

The Using of Distance Learning Technologies in Training Courses



T. Shoymardonov¹, E. Buriev²

¹Doctor of Philosophy in Pedagogical Sciences, PhD Director of the Head Scientific and Methodological Center Tashkent, Uzbekistan

²Doctoral student, Head Scientific and Methodological Center Tashkent, Uzbekistan

ABSTRACT: This article provides a brief history and level of study of distance learning courses. Also, retraining and advanced training courses for executives and pedagogical staff of higher education institutions are provided with modern forms and technologies of teaching in the educational process, including distance learning, webinar technologies, automated monitoring, electronic portfolio information systems and their coverage. The research studied the performance of trainees in 214 areas of 22 retraining and advanced training centers and regional centers. In the study, the mastery data of the trainees who improved their skills in the courses for 2017-2020 were published in the form of tables and diagrams. The study also highlighted the advantages of distance learning courses and the problems that can be solved.

KEYWORDS: advanced training, distance learning, information and communication technologies, electronic system, distance learning, online and offline form, educational resource.

INTRODUCTION

Today education is developing and changing rapidly. Almost every minute there are changes, updates in different parts of the planet, and every day passes under a strong stream of information. One of the important areas of reforming the education system is the systemic integration of the educational process with information and communication technologies.

The training of highly qualified personnel is one of the main problems of the education system. The development and implementation of information technologies in the education system requires mobility, flexibility, competence and relevance from the teacher [5].

It is also important to constantly improve the quality of education and raise it to the level of world standards, first of all, to improve the qualifications of executives, professors and teachers.

Significant changes are taking place in the education system of Uzbekistan. It should be noted that along with various forms of education, distance learning is widely used.

According to UNESCO, the following definition of distance learning can be formulated: distance learning technology is a systematic approach to the creation, application and popularization of the entire process of educational services, taking into account human and technical resources, their interaction, indirectly optimizing the individual form of education [13].

Distance learning is a form of education based on educational cooperation between a teacher and a student located at a great distance from each other, through Internet resources and telecommunication technologies [12].

The form of distance learning has developed and is being improved to this day. Study the experience of developed countries in this area, shows that US National University of Technology began to use of distance learning by the end of the 1980s. [3].

“Distance Learning Association” of the United States was established in 1987. Initially, this association was focused on people with disabilities.

An analysis of the development of the teacher training system in the United States showed that the leaders of the political and business world of this country realized earlier than other countries, that an effective system of retraining and professional development of pedagogical personnel is a prerequisite for long-term economic development and prosperity [14].

Distance learning is widespread in the United States today, and over 1 million people in the United States are currently enrolled in distance learning [13].

The Using of Distance Learning Technologies in Training Courses

The UK has accredited online schools offering comprehensive programs. There are public and private online schools in the UK.

Distance learning in France began to develop in the first half of the twentieth century. There is also a Center for the Development of Distance Education. The center offers professional development and training services in various educational institutions.

MAIN PART

The distance learning system has its own structural purpose, content, methods, tools and organizational forms. Distance learning pedagogical technologies are a set of teaching methods and techniques that provide the educational process of distance learning based on the chosen learning concept [5].

In general distance learning is a complex task both in terms of organization and in terms of pedagogical support, as well as from the technological side of the issue.

Distance learning courses should be distinguished according to three main characteristics:

- the method of interaction between students and teachers;
- method of providing information;
- Interaction of students with the content of the distance course [6].

According to Head of the Department of Professional Education at Karshi Engineering and Economic Institute, Ph.D. Rakhimov there are following trends which important in the development of distance education:

1. Increase in the number of educational institutions providing professional training using new information technologies.
2. Mutual coordination of organizational systems of educational institutions [6].

First of all, pedagogical projects play an important role in the development of distance learning courses. The pedagogical design process is the process of designing the future activities of both teacher and student [10].

Distance courses will be in the form of a project, which is usually well designed. The purpose of creating distance courses is to provide a holistic connection of all elements and participants of the course.

