IMPROVEMENT OF DIDACTIC GAMES AND MATERIALS IN DIGITAL EDUCATIONAL ENVIRONMENT BASED ON 4K MODEL

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Abstract. The article provides information on improving didactic games and materials on digital educational platforms based on the 4k model. In the creation of didactic games were localized and improved, various online quizzes, quest technology, tasks in the database of educational games (kahoot.com, joyteka.com). The use of didactic games by the teacher in his pedagogical activity increases the level of knowledge of students, enriches their imagination about existence and the environment, develops their interest in knowledge, cooperation and communication skills, and teaches them to think creatively and critically.

Keywords: 4K, collaboration, communication, creative thinking, critical thinking, A-level, pedagogical software, IQ didactic games, puzzle, test, kahoot.

We are aiming to build a new Uzbekistan based on the principle of "Social State". We must strengthen this in the Constitution.

Social state means, first of all, equal opportunities to realize human potential, creation of necessary conditions for people to lead a decent life, reduction of poverty. Therefore, first of all, we will focus on supporting education, which is the biggest investment for New Uzbekistan.

"Salvation is in education, salvation is in upbringing, salvation is in knowledge. Because all good goals are achieved due to education. It is necessary for children to master their mother tongue, foreign languages and learn how to work on a computer. We should raise interest of our children in professions, art and culture.

It is necessary to form students' independent and creative thinking, teamwork and communication skills. In this regard, the establishment of the "A-level" (Advanced Level exam - a science-based qualification given as part of the general education certificate) educational program approved in 130 countries, used in Presidential schools is providing benefits. In this process, each student is trained in-depth in specific directions, depending on his abilities and it increases the opportunities to enter prestigious universities of the world.

Separate scientific institutes and laboratories will be established for systematic implementation of these works, development of new textbooks, introduction of advanced educational standards and methods. Attention to our mother tongue, which is the symbol of our national identity and the basis of our spirituality, will be strengthened.

Taking into account the above statements of the President, we want to present methods for teachers to evaluate students' knowledge on the public open online course platform *uz.khanacademy.org*, and to use the platform's capabilities in online and offline classes.

Nowadays, paying special attention to general education schools is becoming one of the urgent issues in our country. Various measures are being implemented in order to increase the level of knowledge of teachers, to further develop teaching methods and technologies. Introducing

untraditionally methods in lessons, increasing students' attention and interest, increasing their activity in the lesson process is one of such activities.

One of the most important issues is being able to assess all students in one lesson. For the first time, it may seem a bit impossible to do all these things at once, that is, in a 45-minute lesson. But it is possible. As we all know, in today's century, various teaching methods and technologies are being developed and widely used. Cooperative learning technology, modular teaching technology, design technology, PISA tests and assignments, etc. are examples of this. There is another important technology, the demand for which is increasing. This is the technology of using IQ didactic games in the lesson.

Starting from the new academic year, primary school students will be educated on the basis of new generation textbooks. One of the main features of the textbooks is that they are developed on the basis of the 4K principle. That is, in this principle, it is not limited to memorizing just information or simply teaching reading and writing. Students learn not only science, but also life skills needed in the 21st century.

What does 4K mean?

The 4K approach, as its name implies, includes 4 principles:

Collaboration: Textbooks are designed to help students develop teamwork skills. It helps students learn the skills of collaboration, effective communication, and mutual support.

Communication: Students learn to express their thoughts clearly and clearly, to listen and understand the interlocutor, and to effectively use their communication skills to convey information.

Creative Thinking: Students learn to use new approaches to achieve their goals, develop innovative solutions, and develop creative problem-solving skills.

Critical thinking: This methodology includes the development of students' skills of critical evaluation of information, formation of their own opinions and judgments.

Students learn to approach problems from an analytical point of view and form their own point of view based on logical thinking. Before introducing the new innovative approach in the schools of Uzbekistan, were also studied foreign experiences. Countries with advanced education, such as Singapore, China, England, Finland, Estonia, where main focus is on the development of 21st century skills in students that have adopted the 4K principle.

In the education of countries that occupy high places in international ratings such as PISA, PIRLS, special emphasis is placed on communication, research, and creativity skills that include "4K" in students, and that is why they achieve great results in international ratings.

What conditions are needed for the new model to work well?

The innovative approach based on the "4K" model does not require special conditions for use in schools. For example, students develop critical thinking skills through quizzes, and communication skills through exercises. It is wrong to say that there are no conditions for using these methods in schools.

