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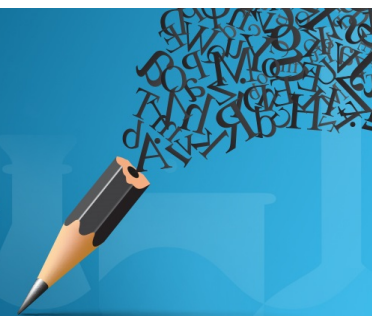


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An Interactive Method in the Study of the Topic “Research of Fire Extinguishing Equipment”

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Abstract. This article presents materials on the use of interactive teaching methods that allow students to easily learn a fairly complex topic “The study of various types of fire extinguishers”. In this case, the academic group of students is divided into subgroups. Each subgroup is given a separate topic for the study of a separate type of fire extinguisher. Then the students exchange the received information among themselves and, thus, the studied material is fixed.

Keywords. The fire extinguisher, chemical, reaction, substance, acid, the valve, solution, concentration powder.

INTRODUCTION

National training program of the Republic of Uzbekistan special attention is paid to the training of specialists. Based on the experience of developed countries, had effective results in pedagogy primarily, the thinking abilities of students develops, and secondly, the learning process may be production related. Significant changes in the country's education system using new pedagogical technologies [1,2]. It is becoming more and more obvious that this is happening.

MATERIALS AND METHODS

In this article, we will also discuss the Boomerang Method, one of the new interactive group methods. If the lesson is taught with students, they education in your life or work processes can apply the knowledge gained through [3].

RESULTS AND DISCUSSIONS

From this method in the lessons to use in several stages corresponds to:

- divide students into small groups. In this case should be arranged. For this, the number of students in the group is 9, 16 or 25 ($3 \times 3 = 9$; $4 \times 4 = 16$; $5 \times 5 = 25$) should be (Figure 1);

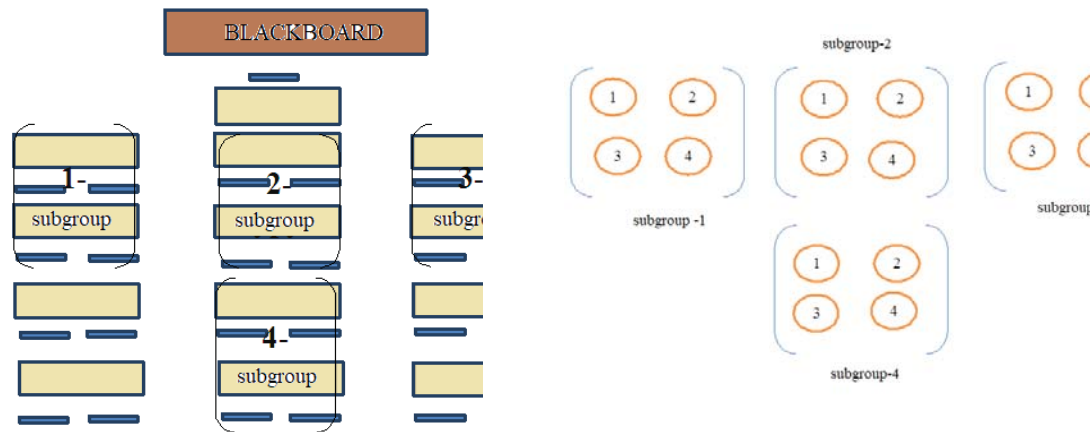


FIGURE 1. Grouping students into groups

- students get acquainted with the purpose and order of the lesson;
 - each small group of students will be provided with texts on the following topics for self-study:
 Subgroup 1 will be given the topic "Chemical - foam fire extinguishers. "In it, a small group of students reworked the structure of chemical-foam fire extinguishers will have a brief overview of charging.
 Subgroup 2 is divided into "Carbon monoxide IV (liquid gas) fire extinguishers handouts are provided. It is small students in the carbon dioxide group design of fire extinguishers, modify them there will be a short description of charging.
 Subgroup 3 will be provided with the text "Dust Extinguishers". Through this text, they learn about the construction of dry powder fire extinguishers and how to recharge them.
 Subgroup 4 will be given a handout on the rules for the use of fire extinguishers. In it, the students of the group have 3 types of chemical foam, carbon dioxide and rules for the use of dry powder fire extinguishers get full information [4].
- texts provided by students studied independently;
 - every member of every group is a group studied independently, respectively exchange information with texts, that is, text that moves towards each other achieve mastery (Figure 2);