In turn, there are certain requirements for the creation of distance learning courses, in this regard, the associate professor of the Siberian National University, candidate of medical sciences Sekatsky Viktor Stepanovich believes:

- distance courses should be built on a module system;
- the structure of the module should be based on a certain pedagogical technology;
- distance courses modules should reflect the general purpose of distance courses;
- modules must have entrance and final tests for students;
- The assessment system within the modules should be based on objective criteria [11].

Western scholars also have different attitudes towards distance learning. Lorraine Sherry, PhD, Senior Research Fellow at the University of Colorado, said of distance learning: "One of the earliest forms of distance learning was established in distance learning in Europe. This form of education was popular until the first half of the twentieth century, before the advent of radio and television.

"Today distance learning has reached a level that provides a high degree of interactivity between teacher and student. Advances in technology have also expanded the reach of distance learning courses, which means that today distance learning students not only have the ability to read the materials provided, but also have the ability to see and hear them and communicate with the teacher as needed[9]."

Retraining and professional development of pedagogical personnel are also widely introduced for executives and pedagogues in the higher education system of Uzbekistan.

The adoption of the Resolution of the Cabinet of Ministers No. 103 of February 27, 2017 served as a legal basis for the introduction of distance learning to retraining and professional development of pedagogical personnel for executives and pedagogues of higher educational institutions.

According to the decision, students who do not take the course for the first time will be able to re-take the course based on distance learning using distance learning technologies.

Then, on the basis of the Decree of the President of the Republic of Uzbekistan dated August 27, 2019, PF 5789 "On the introduction of a system of continuous training for executives and pedagogues of higher educational institutions" transferred refresher courses to a new level [2].

Modern forms and technologies of education have been introduced into the educational process of retraining and professional development of pedagogical personnel, including distance learning, webinar technologies, automated monitoring, and electronic portfolio information systems.

The Using of Distance Learning Technologies in Training Courses

Distance learning is a form of education based on educational cooperation between a teacher and a student through Internet resources and telecommunication technologies because of a far distance from each other [13].

For the effective organization of courses through distance learning, distance learning is based on the study and analysis of the experience of leading foreign educational institutions, online video lectures, online consultations, remote control in real time and the corresponding training in offline distance learning. An electronic platform has been developed that provides a wide range of forms, including independent development of methodological resources.

We have taken a new approach in the development of an electronic platform based on the analysis and study of various platforms for distance learning. The essence of our approach is as follows. Some modules are repeated in the curriculum of most courses. That is, the same module can be taught in several courses. This requires multiple and repeated introduction of some resources into the system when forming distance courses based on these training programs. In the system developed by us, the course content consists of modules independent of each other. It is possible to include one module in several courses.

The structure of the course is formed on the basis of its curriculum. The course consists of **blocks**, block consists of **modules**, module consists of **topics** and **thematic learning resources**. The modules are independent from each other and are the main link of the course.