The use of didactic games in the course of the lesson has several advantages. For example, repeating the first topic is unconventional and gives a special energy to the lesson process; secondly, the logical development of students increases, it gives students the opportunity to think independently, the teacher's creative approach to the lesson increases, and finally, one of the most important aspects, it gives the teacher the opportunity to evaluate all students. In this case, the teacher is required to choose a game that provides such an opportunity. Because there are many

types of didactic games and they are diverse. There are team, individual and small group games. We present to your attention several games that allow you to assess all the students in the class in one lesson. It helps to increase pupils' activity in class and interest in science, to develop skills of theoretical knowledge analysis, to form healthy competitive atmosphere. With the help of IQ didactic games, it is possible to have the opportunity to fully assess the students of the class at the same time, and below are examples of mental didactic games.

Game "Office programs".

This game is designed for 7th graders and here is given its schedule.

WORD	EXCEL	POWER POINT
Sheet	Sheet – workspace	
Slide		
Page		
docx	Word file extension	
pptx		
xlsx		
cell		
Animation	Slide's title	
=SUMM(LEFT)		

Students should write the name and function of the office programs that correspond to the programs in the table and color them in the appropriate colors. For example, the list-sheet is in the program of Excel (office program) and it is the workspace of the program. That's why the box with List's name is painted with a green pencil and next to it is pointed as "Sheet is the working area of the program".

"Kahoot" game.

The name of this game comes from Kahoot, an online game played on the Internet. In the game, each student is given cards in the form of hearts, rhombuses, triangles, rectangles (10 each) and questions. Each question has the same answer options as in the above forms. Which form of the answer option is correct, students write the number of the question on a blank paper and stick the corresponding form on the paper. At the end of the game, the matching of the forms with the answers is checked. For example, questions can be structured as follows:

Find the correct programming environment(s)?

■ python	♥ scratch
▲ C++	◆ barchasi

Find a software for working with electronic tables?

■ Excel	♥ Paint
▲ Word	◆ Power point

Find a program for working with texts?

■ Excel	♥ NotePad
▲ Word	◆ Power point

Find Word processor software?

■ Excel	♥ NotePad
▲ Paint	◆ Word

Find a program for making presentations?

🟥	Excel	💚	Power point
🔺	Paint	🔷	Word

"Find odd" game.

This game is designed for 8th graders, and each line has a table and five words. Among these words, there is one additional word that does not match the other four words. Students have to find the odd word and color the inside of that box with colored pencils.

MONITOR	MS WORD	POTPLAYER	PAINT	WINDOWS
WORD	PAINT	ACCESS	POWER POINT	EXCEL
ANDROID	MAC OS	SAMSUNG	WINDOWS	LINUX
TELEGRAM	WHATSAPP	FACEBOOK	YOUTUBE	GMAIL
GOOGLE	FIREFOX	SAFARI	BRANDMAUER	YANDEX
PRINTER	FLASH DISK	KLAVIATURA	WEB CAMERA	VIDEO PROJEKTOR

"Matching words" game.

The condition of the game is as follows: the teacher distributes a piece of paper with text and a piece of paper with words written on it to each student. Some words in the text have been removed. Students fill in the blanks of the text using the words written on the paper, that is, they must correctly place the words on the paper in the text. For example, as follows:

... is a text editor designed for editing simple and complex texts of various types. Alternatives: OpenOffice.org Writer, LibreOffice ... , StarOffice Writer, KWord, NeoOffice Writer, Corel WordPerfect, Apple Pages (this is Mac OS only), and AbiWord.

Microsoft Excel is a spreadsheet program for working with data of all kinds. Alternatives: OpenOffice.org Calc, LibreOffice … , KSpread, StarOffice, Gnumeric, Corel Quattro Pro and Apple Numbers (this is on Mac OS only).

Microsoft PowerPoint is a presentation program designed to present information, ... Alternatives: OpenOffice.org Impress, LibreOffice Impress, KPresenter, Corel WordPerfect and Apple … .

… is a program designed to work with a database (database). Alternatives: OpenOffice.org ... , LibreOffice Base, Kexi.

Keys: Microsoft Word, Writer, Calculated, Calc, Advertising, Keynote, Microsoft Access, Base.

In conclusion, it can be said that the use of mental didactic games in the course of the lesson develops students' ability to think logically, and the above types give the teacher the opportunity to work with all students.

It mainly depends on the teachers to be able to use the new approach. That is why more than 300 trainer teachers from the all republic were recently trained in Tashkent. They will help improve the qualifications of all other teachers in the country.

The result of the new innovative approach can be seen in the growth of the student's outlook and thinking. A portrait of a 21st century student should include 21st century skills. This is the main purpose of using an innovative approach. In addition, the main goal of education is not only

to give students knowledge, but also to teach them to apply the knowledge they have received in life.

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Electronic educational resources

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2. http://www.rtm.uz - the website of the Republican Education Center.

3. www.ziyonet.uz - ZiyoNET educational information network.

4. https://www.google.com/intl/en-GB/forms/about/