COMPARATIVE ANALYSIS OF DISTANCE LEARNING SYSTEMS IN THE UNITED ARAB EMIRATES AND THE UNITED STATES OF AMERICA

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ABSTRACT

The article is devoted to the current problem of distance learning. In the theoretical field, various aspects of the functioning of distance education are considered on the example of the analysis of the works of leading scientists in this field.

The main aims of this research are: to analyze some of the best educational systems in the world (including distance learning) – systems of the USA and the UAE; to describe the main features of distance education in the USA and the UAE; to make some proposals, based on the experience of these countries, to optimize the system of distance education in Ukraine; to analyze the opportunities of their implementation and adaptation in Ukrainian education institutions. The theoretical basis of the study was open sources of information and educational portals of leading higher education institutions in the UAE and the United States.

The methodology is the following. The theoretical framework of the study presents the leading experience of implementing distance learning of students in the context of state and educational policy of the represented countries. A comparative analysis of educational systems in the UAE and the United States is done within the framework of the introduction of distance learning.

The study presents the research results, they are the proposals for optimizing the process of distance learning in Ukraine based on the experience of the UAE and the United States. The main ones are: development of criteria, requirements and recommendations for distance learning based on the following indicators: a) the amount of educational material; b) course duration; c) duration of the lesson d) technical requirements (e.g., the availability of a headset, a stable Internet connection, etc.); providing students and pedagogical staff with the necessary material and technical resources and checking the compliance of material and technical support with the educational requirements; establishment of centers for quality control of the distance learning process.

The conclusions present the prospects of the study: developing of future comparative studies of distance learning systems; finding the most effective ways to make distance learning process better; elaborating and reasoning new approaches of teaching in the conditions of distance learning; setting up new platforms, applications, videos and so on in order to provide the process of distance learning; finding perspective directions of developing distance education and so on.

KEY WORDS: digital technologies, distance education, students, UAE, USA.

INTRODUCTION

Transformational processes are becoming faster, old models of functioning and interaction are fading into the background. The penetration of information technologies is creating new possibilities to transmit data and to form new education environment. The pandemic of COVID-19 has become an accelerator of implementation of distance and blended learning in the world. The quarantine, introduced by the Ukrainian government, has made all the educational institutions face a difficult problem of providing the students with their constitutional right for education. According to the decree of the Ministry of Education and Science of Ukraine, learning must have been conducted remotely, in other words it must be distance learning (The Ministry of Education and Science of Ukraine, 2020).
So that, Ukrainian educational institutions have faced a lot of technical and didactical problems, related to the learning process, its optimization, control and checking the material learned by students.

The system of distance learning in Ukraine is poorly developed, that’s why our educational system has faced some problems that must be solved immediately in the situation like this.

Besides, distance learning as a pedagogical process has as technical as educational features that Ukrainian educational system is not always able to deal with. Studying the experience of the countries with well-developed educational systems of distance learning is a vital factor of construction of an effective distance-learning educational environment.


Main aims of this research are:

- to analyze some of the best educational systems in the world (including distance learning) – systems of the USA and the UAE;
- to describe the main features of distance education in the USA and the UAE;
- to make some proposals, based on the experience of these countries, to optimize the system of distance education in Ukraine;
- to analyze the prospects of their implementation and adaptation in Ukrainian education institutions.

THEORETICAL FRAMEWORK

The processes of implementation of distance-learning technologies into the education process have a long history. Nowadays, using distance-learning technologies has become our everyday life, so it is important not only to know and use distance-learning technologies but implement them effectively into the interaction with students.

Recently, Ukrainian educational system has started implementing a set of crucial reforms, especially the reform called ‘New Ukrainian School’ (game methods, free personal development, competency approach and so on) and the reform of higher education system (academic integrity, internationalization, department independence, educational quality, implementation of new educational technologies).

Thus, using modern technologies and ways of studying is becoming a cornerstone of construction of a quality education system that takes care of needs and demands of main stakeholders (Zhernovnykova, Nalyvaiko, & Nalyvaiko, 2019).