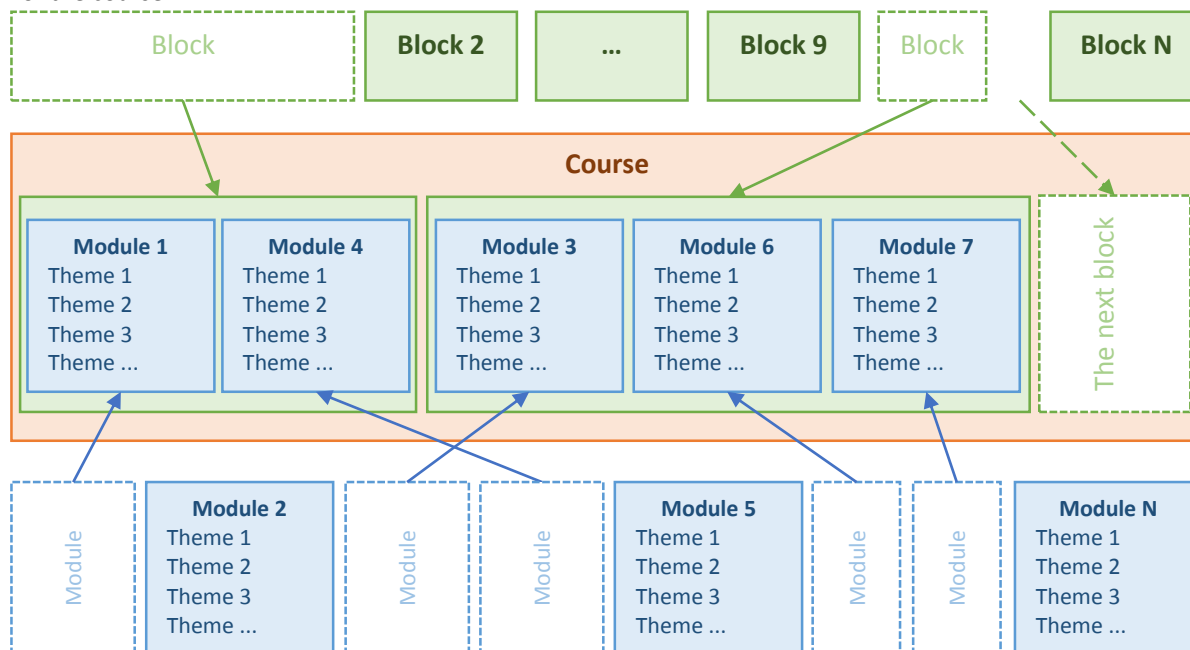


Figure 1. Scheme of exchange rate formation.

According to the above figure, the formation of the course with combining blocks and modules will be easy and convenient. User acquisition of the course is based on the sequence of units and modules in the curriculum.

The user is authorized under his login and password and on the main page gets acquainted with the order of training in the courses and the name, goals and objectives of the course. As well as with a list of blocks and modules which included in the course.

Бош саҳифа/Ёрдам/Онлайн конконсультант/Боғланиш
Rating /Practice / Regulations / Graduation Theme / announcement
Listener's name/surname

Module

Course

Center's name

[Main page](#)

Content of the module

1-theme

0

Theme

Мавзу юзасидан материаллар:

Маъруза: маъруза номланиши Саҳифалар сони

Видео маъруза: видео маъруза номланиши давомийлиги

Машқ

2-мавзу

0

Мавзунинг номи

Мавзу юзасидан материаллар:

Маъруза: маъруза номланиши Саҳифалар сони

Видео маъруза: видео маъруза номланиши давомийлиги

Машқ

Модуль таркиби

| Мавзулар | 2 |
|----------------|---------------|
| Давомийлиги | 4 соат |
| <i>Назарий</i> | <i>2 соат</i> |
| <i>Амалий</i> | <i>2 соат</i> |

Модул юзасидан тест

Тестни ишлаш учун модул таркибидаги барча мавзуларни тўлиқ ўзлаштиришингиз керак

Тестни бошлаш

Figure 2. Module content page

The user goes to the module content page by selecting a module from the course content (Figure 2). On the module content page you will get acquainted with the goals and objectives of the module and with its size, the list of topics. The topics consist of basic and additional materials. The topic content page opens to a relatively wider size for easier reading of the theoretical information provided.

After familiarization with the main and additional materials of the topic, the user is given an exercise on the topic. The exercise is performed by choosing the appropriate answer to the questions. After completing the exercise, pedagogue can move on to the next topic.

After studied all the modules, the module undergoes test control. Executing test items in a module allows you to proceed to the next module.

Thus, after studying all the modules of the block, the test surface is tested. You can go to the next block by completing the test tasks indicated on the block.

Also, the user will be able to track the results of his mastering at any time through the "Rating" menu.

