

THE PRACTICE OF DISTANCE TECHNOLOGY APPLICATION IN THE TRAINING FUTURE MARITIME SPECIALISTS

¹ **Iryna Smyrnova**, Prof., the Deputy Director for Scientific work of the Danube Institute of the National University “Odessa Maritime Academy”, Izmail, Ukraine

² **Valentyn Chymshyr**, Prof., the Director of the Danube Institute of the National University “Odessa Maritime Academy”, Izmail, Ukraine

³ **Andrii Kononenko**, PhD, the Director of the Danube Vocational College of the National University “Odessa Maritime Academy”, Izmail, Ukraine

Abstract. In the article, the authors describe the features of the implementation of distance learning under current conditions in Ukraine for future specialists in the maritime industry. The authors analyze the benefits associated with the implementation of distance learning methods in the maritime industry, and also recommend the use of various innovative technologies, such as virtual reality, video conferencing models and online courses, which can improve the quality of education and training of future professionals. The scientific research analysis in the context of the specified problem has been carried out, and the trend of developing distance education as an element of sustainable development of maritime education has changed. The relevance of this article lies in the increasing need to modernize the educational process in the maritime transport, and the usage of remote technologies is becoming more and more widespread, especially in the current conditions in Ukraine: the war started by the Russian Federation in February 2022, the rapid development of the Internet and the communication technology. The maritime industry requires highly qualified professionals who have in-depth knowledge and skills in various aspects of this industry. The authors also note that lecturers' digital skills are the key ones in the success of distance learning for future maritime professionals, as they help to ensure quality teaching and effective communication between teachers and students, regardless of physical distance. The advent of distance technology allows providing educational applicants with wider access to educational materials, communication with experts and opportunity to acquire knowledge in real time. In the article, the authors give recommendations for lecturers, pedagogues, scientific and pedagogical staff, that can be useful in the process of distance learning.

Keywords: educational process, future specialists, distance learning, recommendations, higher education institutions

Introduction

The rapid development of information technologies is the main impetus for the transformation of education, updating its content, forms, methods and content, increasing the efficiency and the accessibility of quality education. The concept of maritime activity is relatively new for national legislation. According to the current version of the Maritime Doctrine of Ukraine for the period until 2035, maritime activity is an activity in the sphere of ensuring the sustainable economic and social development of society, studying, developing and using the sea, protecting national security, maritime trade (commercial operations related to sea vessels usage, purchase and sale of goods transported by sea, ship chartering, maritime agency, marine insurance, etc.) [1]. Taking into consideration the points raised above, the training of future specialists in the maritime industry, requiring theoretical reflection and practical implementation, should be based on the analysis and the research of the digital technologies usage in the educational process. The forced implementation of the remote form during COVID-19 became stressful for some student youth representatives, and neutral for others, because on the one hand, distance learning is safe learning in those cities that are either under occupation, or located in front-line areas, or do not have a good bomb shelter, but at the same time, the motivating factor for distance learning, especially during the war, will be one of the critical ones, as assessed by students and teachers themselves [7]. However, it should be noted that the implementation of distance learning in the maritime industry has many advantages: courses and training programs are accessible to future professionals around the world, allowing them to acquire new knowledge and skills without leaving the industry, their residences, educational facilities and even from their own homes, providing ongoing training and development in maritime safety, navigation, technology and more. It is believed that distance education has become a necessity for maritime education for several reasons: first one, the maritime industry is international and global, that means seafarers and future professionals associated with this industry will work on ships that travel around the world; secondly, the maritime industry requires a high level of specialized knowledge and skills, and allows you to combine study and work, developing professional skills without a break in career growth; thirdly, distance learning allows future sailors and professionals to acquire relevant knowledge and update it in real time. Using digital technology and online resources, they can receive information about new regulations, technologies, innovations and processes that directly affect the maritime industry from their workplace.

The analysis of scientific research and publications showed that V. Bykov, O. Spirin, I. Smyrnova, E. Dolynskii, M. Zahirniak, E. Polat, G. Kravtsova, V. Kuharenko A. Khutorskyi, H. Yatsenko and others solve problems of implementation and use of distance education in higher

educational institutions. The following scientists worked with the formation of basic competences of future shipping specialists: M. Babishena, O. Bezbach, T. Zaitseva, I. Sokol, M. Sherman, M. Musoryna, and others.

