



# Educational Technologies in Teaching the Subject "Life Safety"

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**Abstract:** The article deals with the didactic possibilities of a business game as a means of educational technology. The possibility of using a business game as a form of conducting seminars and practical classes in the study of the discipline "life safety" in higher educational institutions is substantiated. The use of pedagogical technologies allows the teacher to gain new opportunities to influence the traditional learning process and increase its effectiveness. We have applied and analyzed by anonymous questionnaire on the environment of medical students the effectiveness of application in practical classes of business game.

**Keywords:** educational technologies, business game, life safety, questioning, peer learning

## 1. INTRODUCTION

Today, positive changes are taking place in the education system, the sphere of education is being radically improved. In all areas of education, the most modern educational technologies are used. Educational institutions are provided with modern information technologies.

The manufacturability of the educational process is to make the educational process fully manageable [1].

Currently, modern pedagogy offers a wide range of forms and methods of organizing the educational process. In connection with the changing requirements of the modern world, as well as modern students, it is necessary to make changes in the construction of the discipline, in the definition of activities [2]. So, it is necessary to build a lesson based on the following principles: the activity and independence of students in acquiring new knowledge and skills, practice - orientation, health savings, where the key role is played by the change in the types of activities of students in the classroom, interdisciplinary and diversity of activities in the classroom (combination of individual, group and collective work) [3].

These requirements are met by the use of gaming methods included in a large system, namely educational technologies

UNESCO documents indicate that educational technology, in contrast to the careful methodological development of the lesson, is focused on the activities of students, which encourages the teacher to work effectively, serves to create the necessary conditions for students to independently assimilate educational material, taking into account both personal and joint activities with the teacher [4].

As part of the large-scale reforms carried out during the Renaissance of the new Uzbekistan, special attention is paid to improving the quality of education for students of higher educational institutions [5]. Therefore, the teacher of the subject "Life Safety" at EMU needs to choose such an interactive teaching method and apply such advanced pedagogical technologies that would arouse sufficient interest in the subject being studied and would correspond to the content, professional orientation, duration of training, etc.

Dramatic changes in the world, the emergence of emergencies and unforeseen accidents dictate the need to harmonize theory and practice in the study of the discipline "Life Safety", as well as the use of a variety of modern pedagogical technologies in teaching students [6].

The objectives of the application of pedagogical learning technologies are:

- disclosure of creative abilities of students through the introduction of the theory of inventive problem solving;
- study of new material, consolidation and control;
- formation of sustainable knowledge and skills;
- development of teamwork skills;

- mutual learning during the game (the exchange of knowledge and skills);
- the ability to apply knowledge and skills in a non-standard situation.

## II. ACTIVE LEARNING TOOL: BUSINESS GAME

The most promising in the course "Life Safety", in our opinion, are the methods that allow to activate the cognitive activity of students to the greatest extent, namely, the methods of specific situations and business games.

Business games are a pedagogical tool and an active form of learning, which allows not only to diversify organizational forms, but also allow you to simulate dangerous, extreme, emergency situations, make optimal decisions, provide an opportunity to analyze them and develop optimal actions in such situations [7].

According to the general block diagram, complex games can be presented in the form of five stages (Fig. 1): Stage I - preparatory, it includes blocks 1 and 2; Stage II - distribution by role groups and study of instructions; the duration of these two stages is 10 minutes; Stage III - analytical or control and information part; the duration of the stage is 20 min; Stage IV - the functional part, i.e. the development of decisions and the implementation of control actions; the duration of the stage is 40 min; Stage V - final, i.e. evaluation of the decisions made, summing up the results of the game; duration of the stage 10 min [8].

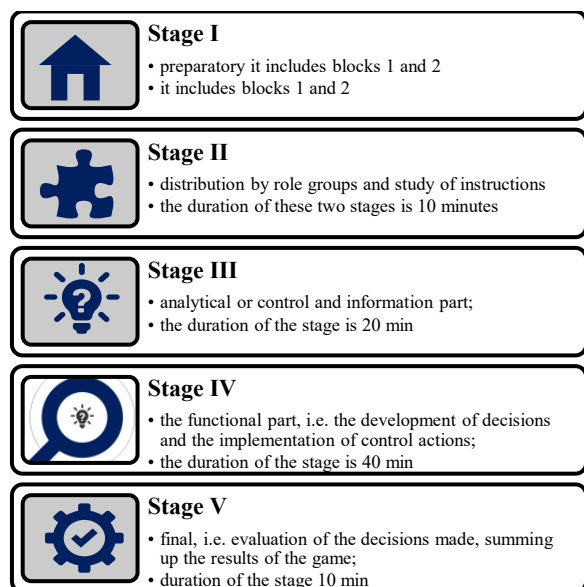


Fig 1. Block diagram of a business game 1

Examples of business games: Starting the lesson, students are given a task, they are divided into three subgroups of four students each. Each group is assigned a specific task. The game is played for 80 minutes.

