

## Impact Factor:

ISRA (India) = 4.971  
ISI (Dubai, UAE) = 0.829  
GIF (Australia) = 0.564  
JIF = 1.500

SIS (USA) = 0.912  
PIHHI (Russia) = 0.126  
ESJI (KZ) = 8.716  
SJIF (Morocco) = 5.667

ICV (Poland) = 6.630  
PIF (India) = 1.940  
IBI (India) = 4.260  
OAJI (USA) = 0.350

SOI: [1.1/TAS](https://doi.org/10.15863/TAS) DOI: [10.15863/TAS](https://doi.org/10.15863/TAS)

## International Scientific Journal Theoretical & Applied Science

p-ISSN: 2308-4944 (print) e-ISSN: 2409-0085 (online)

Year: 2020 Issue: 02 Volume: 82

Published: 29.02.2020 <http://T-Science.org>

QR – Issue



QR – Article



**Tursun Xuvayevich Chariyev**  
The state conservatory of Uzbekistan  
Assistant of professor  
Uzbekistan, Tashkent city

## THE DEVELOPMENT OF INDEPENDENT AND CREATIVE THINKING OF STUDENTS IN THE LEARNING PROCESS

**Abstract:** *The article says that the rapid growth of scientific information, the formation of science required some re-evaluation of methods of teaching students. Independent work plays an important role in the development of cognitive activity. Independent work is usually understood as work performed without active help from "outside", when the student determines the sequence of his actions, the causes of difficulties and ways to eliminate them in order to achieve the goal.*

**Key words:** *improving the effectiveness of the lesson, cognitive activity, reproductive, reconstructive, variable.*  
**Language:** English

**Citation:** Chariyev, T. X. (2020). The development of independent and creative thinking of students in the learning process. *ISJ Theoretical & Applied Science*, 02 (82), 605-608.

**Soi:** <http://s-o-i.org/1.1/TAS-02-82-101> **Doi:**  <https://dx.doi.org/10.15863/TAS.2020.02.82.101>

**Scopus ASCC:** 3304.

### Introduction

### UDC 37.02

All aspects of life, both political and socio-economic, are changing in our country. All these changes have also affected the education process, which must be brought into line with the needs of society for highly qualified personnel with strong and deep knowledge, capable of self-development and self-realization. The goal of education according to the new standards is to prepare well-rounded individuals who are capable of active social adaptation in society, starting work, self-education and self-improvement. Therefore, there is a need for changes in the process of education and training of the younger generation. Improving the educational process, developing the cognitive abilities of students, forming their basic techniques and skills of educational activity, this is the main task facing the school's teachers. Cognitive activity is the process of activating their activities by the students themselves. Self-realization of students' active activity occurs in situations that encourage them to make independent decisions and actions, to freely choose tasks and creative activities. Since the formation of a developed student's personality includes not only the

development of creative thinking, but also other components of practical activity: the development of memory, logical thinking, and intellectual skills. Students' mental development is improved in the process of solving both creative and standard tasks. The combination of simple reproduction of knowledge and creative solutions to certain issues is a real basis for increasing creative activity and developing cognitive interest at all stages of the educational process. One of the most accessible and proven ways to improve the effectiveness of the lesson, to activate students in the lesson is the appropriate organization of independent educational work. Independent work is a necessary condition for the formation of a creative, well-developed personality of the student. In independent work, children themselves are aware of the nature of the work performed, they themselves determine and find ways to overcome the difficulties that arise. In General, they themselves organize their activities.

The purpose of independent work is to develop cognitive abilities, initiative in decision-making, and creative thinking. Independent work is organized so that they develop skills and habits to work. The organization and construction of independent work poses many problems: what forms should be

## Impact Factor:

ISRA (India)	= 4.971	SIS (USA)	= 0.912	ICV (Poland)	= 6.630
ISI (Dubai, UAE)	= 0.829	PIHHI (Russia)	= 0.126	PIF (India)	= 1.940
GIF (Australia)	= 0.564	ESJI (KZ)	= 8.716	IBI (India)	= 4.260
JIF	= 1.500	SJIF (Morocco)	= 5.667	OAJI (USA)	= 0.350

independent work, what type of task is necessary and can be included in independent work, what is the sequence of these tasks, and much more. When performing independent work, students are faced with different types of work. In accordance with the forms of cognitive activity, there are three types of tasks: reproductive, reconstructive, and variable. Tasks of this type are performed on the basis of a sample or detailed instruction, based on known formulas and theorems. Tasks of the reproductive type can include tasks for reproducing or applying theorems, definitions, properties of certain mathematical objects, solving problems using formulas (finding the path by speed and time, finding a fraction of a number), recognizing various objects and their properties (which of the following graphs are graphs of linear functions, which of the following inequalities are quadratic). Sample work allows you to develop the basic skills necessary for studying mathematics, but does not enrich students with the experience of cognitive creative activity. When performing reproductive tasks, students' activities take the form of a simple reproduction of what they have learned. Therefore, such tasks do not contribute much to the development of students' thinking, but they are necessary, since such tasks create a basis for further study of mathematics and thus contribute to the performance of higher-level tasks.

