THE ROLE AND SIGNIFICANCE OF INFORMATION TECHNOLOGIES IN IMPROVING THE QUALITY AND EFFECTIVENESS OF EDUCATION (CASE STUDY OF ACADEMIC LYCEUMS)

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Abstract: *The necessity to eliminate the existing discrepancy between the level of development in science, technology, and the process of improving teachers' professional preparedness is becoming increasingly important in the entire education system due to the insufficient implementation of modern pedagogical and information technologies. Therefore, it is essential to reconsider the efforts to improve teaching and the presentation of educational materials. In order to address these issues, the implementation of modern pedagogical and information technologies in the educational process and their use is appropriate. Students, specialists, and scientific staff can benefit from the results of the teaching process.*

Key words: *Strategy, science and technology, educational methodical, informatization of education, intellectual potential.*

Kalit so'zlar: *strategiya, fan va texnika, o'quv-metodik, ta'limini axborotlash-tirish, intelektual salohiyat.*

Ключивые слова: *стратегия, наука и техника, учебный методический, информатизация оброзования, интелектуальный потенциал.*

Introduction

On December 3, 2020, the President of the Republic of Uzbekistan approved Resolution No. 4910 on "Measures to Improve the System of Identifying Talented Youth and the Activities of Academic Lyceums" with the aim of raising a physically healthy, independent-thinking, intellectually developed, and loyal generation to the Motherland, deepening democratic reforms, and increasing their social activity in the process of developing a civil society. In order to improve the activities of academic lyceums, the objectives were set to develop the system of identifying talented youth, create the necessary conditions for their support, encourage the growing generation's interest in science and knowledge, systematically implement reforms aimed at realizing their intellectual and creative potential, and, in a nutshell, fundamentally reform the activities of academic lyceums. (PQ 4910, December 3) At present, is the use of information technologies in the system of academic lyceums operating in our Republic meeting the required level? This article discusses this issue, focusing on existing problems and ways to overcome them.

It is impossible to imagine life in the near future without computers. Therefore, a small amount of knowledge that is understandable to everyone is crucial. (T.M. Azimjanova, M.T. Muradova 2018, page 8) In order to address such issues, it is appropriate to implement modern pedagogical and information technologies in the educational process and make use of them. The current advancements in science and technology demand their prompt integration

into the content of curricula and textbooks, thereby laying the foundation for shaping students' modern knowledge. The implementation of modern information technologies and various methodological approaches, in turn, creates favorable conditions for the relatively easy and solid formation of numerous fundamental concepts in students. (R. Hamdamov, U. Begimqulov, N. Taylaqov 2020, pages 11-15)

Relevance of the topic

Nowadays, modern information technologies are actively used in academic lyceums. It is possible to say that there is an unlimited interest in information technologies among students; however, there are difficulties and a number of shortcomings in implementing modern information technologies, which include the following:

1. Insufficient readiness of pedagogical staff for the informatization of education;

2. Lack of understanding of the capabilities of computer-based teaching programs, and the lack or insufficient clarity of methodological manuals for their use;

3. The absence of modern information technologies in academic lyceums to a sufficient degree;

4. The absence of internet connectivity or inadequate speed and quality in many academic lyceums.

Methodology

When examining the level of knowledge of information technologies among teachers in academic lyceums located in the Andijan region, the following findings were obtained:

Table 1. The growth rate of teachers' knowledge in ICT in educational institutions.

Based on the data presented in Table 1, the main factors contributing to the high level of knowledge and skills among teachers in the Andijan State Medical Institute's academic lyceum were studied and identified as follows:

Short-term (2-month) computer courses were organized in the academic lyceum for the 2022-2023 academic year with the aim of increasing teachers' knowledge in ICT.

The computer courses were organized based on specific educational content. The methodological guidelines of the professors of the Andijan State Medical Institute were used as the basis for selecting this educational content. This educational content includes the following:

a) Using the main and additional devices of personal computers; b) Understanding the Windows operating system, working with files and catalogs; c) Basic work with the Word program; d) Basic work with the Excel program; e) Creating presentations in the Power Point program; f) Using the Internet system; g) Antivirus programs and their use.

1. In teaching the above-mentioned educational content to teachers, the academic lyceum's computer science teachers N. Abdullaeva and M. Tojiboyeva employed the following:

- Modern information technologies;
- Modern pedagogical technologies;
- Practical tasks.

Currently, there are two computer classrooms equipped with modern information technologies in the academic lyceum. These computer classrooms served teachers during the

training courses. The availability of working with basic and additional computer devices and practical software played a significant role in the successful completion of the training course.

After the completion of the training course, an examination on the level of knowledge in information technologies was conducted by experienced professors of the Andijan State Medical Institute. This examination contributed to increasing the teachers' commitment and responsibility towards the training course.

It is essential to apply computer technologies for teachers to implement the knowledge and skills they have learned in practice. In this regard, the Andijan State Medical Institute closely supported the academic lyceum.

In general, the growth of the knowledge capacity in ICT among the teachers of the Andijan State Medical Institute's academic lyceum can also be seen through the following diagram: Figure 1. The growth of knowledge capacity in ICT at the Andijan State Medical Institute's academic lyceum.

Conclusion and suggestions

Based on the information above, it can be concluded that organizing systematic training in information technologies for teachers in academic lyceums is crucial for improving their knowledge and skills in creating a modern information technology environment. In this regard, it is recommended that the duration of the training course be no less than two months, and highly qualified professors from higher education institutions should be involved in the teaching process in academic lyceums.

In collaboration with the professors of the Information Technologies Department of the Institute, it is essential to identify the necessary training content for teachers and develop teaching methods, as well as clear instructions for completing practical tasks. The creation of methodological guides containing these tasks can accelerate the growth of teachers' knowledge and skills.

Certainly, conducting exams at the end of the training course by experienced professors from higher education institutions increases teachers' responsibility towards receiving education.

The formation of a modern information technology environment in education contributes to the informatization of scientific fields, intellectualization of educational activities, acceleration of integration processes, and improvement of the educational system infrastructure and its management mechanisms. Moreover, the use of modern information technologies in education not only changes organizational work and methods in teaching but also facilitates the formation of new methods in it. (R. Xamdamov, U.Begimqulov, N.Taylaqov "Information Technologies in Education" 2020, p. 27)

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