"TEACHING WITH MODERN PEDAGOGICAL TECHNOLOGIES IN SCHOOL EDUCATION"

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Abstract

Nowadays, modern technologies are increasing in education. Teachers who keep pace with the times should be able to use them effectively in the course of the lesson. The article talks about the fact that the concept of modernity and the characteristics of humanity can be closely inculcated in the minds of students, which requires a lot of work from parents as well as teachers, and about the effective use of innovations and pedagogical techniques in education.

Keywords

MS Office, PhotoSHOP, Macromedia Flash, 3D design Scratch, Python, programming languages

Introduction. In order to set priorities for the systematic reform of general secondary and extracurricular education in the Republic of Uzbekistan, raise the spiritual and moral and intellectual development of the growing young generation to a qualitatively new level, introduce innovative forms and methods of Education into the educational and educational process, the decree of the president of the Republic of Uzbekistan "concept of development of.

President Of Our Country Sh.M.Mirziyoyev said that" our young people have independent thinking, high intellectual and spiritual potential and will be able to grow up to their peers on a global scale as people who do not empty themselves in any field, to be happy, mobilize all the strength and capabilities of our state and society, " calling for a qualitative and effective organization of education, especially,

upbringing as a person with high intellectual and spiritual potential is one of the pressing issues of today.

Currently, the interests of the individual and the demands of society are changing. Making the most of the new techniques that are rapidly entering our daily lives, making our lives easier, again, the need for more convenient tools is felt. Can we also use such techniques in the educational system? What techniques are we teaching the younger generation that has advanced from us in terms of technology? Therefore, radical reforms in the field of Education are being carried out in our country. The purpose of such an approach is to promote scientific literacy, competitiveness by engaging educational institutions, the public in ensuring the sustainable development of the world's development and economy through education. Especially young people around the world are interested in robotics, modeling, constructionism, programming, designing in "3D" format and many other innovations. In developed countries, Science and technology, means of production and technological processes are almost completely computerized. Computer programs are also used in all manufacturing enterprises of the world and in the educational system, which have a huge potential in automating design work in the creation of new techniques and technologies.

Today, knowledge of various programming technologies, including object-oriented programming technologies, is an integral part of the training of a modern computer science teacher. In-depth study of programming languages by Students(Students) gives them the opportunity to manifest themselves in the future. Currently, in schools, young people are taught many programming languages through Informatics and Information Technology, in addition, skills for working through design programs – Ms Office packages.

For example, programs such as Scratch, Python, Ms Office packages, PhotoShop, Macromedia Flash are being taught. With these programs, students gain knowledge and skills such as creating animations, processing images, creating text editors, spreadsheets, different types of presentations.

Microsoft Word (often MS Word, WinWord, or simply Word) is a word processor designed to create, view, edit, and format texts of articles, business documents, and other documents with local application of the simplest forms of table - Matrix algorithms. . It was produced by Microsoft as part of the Microsoft Office suite. The first version was written by Richard Brody in 1983 for IBM personal computers running the DOS system. Later versions were released for the Apple Macintosh (1984), SCO UNIX, and Microsoft Windows (1989). The current version is Microsoft Office Word 2016-2019 for Windows and macOS, and there is

also a web version of Word Online (Office Online), which does not require installing the program on your computer and makes it possible to work online.

The following are a number of versions of MS Word:

Versions designed for MS-DOS:

• 1983, Word 1

• 1985 Word 2

• 1986 Word 3

• 1987 Word 4, also known as Microsoft Word 4.0 for PC

• 1989 Word 5

• 1991 Word 5.5

• 1993 Word 6.0, latest version for DOS

Supported hacked versions for Apple OS X:

• 1985 Word 1 for Macintosh

• 1987 Word 3

• 1989 Word 4

• 1991 Word 5LE

• 1993 Word 6

• 1998 Word 98

• 2000 Word 2001, latest version compatible with Mac OS 9

• 2001 Word v.X, the first version is for Mac OS X only

• 2004 Word 2004

• 2008 Word 2008

• 2011 Word 2011

• 2015 Word 2016

Versions for Microsoft window:

• 1989 Word for Windows

• 1991 Word 2 for Windows

• 1993 Word 6 for Windows (to continue the DOS version number line, the number " 6 " was introduced with the same numbering as the Mac versions and with market leader WordPerfect among word processors at the time

• 1995 Word 95 (Word 7

• 1997 Word 97 (Word 8

• 1999 Word 2000 (Word 9

• 2001 Word 2002 (Word 10

• 2003 Word 2003 (also known as Word 11, but officially referred to as Microsoft Office Word 2003

• 2007 Word 2007(revolutionary interface change, OOXML format support - *.docx).

• 2010 Word 2010

• 2012 Word 2013

• 2015 Word 2016

• 2018 Word 2019

• 2021 Word 2021 and other online Word versions are available.

Microsoft Excel (sometimes MS Excel) is a spreadsheet program created by Microsoft for Microsoft Windows, Windows NT, and MAC OS. There are also versions developed for both Android and IOS. It gives Power Query macro programming language for economic and statistical calculations, graphical tools, data streams, Visual Basic for Application (VBA) macro programming language in addition to Excel-2008 for Mac OS X. Microsoft Excel is part of Microsoft Office.

The following versions of MS Excel for Windows are available:

• 1988-Excel 2.0 for Windows

• 1990-Excel 3.0 • 1992-Excel 4.0

• 1993 year-Excel 5.0 (office 4.2 and 4.3, Windows only NT for 32 bit version son available)

• 1995-Excel 7 for window 95 (Microsoft Office 95 included in the package)

• 1997-Excel 97 (included as part of Microsoft Office 97paketi

• 1999 - Excel 2000 (9) - Microsoft Office 2000

• 2001 - Excel 2002 (10) - Microsoft Office XP

• 2003 - Excel 2003 (11) - Microsoft Office 2003

• 2007 - Excel 2007 (12) - Microsoft Office 2007

• 2010 - Excel 2010 (14) - Microsoft Office 2010

• 2013 - Excel 2013 (15) - Microsoft Office 2013

• 2015 - Excel 2016 (16) - Microsoft Office 2016

• 2018 - Excel 2019 (17) - Microsoft Office 2019

Microsoft Power Point (full name – Microsoft Office PowerPoint, English "power point" – meaning "persuasive reporting") is an application designed to create presentations and watch them, is part of Microsoft Office and provides the ability to work on Microsoft Windows, macOS systems. Presentations created in PowerPoint are designed to be viewed on large screens or oversized television screens using a projector.

MS Power Point also has different versions for different Mac OS and Windows, such as MS Word and Ms Excel they are as follows:

Mac OS versions include:

• 1987 power point 1.0 for classic Mac OS

• 1988 Power Point 2.0 for classic Mac OS

• 1992 power point 3.0 for classic Mac OS

• 1994 power point 4.0 for classic Mac OS

• 1998 power point for Mac OS classic 98 (8.0) (office for Mac 1998)

• 2000 power point for Mac OS X 2000 (9.0) (office for Mac 2001)

• 2004 power point for Mac OS X 2004 (11.0) (office for Mac 2004)

• 2008 Power Point for Mac OS X 2008 (12.0) (office for Mac 2008)

Microsoft Windows versions include:

• 1990 PowerPoint 2.0 for Windows 3.0

• 1992 PowerPoint 3.0 for Windows 3.1

• 1993 PowerPoint 4.0 (Office 4.x).

• 1995 PowerPoint for Windows 95 (version 7.0) - (Office 95

• 1997 PowerPoint 97-(Office 97

• 1999 PowerPoint 2000 (version 9.0) – (Office 2000

• 2001 PowerPoint 2002 (version 10)-(Office XP

• 2003 PowerPoint 2003 (version 11)-(Office 2003

• 2006-2007 PowerPoint 2007 (version 12) – (Office 2007

• 2010 PowerPoint 2010

• 2016 PowerPoint 2016

Microsoft Office Access, or simply Microsoft Access, is a relational database management system (MBBT) of Microsoft Corporation. Included in the Microsoft Office suite. It has a wide range of capabilities, such as linked queries, external tables and communication with databases. Thanks to the built-in VBA Language, Access itself allows you to write applications that work with databases.