The modern system of higher education should be considered as the most important institution of socialization of the individual, in which training and education is a single process aimed at training highly educated, widely erudite, cultural, creative thinking specialists. It is well known that the memory of students is fixed from 10 to 20% of what they hear, 50% of what they see, and 90% of what they do. Therefore, it is necessary, as K.D.Ushinsky said, "to give a person an activity that would fill his soul and could fill him forever, is the true goal of education, a living goal, because this goal is life itself." In the context of the modern education system, the problem of developing independent thinking is particularly relevant. It is the independence of thinking, as a form of subjective activity, as a personal quality of students that is most clearly revealed in the conditions of choice, resolution of contradictions, overcoming the difficulties that arise when performing educational activities. The process of forming students' experience of creative thinking consists in purposeful interaction, co-creation of the teacher and students in adequate specially organized conditions using the necessary mechanisms, forms and methods of organizing classes. Forms and methods of organizing classes are used in a complex and depend on the tasks of a particular stage of formation. the following groups of methods aimed at forming the experience of professional and creative thinking can be distinguished: According to the method of organizing educational activities:

a) Structural and logical (problem) methods. They are characterized by a step-by-step organization of setting didactic tasks, choosing ways to solve them, diagnosing and evaluating the results obtained (from simple to complex, from theory to practice)

b) Training methods. They are a system of activities for working out certain algorithms of educational and cognitive actions and ways of solving typical tasks during training (tests and practical tasks, in the content of which at the normative stage should be added elements of creativity).

c) Game methods. This group of methods is characterized by a game form of interaction between the subjects of the educational process; educational tasks are included in the content of the game (business games, professional fights, discussions). Since thinking is the most active and complex cognitive process mediated by speech, special attention should be paid to its development in students. In this regard, the concept of "activation of learning" arose in the psychological and pedagogical branches of knowledge. Activation of educational activity is understood as purposeful activity of a teacher aimed at developing and using such forms, content, methods and means of training that contribute to increasing the interest, independence, and creative activity of students in learning knowledge, forming skills in their practical application, as well as forming the ability to predict educational and life situations and make independent decisions.

One of the most accessible and proven ways to improve the effectiveness of the lesson, to activate students in the lesson is the appropriate organization of independent educational work. Considering the forms and content of independent work of students, the teacher should put the goals of this type of activity at the forefront. The organization of independent work of students involves various goals, including:

- systematization and consolidation of the acquired knowledge and skills;
  - deepening and expanding theoretical knowledge;
  - formation of independent thinking, ability to self-development, self-improvement, self-realization;
  - development of cognitive abilities and activity of students: creative initiative, independence and organization;
  - formation of skills to use normative, legal, reference documentation, special literature;
  - development of research skills;
  - motivation of regular purposeful work on the development of the specialty;
  - formation of General competencies;
  - formation of professional competencies.
- Psychologists have identified a number of conditions that stimulate and promote the development of creative thinking:

- situations of incompleteness or openness, as opposed to strictly set and strictly controlled;

## Impact Factor:

ISRA (India) = 4.971  
ISI (Dubai, UAE) = 0.829  
GIF (Australia) = 0.564  
JIF = 1.500

SIS (USA) = 0.912  
PIHHI (Russia) = 0.126  
ESJI (KZ) = 8.716  
SJIF (Morocco) = 5.667

ICV (Poland) = 6.630  
PIF (India) = 1.940  
IBI (India) = 4.260  
OAJI (USA) = 0.350

- the creation and development of techniques and strategies, objects and tools for follow-up;

- promotion of responsibility and independence;  
- emphasis on independent development, observations, feelings, generalizations. It is possible to subordinate all organizational forms of training to the task of forming students' creative thinking experience. Lectures, practical and seminar classes, and independent work of students during extracurricular time should be based on the principle of problem-solving. A problem lecture arouses students' interest in the issues being studied, stimulates activity and independence in searching for additional information, and models the contradictions of real professional activity. students acquire knowledge as if on their own in the process of solving the problem. Types of problem lectures are: lecture-press conference, lecture-provocation, lecture-dialogue. Practical and seminar classes problem character can be in the form of discussions on specific issues of the topic, "professional fights", which requires examination of additional material;

- in the form of protection of the abstracts that activates the attention of all students and contributes to the development of evidence of thinking;

- as a specific professional situational problems (research problems), in which develop ability to formulate and solve problems, to apply their theoretical knowledge;

- in the form of business games.

