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Discord platform as an online learning environment for emergencies

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Abstract

The study focuses on revealing the features of using the Discord platform as a means of creating a quality remote communication environment during emergency training. The authors present the results of the analysis of scientific developments of scientists in the issues of creation and use of distance learning tools, special attention is given to the problems of distance learning and the structure of its functioning. The authors point out that modern distance learning systems are not well developed for use in emergencies. The main problem is the insufficient level of development in the field of establishing communication channels of quality communication in the conditions of distance education, especially the attention is focused on schools and other institutions of secondary education. To solve this problem, scientists conduct a comparative analysis of distance communication tools, their features and capabilities in terms of the introduction of remote learning communication servers on them and reveals the features of the Bogdan Khmelnytsky Discord platform of Melitopol State Pedagogical University using Discord platform communication environment during distance learning quarantined by the worldwide pandemic of faith in COVID-19.

Keywords: distance learning; innovation; quarantine; emergency; quality of education.

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INTRODUCTION

In the conditions of the modern pandemic of the COVID-19 virus the problem of carrying out educational process in the conditions of quarantine becomes actual. This stimulates the need to create a quality learning environment, especially a practice-oriented learning process that requires constant communication between student and teacher. Currently available distance learning systems and servers are mostly focused on creating opportunities for teaching and interaction with teaching materials, as well as their further verification by the system, so modern distance learning systems Moodle, Lotus Learning Space, Blackboard Learning System are developed in vectors of asynchronous communication through the transfer of files, chats and electronic correspondence, while the educational process in quarantine requires the creation of opportunities for synchronous communication. This

determines the need to find remote communication tools focused on synchronous communication with the ability to create a single multi-stream system of online classes. Discord compared to other software in the vector of creating quality conditions for synchronous educational process, while reducing the load on the system through the use of "easy" technologies, which allows its use even on weak electronic means. Therefore, we consider it relevant to study certain topics in order to highlight the capabilities of the studied system and the peculiarities of its use in order to create a quality learning space.

LITERATURE REVIEW

In working on the analysis of existing research and publications, we have identified the main priorities for the choice of sources:

- literature describing the definition of the features of measures against the epidemic during quarantine and recommendations for its implementation, to determine the further needs of the distance learning platform;
- sources for determining the features of the creation and administration of distance learning tools and the needs of participants in the distance learning process during work;
- analysis of existing scientific sources on the experience and features of the use of online communication tools during the educational process.

Thus, we expect to analyze aspects of the conditions of the educational process in emergencies, the use of distance learning and communication and a conclusion on the feasibility or inexpediency of using the selected platform.

Directly in the scientific community at different times the issues of measures against the epidemic and directly quarantined in their works were covered by M. M. Dolya, O. O. Sikalo, T. O. Chernega, O. M. Kohut, N. O. Timko, V. F. Kosowska, and others. Exploring the literature on the features of creation and use of distance learning tools, such scientists as V. V. Osadchy, K. P. Osadcha, V. Yu. Bykov, V. S. Kruglik, M. Shyshkina, S. G. Litvinova. Methods of using online communication tools and problems of creation of conditions of blended learning in their works were analyzed by O. M. Krivonos, O. V. Korotun, M. M. Nazar, N. V. Oleksyuk, L. V. Lebedenko, and others. In the following study we will conduct a thorough analysis of their publications.

RESEARCH RESULTS

Pedagogical principles of introduction of distance learning system

The use of distance learning tools is not a new topic, but for our study it is important to determine the pedagogical principles of implementation and use of distance education tools for further analysis of the feasibility of using the online communication platform Discord.

For this purpose it is expedient to turn to the works of V. V. Osadchy, V. Yu. Bykov, V. S. Kruglyk and others. According to the work of V. Yu. Bykov ([Bykov, 2001](#)), we can determine the properties inherent in distance learning systems (hereinafter DL):

- Flexibility and adaptability. Those who study generally do not attend regular classes in the traditional form, but work at a convenient time in a convenient place and at a convenient pace, which provides great benefits for those who can not or do not want to disrupt their usual, active social life. .
- Modularity. The DL program is based on the modular principle. Each individual course creates a holistic view of a particular subject area.
- Economic efficiency. Due to the use of a more concentrated presentation and unification of the content of educational material, the focus of DL technologies on a large number of students, more efficient use of teaching staff and material and technical base that provide training.
- New role of the teacher. The teacher is entrusted with such functions as: coordination of the cognitive process, adjusting the course being taught, advising on the development of an individual curriculum, management of educational projects, checking current tasks, and so on.
- Specialized quality control of education. Both traditional forms of quality control of existing and received education, and remote forms of such work are used in KD.
- Use of specialized technologies and teaching aids. Special technologies are used in DL: case technologies; television technologies; video conferencing technologies; combined technologies. DL technologies combine most of the existing teaching methods and give them a qualitatively new educational and technological level.

