

Analysis of The Integration of Information Technologies and Pedagogical Technologies in Higher Education

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Article History	Abstract
<p>Received: 06 June 2023 Revised: 05 Sept 2023 Accepted: 06 Dec 2023</p> <p>CC License CC-BY-NC-SA 4.0</p>	<p><i>this article is written on the examples of improving the quality and effectiveness of computer science lessons in the educational system , which describes the position of Information Technology in the educational system, the need for the teacher to acquire new skills, skills as the organizer of the educational process.</i></p> <p>Keywords: <i>Electronic Textbook, Multimedia, Technology, Computer Science, Lesson, Conversation, Seminar, Test, Economic Variable, Political Lever, Non-Standard Teaching, Innovation Technology</i></p>

1. Introduction

Today it is possible to get an education at a technological base in universities of developed countries. Smart schools have made a leap in the field of virtual education. Online teaching and distance learning are among the new forms of education in the new age. Through the development of the learning environment in the early 21st century, individuals and societies had a great responsibility to educational institutions and their traditional structures as the need for education increased. Today, various information and communication technologies have the ability to facilitate the educational and educational process. Information technologies there is evidence that users provide effective and Non-Adaptive Methods for their professional development. Given the fact that education has been using technology to expand and develop various processes of the educational system for more than a century, it is not surprising that the arrival of new technologies has fueled interest in acquiring knowledge with different ways of presenting knowledge.

Beauchomp & Parkinson, in a study entitled "The point of view of the subjects of the subjects during the transition from a rich technology environment in the primary course to high school with low-tech equipment", concluded that high school students were disturbed by the lack of computers. and other information technologies, they were enjoyed by the efforts of science teachers. The main features of the educational system in the age of information communication are as follows: 1 - What is worth knowing in the new education and what is needed, is stoned.

Literature Analysis

Not studying all the information. 2-in the new educational process, the teacher helps the student to obtain, select, evaluate and maintain information using a large number of resources. 3-published journals and books are a source of knowledge; drafts marked for writing and publishing are replaced by online books and journals. 4. Some of the advantages of using technologies and Information Technology in the educational process: students learn their lessons in a short time using technical means. Information technology and its tools, especially with the use of a computer and modern educational programs such as the virtual curriculum, the possibility of speeding up the information dissemination process, various well-known and repetitive educational resources, a more flexible structure, information search and metacognitive understanding, have provided for students and they can use this device as a tool for educational activities so that High flexibility when and where students and teachers perform their duties. Information society; where economic, cultural and social life depends on information and communication technologies. Advantages of the Information Society:

Free time enrichment. Activate remote operation. Creating new opportunities to increase the national production and competitive environment. Increase employment. Life education

2. Materials And Methods

The emergence of personal computers and the level of internet connection create an environment that forces global educational systems to change their educational structure in many ways. The function of the education system that resists change is clear. Its main goal should be to increase human power against change, that is, someone will be able to quickly monitor the economy and adapt to constant changes. The faster the changes, the more attention should be paid to recognizing the pattern of future events. To help people remove Future Shock, we need to set up a meta-industrial education system. To do this, instead of searching in the past, we need to find our goals and methods in the future. Undoubtedly, in the 21st century, modern technologies dominate the world, and due to rapid scientific, economic, cultural and political changes, educational systems cannot consider themselves islands isolated from other social and national organizations.

3. Results and Discussion

The Global Village will be the center of changes, evolutions and reproduction of the 21st century, both from the point of view of historical empiricism and from the specific conditions that cover the 21st century. Obviously, society sees IT not only as an economic variable and political lever, but also as an opportunity to change education through IT. Thus, IT is possible to predict the proposed IT models in the field of education as a center of Information Technology of education and control criteria in society. According to the state educational standard and the National Personnel Training law, each specialist, in addition to knowing his field perfectly, must have sufficiently mastered computer technology. In all higher educational institutions, more attention is paid to the lessons of "Informatics and Information Technology", and the topics are enriched with new information. In order for students to master computer science perfectly, the transition to all subjects with the help of multimedia, supporting information technology as much as possible, has become a necessity of the era. Indeed, the lesson will be interesting, understandable and memorable if the topic is covered with pedagogical methods designed for this topic, repeated several times with the help of multimedia, rather than verbally narrating complex technological processes. Accordingly, Multimedia has been prepared for science topics.

