

Topic "Fox Optics" in Higher Educational Institutions Teaching Through the Method of "Working in Small Groups"

Seytimbetova Gulbadan Azatovna

*Berdak Karakalpak state university Assistant of the department of
Semiconductor physics, faculty of physics
(gseytimbetova@mail.ru) +998993191573*

Annotation- *The use of modern teaching methods leads to high efficiency in the teaching process. When choosing teaching methods, it is advisable to choose based on the didactic function of each lesson. While maintaining the traditional form of the lesson, enriching it with methods that activate the activities of various learners leads to an increase in the level of mastery of learners. To do this, high efficiency can be achieved through the rational organization of training, the interest of learners by the educator, the choice of methods and tools in accordance with the content of the studied material. The level of mastery, practical skills and competencies of learners can be developed through interactive or interactive teaching methods.*

INTRODUCTION

Interactive methods are methods that activate students and encourage independent thinking, which serve to achieve high efficiency in the educational process in the cooperation of student-student. When these methods are used, the educator encourages the learner to actively participate. The learner is actively involved throughout the entire process.



One of the interactive methods is the "Working in small groups" method. This method allows students to study the material or complete a given task by dividing them into small groups in order to

activate them. When this method is used, the learner has the right to work in small groups, to take an active part in the lesson, to play a leading role, to learn from each other and to appreciate different points of view, as well as to deepen the lesson topic. Also, when this method is used, the educator will be able to save more time than other interactive methods. Because the educator is able to engage and evaluate all learners on the topic at the same time. The structure of the method "Working in small groups" is given below.

THE STEPS OF THE "WORKING IN SMALL GROUPS" METHOD ARE AS FOLLOWS

Step 1: The direction of activity is determined. Related issues on the topic are identified.

Step 2: Small groups are marked. Learners can be divided into groups of 4-6 people.

Step 3: Small groups begin to complete the task.

Step 4: Clear instructions are given and directed by the instructor.

Step 5: Small groups make a presentation.

Step 6: Completed assignments are discussed and analyzed.

Step 7: Small groups are evaluated.

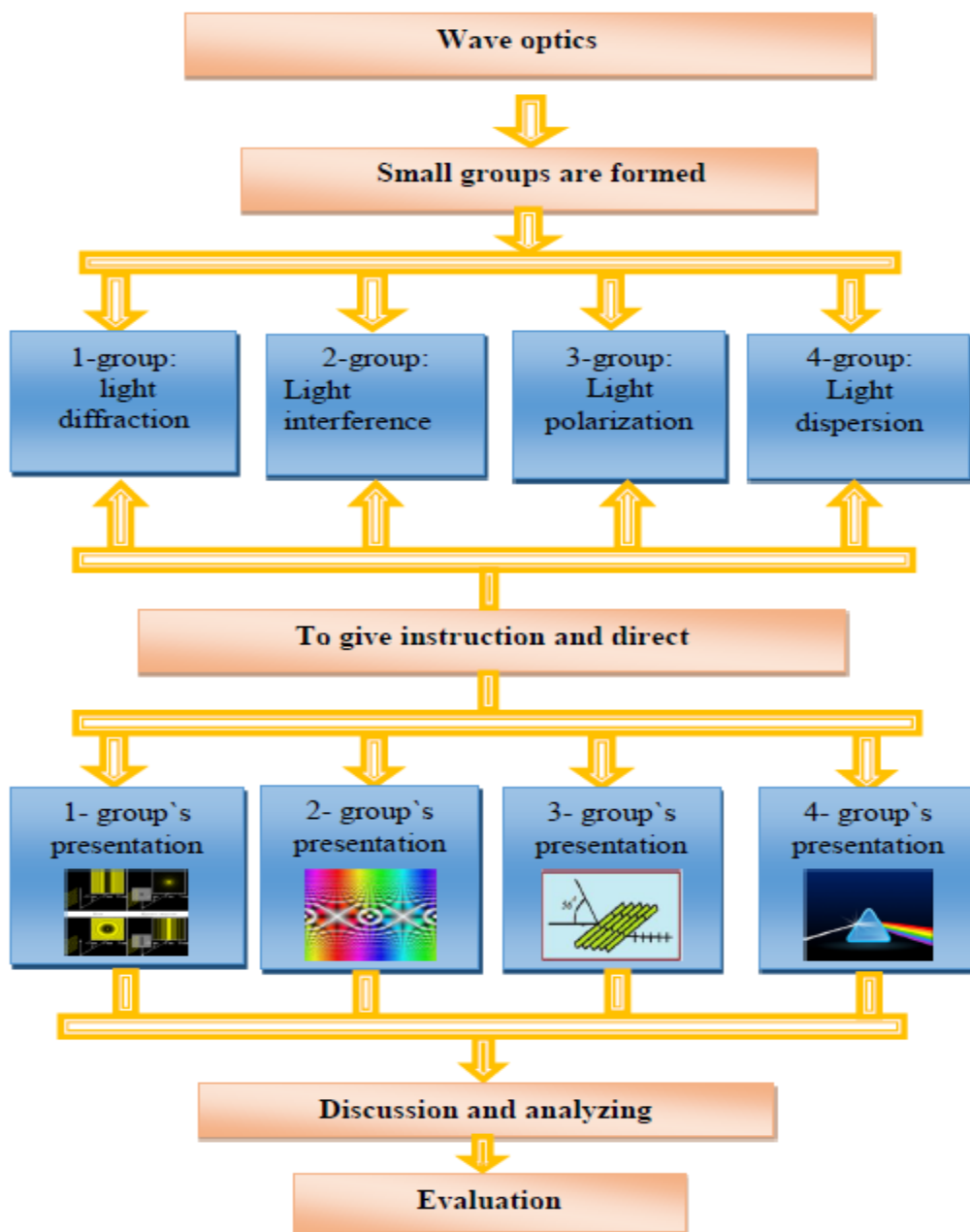
ADVANTAGES OF THE METHOD OF "WORKING IN A SMALL GROUPS"