The central link in the DL is the means of telecommunications and their transport base. They are used to provide the educational process: the necessary teaching materials; feedback between the teacher and the learners; exchange of management information within the DL system; access to international information networks.

In summary, it can be argued that the means and methods of DL form a unique distributed environment, which provides the main features, benefits and problems of this promising form of education.

V. Yu. Bykov's works describe modern distance learning tools that adhere to certain properties, but this range of tasks cannot be fully accepted in the conditions of long-term learning during an emergency situation. This is primarily due to the low level of preparedness of educational institutions for such situations and the low level of preparation of modern students and schoolchildren for conditions of complete isolation and independence in learning. Analyzing the work of V. V. Osadchy ([Osadchy, 2010](#)) and V. Yu. Bykov ([Bykov, 2010](#)), most scientists claim that the system environment of distance learning is a set of methods and software that ensure the implementation of remote technology distance learning. In our opinion, such an environment can be formed in two ways: 1) using distance learning

platforms (systems) (examples may be Moodle, Lotus Learning Space, Blackboard Learning System and others); 2) through a set of services and services of the Internet (blog, e-mail, online board, online video and audio, chats, forums, online testing tools, online presentations, electronic libraries, book publishing services etc.). That is, the use of only one online resource at the present stage of development of distance learning does not provide a sufficient number of functions necessary to create conditions for quality distance learning, there is a need to use a set of resources to comprehensively cover distance learning.

Modern distance learning systems allow full interaction with educational content and testing and other forms of control, but communication between teacher and student takes place in chat or video conferences, which are not convenient for the student on a number of issues, the main of which there is an insufficient provision of remote settlements with quality material support (high-speed Internet, the latest computer software, etc.). This leads to the impossibility of the student's perception of information in full. Analyzing a similar situation in terms of the educational process in schools, we can say about the low level of readiness of students for self-study and the need for constant interaction between teacher and student in the usual format of the lesson.

Analyzing the functionality of modern distance education systems on the example of Moodle, Lotus Learning Space, Blackboard Learning System, it was determined that these systems are developed in the vector of asynchronous communication to create greater mobility, but the direction of synchronous communication required by students in quarantine. This determines the need to use additional software to create quality conditions for synchronous communication.

As noted in the works of M. Shyshkina ([Shyshkina, 2011](#)) and N. V. Oleksiuk ([Oleksiuk & Lebedenko, 2015](#)), one of the most important problems in the development of e-learning in general is to ensure access to learning. The issue of access to education is now widely discussed in scientific journals. In our opinion, the use of a quality system of distance communication will partially reduce the level of the problem through quality communication between teacher and student. Therefore, we can say that in modern conditions, distance learning systems need to expand the functionality of online interaction between participants in the initial process and create conditions for training in conditions as close as possible to the usual and convenient for students lesson format. To solve this problem, we will analyze the features of using the Discord platform in comparison with other means of online communication.

Features of using the Discord messenger in the learning process

As part of the study, it is advisable to determine the main tasks to be performed by the online communication system. Thus, O. M. Krivonos and O. V. Korotun ([Krivonos & Korotun, 2015](#)) define general learning objectives as

the distribution of tasks for the teacher. They emphasize that it is necessary to decide what needs to be done in class, what can be learned, studied and decided at home, which tasks are suitable for individual lessons, and which - for group work on the project. It is important that lessons take the form of project defence, presentation, debate or discussion between students or the teacher with students. The electronic unit should contain projects for group work, creative, laboratory and practical tasks, reference materials and links to additional materials on the Internet, intermediate and test tests, as well as tasks of increased complexity for gifted students. Returning to the problem of distance learning in emergencies, it would be appropriate to refer to the work of V. Osadchy, N. Valko and N. Kushnir ([Osadchy, Valko & Kushnir, 2019](#)), in which scientists emphasize that the creation of an educational environment for STEM-oriented learning affects the formation and further improvement of their value system.

