ISSN NO: 2770-2367
December 2024

Principles Of Compliance In Teaching Computer Science

Khalikov Abdullah Oynazarovich,
Assistant of the Bukhara State Medical Institute

Abstract: The article describes the current problems and perspectives of teaching informatics and ICT, as well as the professional form and educational environment, based on the analysis of experimental data, as well as the experience and reflection of the author's pedagogical activity. Teacher development takes place in a modern school. The age-related characteristics of students' thinking are considered, the results of a survey conducted among college students are presented, and the principle of convenience in teaching is described. In the educational process, examples of the use of Internet services were given in computer science classes.

Kalit so'zlar: ta'lim muhiti, o'qituvchi, zamonaviy maktab, *o'quv jarayoni,* pedagogik faoliyat.

Teachers of all academic subjects constantly experience the need for students' ability to perform logical operations. Observations show that the majority of modern students have great difficulties in learning new material and solving practical problems.

However, these difficulties are often not related to the inherent complexity of the subject, but to the insufficient development of students' general logical thinking methods [1]. In psychology, according to the genesis of development, the following classification of thinking types is accepted: visual-effective, visual-figurative, verbal-logical, abstract-logical [2]. The type of thinking changes at different stages of youth development.

A successful student requires developed logical and abstract thinking to establish the most general laws, predict the development of processes, generalize and classify, but only at the age of 18-21 the level of verbal-logical thinking is significantly higher. figurative and practical level of thinking [1].

One of the main pedagogical principles of teaching is the principle of convenience, which implies taking into account the characteristics of the student.

In our case, both age characteristics and contingent characteristics. To determine these characteristics, we interviewed about 50 1st and 2nd year students. The average age of students was determined: 16.5 years. We then asked respondents two questions: “What makes you want to go to college? and "In what forms do you find it easier to accept new material?"

Summarizing the answers to the second question, we came to the conclusion that the majority of respondents want to receive new material in a convenient, colorful, interactive form and work in new interesting programs. The principle of ease of teaching forces the college teacher to design a course that best suits the number of students available [3]. Taking into account the average age of 1-2 year students (16-17 years old), the characteristics of the student population (slow school preparation), as well as the emergence of large volumes of information, the bright, clear interface and interactive capabilities of the modern Internet available resources meet all these requirements. To help you, we offer our "piggy bank" for using Internet resources (Table 1). For convenience, we have divided the lesson forms according to the method of using resources:

Table 1

	Lesson form	**Internet resource**	**Features of using the Internet resource**
1	Lesson presentation	Calameo.com online publishing service	Allows you to arrange any material in the form of a web brochure, in which the transition between pages is made in the form of a flip effect
2	Knowledge control	Test bank free test portal	The main advantages of using this resource:

ISSN NO: 2770-2367
December 2024

			convenient to quickly create tests no registration required
3	Consider knowledge	TestPad Service for creating tests, crosswords, surveys and more.	Compared to the previous source, it has expanded capabilities: 15 types of questions, the ability to customize the random sequence of questions and their answer options, and more. The most effective for quickly conducting the 1st qualifying round of the Olympiad in groups/classes.
4	Network project	Glogster.EDU an educational platform that allows you to create interactive posters	The service allows you to place everything in one poster (glog) at the same time: texts, drawings, graphics, diagrams, videos, audio files and links to Internet resources. The service allows communication between "student-teacher", "student-student", similar to social networks.
5	Lesson Study	Fishbone diagram, Mindmaster (Mental cards)	A fishbone diagram allows you to frame the problem; Mindmaster organizes various information into conceptual systems
6	Individual education	NSPortal Social set worker education	Allows teachers to organize their own mini-sites, where they can host materials for remote work with students. You can also post links to Calameo.com, TestPad, etc. here

Systematic perception of the world in computer classes, understanding of the unique information relationships of various natural and social phenomena, the development of systematic thinking and its level is mainly determined by the ability to quickly process information and make decisions based on it, which requires additional opportunities from schoolchildren requires and requires teachers to use more and more new teaching methods and tools.

In connection with the modernization of modern education, the pedagogical tasks of teachers have become significantly more complicated. The ideal teacher of the 21st century - a teacher-researcher - an initiator of pedagogical innovations, taking into account the characteristics of students in the conditions of differentiated education, combining algorithmic activity with creative research, new principles of education and training , methods are also able to perform the functions of a pioneer of education. solving the same didactic problems; assessment of psychological orientation and the degree of influence of certain techniques on mental processes of students; solving dozens of problematic pedagogical situations every day; conducting research within different concepts by comparing opposing viewpoints.

A specific trend of modern professional education is to humanize it, to develop a person's abilities and interests, to develop his creative individuality.

The above-mentioned knowledge and skills require constant adaptation, which is most effective within the framework of personalized educational programs aimed at achieving learning goals. Professional and personal development of the teacher through education and self-education is one of the most important sources of self-development of the school today, as well as economic and social development of society.