The Using of Distance Learning Technologies in Training Courses

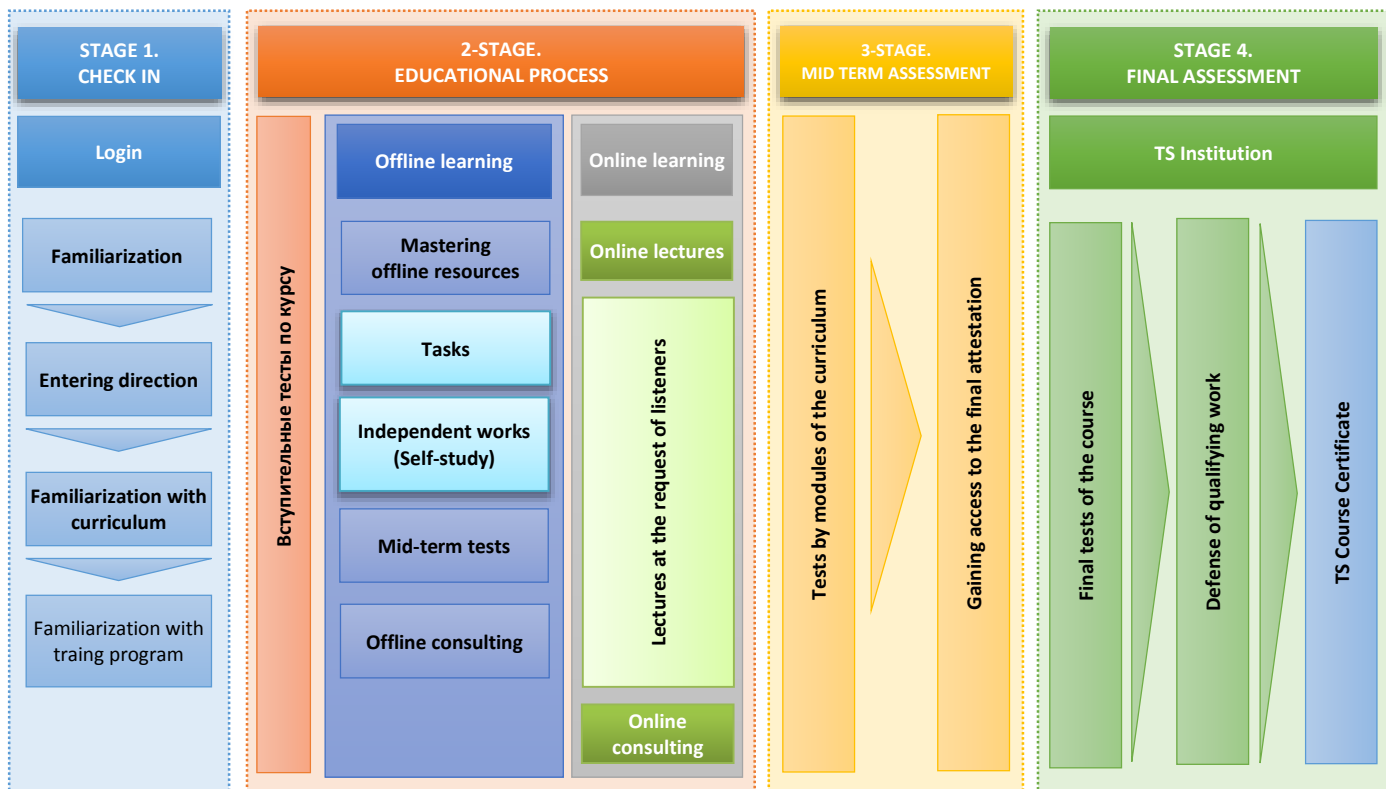


Figure-4. Distance learning stages

RESULTS

Thus, the working mechanism of the developed distance learning platform is formed. The main scientific and methodological center for retraining and advanced training of teachers and managers of the higher education system has launched a centralized electronic platform for distance learning based on this technology under the domain name mt.bimm.uz [7].

Practice shows that the demand for online education is growing day by day. This, in turn, requires further development of distance education systems, increasing competitiveness in the education market through the development of training programs based on needs.

Over the past period, 10,924 heads and teachers of higher educational institutions in the regions of the republic improved their qualifications using this platform (Figure 3).