Main components of MS Access:

• build a table;

• screen shape maker;

• SQL query maker (SQL language in MS Access does not conform to ANSI standard;

• manufacturer of printed reports;

• formation/service of databases.

They can call scripts in VBA, so MS Access allows you to develop applications and databases from scratch or write a shell for an external database, and allows you to establish basic connections between table queries. The Microsoft Jet Database Engine file server used as the MS Access Database Engine is MBBT, and is therefore only valid for applications that work with small amounts of data and at the same

time with a small number of users working with this data. . Access itself lacks a number of mechanisms needed in multi-user databases such as triggers.

The following are a number of versions of MS Access:
• 1992 : access 1 for Windows 3.0
• 1993: Access 2.0 for Windows 3.1 x(Microsoft Office 4.3
• 1995: Access 7 for Windows 95 (Microsoft Office 95
• 1997: Access 97 (Microsoft Office 97
• 1999: Access 2000 (Microsoft Office 2000
• 2001: Access 2002 (Microsoft Office XP
• 2003: Access 2003 (from the Microsoft Office 2003 suite of applications
• 2007: Microsoft Office Access 2007
• 2010: Microsoft Office Access 2010
• 2012: Microsoft Access 2013 (from the Microsoft Office 2013 Office app suite
• 2015: Microsoft Access 2016 (from the Microsoft Office 2016 Office app suite
• 2018: Microsoft Access 2019 (from the Microsoft Office 2019 Office app suite
• 2021: Microsoft Access 2021(from the Microsoft Office 2021 Office app suite

A number of tasks can be performed using the MS Office programs presented above. For example , if we take the Ms Access program, it is possible to create a different data repository through it, which will create a number of facilities. Speaking about the stages of creating a data warehouse, this is done in the following steps:

1. Creating a new data repository: once the application opens, click the "New" button in the "File" menu and select "Blank Database" to create a new repository. You can save the file by entering the name for the repository.

2. Create tables: click the "Table" button to add a table to the repository you created. In the table creation window, there is an option to enter columns and column values. Data can be discarded, edited, and stored through tables.

3. Make changes: to edit tables, select "Design View", which works on the table. To make changes in this mode, it is possible to select columns and column type. There is an option to name the columns, customize the type and others.

4. Data entry: to enter new data, open the table and select "Datasheet View". You can enter data in the rows of the table.

5. Create links: click the "Relationships" button in the "Database Tools" section to set a link to the repository. In the link installation window, you can create links between tables. This is necessary to determine the table aggregate in the data warehouse and configure the links.

6. Query and form Generation: Data Search, computation, filtering and other actions can be performed using queries and forms. You can create queries in the query build window by selecting" Query Design " in the Create menu.

7. View and edit data: to view and edit data in the data warehouse, go to the "Tables" section and select the desired table. After opening the table, there will be options for editing, searching and filtering data. With these steps, it is possible to create a repository in the MS Access application. Some processes may vary in details and across the program version while the reason for this will be the versions of the program

In addition to MS Office package programs, currently all student youth programs for schoolchildren who are educated in school languages and editing and processing programs are also very fertile. The basics of programming are developing day by day in our day, and the demand for it is that in schools, too, an application has been developed that teaches the language of elementary programs, such as Scratch, to interest students from small classes in programming. It is also intended that the Phyton programming language will also be taught in the post-Scratch programming language.