The analysis of some publications and open resources of information, especially syllabi of different higher education institutions in the studied countries, allows us to make some conclusions about the implementation
and functioning of the distance education system (King, 2001; Moore, 2011; Nalyvaiko, 2017; Simonson, 2019).

The main features of distance learning in the United Arab Emirates.

Distance learning in the United Arab Emirates is developing quite rapidly, thus creating the prospects for building a strong education system that will provide getting knowledge remotely from the educational institution at any convenient time.

Most UAE universities offer distance learning as an alternative to full-time (Abu Dhabi University, the United Arab Emirates University and so on). First of all, the process of distance education in the UAE is carried out using special online platforms, websites, applications, TV lessons.

As a result of a partnership with Etisalat and Google, the United Arab Emirates Ministry of Education has developed a number of YouTube curricula for 11th and 12th graders. Duroosi, ("my lessons" in Arabic) is a YouTube channel with 600 tutorials, covering a variety of subjects.

It is approved by the UAE Ministry of Education, aiming to help students in grades 11-12 during distance learning to reduce the number and the cost of private lessons. It is also planned to develop similar classes for students of other ages (eLearning, mLearning and distance learning, 2020b).

Another educational site, Madrasa, has made a breakthrough in the development of distance and e-learning in the United Arab Emirates.

This online platform was launched in 2018 as a free electronic resource containing 5,000 video lessons in natural and exact sciences. Madrasa also provides a lot of learning materials for students from kindergarten to the 12th grade. The platform is available online to more than 50 million Arab students worldwide. Students can access the platform on their personal computers or mobile phones (Madrasa, 2020c).

During the quarantine imposed by the authorities, the UAE Ministry of Education took several steps to ensure the successful implementation of the distance learning process for schools and students:

- holding weekly distance training for teachers and school administration
- the start of a free online course “Be an online tutor in 24 hours” in order to teach school staff to work with online audience, to implement the distance learning system, to ensure the continuity of the learning process in accordance with the approved mechanisms and plans
- creation of modern operational centers for further control over distance learning processes
- establishing technical communication between parents and teachers for effective work
- coordination with the telecommunication regulatory authorities, providing free mobile Internet for families who do not have a home Internet connection (Distance learning in times of COVID-19, 2020a).

The development of distance learning in the UAE is due to quarantine actions, as well as the desire of students to study remotely from school (due to family problems, obtaining another education). Due to digitalization of this process, the UAE distance learning system can be considered developed and effective.

Distance learning in the United States of America.

Nowadays the United States remains the most advanced country in the field of online research. Since universities and schools in the United States have a fairly broad autonomy in all their activities, we offer you to consider the features of distance learning in the United States of America.
education on the example of Boston University, one of the centres of distance education in the United States. The example of Boston University is quite illustrative for the entire higher education system in the United States.

After Boston University launched its first online program in 2002, it continued to expand its online learning opportunities, allowing students from around the world to study at one of the most prestigious universities in the United States.

Students have access to all advanced course materials, online lectures, discussion forums and interactive multimedia content. Students study at the same faculty of the university, which is taught during the daytime study, they have free access to recorded lectures by professors and invited experts, readings, auxiliary materials, case studies, student services and other resources, most of which are available at any time. These programs are student-oriented, as they allow the student to choose a convenient time to study (Distance Education at Boston University, 2020).

Teachers interact with students through the Learning Management System (LMS). Course content may include online lectures, videos, interactive animations, discussion forums, e-portfolios, web conferences, etc. Students present regular assignments, including homework, projects and work, with the help of the LMS. Some courses include secure, extended online examinations.

Boston University's online courses are conducted through the Blackboard learning management system. To use Blackboard effectively, users must have a computer with high-speed Internet. It is recommended to use a speed of at least 50 MB, as well as a wired connection. Users must also have the latest versions of Adobe Flash Player and Mozilla Firefox.