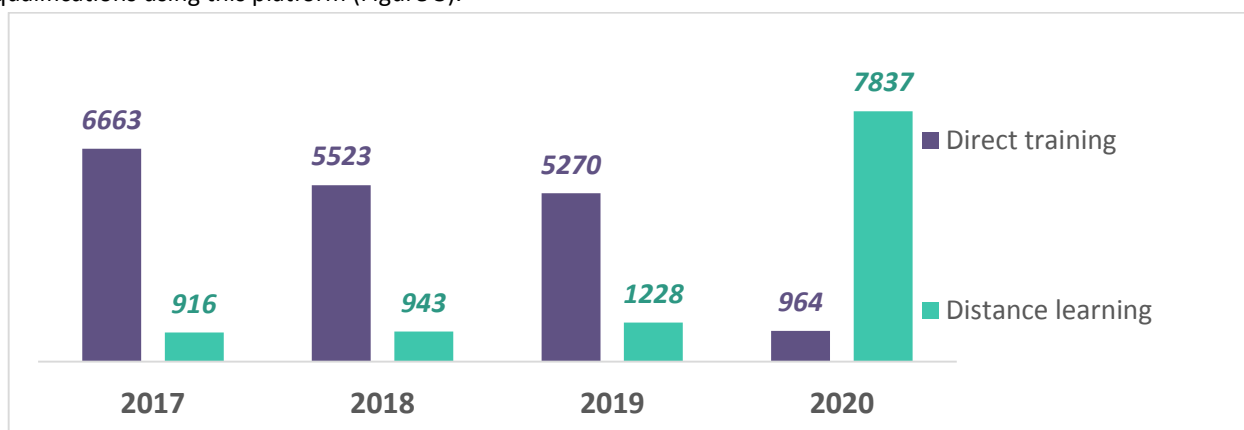


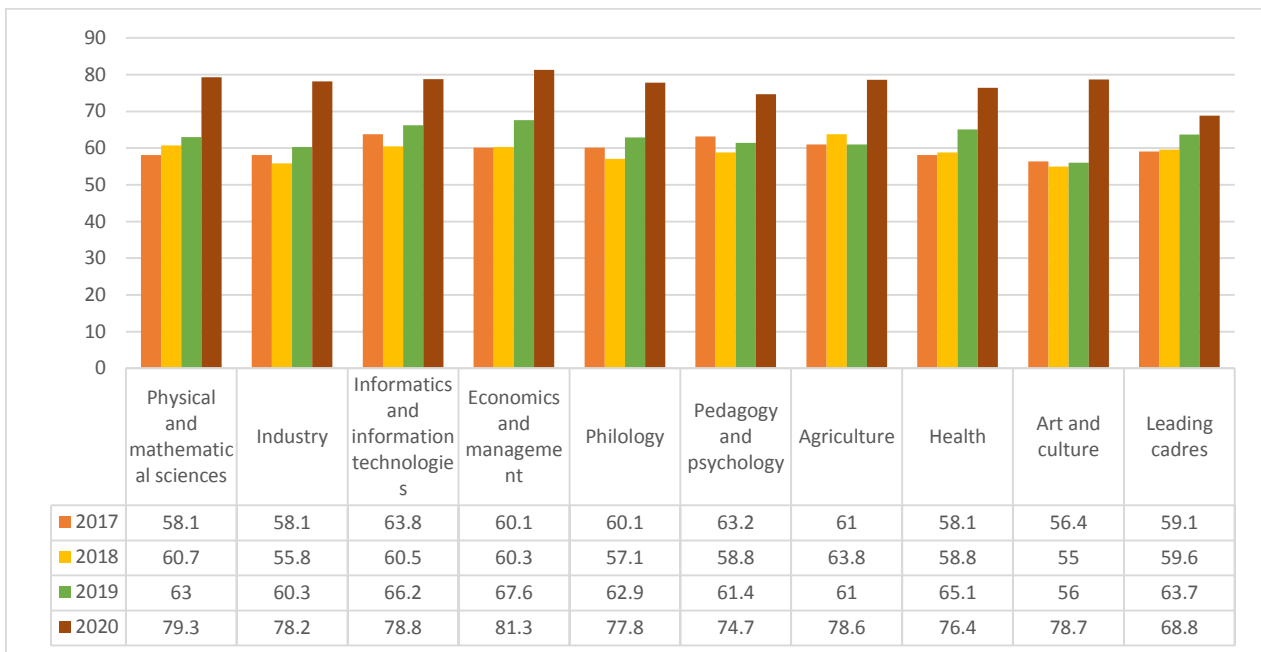
Figure 3. Conditional number of distance courses (by years)

