The Use of Online Courses to Teach Humanitarian Subjects at Maritime Higher Education Institutions

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Abstract – Nowadays Ukrainian education has faces the urgent need for a complete transition to the online mode of conducting the educational process as a whole due to Russia's military aggression. This paper is devoted to the problem of teaching future maritime professionals online in Ukraine during the martial law. The example of humanitarian subjects (Maritime English, Philosophy) in maritime education and training the paper represents different forms and methods of teaching. Advantages and disadvantages of different activities on LMS Moodle online courses are given. LMS Moodle is considered as a specially organized educational environment that promotes the development of the competencies of students of higher maritime educational institutions and realizes the main goals of information and communication technologies. The use of LMS Moodle in the educational process creates conditions for developing students' abilities for independent search, self-education and creativity. This document analyses the use of online learning at maritime higher education institutions, its specifics and problems faced by students. The sample in this research was 68 students. The experiment was conducted on LMS Moodle. The main online learning tool is the LMS Moodle, which is used to conduct all types of classes. The paper analyzes the specifics of the use of the LMS Moodle during lectures and practical classes through students' assessment of the convenience, completeness of educational services, and the quality of the knowledge obtained. Students evaluated the performance of the platform according to a number of indicators and determined the most positive features of working in LMS Moodle.

Keywords – E-Learning, Maritime Education and Training, LMS MOODLE, Maritime English, E-Courses

I. INTRODUCTION

From the beginning of 2022, Ukrainian higher maritime educational institutions, like all others, are forced to switch to the full online mode of the educational process. The COVID-19 situation already caused similar conditions, but did not make the situation as critical as the full-scale aggression of Russia. In addition to the threat of bombing, problems with communications were added to the challenges: the disappearance of electricity and the Internet, so in such conditions the use of the LMS Moodle makes it possible not to lose the quality of the educational process and to implement it in a smaller volume.

II. MATERIALS AND METHOD

The research was conducted on the bases of Kherson State Maritime Academy (KSMA) in Ukraine. The sample of the research was 68 students of Navigation department (male, age 20-22). LMS MOODLE online courses of the following subjects were used: Maritime English, Philosophy. The purpose of the study was to determine the convenience, completeness of educational services, and the quality of the acquired knowledge.

During the study, the work of students of KSMA was analyzed on the LMS MOODLE.
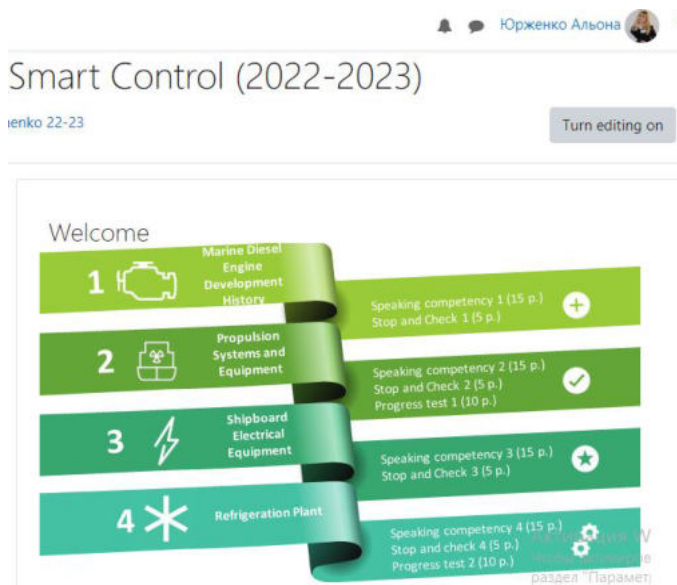
Fig. 1 Example of Maritime English e-course page on LMS Moodle

Google form was used to conduct a survey and obtain information about the research object.
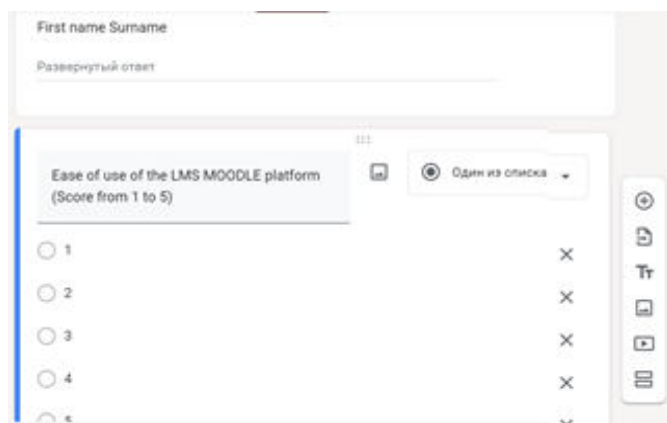

Fig. 2 Google survey example

The main methods used in the work were surveys and statistical data processing. The survey was used as a method of collecting information about the object under investigation, in the conditions of indirect questionnaires. In our case, it was a sample survey that covered 68 people. Statistical data processing was aimed at identifying differences between relevant indicators and assessing the reliability of such differences.

A. Scientific Literature Review

The problem of e-learning was investigated by different modern scientists: N. Zuriah, F. Rahmandani, M. Aparicio, F. Bacao, T. Oliveira, S. Kumar Basak, M. Wotto, P. Bélanger and others.