1. Peculiarities of the professional activity of future maritime industry specialists

The rapid development of informational technology over the last decades has a significant impact on various spheres of life, including education. Due to the rapid development of the Internet, computers, mobile devices and software, distance learning has become increasingly popular and accessible in Ukraine, especially in light of the war started by the Russian Federation in February 2022. Noteworthy, that one of the main advantages of distance learning is the opportunity to get an education anywhere and at any time, students can study the material and perform tasks remotely, without being limited by geographical boundaries or the schedule of classes. Distance learning also allows learners to use a variety of interactive tools, video classes, webinars and other electronic resources for in-depth study of the material; they can interact with teachers and other students through forums, chats and email. The educational space of a higher education modern institution in general, and of a maritime higher education institution in particular, includes an international component, because international relations are necessary for preparing future specialists for contacts with foreign partners, for coordination related production activities with foreign institutions, for assimilating the value orientations of the globalized world, to prepare for participation in international programs, projects and researches. Such a strategic vector leads to international coordination of several components of the educational program. Distance education is considered by scientists to be a form of educational organization, when university students are far away from teachers in space and time but can maintain dialogue through means of communication [2]. Providing access to educational materials and recommendations to work with them takes place at a convenient place and time. Distance learning technology includes educational and information technology. In his work, N. Morse explains information technology as a set of methods, means and techniques used by humans to carry out a specific complex process by dividing it into a system, system of interconnected processes and successive activities, carried out more or less clearly and with the objective of achieving high efficiency in searching, accumulating, processing, storing, presenting, transmitting data using IT tools and communications, as well as the means of combining them with data processing processes without the use of machines [3]. According to V. Prybylova, distance education is a form of organization of the educational process, the basis of which is the independent work of students. This enables one to study at a convenient time and at a location far from the lecturer [8].

It should be noted that the EU's integrated maritime policy is based on the clear understanding of the interdependence of issues and the need for a common and coordinated solution between them. The following projects were selected as the most important: creates a barrier-free European transport area, promotes a European maritime research strategy, develops integrated national maritime policies, establishment of the European maritime surveillance network, development of a "roadmap" for marine spatial planning of EU member states, strategies to mitigate the impact of climate change in coastal areas, reducing pollution of the natural environment, including CO₂ emissions from maritime transport, eliminating pirate fishing and destructive bottom fishing in the high seas; forming a network of European maritime clusters, amending European labor laws in the fields of maritime transport and fishing [1].

Having analyzed the work of scientists [4, 5, 6], it was found that distance training for future specialists of the maritime industry has its own characteristics that need attention:

- Practical training is one of the challenges of the learning gap in the maritime industry, because of the inability to gain direct practical experience on board ships. However, training programs should include simulations and virtual simulations to help students acquire the practical skills needed for maritime safety and shipboard operations.

- Communication is an important aspect of distance learning, so using video conferences, email, forums or specialized platforms to discuss material and solve problems is essential.

- Self-discipline and self-organization are important and necessary elements in the training of future maritime industry specialists, since students do not benefit from the constant physical supervision of lectures. This is very important for successful learning and achieving set goals.

- Technological support, such as access to appropriate technology providers: available computers, reliable Internet, and software used in the educational process.

Summarizing the above-mentioned, it should be claimed that with the appearance of new equipment and technical systems, equipping river and sea transport with the latest equipment, provides wide operational possibilities, further lead to an increase in future skills requirements of maritime experts. That is why in the process of distance learning it is necessary to take into account the need to use all the possibilities of digital technologies, cloud services and artificial intelligence to create support in new quality methods in higher education institutions.