Business games are a kind of active method of personnel training, since this training includes research, training and training in a certain form. In this case, the impact on the need-motivational sphere of

students' personality is carried out, reflexive abilities are developed, a holistic professional consciousness is formed, and the level of self-confidence is increased. For successful professional development of the individual, teachers need to remember that one of the main roles in this process belongs to the creative potential, which must not only be developed, but also encouraged and supported by students in the process of studying at the University. All the described conditions and methods for developing students' creative thinking are possible only if teachers have a corresponding attitude to this problem, since the process of preparing for creative classes is much more complicated and takes more time.

The teacher checks these tasks much faster than usual. But it is more useful to invite students to evaluate their own work or the work of their neighbors on the desk. After such a mutual check, students will immediately see the results of their work and pay attention to those tasks that they did not cope with. Different forms of independent work that can be used in the classroom are intended to instill in children an interest in mathematics, aimed at forming the intellectual skills of students that they can use in future independent creative work, regardless of the chosen specialty.

Therefore, it is necessary to realize that the professionals we will graduate from the University today will determine the direction of development of our country in the near future, and how effectively and quickly they will solve emerging, as yet unknown professional issues and problems depends on the quality of their education and the level of development of their creative thinking.

## References:

1. Bogoyavlenskaya, D. B. (1983). *Intellectual activity as a psychological aspect of studying creativity*. - Moscow.
2. Ivanova, I. P. (2002). *Development of creative thinking of students in the conditions of problem-activity training*. Stavropol.
3. Ishmuhamedov, R. (2003). *Ways to improve the effectiveness of education using innovative technologies*. Tashkent.
4. Haydarov, F.I. (2005). *Motivation of educational activities*. (p.122). Tashkent: Science.
5. Shahodzhaev, M.A., Begmatov, Je. M., Hamdamov, N. N., & Numonzhonov, Sh. D. U. (2019). Metody jeffektivnogo ispol'zovanija informacionno-kommunikacionnyh tehnologij v obrazovatel'nom processe. *Problemy sovremennoj nauki i obrazovanija*, 10 (143).
6. Farhodzhonova, N.F. (2016). *Problemy primeneniya innovacionnyh tehnologij v obrazovatel'nom processe na mezhdunarodnom urovne*. In Innovacionnye tendencii, social'no-jekonomicheskie i pravovye problemy vzaimodejstvija v mezhdunarodnom prostranstve (pp. 58-61).
7. Shahodzhaev, M.A., Begmatov, Je. M., Hamdamov, N. N., & Nymonzhonov, Sh. D. U. (2019). ispol'zovanie innovacionnyh obrazovatel'nyh tehnologij v razvitii tvorcheskih sposobnostej studentov. *Problemy sovremennoj nauki i obrazovanija*, 12-2 (145).

<b>Impact Factor:</b>	<b>ISRA (India) = 4.971</b>	<b>SIS (USA) = 0.912</b>	<b>ICV (Poland) = 6.630</b>
	<b>ISI (Dubai, UAE) = 0.829</b>	<b>PIHHI (Russia) = 0.126</b>	<b>PIF (India) = 1.940</b>
	<b>GIF (Australia) = 0.564</b>	<b>ESJI (KZ) = 8.716</b>	<b>IBI (India) = 4.260</b>
	<b>JIF = 1.500</b>	<b>SJIF (Morocco) = 5.667</b>	<b>OAJI (USA) = 0.350</b>

---

8. Xudoyberdiyeva, D. A. (2019). Management of the services sector and its classification. *Theoretical & Applied Science*, (10), 656-658.
9. Farxodjonova, N. (2019). Features of modernization and integration of national culture. *Scientific Bulletin of Namangan State University*, T. 1, №. 2, pp. 167-172.
10. Farhodjonovna, F. N. (2017). Spiritual education of young in the context of globalization. *Mir nauki i obrazovaniya*, № 1 (9).