Thus, the online communication system must satisfy the possibility of conducting classes in the form of project defence, presentation, debate or discussion between students or teachers with students, ie the system should allow a large number of users to simultaneously communicate and access visual material on their computer. users. As noted in the work of V. Yu. Bykov and S. G. Lytvynova ([Bykov, Lytvynova, & Melnyk, 2017](#)), which reveals the results of an experiment on the use of electronic educational and game resources. During the study, researchers found positive changes in the development of learning motivation of those students who studied using electronic educational and game resources. Thus, the number of students in the experimental group with developed internal learning motives increased by 26%; students of the experimental group with external positive motives decreased by 10%; those who have not yet decided on the motives for learning, decreased in the experimental group by 15%.

Thus, we can say that the creation of conditions for quality active interaction between teacher and student, especially in the context of distance learning of students, is mandatory. Under quarantine, students can quickly use their motivation, which will reduce the quality of learning, so the use of distance communication should enable students and teachers to conduct quality and productive communication with the addition of multimedia education.

Summarizing the general needs and tasks assigned to online communication services, we can determine that the service should meet the following needs: low load on the computer and the Internet; the ability to create conferences in real time; providing the ability to simultaneously display the screens of all participants in the learning process; providing the opportunity to communicate in the mode of individual consultation, or consultations of a small group of users; creating a visual intuitive server interface for users; the ability to administer the server and configure user rights.

Having identified the general tasks and needs of the online communication service, we will analyze the features of the Discord messenger to check the feasibility of its use. Discord has support for Windows, macOS, Android, iOS,

Linux and browsers. Determining the system requirements for the computer for normal operation of the program, we can note the low level of load on the system, for greater clarity, we will compare the system requirements between the three software tools focused on video conferencing, the most popular of which are Skype, TrueConf and Hangouts ([Table 1](#)).

Table 1. Comparison of minimum system requirements for Skype, TrueConf, Hangouts, Discord

Characteristic	Skype	TrueConf	Hangouts	Discord
Processor	1 GHz	3 GHz	2 GHz	1200 MHz
Hard disk space	200 MB	20 GB	200 MB	167 MB
RAM	512 MB	8 GB	512 MB	256 MB
Bit architecture	x86, x64	x86, x64	x86, x64	x86, x64
Operating System	Windows,	Windows,	Windows,	Windows,
	Linux,	Linux,	Linux,	Linux,
Operating System	Mac OS X,	Mac OS X,	Mac OS X,	Mac OS X,
	Android,	Android,	Google Chrome	Android,
	IOS	IOS	OS	IOS

Thus, we can say that Discord requires a lower level of load on the system and works with almost all operating systems. A significant advantage of using Discord is also a simple and fast software launch system, for this you need to download the program from the official website, install it and go through the registration procedure. Then you have the opportunity to send invitations and start communicating. Convenience is confirmed by the fact that for Discord there is no need to install a client, the user can communicate through a browser. To do this, you will need to send him an invitation link. This method of use greatly simplifies the system of interaction between teacher and student in a constant academic mobility, because the system allows mobile connection to the server from any access point and platform. This creates the necessary conditions for learning mobility, which are required in the conditions of distance learning during quarantine, but other systems for webinars are not developed. For such systems, the presence of the installed software and all plug-ins to it is mandatory.

Discord is a completely free platform that does not contain hidden payments or premium subscriptions, which, according to R. Gorbatyuk and U. Dudka ([Gorbatuc & Dudka, 2019](#)), are very important in the economic situation of the state. . Stable operation, good communication quality and simplicity of the interface, so it is well suited for use by users of any skill level. Push to talk and voice activation are available. In addition, the system allows for the simultaneous communication of a large number of user groups, while communication in other software is purely asynchronous and requires the creation of a large number of interconnected servers to provide training in one course \ stream \ school, etc. The platform allows you to add interlocutors to friends and make direct and group calls with text chat support, which creates

conditions for working with students with high levels of nervousness and students with low levels of logistics, which causes problems when working with the general flow of students.