Since the programming language **Scratch (Scratch, Scratch)** is simple and understandable, then not only students, but also children of kindergarten age can carry out their projects. The Scratch programming environment is based on the LEGO constructor software, thus also being its successor. Projects can be exported to standalone HTML5, Android Apps, Bundle (macOS), and EXE files using external tools. It was developed by the service MIT Media Lab, has been translated into more than 70 languages and is used in most parts of the world. Scratch is used in training centers, schools and technical schools, as well as other public knowledge institutions. As of February 15, 2023, community statistics on the language's official website show more than 123 million user-shared projects, a total of more than 804 million projects created so far (including non-shared projects), and more than 95 million monthly visits to websites.

Simple interface design: Scratch has an easy-to-understand and easy-to-use user interface, as children and adults can easily and conveniently communicate with the program. Computerized creation development: users can develop interactive stories, animations, music and art games, and many other computerized creations using Scratch.

Ease of use: Scratch allows users to input images and sounds using a simple, open source programming language and create interactive games and stories, where they use graphic objects instead of complex code. Programming for children:

Scratch is a programming language designed for children, as it is designed in a simple and easy way and does not require prior knowledge of the intricacies of programming.

Educational and informative: developed by the "kindergarten for Life" Group at the MIT Media Lab, Scratch provides specific educational content that helps users understand complex concepts in a simple and easy way.

Python ([ˈpʌɪθ (ə)n] – payton, Python) is a high – level general-purpose programming language for various fields. His design philosophy emphasizes the readability of code using significant retreat. Its language constructs and object-oriented approach aim to help programmers write clear, logical code for small and large projects. Python is also the language of the fields of artificial intelligence and data engineering. Simple, easy to learn, with simple syntax, easy to start programming, free and open-source software. During the writing of your program, you will not be able to appreciate the lower level of detail, for example, memory management. It can run on many platforms without any modifications.

Adobe Photoshop is a multifunctional graphic editor developed and distributed by the firm Adobe Inc. It is mainly designed to work with picture images, but has several vector tools. The software is popular as a product of the Adobe firm and is the world's highest ranked brand in image editing. Photoshop is currently adapted to macOS, Windows platforms, IOS and Android mobile systems. There is also a Photoshop Express version for Windows and Windows 8.1(10,11). Adobe Photoshop is a proffesional editor in image editing.

Adobe Flash (former Macromedia Flash) is a multimedia platform from Adobe designed to create web applications or multimedia presentations. It was used to create advertising banners, animations, games, as well as View video and audio recordings on web pages.

Flash has the following capabilities:

- The small size of the file being created and the fast loading of The Flash program from the network. Since a vector format is applied in Flash, then the files are compressed and therefore the file size is reduced;

- Browser linkage, i.e. Flash IE, works together with NNS;

- The power of the governing language. Micromedia Flash uses a special programming language, in which the executor can take advantage of the convenient possibilities for his generosity, that is, make full use of arrays, repetitions, formulas and conditions;

- Beauty. A simple balloon or an optional shape in a flash can also be depicted with very beautiful colors.

- Convenience. Flash can be used by any reader who knows how to draw a simple drawing; - Large number of executors. If the utility needs graphic, sound and small volume files, then The Flash has no equal. Flash software runs for Windows 95/98/NT/2000.

- Flash interface is very convenient and onson. The capabilities of this program are very wide, in which actions and sounds take up only 100 kb of file size.

All of the above programs help not only schoolchildren, but also students who are studying in a higher education institution. With these programs, the first programming fundamentals are stepped up, further increasing interest in programming fundamentals in students. Having skills to work through Office package programs will not be a benefit for students. Students (students) may have to make frequent use of them throughout their future professional career. Zero currently, all written articles, reports, presentations, documents such as a database are created digitally, that is, electronically. And knowledge in this regard will ease our work, save our time and, of course, reduce paperwork.

From the above points, we can conclude that the use of mobile devices and applications in general secondary schools creates the following basic possibilities:

- individualization of teaching: allows you to take into account the individual characteristics of students and helps to identify the strengths and weaknesses of students in their studies;

- exercise visualization: allows you to actively use interactive and simulation visual weapons;

- provides educational opportunities to individuals with disabilities;

- helps to better assimilate and remember material by presenting information in a multimedia format, serves to increase interest in the educational process.

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