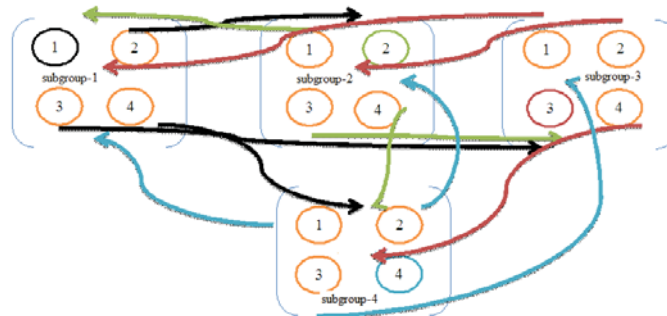


FIGURE 2. Mutual exchange of small group members

- within the group, internal control is carried out to determine the level of assimilation of this information, that is group members ask questions and answer each other;
- new group members are in their original state return to groups (Figure 3);

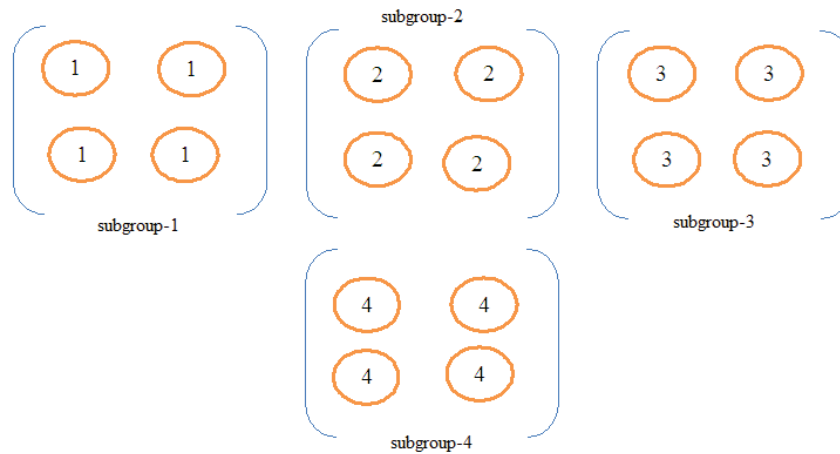


FIGURE 3. Return of the groups to their seats

- for the remainder of the lesson, a group accountant will be assigned to each group to assess the students' knowledge or score;
- to determine the level of assimilation of all texts by students, the teacher asks students questions, verbally interrogates;
- based on the answers to the questions, the sum of the points scored by the groups is determined;
- in the group by each member of the group the content of the text is relevant to life the question is formed;
- Q&A is organized through questions prepared by groups;
- the sum of the total points scored by the group members is determined;
- the total points earned by the group are evenly distributed among the group members;
- the teacher completes the lesson and gives homework.

CONCLUSIONS AND SUGGESTIONS

When teaching this method, firstly, the technology in each subgroup just like the rest of the students, they are perfectly familiar with the types of fire extinguishers, their design, and the principle of operation [5]. They reinforce their knowledge of how to use fire extinguishers in practice.

On the example of two academic groups consisting of 16 students, one of whom was trained in the traditional way, 2 received excellent marks, 6-good, 6 - satisfactory and 2 – unsatisfactory marks (Fig. 4). And when using modern or innovative, interactive teaching methods (4x4), these indicators changed, respectively: 4 for excellent, 8 for good, 3 for satisfactory and 1 for unsatisfactory result. From this we can see that excellent results increased by 60%, good results by 30%, while satisfactory results decreased by 55% and unsatisfactory results by 50%. It was also possible to observe that the students acquired the necessary knowledge and developed useful skills.

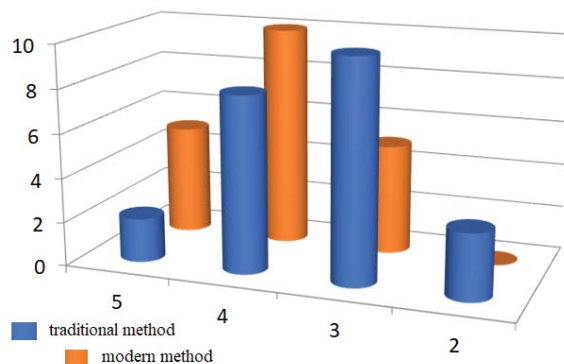


FIGURE 4. Dynamics of development changes.

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