem has not yet been identified, not formulated and there is no pre-prescribed way to solve it. Creativity is a focus on a qualitatively new solution. [3]

J.P. Guilford identified six dimensions of creativity:

Ability to detect and pose problems;

"Fluency" of thought;

Originality;

Flexibility of thought;

The ability to enhance an object by adding detail;

Ability to analyze and synthesize problems.

The personality traits that predetermine its success are redistributed in favor of those who have one or more of the above parameters. The development of a person's creativity is a long and complex process. At different age stages of its formation, it has its own specifics. [5] This problem is especially acute in adolescence, which is a sensitive period and has an impact on the formation of a teenager's personality as a whole. Developing creativity during this period can help you adapt to changes in your teenager. She can also help with the choice of a future profession, determine priorities, set goals and choose ways to achieve them.

The formation of creative activity is also associated with the maturation of the internal prerequisites for creativity - creative abilities. According to the concept of S. L. Rubinstein, the key link in the development of abilities is the realization of a person's capabilities, carried out in activity, that is, in labor. When these obtained opportunities are realized, new opportunities appear that form a new level, preconditions for the further development of abilities. For such a development of abilities, it is very useful to apply situational creativity - the use of an actual problem for the student as an impetus to creativity, to which the student quickly responds. Involvement in such activities is a step in the development of creativity as a characteristic of a person. [5]

The development of creativity is undoubtedly associated with the methods of creative search. The first such method was trial and error. It should be noted that creativity based on trial and error excludes the possibility of creativity in teaching. [2,4] Modern pedagogy is trying to solve the problem of the possibility of creativity in teaching in the following ways: the implementation of a personality-oriented idea for students, the search for new means of developing thinking abilities related directly to the creative activity of the student. The method of projects turns out to be very effective, thanks to which the achievement of any didactic goal occurs through the development of a problem, a certain technology of actions, as a result of which students create some kind of material object that meets predetermined criteria.

GS Altshuller in his works speaks about the conscious management of the creative processes of intellectual activity. Henrikh Saulovich is a representative of one of the scientific schools. As a methodology for the development of creativity in his works, he indicates the theory of inventive problem solving (TRIZ), of which he is the author. TRIZ is based on many provisions, which will be described below, but the main essence can be distinguished as follows: the psyche is the key to the laws of creativity and all systems develop according to certain laws that can be learned and applied in all spheres and areas of life. Thanks to this theory of inventive problem solving, TRIZ pedagogy arose. It was formed in the late 1980s. TRIZ pedagogy aims at the formation of a sufficiently strong thinking personality, its creative upbringing and preparation for solving complex problems in all areas of activity. The methods and means used in TRIZ pedagogy are initially based on the problem-search method, as well as in developmental education. However, with such training, students are presented with problems and immediately offered tools to solve them, which helps to successfully solve problem problems. The goal of TRIZ can be defined as the solution of inventive problems, and the goal of TRIZ pedagogy is teaching how to solve these creative problems. Modern TRIZ pedagogy is designed not only for groups of students of different ages, but also for adult specialists. With each age group, of course,

objects for inventive activity are selected corresponding to their age.

The main provisions of TRIZ pedagogy are:

Knowledge of the way to implement an idea can help restore the author's train of thought, his original idea;

"No problem - no movement" that is, any work necessarily solves at least one problem;

An inventor's job is to bring something new to an already existing object or activity;

Each creative solution to a technical problem includes such main points as: setting the problem, defining a contradiction, eliminating the cause of this contradiction and giving a new form to the solution.

Result:

The use of TRIZ-pedagogy helps to increase the creativity of thinking and the productivity of not only students, but also adult specialists; thanks to it, you can learn to find original ideas and reduce stress resistance when faced with a problem.

Conclusion:

The main attraction of TRIZ-pedagogy is that it forms the preconditions for the moral and intellectual development of a person. The use of the methods of TRIZ-pedagogy helps to develop cognitive activity, creativity of thinking, involuntary memory, since the lesson in which the methods and means of TRIZ were used makes it memorable.

Bibliographic list:

1. Altshuller, G.S. Find an idea. Introduction to the theory of inventive problem solving [Text] / G.S. Altshuller. - Novosibirsk: Nauka, 1991 .-- 225 p.
2. Bukhvalov, V.A. Algorithms of pedagogical creativity / V.A. Bukhvalov. - Moscow: Education, 1993 .-- 96 p.
3. Ilyin EP Psychology of creativity, creativity, giftedness. - SPb .: Peter, 2009 .-- 448 p.
4. Meerovich M.I. Creative thinking technology. Library of practical psychology: a practical guide / M.I. Meerovich, L.I. Shragin. - Minsk: Harvest-Moscow, AST, 2008 .-- 430 p.
5. Rubinstein, S.L. Fundamentals of General Psychology / S.L. Rubinstein. - Moscow, 1946 .-- 588 p.