

IMPROVED METHODOLOGY FOR ORGANIZING DISTANCE SCIENTIFIC CIRCLES IN
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Abstract. This article analyzes the theoretical and methodological foundations of organizing distance scientific circles in specialized subjects at higher education institutions. The issues of organizing scientific circle activities based on modern digital technologies, developing students' scientific potential, and forming their skills for conducting independent research are discussed. In addition, an improved methodological model for the effective organization of distance scientific circles is proposed. The results of the study are important for effectively organizing scientific activities in the context of distance education and for enhancing the scientific and creative potential of students.

Keywords: distance education, scientific circles, digital technologies, scientific activity, methodology, innovative education, students' scientific research.

Introduction. In recent years, the rapid development of information and communication technologies in the education system has had a significant impact on all stages of the educational process [1]. The modern educational environment formed on the basis of digital technologies makes it possible to widely introduce new forms, methods, and tools of teaching. This process is especially important for the development of students' scientific activities within the higher education system.

Today, engaging students in scientific activities, developing their independent thinking skills, and increasing their interest in scientific research are considered important tasks of the educational process in higher education institutions. In this context, scientific circles serve as an important pedagogical tool for developing students' scientific potential [2].

Scientific circles help involve students in research activities, broaden their scientific outlook, and enable them to acquire deeper knowledge in specialized subjects. However, scientific circles organized in a traditional format sometimes fail to function effectively due to time and geographical limitations [3]. Therefore, organizing scientific circle activities in a distance format has become one of the pressing issues of the modern education system.

Distance scientific circles provide opportunities to expand students' scientific activities, organize scientific discussions in an online format, and develop scientific collaboration. For this reason,

developing an improved methodology for organizing distance scientific circles in specialized subjects is considered one of the important scientific and practical tasks of pedagogical science.

The purpose of this article is to develop an effective methodology for organizing distance scientific circles in specialized subjects and to highlight its theoretical and practical foundations [4].

Theoretical Foundations of Distance Scientific Circles. Scientific circles are considered one of the important pedagogical forms that contribute to the development of students' scientific worldview. They help develop students' abilities in scientific thinking, conducting research, and independently solving problems.

A distance scientific circle is a form of scientific activity organized through digital technologies, where students and teachers conduct scientific discussions remotely, develop research projects, and discuss the results of their studies.

The main advantages of distance scientific circles include the following:

- ❖ the absence of geographical limitations in scientific activities;
- ❖ the creation of a convenient and flexible learning environment for students;
- ❖ the opportunity to widely use scientific materials and resources;
- ❖ the possibility of establishing international scientific collaboration [5].

Distance scientific circles are considered an innovative pedagogical approach in the modern education system. They contribute to improving the quality of education by engaging students in scientific research activities.

Methodology for Organizing Scientific Circles in Specialized Subjects. When organizing scientific circles in specialized subjects, it is important to systematically structure the pedagogical process. In this regard, the activity of a scientific circle can be organized in the following stages [6].

Stage 1. Planning stage. At this stage, the goals, objectives, and main directions of the scientific circle are determined. In addition, the work plan of the circle is developed and a schedule of scientific activities for the academic year is prepared.

Stage 2. Organizational stage. At this stage, the members of the scientific circle are formed and their scientific interests are identified. In addition, appropriate distance learning platforms are selected and the necessary technical conditions for organizing the scientific circle activities are created [7].

Stage 3. Scientific activity stage. This stage represents the main part of the scientific circle's work. The following activities are carried out during this stage:

- ✓ organizing scientific seminars;
- ✓ conducting training sessions on writing scientific articles;
- ✓ developing scientific projects;
- ✓ discussing scientific problems.

Stage 4. Analysis of results. At this stage, the scientific work completed by students is analyzed and the effectiveness of the scientific circle activities is evaluated.

The Use of Digital Technologies in Distance Scientific Circles. The effective organization of distance scientific circles requires the use of modern digital platforms. Today, the following digital platforms are widely used to organize scientific activities:

- Google Meet – for organizing online scientific seminars and discussions;
- Zoom – for conducting scientific conferences and webinars;
- Moodle – for sharing scientific materials and managing learning resources;
- Google Classroom – for managing scientific assignments and monitoring students' research activities [8].

These platforms enable students to organize scientific activities effectively in a remote format.

Improved Methodological Model. Based on the results of the research, the following methodological model for organizing distance scientific circles in specialized subjects is proposed:

1. Goal-oriented component. Development of students' scientific potential.
2. Content component. Deepening scientific knowledge in specialized subjects.
3. Technological component. Use of digital educational technologies.
4. Result-oriented component. Formation of students' scientific competencies.

This model allows the systematic organization of scientific circle activities.

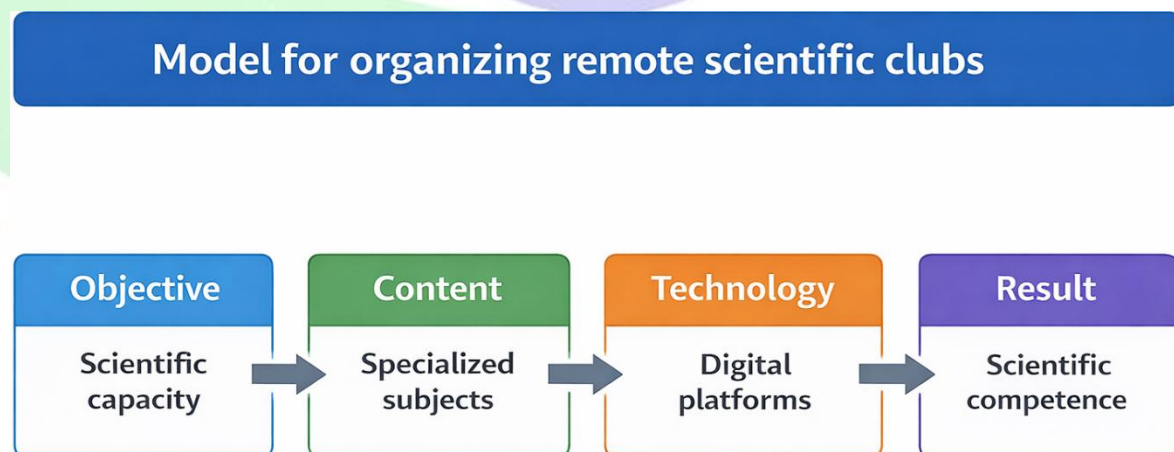


Figure 1. Methodological model for organizing distance scientific circles

Research Results and Discussion. The conducted research shows that distance scientific circles play an important role in developing students' scientific activities. In scientific circles organized through distance learning technologies, students:



develop research skills;
 gain experience in writing scientific articles;
 actively participate in scientific conferences.

In addition, distance scientific circles contribute to the development of scientific collaboration among students and researchers.

Xulosa. The organization of distance scientific circles in specialized subjects is one of the important directions of the modern education system. Scientific circles organized on the basis of digital technologies play a significant role in developing students' scientific potential, forming their independent research skills, and promoting scientific collaboration. Based on the results of the study, an improved methodological model for organizing distance scientific circles was developed. This model contributes to the effective organization of scientific circle activities and the development of students' scientific competencies. In the future, it is important to further expand research in this direction and develop new methodological approaches aimed at improving distance scientific activities

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