

NEW INNOVATIVE TECHNOLOGIES TO ENGAGE STUDENTS IN THE LEARNING PROCESS

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Abstract

The article examines the possibilities of using a new technology for presenting information in the educational process - Scribing. Information about programs that create scribbles is provided. The article also discusses why the application of game psychology, game mechanics, and game dynamics to non-game processes is attractive to students. When it comes to 'serious games', in game-based learning people step out of the process and into the world of the game, while in gamification they stay in the process, with game elements to motivate and engage people. addition is emphasized.

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One of the important tasks of a modern school is to solve the problem of involving schoolchildren in the learning process. A new trend in the development of presentations, scripting technology allows teachers to present difficult perceptual information in a colorful, simple and accessible form for students.

Based on physiological characteristics, visual information plays the greatest role in the life of any person. Considering that a person perceives 90% of information through the visual channel [6], one can come to a single conclusion - multimedia technologies are the best tool for teaching modern schoolchildren.

Multimedia technologies are modern computer information technologies that allow combining various media files in one product - images, texts, audio and video files [5]. With their help, materials for lessons can be displayed on monitor screens or a projector during the educational process, which allows you to reveal the topic of the lesson in more detail, clearly describe the necessary objects, processes or events. Working with the text (writing) or talking cannot fully involve the student in the learning process, so teachers actively use it.

A multimedia presentation is a presentation that uses multiple digital media formats and interactive elements such as images, animations, video, audio, and text to convey a message or information to an audience.

Unlike a traditional slide-based presentation, it includes a variety of media types, including interactive slides, quizzes, surveys, video clips, sounds, and more. They engage the audience's emotions beyond just reading slides of text.

They can be used effectively in classrooms for student engagement, business presentations, recruiting, or conferences.

The use of scripting technology to present the presentation in a more attractive, animated form is very effective.

Scribing (from the English "scribe" - to draw sketches or drawings) is a new presentation technique invented by the English artist Andrew Park for an English organization dedicated to the popularization of scientific knowledge. Speaker's speech with drawings on a white board (or a sheet of paper) using a felt-tip pen described. When we hear and see roughly the same thing, a "parallel pursuit effect" occurs, and the graphic line is recorded at key points in the audio sequence.

The technology can be used in several forms:

- Scribing facilitation - drawing images in real time. It is used in training, as well as in conferences, seminars, presentations of products and services. Scribing stands out as a technology for providing interactive visual communication[14].
- Video scripting - using a pre-made video using the script-bing technique with voice acting and musical accompaniment.
- 3D scripting - creating three-dimensional images using 3D pens in real time. The result of such a presentation is a tangible object that can be studied and kept as a souvenir.

Depending on the tools used, scripting is divided into traditional (manual) and computer [3]. In the first case, drawings are created on any surface suitable for drawing - board, glass, flipchart, sketch book, etc., in this case special markers, pencils or chalk are used.

Writing technology that includes verbal (speech) and visual information (drawings) can simplify the learning process as much as possible. Students' attention is focused entirely on the images that remain in memory and when they are recalled, they are connected to the information the teacher needs.

As an example of software for implementing Scribing technology, we focus on the online service PowToon. PowToon online service is designed to create animated presentations that can be saved as a file with video or Power Point slides.

VideoScribe is a program for automatically creating whiteboard animations and many other animation styles. It has become popular among its subscribers because it allows you to create animated video content that requires few skills or prior knowledge.

The software is widely used to create explainer videos, marketing videos, internal communication videos, as well as branding or promotional videos. VideoScribe content is also widely used in education, with users creating videos as teaching and curriculum content, and for assignments, projects, and homework assignments by students.[15]

Kahoot is a game-based learning platform used as an educational technology in schools and other educational institutions. Its educational games, "kahoots," are user-generated multiple-choice quizzes that can be accessed via a web browser or Kahoot! app. Sooo! can be used to test student knowledge, for formative assessment, or as a break from traditional classroom activities. Sooo! also includes trivia quizzes. This learning platform is similar to other technological learning tools such as Wooflash, Socrative or Quizlet[16].

There is no need to confuse game-based learning and gaming. Game-based learning is about creating content around a game story. Gamification, on the other hand, is shaping a game around an educational context.

Gamification is based on the assumption that a gamer's immersion in a game context should be translated into a learning context. This ultimately affects student behavior in promoting learning. Often, the term "gamification" conjures up images of scoring points, entering leaderboards, and earning badges for educational content. Of course, all of these elements are part of the gay myth, but the long-term

benefits are usually achieved by incorporating other interesting elements. Now game designers are using much richer game elements and incorporating them into the learning process. These elements increase student motivation. In addition, it helps to attract and motivate them to learn through play.

They have a desire to continue playing (this is one of the main achievements).

For complete understanding, here are the best game elements that are powerful tools for students. They are designed to teach students to solve problems, an important skill needed today and even tomorrow.

Mystery - This item requires students to fill in a known blank with an unknown. The student must use the information to fill in the gap, but to do so he must first find the information. For example, finding a hidden key to a closed door.

Action - Almost every game starts with an action that immediately forces the student to act. For example, find a map, find shelter, glue pieces, etc. Action is used to immediately engage students in learning content.