The system, which includes 22 centers specializing in the training of teachers and heads of higher educational institutions of the country, provides training in 214 areas.

By combining these areas by sector, we got the following result when we analyzed student performance in courses in different years (Table 1).

Diagram 1

The Using of Distance Learning Technologies in Training Courses



Analysis of the results of distance learning courses by year and industry (in percent)

As can be seen from this table, in the first years (2017, 2018), when distance learning courses were introduced in the country, the level of listener proficiency ranged from 58% to 63% (an average of 59%), then in 2019 this indicator increased to 60-67%, in 2020 it was 68-81% (on average 77.5%). Overall, we can see that the average audience skill has increased by 18.2% (including skill by 9.7%).

The curriculum of advanced training courses for managers and teachers of universities consists of 6 blocks, and a comparative analysis of indicators of student performance in distance learning courses over the past two years (2019, 2020) is as follows (Figure 5).

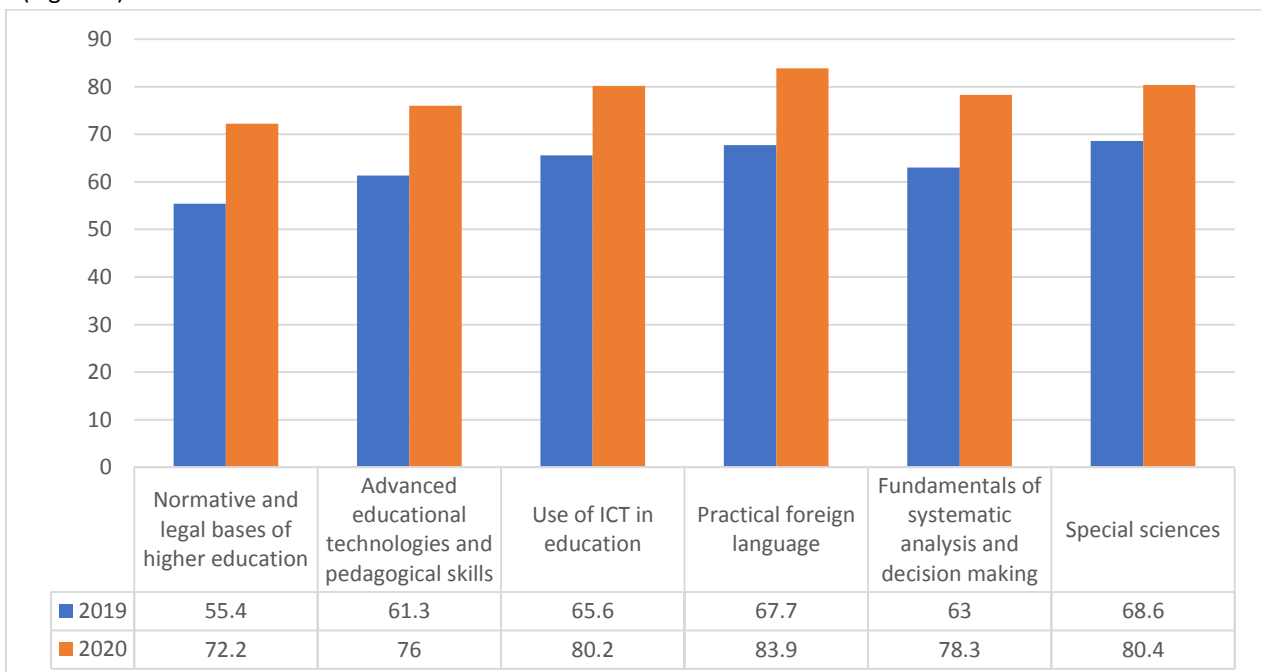


Diagram 2. Comparative analysis of the results of block learning in distance courses in 2019-2020.