The analysis increases the relevance of Discord, but this is not enough to determine the overall feasibility of the selected platform, so we consider it relevant to refer to the work of V. S. Kruglyk and V. V. Osadchyi ([Kruglyk & Osadchyi, 2019](#)). The authors reveal the features of the system of training future software engineers for professional activity and emphasize that it can be effective only if the range of organizational and pedagogical conditions of its operation

Therefore, we can say that the system of distance communication should provide: creating quality conditions for practice-oriented individualized practical and seminar classes, motivating students to study the subject component through a multimedia worldview during the learning process, motivating students to self-study and self-improvement; establishing synchronous learning in terms of full interaction between teacher and student; involving students in creating a personal information environment.

As we have already mentioned, creating conditions for improving the level of students' motivation for self-study is one of the most important tasks of any distance learning system. Taking into account a certain range of requirements for a modern remote communication system and to further verify the feasibility of using Discord, we will conduct a comparative analysis of software functions when working with them, for comparison we will also use Skype, TrueConf and Hangouts ([Table 2](#)).

Table 2. Comparative features of Skype, TrueConf, Hangouts, Discord

Function	Skype	TrueConf	Hangouts	Discord
Individual text messages	+	+	+	+
Conference text messaging	+	+	+	+
Individual calls	+	+	+	+
Conference calls	+	+	+	+
Screencast	+	+	+	+
Multiplayer screen	-	-	-	+
User rights settings	+ \ -	+ \ -	-	+
Creating parallel channels	-	-	-	+
Connecting bots	-	-	-	+
Restrictions on the number of users	-	-	-	-
Limitations on the number of concurrent video conference participants	25	-	-	50
Ability to control users	+	+	+	+
Set voice priority	-	-	-	+
User Activity Report	-	-	-	+
Server moderation	-	-	-	+
Creating a separate server	-	+	+	+

Based on the results of the analysis, it can be argued that there is a significant advantage in the use of Discord over other software tools in the vector of creating quality conditions for synchronous educational process. The problem with Discord remains the limitation of the number of users on one video broadcast channel, but given the need for small groups of up to 30 students, this factor can be considered weightless.

During the study, a detailed review of the possibilities of working with Discord was conducted:

1) *Create an unlimited number of servers.* Creating the conditions for a quality management system of the educational unit is the most important factor in the development of the distance learning system. Thus, the problem arises in the absence of modern systems of remote communication. With the functionality of the Discord platform, a high-quality system for the distribution of training units has been created, which allows for full stratification of user rights and a transparent monitoring system. In terms of the learning process, this feature allows you to create a large number of servers that can conditionally divide the overall structure of distance learning into clearly defined groups (division by faculties or classes). Subject to the development of a quality server system, conditions are created for further reporting and quality control of the educational process by moderating each individual structure of the learning environment.

2) *Configure the interface language and general information about the server.* Analyzing the needs of the learning space, we identified the need to create a high-quality and clear interface of online communication servers to create conditions for high-quality perception of information by students or schoolchildren. To solve this problem, Discord has created: the ability to define the language region of users; setting up an instant notification system; creation of AFK-channel for automatic transfer of currently inactive users to a separate room, which in turn allows you to reduce the load when working with individual channels; creating a unique server logo, for greater separation of each individual server. This feature allowed us to create a high-quality clear interface for all participants in the learning process. Thus, students and teachers already at the initial stage had an intuitive interface that allowed to start work without a long period of training and training of users in the skills of using the platform. However, a certain function provides an opportunity to create conditions for full deepening to the learning environment, as emphasizes in his work V. V. Osadchy ([Osadchy, 2019](#)), during training it is important to create conditions for quality study of foreign languages, so for classes in a foreign language, it is advisable to create a server using the interface of the appropriate language, which will qualitatively affect the learning process, through full immersion.

3) *Creating an unlimited number of text and voice communication channels.* One of the main problems of the total number of remote communication systems is the development of asynchronous communication and the need to use a single communication channel. This problem significantly affects the

possibility of conducting streaming classes in terms of distance learning in the long term. Modern systems of remote communication, in the long run, need to create a developed system of synchronous communication and the ability to create a large number of parallel channels for different academic groups. The previous analysis showed the need to create a common system that could be used by the school in full. This need determines the need to create separate communication channels for each individual group or class, to solve this problem, Discord provides a fairly optimal system for creating an unlimited number of voice and text channels. Thus, we were able to create a stream of learning and a system of quality synchronous communication of all academic groups of students in the distance learning.