The trainees were assigned a problem situation: "Explosion at a nuclear power plant". The first word was given to the "practice" group. The students demonstrated the correct and

consistent putting on of a combined arms protective suit, a gas mask and talked about the simplest personal protective equipment.

The second was a group of "scientists". Their task was to identify the possible causes of the explosion, talk about alarms and determine the actions of the civilian population.

The third was "environmentalists". The students talked about radiation sickness and its consequences. Radiation doses were announced, alpha-beta and gamma radiation and their properties were considered. The question of the half-life period and possible contamination of the environment is considered.

Then we made an addition to the plot of the business game. It was said that because of the explosion there was a leak of chlorine and ammonia at the enterprises of the city. "Scientists" had to quickly orient themselves and talk about the properties of gases. The "practice" group should have been informed about the actions that citizens should take if they are in the affected area. "Ecologists" reported on the effect of gases on the body.

One expert was selected from each group, who assessed the actions of their team members, noted individual and collective aspects. They also raised controversial issues.

At the end of the session, the trainees noted that the opportunity to discuss solutions made the session not only interesting, but also fruitful. Students appreciated the opportunity to think freely and creatively.

During the implementation of interactive teaching methods, such as a business game, the learning process is as close as possible to real situations occurring in the professional activities of a future specialist, secondly, a business game is a collective learning method, and allows you to combine the entire group of students into work at the same time and finally a business game allows you to create a special emotional atmosphere conducive to increasing the activity of students in the classroom [9].

## III. QUESTIONNAIRE

A survey was conducted among students, "Is it better for you to learn the topic of the lesson if the lesson is held in the form of a business game" (in % of the number of respondents, 2nd year student, EMU) (Table I).

Table I. The percentage of comprehension of the topic when conducting a lesson in the form of a business game.

Is the topic of the lesson better absorbed by you if the lesson is conducted in the form of a business game	Answer's options	
	Yes	No
	91%	9%

According to the data, the overwhelming majority of students believe that they learn the lesson material better when teachers use the business game method in the lesson. Every fifth respondent notes that his assessment at the lesson and the quality of teaching do not depend on the form of the lesson. None of the respondents spoke negatively about this method.

Questionnaire "How do you behave in such lessons?" (in % of the number of respondents, 2nd year student, EMU) (Table

II)

Table II. The attitude of students to conducting a lesson in the form of a business game.

How do you behave in such lessons?	Answer's options			
	Easy and comfortable, that's why I'm active	I'm shy so I'm passive	It's easy to get a positive grade in this class.	I'm not interested and it's not easy in this situation
	70%	15%	10%	5%

Questionnaire "Reasons why they like educational technology" (in % of the number of respondents, 2nd year student, EMU) (Table III)

Table III. Reasons for liking educational technology.

Reasons why you like educational technology	Answer's options		
	Interest	Easier assimilation of the material	Intelligence Development
	50%	25%	25%

The analysis showed that the majority of students find it easy and comfortable in the classroom when the business game method is used. 15% of respondents are shy and behave passively. Approximately 10% of students believe that it is easy to get a positive assessment in such a lesson, and only 5% answered that they are not interested and not easy in this environment.

Thus, based on the results of the survey, we can draw the following conclusions: students like the business game methodology used by teachers in the classroom. The use of game elements not only allows students to acquire new knowledge, but also facilitates the assimilation of educational material, is an incentive for obtaining high marks, and also increases their interest in studying the subject. The unity of theory and practice in the study of "life safety" is important, especially when the ability to apply the acquired knowledge in emergency situations depends on the health and life of a person

#### IV. CONCLUSION

In conclusion, it should be noted that the use of educational technology in practice brings the built environment closer to life medical situations, because in the medical field not unimportant role is played by quick reactions to the situation at hand and independent decision-making. This technology develops such qualities as the ability to work in a team, cooperation, coordination of personal interests with the collective and purposefulness of actions, and in addition to the above mentioned develops flexibility of logical, creative and

communicative thinking. Also, training can be considered as active-efficient, as the study of the results of the questionnaire showed, they motivate to acquire new knowledge and their further processing. Classes are built in such a way that students themselves take the initiative in learning new material, and the teacher only helps in this.

In addition, the use of educational technology in the study of the subject "Life Safety" increases the interest of students in the practical exercises and the problems that are modeled in the game, as well as increases the level of intellectual competition, cognitive activity of students in the learning process.

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