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Analyzing the method game-based learning

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Abstract

This article discusses the benefits of using game-based learning. The purpose of the article: to provide a method that would make it easier for students to understand and accept the new topics at school and to remember the learned materials for a long time.

Increasing the interest and activity of schoolchildren is an important part of the learning process. Motivating students is one of the biggest challenges for teachers. It is quite possible that the use of traditional teaching methods alone will cause indifference in students. Therefore, it is better to use active learning methods so that the lesson is not boring. In this regard, the use of game-based learning technology can increase the motivation of students to learn.

Based on the research materials, it can be concluded that the game-based learning method facilitates students' learning and motivates students, allows them to work with classmates, i.e. increases the ability to work in groups, helps to overcome indifference to mathematics, creates a fun learning environment.

Keywords: game based learning, motivation.

Introduction

Educational games (also known as 'serious games') are widely acknowledged as fruitful tools for learning and skills development across multiple domains, specifically educational enhancement (Bellotti, F., Kapralos, B., Lee, K., Moreno-Ger, P., Berta, R., 2013)

Game technology is one of the innovative technologies. The technology of pedagogical games is a set of methods and approaches to the organization of pedagogical work in the form of games. Game-type activities appear in situations that are convenient in the classroom and are used as a tool to engage students (Hanghoj, T., Hautopp, H., 2016)

Game elements relieve students fatigue and increase interests. The game directs the student to work together, allows to develop search skills (Aguilar, S., Holman, C., Fishman, B., 2015)

According to A. S. Makarenko «Game is very important in children's lives, children's game is as important as the work and activity of adults. As a child grows up in the game, so it often happens at work when he grows up. Therefore, the future worker, first of all, receives education through play» (Ospanova) (Musina)

Related Work

Many studies have use the instructional strategy of game-based learning to help students learn (Miller, L.M., Chang, C.I., Wang, S., Beier, M.E., Klisch, Y, 2011)**.** Among those, the elevation of learning motivation has frequently been used as an instructional strategy for the elevation of learning accomplishments. The purpose of this type of game-based learning is to stimulate learners' learning motivation (Papastergiou, 2009) **,** rather than the main focus of the class instructed. In instructional environments of recent years, game-based learning environments have the following characteristics

- Use the method of games to stimulate student rethinking of the knowledge they have originally learned.

- The game provides instantaneous feedback, so that teachers can have real-time grasp of students' learning progress, and provide different suggestions in a timely fashion.

- Games can let students exchange the knowledge they have learned amongst each other.

- Learning through games can let students face learning in a relaxed attitude, so they would not feel bored.

• The games usually accompany discussion and socializing activities (Pintrich, P.R., Smith, D.A.F., Garcia, T., McKeachie, W.J., 1989)**,** (James, J.P., Young-Sik, J., Sang, Oh Park., Hsing-Chung, Chen, 2012)

Methodological requirements to the game

Methodological requirements to the game:

- The purpose of the game is to prepare clear and necessary visuals and materials in advance and put them in the right place.

- Explain to students the procedure before the game.

- Ensuring the participation of all students in the game.

- Guide them to make decisions and think during the game.

- Selection of games according to the program.

- Use the game according to the age of the child.

- Transition from a simple game to a difficult one.

- It is necessary to announce the results of the game.

Stages of teaching game technology

Introduction to the game: determine the content of the game, analyze the information received, create game groups, assign roles;

Assembly of the described finished object; role-playing in groups, reading the object described in the format;

Evaluation of group projects; discussion of the proposed projects.

Experimental implementation of the proposed projects; evaluation of player actions and projects, analysis of games.

The teacher can be the organizer of the game, a consultant on the content of the game, a fair judge who will resolve children's disputes, as well as their companion during the game. The teacher's task is to analyze and study the moral relations between children during the game, to manage it in effective ways, to support children's friendships. The purpose of the game is to give an idea of the knowledge, skills and abilities identified in the program, their formation, consolidation and refinement or testing. The task of the game is determined by the specific content selected in order to arouse the interest and activity of the child. The types of games used effectively in the lesson help the students to listen to the material explained by the teacher with

great interest and master it effectively. Children will recover quickly and complete the task quickly and correctly (Bekeeva)

Benefits of using game-based learning technology:

1) Motivation. Simply telling students that they are going to play a game makes them nervous. This will encourage students to take an active part in the lessons without being indifferent. The use of game technology increases the motivation of students to learn.

2) Understanding. In some high schools, a new topic is explained in theory only by the teacher. At this point, some students do not fully understand and understand the topic. With the help of game-based learning technology, it is easier for students to understand a new topic because they are actively involved in the practice and perform tasks.

3) Remembering.

The Learning Pyramid by the National Training Laboratories, Maine, USA. In this regard, the information is relatively more memorable than listening in practice.

4) Fun environment.

During the tasks, students not only understand the topic, but also communicate with each other, which improves their communication skills. It also helps them to get along well with each other and creates a fun environment.

Difficulties that may arise when using gaming technology:

Difficulty managing students, predominance of noise.

Conclusion

Game-based learning can be used in a variety of ways. Elements of the game should be designed taking into account the theme, the age of the student, the level of mastery of the topic in the classroom. You can use ready-made materials or build your own. Although this technology requires a lot of work and resources, if teachers work with other teachers to apply their experience in educational technology and game development, the new game will be successful. It is clear that game-based learning provides a great opportunity to stimulate interest and learning.

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