2. The role of digital competences of lectures in the process of distance learning by future maritime industry specialists

The development of innovative processes in the maritime industry requires the renewal of the complex of professional knowledge of future specialists, which becomes possible in the presence of high digital competence of lectures of higher education institutions in the process of distance learning. The development of digital competences stimulates the actualization of the content of educational programs, the quality of the material and technical content of the disciplines. Generalizing, we note that the role of digital competences of lectures in the process of distance learning of future maritime specialists is extremely important, since distance learning requires the use of various information technologies and online tools, and teachers must have sufficient knowledge and skills to use these tools effectively in the educational process. Key digital competencies that all lecturers must have include: technical skills, as they need to understand how to work with various computer programs, e-learning platforms and online tools; professors must be able to set up and use web conferences, video and audio recordings, electronic materials, etc.; possess effective communication skills in an online environment when teaching future maritime professionals, be able to explain the material clearly and comprehensibly to students using various communication channels such as e-mail, forums, classrooms, chats, etc. Lecturers must be able to create and update learning materials, assignments, and assessments in a digital environment using digital tools, cloud platforms, or artificial intelligence programs. They should have pedagogical skills: must have an understanding of learning processes and be able to adapt their pedagogical approaches to distance learning, be able to create structured and understandable learning materials, support students in a virtual environment and provide effective feedback.

In closing, it should be noted that the digital competences of lecturers are a key factor in the successful distance learning of future maritime specialists, because they help to ensure quality education and effective communication between professors and students, regardless of physical distance.

3. Recommendations to lecturers in the process of distance learning of future maritime industry specialists

Today, academically trained graduates must have a certain set of competencies that characterize them as individuals and qualified specialists. According to the State Educational Standards of Higher Education of Ukraine, the competencies of future specialists are determined

by general cultural and professional competence [4]. Distance learning at the Danube Institute of the National University “Odessa Maritime Academy” was launched due to the Covid pandemic and then continued due to the Russian Federation's sudden invasion to Ukrainian territory in 2022. In this regard, distance education has become one of the most effective forms of providing quality education for future specialists in the maritime industry. The roles of the professors’ staff of distance education are changing, which requires clarity of the role and the development of appropriate competency structures. In this regard, it is considered advisable to provide the following recommendations for conducting distance learning for lecturers, pedagogues and scientific and pedagogical staff:

- The structure of each distance course needs to be developed and balanced due to the student's independent workload and working with lecturers.
- When conducting lectures and seminars, it is mandatory to use multimedia learning tools (for example, simulation programs, video recording, Google Class and other digital platforms). To absorb the material more effectively, use video lessons and audio recordings, if possible, this will help to understand the concepts and visualize the theoretical aspects of learning.
- Mandatory teacher’s consultation using digital technology and communication channels such as forums, email or video conferencing.
- Improvement of the methodical provision of courses appropriate to the technical and engineering specialization of future professionals in the maritime industry, this is achieved through the comprehensive use of modern engineering equipment and specialized licensed software.
- Development of a virtual educational complex system that creates the possibility of full reproduction and simulation of production processes. The development of "virtual reality" systems improves the quality of systematic thinking, the relationship between conceptual thinking and figurative thinking, contributing to qualitative changes in information absorption.
- Creation of virtual offices is the basis for laboratory work, practical classes, educational and scientific work and scientific research of education seekers.
- During practical laboratory work, an important task is to learn how to install, adjust and operate equipment and instruments.

- Through the transformation of traditional forms of theoretical and practical courses, which can be carried out synchronically and asynchronously, to organize the independent work of educational applicants, this must be the subject of reflection.
- Provision to future professionals certified courses, for example participating in international seminars, trainings and conferences to enhance their professional knowledge.
- Participation in the educational process of various motivational factors will encourage future professionals to actively research and better understand future professional activities, for example with the help of project-based learning.
- Development and implementation of integrated work training programs for graduate training of specialists in the system of continuous education, taking into account the interdisciplinary approach.
- Creation of online libraries in educational institutions and the study of additional literature, magazines and researches related to the maritime industry. The Internet and electronic libraries have many valuable resources that can deepen knowledge and understanding. Involve future specialists in this.
- Ensure the mental and emotional well-being of future specialists, because the current situation in Ukraine - the war - is a challenge for educational applicants. Provide support and understanding by creating opportunities for rest, recovery and connection between students.

Conclusions. Because the current situation in Ukraine is so unique, few studies have examined how lecturers change to distance learning in emergency situations. It is now important to understand which key digital tools and teaching features will help future maritime professionals to overcome their learning challenges and what strategies should be used. After all, receiving an education has become even more important: through it, those who get it can maintain mental and physical well-being along with hope for the future. At the same time, it should be noted that it is important in distance learning to support the professional development of lecturers in the field of technology, that in the future will ensure the development of professional and digital competencies of applicants of education.

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