- leads to better mastery of the content of training; leads to the improvement of communication skills;
- There is an opportunity to save time;
- All learners are involved;
- Self-assessment and intergroup assessment will be available.

DISADVANTAGES OF THE METHOD OF "WORKING IN SMALL GROUPS"

- Because some small groups have weak learners, strong learners are also more likely to receive low grades;
- The ability to control all learners will be low;
- Negative inter-group competition may arise;
- Mutual conflict may arise within the group.

Using the above information, students of non-physical bachelor's degree in higher education can combine the module "Fox Optics" in Physics using the method of "Working in small groups" using the structure shown in Figure 1.



The first notions about the nature of light originated in the ancient Greeks and Egyptians. By the end of the seventeenth century, two theories of light, the corpuscular theory by I. Newton and the wave theory by R. Hooke and H. Huygens, began to take shape. Unlike corpuscular theory, the wave theory of light assumes that light consists of a wave process, similar to mechanical waves. Hence, the basis of wave optics consists of the phenomena of diffraction, interference, polarization, and dispersion of light.

In higher education, 80 minutes are allocated for a 2-hour lesson (1 pair). Based on the teaching method, we divide this time interval as shown in the table below.

Start the lesson	Introduction to attendance and method	5 minutes
Step 1	Subject and assignment	5 minutes
Step 2	Small groups are formed	3 minutes
Step 3	Small groups begin to complete the task.	30 minutes
Step 4	Clear instructions are given and directed by the educator.	
Step 5	Small groups make presentations.	20 minutes
Step 6	Completed assignments are discussed and analyzed.	7 minutes
Step 7	Small groups are evaluated.	5 minutes
Completion of the lesson	Homework and assignments	5 minutes

Because if the teacher is able to allocate the lesson time correctly, choose the right method and organize the lesson correctly, using each time effectively, the students will be able to transfer the knowledge effectively.

REFERENCES:

- [1] N.A Muslimov, M.T Mirsolieva, G.N Ibragimova, R.J Ishmuhammedov, A.B Turaev: "Development of innovative activity of the teacher". T-2019.
- [2] N.A. Muslimov, M.Usmonbaeva, M.Mirsolieva: "Innovative educational technologies and pedagogical competence". Nukus-2019.
- [3] Abdurahmanov K.P, Egamov O': "PHYSICS" textbook. Part 2 T-2008 y.