Challenge - Everyone enjoys overcoming challenges. It's in the human DNA, so game designers take advantage of this innate desire to challenge players at every turn.

Risk - a game without the risk of losing your "life" or accumulated coins is boring. The game is attractive if there is a risk of losing your "life" due to a wrong move and having to start over or lose all the accumulated coins. These game elements first create a challenge, and then increase the student's ability to concentrate and make strategic moves.

Uncertainty - In this element, students do not know what might happen. For example, you can solve a puzzle and move on to the next level, or you can move in a circle and start over each time.

Visible progress is a game design that tells students exactly what to do, where to start, and how long it will take.

Emotional content - unlike traditional educational modules, games evoke emotions of anger, sadness, ecstatic happiness or despair. In short, the game uses the most valuable human aspect - emotions.

Effectively incorporating one or more of these game elements into the teaching strategy results in faster and deeper student adaptation to the learning material.

Some examples of gamification in education.

Swansea in the Middle Ages [8]. An interactive history game where students play the role of a detective to solve a medieval mystery. The game can be played on all digital devices. The main ideas of the game include different scenarios, character witnesses and stories. All this allows students to track their progress and know what needs to be done. Each level presents students with new challenges and provides them with immediate feedback.

RibbonHero [10]. When it comes to corporate training and games, RibbonHero is the first game that comes to mind. The game helps students learn basic Microsoft Office tools. Students play the game and earn points for successfully solving different problems. Tasks are offered in the form of text manipulation, page design and artistic presentation. The game challenges students in a variety of ways to help them develop their Microsoft skills. Ribbon Hero tracks student progress and links it to Facebook, allowing students to share and compete with other students.

Virtual Reality House [11]. The game has been awarded a gold medal twice at the eLearning Awards. Enables professionals such as emergency services and other risk-related professions to use and practice skills learned in immersive and real-life virtual reality simulations. Play helps them improve their skills, build competence and confidence, and learn from their mistakes.

DuoLingo [7]. The game is a platform for learning foreign languages. Different degrees are offered

based on the students' progress. In addition, students can view, rate, and comment on other students' translations. If the student completes the task on time, he will receive points and a time bonus. DuoLingo is definitely a breakthrough in terms of gamification in education.

Rescuer [9]. The game helps students understand how to use the necessary measures to save the life of a victim of choking or cardiac arrest. Players work on a scenario approach, crisis simulation, story and character selection, and time constraints, which help to understand that time is a precious resource in such circumstances. Students can view their results in real-time, analyze their weaknesses and share their success through various social media platforms to compete with other students.

Virtonomics [12]. This is a game for university students. However, there is no age limit to play this game. The game is played by more than 1 million listeners worldwide. The storyline of the game revolves around an economy full of businessmen, scientists, students, entrepreneurs and more. They live in a friendly but business-oriented society. However, players must use their strategic and analytical thinking, experience and knowledge to implement effective business strategies to bring exponential success to your company.

When we talk about gamification, we cannot fail to mention the popular indie game Minecraft. The game was developed by Swedish Markus Persson and published by his company Mojang. Although Minecraft is intended

As an entertainment computer game, as its popularity has grown, applications outside the game, particularly in education, have been repeatedly discussed. During the game, children acquire skills in programming, engineering, architecture and mathematics [2]. Moreover, all this is in the sandbox genre with survival simulator and open world elements.

Since 2011, the educational organization MinecraftEdu has been operating - a community of teachers and developers whose goal is to use Minecraft in the school curriculum. Much of the credit goes to Joel Levin, a computer science teacher at a private school in New York City, who founded TeacherGaming LLC for his contributions to using Minecraft in the classroom, MinecraftEdu, a world-class game designed specifically for playful learning. developed a version of the phenomenon. . By December 2012, MinecraftEdu had already become part of the curriculum in nearly 1,000 American schools and a required part of the curriculum in one school in Sweden.

In 2013, the Viktor Rydberg School in Stockholm, Sweden, introduced a Minecraft course to the school curriculum. The course is required for thirteen-year-old students and, of course, is primarily aimed at developing creative potential in a form that is interesting and familiar to many. Indeed, today, in the 21st century, there is not much difference in how schoolchildren embody their passion for creativity and creativity: for someone it is easier to do it in the form of a picture, for someone they play musical instruments well, etc. for this Minecraft course will be a passport to the world of self-expression. Within the framework of the course, students are given lessons on the following topics [1]:

- ✓ city planning;
- ✓ Environmental problems;
- ✓ implementation of set goals;
- ✓ planning for the future;
- ✓ interactivity;
- ✓ network security;
- ✓ building and creating objects;
- ✓ Computer knowledge.

Based on the above, the following conclusions can be drawn.

Sign language is a universal language, spoken by everyone without exception, regardless of gender, age and nationality. The use of drawings in teaching helps to master the material and fully develop the imagination of students, reveals the creative potential of a person.

Looking at some of the more comprehensive games in the education industry, all games focus on one or two game elements such as competition, time management, communication, etc. Regardless of what game elements are used and how they are designed, the use of games is an effective teaching method, and the full range of learning and assessment in a good learning environment. includes the liq package.

Using Minecraft as an example, you can see that many topics are standard for a school course in computer science and social studies, but presenting them in a playful and familiar way should really lighten up boring school lessons.

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