It should be noted that the informatization of society as a social process and phenomenon affects the formation of the information-educational space of the school to one degree or another, which can be considered as a field of personal changes of the teacher and the teacher. student for educational purposes based on modern technical, technological and social media.

ISSN NO: 2770-2367
December 2024

Modern strategic doctrines of development in the advanced countries of the world are primarily based on the principles of comprehensive development of human potential. As the country moves from development based mainly on the use of human physical labor skills to development based on the use of cultural and intellectual potential of the individual, the role of education is constantly increasing and gaining priority. There are sufficient conditions for such formulation of the question. Informatics is a subject of general education and should be approached from a systematic point of view, which is determined by the specific features and tasks of secondary general education. The difficulty in understanding it is that the objectives of the course are also related to other scientific fields of knowledge - physics, mathematics, etc., as a result of which the study of computer science has an interdisciplinary nature. In this regard, another problem arises, which manifests itself in the absence of a content-optimized sequence of learning learning blocks based on intra-subject relationships. This leads to irrational use of limited time resources.

It is also natural that at the current stage, it is impossible to imagine the improvement of the qualification of a modern school teacher without the correct use of modern information technologies from a pedagogical and technological point of view. . If we set ourselves the goal of developing education in a modern school, then, first of all, it is necessary to create an information-psychological support or process support system (organization of the educational environment and process) [5].

Almost everyone has a phone with access to the worldwide Internet. Everyone gets the most information from the Internet. In the morning we read the news: what is happening in our country and abroad. We look for information that helps us do our work and learn. Thanks to the applications on our phones, we communicate with friends and relatives, share photos and video files with them. Everyone likes different things: music, movies, books, you can listen and download anywhere in the world!

As a teacher, it is very important for me not to teach children to solve specific problems from a textbook, but to form algorithmic and logical thinking. Computer skills are undoubtedly very important in our time, but no skill will last long if you cannot build a structure of knowledge and an order of action. For this purpose, computer science in lyceum is divided into 2 parts: The first part is the study of computer science as a science: learning the basic actions, dividing the problem step by step or building an algorithm to solve the problem, the ability to read the problem and understand what is required of you development.

All these skills are just the basics in the modern world, we can't imagine what children will need tomorrow, but we can help them learn new information, learn new skills independently, and how to use the simplest skills to solve them. we can teach to understand the application; complex problems. The keys are in the ability to organize information and understand your duties and abilities.

Thus, we can conclude that various possibilities of modern Internet resources allow to increase the efficiency of perception of new material on the basis of formed visual and figurative thinking and help to develop logical and abstract thinking of students.

We can conclude that the student's information-educational environment develops not only under the influence of the school environment, but also in the process of the endless flow of knowledge and experience from other environments (virtual, global education). as well as the multi-element learning structures and environments that emerge within the school environment itself. It should be added that various components of the social and informational culture of the school are formed under the influence of the named components and environments that exist together in the educational organization.

According to the UNESCO Institute of Education, the number of adult participants in educational programs in developed countries is much higher than the number of children and adolescents enrolled. In these countries, up to 40-50% of the adult population is covered by various educational and promotional activities. [3, p. 4-8]. The development of the modern general education course on informatics and ICT is associated with the dominance of the activity approach. At the same time, the specific characteristics of the field of science should be reflected in specific types of educational activities.

Used literature:

ISSN NO: 2770-2367
December 2024

1. Коротков Н. Информатика в школе: настоящее и будущее // Народное образование, 2008. – № 6. – С. 176 – 180.
2. Слободчиков В.И. Психологические основы личностно-ориентированного образования // Мир образования – образование в мире. – 2001. – № 1. - С. 14-28.
3. Эффективный поиск в Интернете / Нейл Дж. Рубенкинг / PC Magazine / RE №6 / 2001
4. Поиск в Интернете: использование имён / Михаил Талантов / КомпьютерПресс #2 / 2000
5. M.F. Atoyeva. Pedagogical Tests As An Element Of Types Of Pedagogical Technologies. The American Journal of Applied Sciences, 2(09), (TAJAS) SJIF-5.276 DOI-10.37547/tajas Volume 2 Issue 9, 19.09.2020. ISSN 2689-09. 92 The USA Journals, USA
6. M.F. Atoyeva. Interdisciplinary relations in physics course at specialized secondary education. The Way of Science. – Volgograd, 2016. – №9 (31). – P.22-24.
7. M.F. Atoyeva. The significance of periodicity at teaching physics. The Way of Science. – Volgograd, 2016. – № 10 (32). – P.62-64.
8. M.F. Atoyeva, R. Safarova. Pedagogical integration as a means of forming professionally important qualities among students of a medical university. Academicia. ISSN: 2249-7137 Vol. 10, Issue 8, August 2020. Impact Factor: SJIF 2020 = 7.13 ACADEMICIA: An International Multidisciplinary Research Journal https://saarj.comэ.