

IMPROVEMENT OF INNOVATIVE ABILITY OF STUDENTS

Sh. Normurodov

Teacher of the secondary school №8 of Termez city

<https://doi.org/10.5281/zenodo.8193282>

Abstract. *This article describes the methodology and organization of students' independent educational activities and their improvement. The creation of projects as a result of new research and research is not done by the teacher with the participation of students, but under the guidance of the teacher and with the help of the students themselves. The content of research and research method is explained.*

Keywords: *independent activity, search, method, information, task, analysis, generalization, prove, incorrect.*

The relevance of the topic. One of the independent study methods of students is the method of organizing independent study activities of students to reveal the essence of new concepts and methods of research.

Description of the article. One of the students' independent learning methods is to organize students' independent educational activities to independently analyze the stated facts and materials and discover the essence of new concepts and methods of activity. The research method is to organize students' activity to independently analyze the stated facts and materials and discover the essence of new concepts and methods of activity, rather than giving information in the form of a teacher's conversation. The essence of the research method is that the discovery of new laws and regulations is not carried out by the teacher with the participation of students, but under the guidance of the teacher and with his help, the students themselves do it independently. The research method is to describe the educational material in dialog form:

a) use of some issues and tasks in the presentation of new knowledge;
b) asking questions and tasks for analyzing and summarizing the educational material;
c) applying knowledge issues for smaller research, proving conclusions, rejecting misconceptions;

d) is to organize detailed discussions on independent knowledge of the topics. The research method is organized by the teacher by setting a highly important theoretical and practical research task to the students. The difference between research assignments and research assignments is that in the research method, students work on collected facts (experiment, observation, work on literature) and their theoretical analysis, systematization, and generalization, and discoveries and inventions appear as a result of the analysis and generalization of factual materials by students.

In the research method, the student independently performs logical operations and discovers the essence of new concepts and new methods of action. The progress of the student's reasoning, the correctness or incorrectness of the conclusions is determined by the teacher in the process of talking with the student or when he reports the result of his research orally or in writing. In learning based on the research method, factual material is given to the student by the teacher and analyzed together. The student reveals the essence of the new concept with the help of the teacher. The difference between research tasks and cognitive tasks is that students' independent educational-cognitive activities include the cycle of information gathering and analysis, from independently setting problems to solving them, checking solutions, and applying new knowledge

in practice. Students should have the steps of observing, collecting and analyzing materials, and explaining and applying the laws and rules they discover, just like scientific research. One of the features of research assignments is the analysis of previously collected materials.

Research work can be diverse according to the forms of organization: student experience; participation in scientific experiments; excursion; study archives; preparation of documents, reading it in the presence of students, etc. Features of programmed teaching education - organization of an educational process in which students independently acquire new knowledge and action skills with the help of specially prepared didactic tools. Programmed education is associated with a special type of student independent work, so it can be considered a form of independent learning, and a programmed manual can be considered a textbook for learning.

Programmed tasks consist of a system of tasks that require students to partially recall and partially acquire new knowledge.

Application of programmed tasks is as follows: each task consists of certain elements; each element is considered a part of the material, and questions and answers are expressed in the form of statements of new knowledge or exercises. The most common way to create elementary fractions is the multiple-choice method:

a) ready-made answers to questions, consisting of information in the form of conclusions and rules;

b) feedback necessary to control the correctness of answers. From the experience of organizing problem-based education, it was found that there are two types of use of traditional methods in combination with programmed education:

a) Some types of students' independent work and the use of programmed elements in the presentation of knowledge;

b) The use of a system of programmed tasks on a certain topic or section as a method of organizing students' cognitive activities.

The second type of educational method creates conditions for improving the logical system of educational material. It ensures better control of the progress of students' independent activities, provides an opportunity to perfectly manage the mastering process and increase its speed. Facilitates the process of individualization of education at the stage of acquiring new knowledge. This will prevent students from falling behind.

Due to the widespread use of such educational methodological developments in programmed education, this method is promising, but it is not appropriate to study all the materials of the educational subject in the form of planned tasks; in which there is almost no verbal communication between the student and the teacher, the student's speech is not developed, a large part of the educational material is learned by students using various types of education.

The use of such methods, under the guidance of the teacher, is of great importance in the students' independent acquisition of knowledge and the formation of independent work skills and qualifications in terms of time and the size of the educational material.

REFERENCES

1. Ў.Н.Султонова “утройство для контроля физико-химических параметров питьевой воды”. “техника ва технологик фанлар соҳаларининг инновацион масалалари” мавзусидаги халқаро илмий-техник анжумани.-.: 2020 йил 22 сентябрь. -с. 393-395 б.

2. Ў.Н.Султонова ў.н. .“физикани ўқитиш технологиялари ва лойиҳалаштириш”. “техника ва технологик фанлар соҳаларининг инновацион масала-лари” мавзусидаги халқаро илмий-техник анжумани. -:2020 йил 22 сентябрь. - 410-412. Б
3. Ў.Н.Султонова ў.н. Formation of basis competences for students bu solvingproblems in physics. Page-:107-114 vol 7 no 11.2019.
4. Б.Тўраев, султонова ў.н. физикадан савол ва масалалар тўплами дарслик.-т.:2021. -365 бет.
5. Султонова ў.н., султонов с.н. автоматизация эксперимента в лабораторном комплексе по механике. //высшая школа.-.: 2018, 24 сон. 32-33.б
6. Султонова ў.н. кадирова н.т. султонов с.н. жиянова с.и. паянова с.к. “technology to improve the methods of teaching physics in hicher education based on a competency approach (on the example of training technical engineers)” european journal of molekular & clinikal medicine issn 2515-8260 volume 7 issue -:2020 й, 365-374.б
7. Султонова ў.н. тўраев б.э. султонов с.н. “физика фанидан муаммоли масалалар ечишда компетенциявий ёндашув” выпуск 6 (50) f.a mamadaliev, egyptian triangle (books 1, 2,3) t/ “renessans press”-.: 2018 й, 144-149.б