In addition, users must ensure that their computers meet the requirements set by Boston University in the field of information services and technology (IS&T). Many lectures and classes will be held through Zoom. To fully participate in Zoom classes, users must have Mozilla Firefox, as well as a headset with a microphone and a webcam (Online Learning at Boston University, 2020).

E-mail is the main means of communication with instructors and other students. In addition, most courses require regular participation in online discussions and teamwork with fellow students. Students interact with each other at a distance because they do not have the same personal contact as a full-time student.

Boston University provides qualified support to students throughout their studies. The staff of the distance learning department can answer the students' questions by phone or e-mail and give advice if necessary.

Online courses are intensive, so they can be time-consuming, especially when many of the students try to balance school, work, and family. To receive points on a competitive basis, it should be planned to spend at least 20-25 hours a week in each class.

The majority of courses are held on a seven-week schedule and begin in January, March, May, July, September and November. Although it is possible to complete course assignments at the hours that best suit the student, he or she must complete each course within the set time.

Usually students are divided into groups of 10 to 15 people, a teacher who should monitor the homework is attached to these groups (Boston University Online Learning, 2020).

In other universities and schools, teachers have been given access to a site with methodological guidance on distance learning after the quarantine has been imposed. Some universities and schools have introduced webinars for teachers to teach them to take advantage of additional
educational programmes. The usage of separate services to control the performance of exams and tests (such as ProctorTrack) is also quite interesting. Such services are aimed at tracking the behavior of the learner during the tasks, which to some extent can ensure compliance with academic integrity.

A significant number of universities and colleges have created online campus tours and online teacher interviews.

A large number of schools have switched to tasks through the ClassKick application, which allows teachers to control the performance of tasks by students. Also, a significant number of schools have introduced lessons on local TV channels.

So, as we can see, US education, in our opinion, has withstood the challenges posed by the introduction of quarantine restrictions. It should also be noted that due to the relatively wide autonomy of American educational institutions, such measures are not always effective and are not always taken.

Comparison of distance education in the UAE and the USA. As we can see, two systems of distance education have been described. Despite the seemingly different approaches, they have much in common:

1. Availability of educational materials (Online libraries)
2. Development of special online platforms
3. Communication with pupils, students and / or their parents
4. Control over the technical support of students or pupils.

It should be noted, however, that the implementation of these principles differs significantly between the United Arab Emirates and the United States. For example, in the UAE, students are given access to the Internet, PCs, etc., while in the United States they only check the compliance of the Internet connection, software and hardware, and so on.

In addition, both the United Arab Emirates and the United States of America offer an exhaustive list of programmes and software for distance education, which we believe is quite effective, as it does not leave the teacher with the difficult choice of a learning platform.

Moreover, in both the United States and the United Arab Emirates, most universities have their own platforms for learning and access to educational materials, which, under certain conditions of danger in an online environment, is irreplaceable, because it has been reported that popular platforms such as Zoom, Skype etc. can be hacked.

Quite an important step to ensure adequate distance education is to train teaching staff technologies that are necessary for distance learning. Thus, a number of activities and courses required for it have been carried out in the UAE. In the United States, such training is an indispensable part of the pedagogical training of teachers.

As it was mentioned above, distance education in both countries does not skip another important aspect, knowledge control. At the same time, it should be noted that the control over distance learning, as well as its organization, differs significantly, because in the UAE it is more unified and centralized, and in the United States – vice versa. This is primarily due to the general features of education and training systems in the UAE and the United States.

In addition, the UAE has introduced a hotline for parents and students to ensure that certain issues related to the educational process are addressed.

Despite some directive nature of distance learning in the UAE, private schools have been allowed to use their own resources and systems to provide distance education for their students. At the same time, committees and teams were created to monitor the distance learning process.
In the United States, however, distance learning courses have existed for a long time. It is important to note that in the UAE and the United States, online learning support has become a significant factor in the distribution of funding. In the UAE, families are provided with the Internet, and in the United States, states sign annual contracts to use such services as Blackboard (Natanson, & Strauss, 2020).