4) *Create invitations of new users by invitation-link, invitation from the list of friends, invitation by creating a widget for the site.* In emergency situations, first of all, there is the problem of creating a single channel of communication, which creates aggressive conditions that do not allow quality dissemination of information and general acquaintance of all users with the further form of work. When using Discord, server administrators have the ability to create user invitations in several different ways, such as creating new user invitations by invitation-link, Discord friend list invitation, and invitation by creating a site widget. This allows for full coverage of all communication channels of recipients of training services in order to speed up their connection to the general system. Using a certain range of ways to invite users, in the conditions of our experiment we managed to deploy the server within one week and fill it with users.

5) *Configure user roles.* To create conditions for high-quality operation of the remote communication server, there is a need for extensive rights of users, in order to prevent violations by users of the server. Thus, we have developed a system of strict stratification of user rights. This simplified the server management process and the monitoring of user actions. With the help of a well-developed system of rights, a number of measures were taken to ensure the quality of education (checking couples by the head of the department, mutual visits of couples by teachers of the department).

6) *Setting access rights for different communication channels.* As mentioned above, in order to create conditions for high-quality operation of the remote communication server, it is necessary to branch out the work areas of each individual user or user group, and therefore there is a need to configure access rights channel "Faculty Council"). This creates a clear stratification and user management system, as shown in the figure, creates separate text channels for use by individual courses and channels for use by each individual study group.

7) *Audit journal and moderation.* Important in the work of distance learning systems and services for their operation is to create a quality reporting system, in order to create such a system in Discord created a quality system of moderation and audit, which allows visual and textual display of actions of each user for a certain period of time. opportunity to check the quality of work of teachers and students. Thus, we were able to fully verify all the actions of

participants in the learning process and conduct transparent monitoring of the success of user actions. With the help of this system, the administration of the educational institution has the opportunity to take similar measures to check the quality of the educational process and the availability of teachers and students in the classroom.

8) *Pin messages for each of the channels.* During the work of an educational institution, an important factor is the early and high-quality dissemination of information among all participants in the educational process. Typically, systems that work in real time have the ability to quickly "clutter" open text chat, to create the ability to separate and highlight the most important messages, created the ability to pin messages in each text channel. Thus, we have created conditions for the dissemination of information among users without determining the date of their connection to the system. This has greatly facilitated the information process due to the gradual connection of new users to the platform over a period of time.

9) *Live broadcasts.* The most important feature of each system of distance communication in a quality learning process is the ability to conduct online broadcasts by both teachers and students, this is primarily due to the need for quality transmission of information during lectures, and the possibility of feedback (student comments, questions, screen display for verification and clarification, etc.). Discord's GoLife mode allows you to display a specific program or screen in real time, and all registered users with defined access and installed Discord software can connect to this broadcast. Thus, we managed to create conditions for a quality process of conducting classes, which fully allowed to reproduce the usual format of classes. This created a reliable channel of active communication between teachers and students, which helped increase the number of active students and increase the level of activation of students.

10) *Management of user communication tools.* In the conditions of active work of a large number of simultaneous users (especially work with primary and secondary school students) there is a problem with conveying information due to too high a level of noise, usually the causes of noise can be: microphone noise; general household noise of users; presence in the group of energetic and restless students and more. To solve this problem, it is possible for administrators of the system of user communication to have full control. This function includes: reducing the level of "voice" of each individual user; mute the user's microphone, mute the speakers / headphones of the user. Using the defined functions it is possible to solve problems with conditions of high-quality information transfer in the shortest possible time.

As part of the study, a remote communication server for students of I-III courses of specialties was created and implemented on the basis of the Department of Informatics and Cybernetics of Melitopol State Pedagogical University named after Bohdan Khmelnytsky: 122 Computer Science, 014.09 Secondary Education (Informatics), 015 Vocational Education.