From these analytical data, it can be seen that teachers in the course of mastering the courses showed high results in the blocks "Application of ICT in the educational process", "Applied foreign language" and "Special subjects", and in the block "Regulatory framework of higher education" it was a little more difficult. Overall, we are seeing an increase in student performance in 2020 by almost 15% compared to 2019.

The Using of Distance Learning Technologies in Training Courses

DISCUSSIONS

The study noted the following advantages of introducing distance learning courses:

- unified data generation standard;
- prevention of data duplication in different modules;
- Ensuring fast and high-quality delivery of new information to listeners through centralized data processing;
- Possibility to upgrade the qualifications of an unlimited number of teachers;
- 24/7 courses.

It was also found that the introduction of distance learning courses will help solve a number of problems in the professional development system:

- fast and high-quality training of personnel for the management of innovative processes arising from the modernization of education;
- advanced training and application of the acquired knowledge in professional activities;
- implementation of the principles of differentiation and individualization of training;
- Lower tuition costs by lowering the cost of travel and teacher accommodation.

CONCLUSION

Reforms in the advanced training system are aimed at bringing the content of higher education to a qualitatively new level, training highly qualified personnel who can find a place in the labor market, publishing articles of professors and teachers in prestigious international scientific journals with a high impact factor contributes to the growth of scientific potential in higher education. educational institutions.

REFERENCES

- 1) Decree of the President of the Republic of Uzbekistan No. PF-4732 of June 12, 2019 "On measures to further improve the system of retraining and advanced training of managers and teachers of higher education institutions".
- 2) Decree of the President of the Republic of Uzbekistan No. PF-5789 of August 27, 2019 "On the introduction of a system of continuous training of managers and teachers of higher education institutions".
- 3) Bataev A. V. Analiz mirovogo rynka distantsionnogo obrazovaniya / A. V. Bataev. - Text: neposredstvennyy // Molodoy uchenyy. - 2015. - № 20 (100). - S. 205-208.
- 4) Veselitsky O., Khabarov D. Trends in the development of distance education in Russia and abroad // Colloquium-journal. 2019. No. 3-3 (27).
- 5) Begimkulov U.Sh. Scientific and theoretical foundations for the introduction of modern information technologies in teacher education. Monograph - T., Fan, 2007.
- 6) Chelnokova E., Chelnokov A., Maksimova K., Lapshina I., Barabina I. Design and development of an electronic course // Innovative economy: prospects for development and improvement, No. 2 (44), 2020, 66p.
- 7) <https://mk.bimm.uz/> - distance learning portal.
- 8) Kuzibaeva M. The importance of distance learning technology in modern education // "Science and Education" Scientific Journal Volume 1 Issue 1.
- 9) Lorraine Sherry. Issues in Distance Learning // International JI. of Educational Telecommunications (1995) 1(4), 337-365.
- 10) Sekatsky V.S. Design and development of a distance course // Innovative economy: prospects for development and improvement, No. 2 (44), 2020.
- 11) Raximov Z. T. Continuous development of distance learning technology in the context of mobilization of education // Sovremennoe obrazovanie 2018.
- 12) Klarin M.V. Pedagogical technology in the educational process. - M.: 1989.80s.
- 13) Kuzmina LV Advantages and disadvantages of distance learning // Bulletin of the Moscow University of the Ministry of Internal Affairs of Russia. 2012. No. 1.
- 14) Khatyushina A.A. Theory and practice of advanced training for US teachers / Abstract // Moscow, 2007, 8p.