However, US educational institutions are quite different in their fields, which, as has already been pointed out, is caused precisely by the peculiarities of education in the US, since educational institutions are usually financed from the local budget.

Proposals for optimizing the distance learning process in Ukraine based on the experience in the UAE and the USA. Based on the study, the authors propose to take a number of important steps to optimize the distance education system in Ukraine:

1. Development of criteria, requirements and recommendations for distance learning based on the following indicators:
   - The amount of educational material
   - Course duration
   - Duration of the lesson
   - Technical requirements (e.g., the availability of a headset, a stable Internet connection, etc.).

2. Providing pupils (students) and pedagogical staff with the necessary material and technical resources and checking the compliance of material and technical support with the educational requirements.

3. Establishment of centres for quality control of the distance learning process.

4. Attracting funds for the development of software for distance learning, final tests, etc.

5. Training of pedagogical staff in necessary skills of work with information technologies.

6. Creating online libraries with all the necessary learning materials.

7. Involvement of professional IT workers who will be able to ensure the protection of personal information of students, their secure connection and communication in online lessons.

8. Create a convenient work plan for students that will balance the student schedule (for example, when 4 double periods stretch for the whole day, the first double period is at 11 am., the second is at 2 pm. Students do not have time for hobbies, communication with family and friends).

9. Prepare recordings of small video guides for students, which will help them to master the program quickly and without mistakes, learn about its additional features that can be useful for successful learning.

10. Holding online activities that will allow students and teachers to communicate in their free time. This will help to avoid the feeling of isolation, meet individual needs in the social sphere, increase student activity.

RESULTS

Possibilities to implement the experience of the UAE and the United States. The main problem, according to the authors of the study, is the lack of funding for distance learning. As we have seen, a number of steps have been taken in the United States and the United Arab Emirates to optimize the educational process under quarantine.

Thus, the UAE has introduced courses to increase the technological awareness of teaching staff, which, in turn, has a positive impact on the quality of the educational process.

In addition, we need to understand that another problem in this situation is that the Ministry of Education and Science of Ukraine has, in fact, distanced itself by providing an inexhaustible list of programs that can be applied. But it has been also unclear how distance learning is monitored.
Certainly, the problem of financing distance learning is related to a broader problem – the financing of education in general. Therefore, it seems that the implementation of foreign experience in the organization of the distance learning rests primarily on financial problems, lack of recommendations and guidelines, vagueness of existing recommendations.

Despite this, it should be noted that in Ukraine, pupils have the opportunity to find the necessary textbooks online (Electronic versions of textbooks, 2020).

Unfortunately, communication between students and teachers is difficult. This is due to the technical capabilities of individuals. As a result, a significant number of pupils and students who do not have access to high-speed Internet or a smartphone or computer are deprived of their constitutional right for education.

Certainly, all the above problems require the government support and the Ministry of Education and Science support. But, in our opinion, they need financing and particular steps from the authorities, especially, the Ministry of Education and Science.

Therefore, it is necessary to:

1. Increase funding for education in Ukraine (including distance education)
2. Develop clear guidelines for teachers and educators on conducting online classes
3. Review traditional teaching methods and analyze the possibility of wider use of digital technologies in teaching

Only under these conditions, we believe, the process of distance learning in Ukraine will be effective.

DISCUSSION

So, we can make a conclusion that online education is our new future. It is an opportunity to get a quality education and international accredited qualification. Many countries, organizations and people have been investing such technologies as the Internet speed and artificial intelligence, so the platforms for online education are becoming better and may rival the conventional education system.

One of the technological advances is the development of software for analytics and visualization that helps teachers to understand if their students study a subject effectively or not.

In the same way, adaptive technologies, e.g. AI, are showing higher abilities to adapt a study material to individual style of learning and progress of every student. The demand for personalized and cheap education are growing day by day, there are many reasons why distance learning is a part of the future education. It does not mean that conventional schools and universities are going to disappear. The reasons above show that distance learning will become more popular.