During the experiment, a series of activities were carried out to check the quality of interaction between students and teachers, so we conducted:

1) **General organizational and educational hour.** During this event, conditions were created for the simultaneous transmission of three parallel simultaneous broadcasts with first-year students. This approach, unlike other remote communication software, creates conditions for uniting students and teachers in improvised groups, which have an active connection with each other, which allowed the general information of a large number of students and receiving feedback from them at the same time. This qualitatively reduces the time required for work and creates conditions for intensification of the learning process in terms of distance learning.

2) **Mutual visits and verification.** During training it is very important to create an opportunity to check the quality of classes. With the help of the developed server, we created the possibility of fast transition between channels, which enabled the administration departments of the educational institution to conduct a qualitative check of the presence of students in pairs and the quality of their education. A big problem in the conditions of distance learning is the problem of mutual visits of teachers in order to check the quality of education, improve the educational process or gain experience of teaching by young teachers from the faculty. In the conditions of the developed server and the period of the experiment, a number of mutually visiting pairs were conducted, where the teachers had the opportunity to join the pairs of their colleagues and follow the course of the lesson. They had the opportunity, if necessary, to ask questions or clarify, join the broadcast and turn on their own.

3) **Conducting couples online.** During the whole period of the experiment, classes were held on the basis of the distance learning site of Melitopol State Pedagogical University named after Bogdan Khmelnytsky (dfn.mdpu.org.ua), but direct communication, lectures and seminars were held on the Discord server. According to a survey of teachers and students, which was attended by 102 students and teachers ([Table 3](#)), 41.18% answered about the significant negative impact of quarantine measures on learning, but after the introduction of the Discord platform 74.51% of respondents said that , which significantly increased the quality of perception and transmission of information, students had the opportunity to ask questions during the lecture broadcast, and teachers could adjust their report or explanation of students' questions.

4) **Conducting active seminars.** During the period determined by the experiment, laboratory and seminar classes were conducted strictly in the order determined by the schedule. In the process of pairing, conditions were created in which students simultaneously launched parallel broadcasts on one voice channel and performed tasks, transmitting their work to the teacher, this process significantly accelerated the lesson and all tasks. Focusing on further comments from students, it can be emphasized that it has become much easier for students to complete classes in an environment where the teacher can look around and advise on possible approaches to solving problems. In addition, the

opportunity for students to join each other's broadcasts was a qualitative fact, which created conditions for working in groups.

Table 3. Survey of students and teachers on the feasibility of using Discord in the educational process (%)

Question	Yes	No	It is difficult to answer
Have you been negatively affected by the transition to distance learning during quarantine?	41.18	32.35	26.47
Do you use the Discord platform while studying?	83.33	16.67	0
Does the Discord platform make the process of perceiving information in pairs easier for you?	74.51	18.63	6.86
Do you combine the use of a distance learning site with the Discord platform?	76.47	16.67	6.86
Do you find Discord more convenient than other online communication software (Skype, TrueConf, Hangouts, etc.)?	77.45	9.80	12.75
Do you use audio communication in your work in pairs?	79.41	20.59	0
Do you use video communication in your work in pairs?	38.24	61.76	0
Has the notification process improved since the launch of the Discord platform?	69.61	8.82	21.57
In your opinion, is it important to further develop the system of remote communication?	82.35	2.94	14.71
Is it necessary to refine the Discord training server to expand its pedagogical potential?	80.39	0.98	18.63
In your opinion, is it advisable to use Discord in your learning process?	79.41	3.92	16.67

5) **Work in online groups.** Creating conditions for synchronous work and connecting students to broadcast each other, created conditions for group work, so students, divided into groups, developed individual projects under the supervision of the teacher, then on the general channel, were performances and defense projects of each group.

Carrying out of these actions acted in confirmation of expediency of use of the created system and confirmation of expediency of use of the Discord platform as it provides opportunities for carrying out certain actions while most of them are impossible in realization on other systems for carrying out webinars.

The survey ([Table 3](#)) showed a qualitative increase in the level of students' interest in the educational process in quarantine, so 83.33% of students adopted the new system as a quality application to create conditions for synchronous communication with teachers in quarantine, 75.51% of students emphasize that the system greatly simplifies the process of perception of information and 77.45% consider Discord more convenient than the currently available software. However, 82.35% of students emphasize the need to develop distance communication systems, and 80.39% say the need to improve the educational server Discord to expand its pedagogical potential. We consider it appropriate to address the direction of automation of student management processes in pairs, development of bots for the server and training on the use of the platform in general.