N. Zuriah and F. Rahmandani in [1] have compared different platforms (Google Classroom, LMS Moodle, WhatsApp, Gmail, and YouTube) used for online teaching. M. Aparicio, F. Bacao, and T. Oliveira in [2] summarise various scopes on e-learning studies. S. Kumar Basak, M. Wotto, and P. Bélanger in [3] analyzed existing literature on the basis of the definition of the concepts, terminology used, differences, fundamental perspectives, the similarities and differences of the electronic learning, mobile learning, and digital learning.

B. Research questions

The main problems identified during the study were the following:

1. The quality of the online educational process using the LMS Moodle according to the following indicators: convenience, completeness of educational services, quality of acquired knowledge, from the point of view of students as consumers of educational services.

2. Determination of positive features of working in LMS Moodle - students had to list such features on their own [4]. They were not given possible answers, which gave them the opportunity to express any opinion.

III. RESULTS

The relevance of the use of distance technologies in the education system reflects the needs of society in the improvement of forms of education, the implementation of modern learning methods based on student independence, the provision of variable educational services, especially in the conditions of martial law, and creates the need to evaluate the use of such tools by students [5].

To reveal the essence of the first research question, the following questions were asked in the questionnaire:

- ease of use of LMS Moodle;
- completeness of educational services;
- quality of acquired knowledge.

Each answer is rated from 2 to 5 points, where 1 is completely bad; 2 – unsatisfactorily; 3 – satisfactory; 4 - good; 5 - excellent.

The results of the questionnaire on the first question are as follows: 1 – 0 students; 2 – 4 students (4%); 3-6 students (13%); 4 – 47 students (68%); 5 – 11 students (15%).

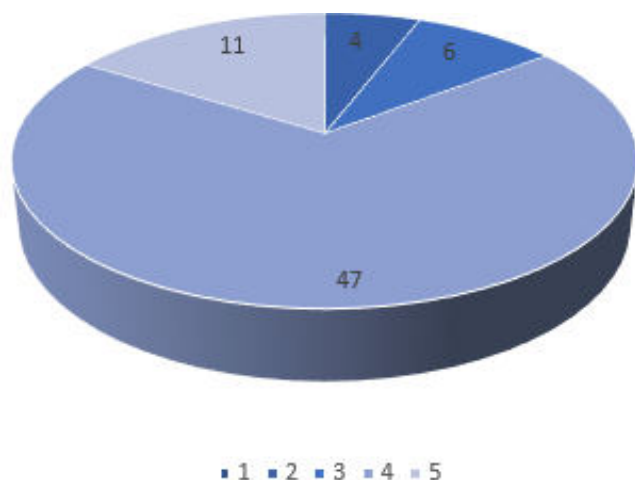Graphical representation of results can be seen in figure 3.

Fig. 3 First question of survey results

The results of the questionnaire on the second question are as follows: 1 – 0 students; 2 – 0 students; 3 – 7 students (10%); 4 – 36 students (53%); 5 – 25 students (37%). And the results of the questionnaire on the third question are as follows: 1 – 0 students; 2 – 0 students; 3 – 7 students (10%); 4 – 46 students (63%); 5 – 15 students (27%).

Analyzing the second question, we chose the 5 most frequently repeated positive features of working in LMS Moodle, which were identified by students:

43 students (24%) – the opportunity to complete tasks and learn materials at a convenient time;

39 students (22%) – the opportunity to study anywhere;

35 students (20%) – the opportunity to return to the previous material at any stage;

33 students (19%) – the opportunity to work at their own pace;

26 students (15%) – the opportunity to study the material independently.

IV. DISCUSSION

Based on the results of the survey, after the students studied the academic disciplines – Maritime English and Philosophy, the task of forming an active, creatively oriented specialist's personality was completely solved. The teachers managed to simulate a full-fledged electronic educational environment, shifting the emphasis from studying specific material to giving students the right to choose when and how to implement the

possibilities of studying disciplines. This, in turn, strengthens the motivation to master the future profession, conditions are created for the development of the ability to independently make decisions, cope with the situation, etc. At the same time, students develop qualities of responsibility and self-organization.

The experience of using LMS Moodle shows that it provides the maximum opportunities for studying academic disciplines, especially in the conditions that have developed in Ukraine: martial law. By dividing the amount of material into didactic units, the teacher can reveal his own creativity, developing fragments of online course in various ways (including in the form of schemes, presentations), using methods of active socio-professional education.

LMS allows to use the most diverse forms of independent work of students: direct dialogue, discussion of problems, issues in interactive mode, submission of creative works (essays, projects), etc. In addition, students have open access to the Internet (through the teacher placing hyperlinks to information resources), which actualizes the independent acquisition of knowledge and new information from the original source, motivates the development of a personal relationship with the problem being studied. This type of activity forms the ability to make informed choices based on the analysis of various facts and information and to formulate one's own position and opinion.

It is important to have the possibility of distance learning, which implements a person-oriented approach to each individual student, which is carried out in the variability and flexibility of studying the content based on the individual pace of mastering and understanding of theoretical and practical material.

Thus, by transferring the educational process to LMS Moodle, it was possible to maintain a full-fledged educational process and high-quality provision of educational services at the maritime academy under martial law.

V. CONCLUSION

Therefore, the study showed that the choice of LMS Moodle as the main training platform for under martial law is justified. Future maritime professionals believe that the platform is convenient and easy-to-use while maritime education and training. The specifics of LMS

Moodle use during online classes proved their advantages (completeness of educational services, and the quality of the knowledge obtained). The prospects of next research are seen by us in the use of LMS Moodle with elements of gamification, VR and AR.

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