It must be highlighted that problems of the distance learning discussed in this article may be solved by some government actions and investments to software development, teaching pedagogues some features of online education and so on.

CONCLUSIONS

Analyzing the experience of foreign countries, we have come to the conclusion that although the system of distance learning in Ukraine is poorly developed, it has some positive aspect and potential, but the implementation of foreign experience seems to be difficult because of lack of finance and indecision of Ukrainian official bodies.

We believe that our research has such perspectives as:

- Developing of future comparative studies of distance learning systems.
- Finding the most effective ways to make distance learning process better.
• Elaborating and reasoning new approaches of teaching under the conditions of distance learning.
• Setting up new platforms, applications, videos and so on in order to provide the process of distance learning.
• Finding perspective directions of developing distance education and so on.

We hope that future research will be able to find the best way to provide the distance education in Ukraine. Since the distance education in Ukraine is poorly developed, it is necessary to pay attention to the best distance learning systems all over the world, highlighting their advantages as well as disadvantages to provide Ukrainian students with the best practices during distance learning.

CONFLICT OF INTERESTS
The authors declare no conflict of interests.

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educationalchallenges.org.ua
АНОТАЦІЯ / ABSTRACT [in Ukrainian]:

ПОРІВНЯЛЬНИЙ АНАЛІЗ ДИСТАНЦІЙНИХ СИСТЕМ НАВАЧАННЯ В ОБ’ЄДНАНИХ АРАБСЬКИХ ЕМИРАТАХ ТА СПОЛУЧЕНИХ ШТАТАХ АМЕРІКИ

Стаття присвячена актуальній нині проблемі дистанційного навчання. У теоретичному полі розглянути різні аспекти функціонування дистанційної освіти на прикладі аналізу праць провідних вчених у цій галузі.

Основними цілями дослідження були: аналіз одних з найкращих систем освіти у світі (у т. ч. дистанційної); арабської та американської; описати основні особливості дистанційного навчання у ОАЕ та США; на основі досвіду інших країн надати пропозиції щодо оптимізації дистанційної освіти в Україні; проаналізувати можливість їхньої адаптації в умовах українських навчальних закладів. Теоретичною базою дослідження слугували відкриті джерела інформації та освітні порталі провідних закладів видів освіти ОАЕ та США.

Методологія дослідження: у теоретичному блокі дослідження представлений провідний досягнення дистанційного навчання здобувачів освіти в контексті державної та освітньої політики представлених країн, проведений порівняльний аналіз освітніх систем ОАЕ та США у межах запровадження дистанційного навчання. У дослідженні представлені результати, які є пропозиціями щодо оптимізації процесу дистанційного навчання в Україні на основі досвіду ОАЕ та США. До основних з них можна віднести: розробку критеріїв, вимог та рекомендацій до проведення дистанційних занять на основі таких показників: а) обсяг навчального матеріалу; б) тривалість курсу; тривалість заняття; в) технічні вимоги (наприклад, наявність гарнітури, стабільного інтернет-зв’єднання тощо); забезпечення учнів (студентів) та педагогічного персоналу необхідними матеріально-технічними ресурсами та перевірка відповідності матеріально-технічного забезпечення вимогам навчання; створення центрів контролю за якістю процесу дистанційного навчання.
У висновках представлені перспективи проведеного дослідження: розвиток подальших порівняльних досліджень систем дистанційного навчання; виділення найефективніших заходів щодо покращення процесу дистанційного навчання; розробка та теоретичне обґрунтування нових методик викладання в умовах дистанційного навчання; розробка нових онлайн-платформ, додатків, відео тощо для забезпечення процесу дистанційного навчання; виділення перспективних напрямів розвитку дистанційної освіти для впровадження в освітній процес закладів освіти України.

КЛЮЧОВІ СЛОВА: дистанційна освіта, здобувачі освіти, США, ОАЕ, цифрові технології.

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