We consider it important to determine the factor of psychological isolation of students, so when asked about the use of audio and video, only 79.41% and 38.24% answered positively. This emphasizes the need to create quality conditions for students to relax and reduce their stress during training through pedagogical and psychological training, development of an automated learning system and confidence-building activities during the adaptation of first-year students.

The study found that the constant activity of students in interaction with teachers (online lectures, visual seminars, etc.) in the system of distance communication, leads to a qualitative increase in the quality of student interaction with the Distance Learning site of Melitopol State Pedagogical University named after Bohdan Khmelnytsky (76.47 %), summing up, we can say about improving the quality of the educational process by activating the desire of students to continue their studies in a familiar and convenient for them, which is as close as possible to real classes. Thus, we can say that a number of activities are mandatory in the context of long-term distance learning. Creating a remote communication system for these activities is a priority. Thus, during the development of the distance communication system we designed and developed conditions for measures to check the quality of interaction between students and teachers, including:

- 1) General organizational and educational hour.
- 2) Mutual visit and check.
- 3) Conducting couples online.
- 4) Conducting active seminars.
- 5) Work in online groups.

To carry out these activities, a system of monitoring the conduct of classes and the opportunity for students and teachers to visit couples who are not part of the spectrum of their personal influence was created. This made it possible for teachers and the administration of the educational institution to check the quality of the educational process, and students had the opportunity to create their own individualized vector of education by visiting additional pairs with the permission of the teacher. Thus, a system was created to fully cover all the needs of educators to create a quality educational environment in terms of

long-term distance learning. This confirms the assumption that the use of Discord is appropriate in emergencies and in the transition to distance learning qualitatively activates the work of students, facilitating the process of perception and assimilation of the material.

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CONCLUSIONS

The aim of our study was to determine the feasibility and features of using the Discord platform as an environment for creating a quality system of distance communication in distance learning during emergencies. To solve the main task of the study, we analyzed information sources on safety during quarantine activities related to the pandemic of viral diseases and concluded on the needs of users of educational services in providing a quality means of distance learning and communication in long-term emergencies. Having identified the general tasks and needs of the online communication service, a comparative analysis of the Discord platform with Skype, TrueConf and Hangouts was performed. The results of the analysis showed that Discord requires much less load on the system and works with almost all operating systems. Further work revealed the features of the use of Discord functions to establish a quality environment for learning and reflected the results of an experiment conducted in the study, which conducted a survey of students and teachers on the quality of the initial process. The survey highlighted the qualitative growth of students' interest in the educational process in quarantine, so 83.33% of students adopted the new system as a quality application to create conditions for synchronous communication with teachers in quarantine, 75.51% of students emphasize that the system significantly simplifies the process of perception of information and 77.45% consider Discord more convenient than the currently available software. However, 82.35% of students emphasize the need to develop distance communication systems, and 80.39% say the need to improve the educational server Discord to expand its pedagogical potential. We consider it expedient in the further work to address the direction of automation of processes of management of activity of students in pairs, development of bots for the server and educational trainings on use of a platform in general. We consider it important to determine the factor of psychological isolation of students. The survey showed that only 79.41% and 38.24% answered positively when asked about the use of audio and video communication. This emphasizes the need to create quality conditions for students to relax and reduce their stress during training through pedagogical and psychological training, development of an automated learning system and confidence-building activities during the adaptation of first-year students. The results of the experiment showed that the constant activity in the interaction of students with teachers, led to a significant increase in the quality of student interaction with the site of Distance Learning Melitopol State Pedagogical University named after Bohdan Khmelnytsky. In this way, the

measures taken to create the conditions for a quality educational process were demonstrated and the peculiarities of their connection with each other were reflected. To carry out these activities, a system of monitoring the conduct of classes and the opportunity for students and teachers to visit couples who are not part of the spectrum of their personal influence was created. This made it possible for teachers and the administration of the educational institution to check the quality of the educational process, and students had the opportunity to create their own individualized vector of education by visiting additional pairs with the permission of the teacher. Thus, a system was created to fully cover all the needs of educators to create a quality educational environment in terms of long-term distance learning.

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