Today, every teacher knows very well that it is possible to increase the effectiveness of the lesson by creating multimedia on the topics of the lesson with the help of Information Technology. At the center of the new pedagogical technology is the teacher and the student, the head of the educational process, as well as the object of both the subject of this process. The interaction, interaction and influence of these two persons on each other should be established on the basis of the most modern and national requirements. To do this, first of all, the teacher must be armed with the requirements for the educational process, the principles and ways of organizing and managing education, methods of mental and physical development of the student, the correct Organization of his activities, the creation of a creative, working environment in the educational institution, methods of accurate and correct assessment of the student's The central problem of pedagogical technology is to achieve the goal of education through the development of the student's personality. The new pedagogical technology of teaching refers to active forms of teaching that correspond to the current requirement. One of the positive aspects of new pedagogical Technologies is to ensure that the teacher is able to draw didactic conclusions in controlling the methodological improvement, the purpose, content and effect of the lesson. The introduction of new pedagogical technologies into the learning process leads to the fact that the methodological training of teachers is perfect.

Adherence to new pedagogical technologies requires the teacher to have a large-scale knowledge of his specialty, to apply this knowledge in the process of reading. In this area, the teacher is the organizer of the educational process, it is necessary to have new skills, skills, and the demand for today is also manifested in this. The technological process provides for the implementation of a certain set of operations using the necessary tools. Result: the essence of pedagogical technology is manifested in the design of the educational process, taking into account the didactic goal, the achievement of the required assimilation and its implementation. It is necessary to bring a special spirit, a new mood to the teacher's training camp and further develop a passion for studying in the hearts of every student. In order to interest the student in the lesson, the teacher must be interested and respected by his personality, talent, and also pay attention to attendance.

Every aspect of our life today, every sphere and all types of activities are directly related to Information Technology. Therefore, the formation in each person of knowledge, skills and abilities regarding the creation and management of Information Technologies is of fundamental importance. Informatization of the educational system - creates opportunities to speed up the process of transferring technological and social knowledge, improve the quality of training with the help of

modern information technologies, as well as facilitate the adaptation of a person to various social environments. Today, in teaching subjects in the field of Computer Science and information technology, it is necessary to develop modern pedagogical and information technologies and private methodologies, ensure the full assimilation of knowledge, skills and abilities in the educational system, to develop innovative technologies based lectures, discussions, practical and laboratory classes in teaching subjects of this direction, to study the best practices in For this purpose, the skills of using innovative technologies in training sessions, increasing creativity, determining the types, directions, types, functions and prospects for further development of educational disciplines, processing educational information in teaching computer science and information technology, developing problematic questions, tasks of keys-stadi, organizing independent education of students in teaching these subjects, course work, Graduation qualification work, ensuring the continuity of, it is necessary to improve the methodology for solving problems in these subjects, improve the mechanisms of objective assessment of students ' knowledge in teaching these subjects, develop a complex of standard and non-standard educational and test tasks, create didactic support, create textbooks and teaching - methodical manuals in these subjects, electronic textbooks, e-learning resources and syllabus of the course. In solving these tasks: - to arm teachers with knowledge, skills and abilities in the creative education of Informatics subjects and the application of new pedagogical and information technologies in their practical activities; - to prepare teachers of Computer Science for the organization and conduct of classroom and extracurricular work in various forms in the field of Informatics; - to deepen them in the development of; - in higher education, it is necessary to improve the knowledge of the methodology of teaching computer science, master modern approaches, introduce skills and abilities to apply and create in educational practice. Alternatively:-to explain the importance of computer science subjects taught in schools of general education, academic lyceums and vocational colleges, higher educational institutions of the growing generation of teachers of Computer Science, the principles of separation of its content, the relationship of Computer Science with each other and other disciplines; - creation of mechanisms for continuous updating and development of professional knowledge, skills, qualifications of pedagogical personnel in the direction of teaching methods of Informatics; - increasing the level of professional competence of pedagogues necessary to ensure the quality of higher education in accordance with modern requirements; ensuring effective assimilation of modern information and communication technologies and foreign languages by pedagogical personnel; - mastering innovative technologies; - it is important to ensure the integration of professional development processes with science and production in this direction [4].

