Using the Computer Technology in Teaching Chemistry

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Abstract - The article possibility of creating electronic textbooks based on AutoPlay programm and Adobe Flash programm and the deals with the use of electronic textbooks in teaching chemistry.

Keywords - Animation, Electronic Textbook, Electronic Configuration, Virtual Laboratories, Autoplay Programmm, Adobe Flash Program.

One of the most important and urgent tasks of contemporary education is to prepare a competitive person. At educational institutions, the limited time on studying chemistry, the limited time for consuming enough knowledge and skills to improve the understanding of chemistry among pupils, and the diminishing of attention to chemical experience at school practice, and also the lack of necessary reagents in most times show us that the time of using interactive methods has already came in modern education. This problem can not be achieved without the help of information and communication technologies (ICT). Over the past decade there has been an intensification of the use of computer and telecommunication technologies in the learning process, and it is also important to say that the importance of information and communication technologies is rapidly increasing not only in education, but also in other areas. As a result of implementation of the National Program for Personnel Training in Uzbekistan, almost every school has created a material basis for the use of information and communication technologies in the education process. New approaches to solving the major problems in the method of teaching chemistry management can not be resolved without the use of new methods and tools based on ICT. It is impossible to educate the person who is so independently decision-making without modifying of educational system of the teaching methodology of chemistry. These changes ensure continuity and stability of modern teaching.

In the history of human development, chemistry was one of the most important areas for civilization development and it has been continuing to be a leader in today’s world. However, in recent times it is observed that there is a tendency not to pay enough attention to chemistry education. In educational institutions, it has observed the limited amount of time allocated to chemistry, and enough time for the learners to increase their knowledge and understanding of chemical concepts. In school practice, the attention had diminished for chemical experiments. All this leads to decrease the interest of students in chemistry, and the formation of only formal relationships with chemical knowledge and concepts, and the lack of understanding of the chemistry and the reduction of interest in science. The solution of these problems can be achieved through the use of students’ interest in organizing science, through the use of modern teaching technologies and techniques, independent research by students, and individualization of learning.

The use of interactive methods in chemistry science is one of the tools that can be used to address the aforementioned problems. Interactive methods are one of the methods aimed at developing internal motivation for students in chemistry. These methods are made easier by
finding and transmitting information, further enhancing the teaching process, focusing on the students' interest, knowledge and skills, and the individualization of the learning process.

Adobe Flash and Auto Play Studio software can be used to create efficient program based on multimedia technologies for teaching interactive optimization of chemistry. In particular, with the help of Auto Play Studio you can use the best supplement. When working in Auto Play Studio, programming is not required. The user can use only a few ready-made project templates to choose a different design environment. In doing so, the Auto play software tool includes a set of ready-to-use objects that include a command button, an audio enhancement, a media-enabled printer, a web-site, and a set of simple objects that make reference to them. Auto play Media Studio creates all necessary files to create and run automatic graphical shells.

Users are responsible only for hard disks and CDs the task of formulating ready-to-write projects remains the same.

The program allows users to interact objectively can provide hundreds of media outlets that can help.

In the Auto play Media Studio program environment, the documents can be processed easily which is created in the system like Visual Basic, Visual C Java, Macromedia Flash and others. In the help of this program we can create easily not only Software animated menu, catalogue tree, databases and others, but also we can manage them, but also the management of the file. It can be created auto-launcher windows in optional shape by the help of special disguise from its library. As this kind of disguise, it may be used some files like in .jpg, .bmp and .png format. Likewise, the information permeability of this program from itself to CD or DVD that information is prepared for CD shows that Auto play Media Stat program has a large possibilities. Ready project at this can be shaped in the image of an archive that is opened by itself as exe file or at special folder in hard disk. Besides, this program also includes the possibility of interpreting texts. This possibility of program works together with its “Label Paragraph” and “Button” . If this program is accessible to the computer with a full version, there are large volume of dictionary in its library in order to check interpreting texts. So that, the new version of AutoPlay Media Studio 7.0 has been made with the following capabilities:

- Self-activating menu, interactive presentations, multimedia applications, software development in a few minutes;
- The project includes coupling features like various photographs, music, multimedia, video, animation, textually and other features;
- Opportunity to work with slide show;
- The existence of the “Radio Button” object to change the text color;
- Advanced function for printing;
- Availability for formatting of objects;
- The existence of searching system with keywords;
- It can has writing on CDs, DVDs, and many other possibilities [1,].

Using these opportunities, we can increase the effectiveness of learning chemical materials of pupils by utilizing the capabilities of this program that is hard to overestimate. At this, together with researching material, accosting to ideas and aphorisms of great chemist scientists, and also the values of western intellectuals enhance the curiosities of learners, and help them to develop spiritually.

Chemical knowledge can also be done by using Macromedia Flash software. In Macromedia Flash, animation is created in two ways: dial-up (покадровое создание) and automatic (автоматическое создание промежуточных кадров). An animation is divided two types that based on the changes of geometrical shapes (shape twinning) and the changes of management frame (motion twinning). Animated animation based on motion twinning. To create this kind of animation, we create a single managerial frame and add a sign to it [4]. For example, in the managerial frame, a chemical element (chemical sign) is written and, on the base of these chemical element’s properties, their atomic crystal lattices, spacecraft are transferred by using the command «Преобразовать в символ (Convert to Symbol) » that is (F8 button) in the menu «Вставить». Or, in «Вставить» menu, we select the “New symbol” command (Ctrl + F8 buttons complex) and create a new atomic crystal lattice, an atomic view, and add it to the management team by using the bookmark library. We use from the equipment to choose the color of object’s border, from the equipment to paint basis, and from the exchanging color to exchange border from basis.
At Organic Chemistry Course, when we observe animatedly the reaction of electrophile in Aromatic Hydrocarbons Macromedia by Macromedia Flash program, pupils can achieve more effectiveness.

\[ \text{Cl}_2 + \text{C}_6\text{H}_6 \rightarrow \text{Cl}_2 + \text{HCl} \]

Making this reaction easier with the Macromedia Flash software helps you to understand more effective chemical constraints.

REFERENCES