Application of Zoom and Mirapolis Virtual Room in the context of distance learning for students

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Abstract. The article deals with the problem of pre-professional training of students in General education institutions in the conditions of direct distance learning, the importance of which is particularly relevant in the current epidemiological situation. The aim of the work is to study the attitude of students to distance learning, as well as to reveal the advantages and disadvantages of working with Zoom and Mirapolis Virtual Room applications in the context of distance learning for students.

1. Introduction

Distance Learning is an interactive form of learning that is based on the use of both traditional and modern information technologies, as well as the use of various technical means that are intended for targeted use of educational material by students, in independent study, to maintain constant dialogical contact between students and teachers [1].

Currently, the active development and updating, improvement of pedagogically-oriented software solutions that provide the required quality of presentation and assimilation of educational material by students in the framework of distance learning is underway [2]. From the experience of practical work, we can distinguish the most frequently used applications in the teaching process Zoom and Mirapolis Virtual Room.

The aim of the work is to study the attitude of students to distance learning, as well as to identify the features of using Zoom and Mirapolis Virtual Room applications in the context of distance learning for University students.

To achieve this goal, a number of tasks were put forward:

- Define the concept of distance learning.
- Consider the experience of using this type of training.
- To conduct a survey and interviewing students.
- Reveal the application features of Zoom and Mirapolis Virtual Room.
2. Literature review
To date, there is a sufficient amount of literature on the organization of distance learning and the prospects of this type of training. However, research on the direct use of this type of education in the context of pre-professional training is currently insufficient.

Pre-professional training is characterized by a versatile orientation, which is associated with social development and social adaptation of students, which differs in its purpose, tasks, content, organization technologies, and results of passing [3].

Our research is based on the best teaching experience and modern research in this area by S. G. Grigoriev, P. F. Kubrushko, J. Voogt, and K. Lai, whose opinions are that in modern conditions there is a change in teaching methods and technologies, the nature of work with students, as well as the role of the teacher itself [4, 5].

The emergence of distance learning systems as an integral part of open education is caused by the need to provide high-quality mass and individualized education [6]. From an economic and organizational point of view, existing forms of education do not allow to solve these problems in practice, but distance learning based on the extensive use of information and communication technologies solves these problems.

In the normative document of the Ministry of education of the Russian Federation "methods of application of distance educational technologies (distance learning) in educational institutions of higher, secondary and additional professional education of the Russian Federation", the concept of "distance learning" is formulated as follows:

Distance learning is a set of educational technologies in which purposeful indirect or not completely indirect interaction between the student and the teacher is carried out regardless of their location and distribution over time, based on pedagogically organized information technologies, primarily using telecommunications and television. The main distance education technologies are: portfolio (case) technology, Internet technology, television and satellite technology. A combination of technologies is allowed.

The purpose of distance learning is to provide students in educational institutions of higher professional education with the opportunity to master basic and additional professional educational programs of higher and secondary professional education (hereinafter referred to as educational programs) directly at the place of residence or temporary stay (location) [7].

We have determined that distance learning will not be able to completely replace traditional forms of Higher education. It should become an additional tool in the existing training system [8].

3. Methodology
The work was carried out on the basis of RGAU-MSHA named after K. A. Timiryazev. During the COVID-19 pandemic, the educational organization switched to distance learning for students. The study involved 96 students of the faculty of Horticulture and landscape architecture, studying the discipline of Psychology and pedagogy in professional activities. Classes with students were conducted using Zoom and Mirapolis Virtual Room at the final stage of the distance learning period, students were surveyed to determine the features of using these applications, as well as to identify their advantages and disadvantages in the framework of professional training of students.

The paper uses the results of online and offline surveys of students based on the author's adaptation of the questionnaire by V. A. Gnevashova, value approaches by G. V. Astratova, and the method of online research by M. R. Chashchin [9].

4. Results
When conducting remote classes through applications, the teacher needs to answer a number of questions: do you need to record the broadcast, how many participants will be present, only the teacher will speak, or is a dialogue with students planned [10]. After answering these questions, it will be easier for the teacher to choose an application for conducting a remote lesson.
During the period of self-isolation, work with University students was carried out using the Zoom and Mirapolis platforms. After conducting a theoretical analysis of psychological and pedagogical literature on the topic, summarizing and systematizing the data obtained from the survey, we were able to formulate the following features of applications for using Zoom and Mirapolis Virtual Room applications for distance learning.

The Zoom app is a universal solution for video and audio communication, screen display, and information exchange [11]. In the process, we have identified the following advantages of the Zoom app:

- stable connection, while using a small amount of Internet traffic;
- takes up little RAM on the device;
- available in various options of screen sharing;
- ability to share an online whiteboard;
- screen broadcast from a mobile device [12];
- students can be divided into separate mini-groups during classes;
- recording the broadcast.

The disadvantages of the Zoom app include the following:

- the duration of the free conference is only 40 minutes;
- you need extra time to learn all the features and subtleties of using the app;
- possibility of leakage of users’ personal data;
- the need to save a link or ID to log in to the conference.

Mirapolis Virtual Room is also a system for video conferences, webinars and virtual classes, with the possibility of using presentations [13]. The advantages of the Mirapolis Virtual Room app include:

- the ability to use interactive tools – drawing on the Board on top of documents;
- create surveys within the conference;
- the ability to ask questions to the teacher in a separate, rather than a General chat;
- attach files for download in a special tab;
- the app is free, but you don't need to install the app to participate in the conference;
- ability to upload data about the participants of the conference;
- recording the broadcast.

The disadvantages of the Mirapolis Virtual Room app include the following:

- need for additional registration when clicking on the link;
- unstable connection;
- problems with sound and microphone while using the app on your mobile device.

Data from the survey of students show that the absolute majority of respondents – 92%- like the format of distance learning with the possibility of direct live communication with the teacher. 82% of the surveyed students are satisfied with the quality of distance education (figure 1). As for the issue of replacing traditional education with e-learning, 96% of respondents were against it.
More than 50% of respondents attributed such indicators as "vision load", "inactive, sedentary lifestyle", "intellectual overload" and "lack of practice" to the negative characteristics of distance learning» (figure 2).

The results of the study show that the widespread use of digital technologies leads to a transformation of the educational process. Students can identify both negative and positive features of distance learning.

5. Conclusion
The process of pre-professional training is an important stage in the professional development of a student's personality, and the use of modern distance learning tools using various proven platforms and platforms is relevant for its improvement [14]. An interesting fact is that being in the context of the
global COVID-19 virus pandemic, the educational system of our country was able to adapt to the existing realities in the shortest possible time and create opportunities for distance learning via the Internet [15, 16]. The goals set in the study have been achieved. We analyzed the attitude of students to distance learning, and also identified the features of using Zoom and Mirapolis Virtual Room applications in the conditions of distance learning for University students. The obtained data can be used in the future in the field of improving distance learning.

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