Thorough preparation of the teacher for the lesson provides the effect of education, therefore, before entering the DASR, it is necessary for the teacher to carefully prepare for both psychological and science, that is, to develop criteria for the teacher's professional erudition and ability. Social awareness: - the organization of a form of effective interaction with the audience during the lesson; - the acquisition of language with students; - the creation of a healthy spiritual environment. Methodical knowledge:-to convey all his knowledge, seen and forgiven to students in an understandable, fluent language; - effective use of educational technology and techniques. Specialization knowledge: - has deep and comprehensive excellent knowledge in the field of his science and subject; - work on himself; - interest in Science, News; - boxability of modern acts news;-ability to find a language with a clear knowledge of his system of needs, his requirements for the teacher. Ability to know: - that he always follows discoveries in his field of science; - excellent knowledge of the material, interest in it;-carrying out research work. Sets practical tasks for training students, and then draws conclusions on the topic, determines the definition of the rules of law. Students prepare tasks for their independent work, which are carried out during the lesson and at home. The type of lesson, as well as the methods used during it, will be clearly defined. At the same time, the topic of the lesson is planned and the work carried out individually with some students in connection with the topics covered earlier, as well as interdisciplinary contacts, is started to write a lesson plan. The daily lesson plan is written by the teacher to each lesson separately. One of the main signs of the lesson is science. It is necessary that the knowledge learned in the lesson reflects the achievements of modern science, is consistent with the purpose of the educational process and the real cognitive capabilities of students. The lesson is a creative process. Lesson-the process of collective labor. With the creative organization of the lesson, the efficient use of time, the timely conduct of classes, the formation of students ' skills to work as a team, the creation of mutual assistance and cooperation between students, classes are transformed into a process of collective labor.

The lesson differs from other forms of education in its internal and external characteristics. The external characteristics of the lesson, the purpose of the lesson, the sense of the content of Education,

interest, awareness, understanding are considered its internal features, such as a group of students of a certain age and with a certain level of training, the regime, the order of the lesson, the conduct of classes in a specific room. The lesson is organized on the basis of the mutual combination of these two different external and internal characteristics. The requirements that are poured into the lesson include: - a clear definition of the purpose of each lesson; - determine in advance the optimal content of the lessons, the scale of the knowledge to be studied, the skills and abilities to be formed; - the choice of educational methods, tools related to the organization of the lesson, stimulation of cognitive activity of students, teaching assignments, application of independent work to education.

Various sectors of society are in continuous development, while a specialist who has not worked on himself and is not aware of the innovations of the industry lags behind the Times is appointed. For this reason, it is required to update and make changes in computer science both in harmony with the Times. Informatics as an educational subject is inextricably linked with the science of Informatics and its development. Therefore, the science of "Informatics teaching methodology" is primarily based on the methodology of computer science. In his conclusions, he relies on the general principles of education and upbringing. As you know, these principles are developed by pedagogy and didactics. In addition, this science also directly uses the laws adopted by the disciplines of Physiology and psychology. The goals of teaching computer science can be defined as follows, based on the specificity of informatics as a science, its role and significance in the system of Modern Sciences, its significance in the life of today's society: - the formation of computer literacy in students; - ensuring that students firmly and consciously master the basics of knowledge about the processes of processing; - to reveal to students the importance of Information Processes in the formation of a modern scientific picture of the world, the importance of new information and communication technologies in the development of society; - to form skills of conscious and effective use of computers. None of the above issues should be resolved separately, separated from the others.

4. Conclusion

They should be carried out in a single whole without interweaving with each other. It is possible to educate students' thinking and create a scientific worldview only on the basis that they firmly master the basics of Computer Science. On the second hand, only by teaching logical thinking can students achieve a deep understanding of informatics as a science of its specific aspects. In addition, in order to achieve the correct solution of the task of preparing informatics for practical activities in the process of teaching, it is necessary to increase the knowledge of the Informatics course. Only if one can draw the right and deep conclusions, students will be able to approach the solution of each issue critically and creatively, will not lose themselves in the face of new problems and will be able to effectively operate under different conditions. Also, practical work expands the worldview of students and enriches it with new facts, and increases the level of knowledge from Informatics, ensures deep and solid.

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