

Tamara Pindosova,
**Ph.D. in Philological Sciences, Associate Professor,
Associate Professor of the Department of English for the Training
of Maritime Specialists according to the Shortened Program,
Faculty of Shipping,
Kherson State Maritime Academy,
Kherson, Ukraine,
tamriko296@gmail.com**

PREPARING OF FUTURE NAVIGATORS FOR THE COMMON ENTRANCE EXAMINATION IN ENGLISH WITH THE MEANS OF LSM MOODLE

Higher education in Ukraine meets international standards and is part of the Bologna system. Cadets of Kherson State Maritime Academy (KSMA) who have completed 4 years of studying and successfully passed the final exams receive Bachelor diploma. After this stage, they have the right to continue their education by enrolling in Master's program. For several years now, a law has come into force in Ukraine, according to which students wishing to enter universities for Master's degree must pass the Common Entrance Examination (CEE) in English. Preparing maritime specialists for CEE is an outstanding challenge both for the students and for teachers of foreign languages, since CEE tasks are designed for an applicant who is experienced in doing tasks in the format of international exams.

Technology has increasingly become important in the educational arena. Technology is seen as an important resource for instruction in foreign language teaching. There is a wide use of its ability to create online environments in which students can take the benefits from them. Many English language teachers have been searching for effective instruction to motivate students to learn English, to prepare them for passing different language tests, e.g. the Common Entrance Examination, so that the students achieve better academic performances. Possibly, they employ numerous forms of E-learning to achieve their goals such as a webpage, wiki, blog, and so on. There is an increasing use of technology in educational fields.

KSMA affords E-learning courses for students. Moodle is used to create online courses for students. Teachers post their syllabus and assignments, have online discussions, give quizzes, collect assignments, maintain a grade book and provide students with different tasks to prepare them for CEE.

Despite a large number of scientific works on the issues of distance education, as well as works related to the use of Moodle, today there are no scientific works and recommendations on the use of Moodle to prepare Bachelor navigators for the CEE in the Master's program.

This article aims to determine the features of using the Moodle E-learning environment in preparing navigators for CEE in the Master's program, to determine its advantages and disadvantages.

When analyzing current research, the author considered the work of scientists who studied the features of distance learning, Moodle as well as the use of computer technology in distance education.

D. Morrison defined E-learning as the use of the Internet to teach and learn. It includes interaction between teacher-student and student-student or teacher-teacher, as well as facilitating students' submission of assignments. It delivers and enriches learning content. Additionally, students can use the Internet as a research and publishing tool [8].

U. Felix thinks that E-learning as a process of learning through computers over the Internet which meet three criteria: a geographical distance separates communication between teachers and students, the learning communication is two-way and interactive, and different technology is used to facilitate students learning process [6, p. 230].

Moodle is an open source software. Open source means "software that is freely available for people to both use and modify" [5] by making the code available. Moodle is the name of a program that allows the classroom to extend onto the web. This program allows a common place for students to go for many classroom resources. Using Moodle, teachers can post news items, assign and collect assignments, post electronic journals and resources, and more [7]. C. Su explained that Moodle is a free online course management system which is particularly good for language teaching. It contains many useful and friendly tools to create and operate the courses [9, p. 330]. A. Yurzhenko describes and analyses the work of the future maritime specialists in the e-course [10, p. 101].

Moodle is a tool environment for developing both individual online courses and educational websites. The project is based on theory social constructivism and its use for learning. Author of Moodle Martin Dougiamas believes that the main goal of creating the system was the creation of a system different from all others already existing on the market, which was based on the foundations of cognitive psychology, where the student is an active subject independently creating his own knowledge system, using the sources available to him [5, p. 15].

Moodle was designed as tool for empowering teaching, not as freeware replacement of commercial e-learning systems. But the architecture and principles of Moodle turned out to be so successful that Moodle received worldwide recognition by communities [2, p. 192].

KSMA English teachers have developed sets of online educational materials with interactive tasks for their disciplines (Maritime English, English language for specific purpose) providing free access to them at anytime and anywhere. All sets of online educational and methodological materials are located in LMS MOODLE fully comply with the work programs of the academic discipline. Changes and additions to work programs are predetermined by the requirements of the IMO (International Maritime Organization) Model Courses.

KSMA has adopted Moodle as its university-wide course management system. It can be used as an enhancement to lecture courses or even the delivery system or environment for courses delivered fully online. Moodle is a full-featured open source course management system. The teachers can use it as a full online course or as a supplemental resource to support lessons or activities for students.

Learning management system Moodle has many advantages: flexibility (update options), adaptability to individual capabilities of the students (studying according to individual track in a convenient tempo, multiple listening and watching), references and hints, impartial assessment of the attainment via automated testing, differentiating of the student groups (differentiation of tasks and “manual” assessment of certain activities by the teacher).

Moodle includes a full set of activities, which allows collaboration at the student-student or student-teacher levels, namely: lesson, workshop, chat, assignment, survey, forum, questionnaire, quiz. Moodle allows to connect the following types of modules: course elements,

types of tasks, blocks, course formats, course reports, administrator reports, assessment reports, grade export formats, grade import formats, types of questions in tests, test reports.

The main advantage of using learning management system Moodle is the organization of teaching focused at students. Students get access to thoroughly organized content, they can copy the material presented in a digital form, view video files and listen to podcasts, download glossaries corresponding to each module of the course. Moodle gives them the opportunity to self-test and complete tasks and evaluate them regardless of the human factor, have expanded access to Internet resources, the ability to remotely study material in the discipline, and pass the exam session ahead of schedule. Despite so many advantages, the Moodle system also has its certain disadvantages. It is quite complex for users; there are certain costs for training specialists and costs for supporting the system [3, p. 45].

Next it is necessary to describe what is CEE. The CEE is a form of the entrance exam in English for bachelors planning to enter Master's program. Since 2020, the exam has become mandatory for applicants to all specialties in Master's programs. The CEE program was created taking into account the all-European recommendations for language education and corresponds to the B1-B2 levels on the CEFR scale.

The CEE tasks are aimed at testing reading skills, as well as knowledge of vocabulary and grammar of the English language. Authentic texts on various topics are usually offered. The Reading and Use of English parts check students' vocabulary, the ability to use vocabulary and grammar, analyze and compare information, and establish logical connections between different parts of the text. The required student's skill minimum: understanding the main idea of the text and its details; ability to distinguish the main facts and secondary information; ability to find in the text the information necessary to answer questions; understanding unfamiliar English words from the context.

The CEE consists of two parts:

- reading: 22 questions checking the student's ability to work with English texts, understand the main idea, the ability to choose the right heading for a paragraph, answer questions after reading;

- use of English: 20 questions that check the student's level of knowledge of grammar and vocabulary, the ability to use words and phrases appropriately.

The CEE test has 6 tasks, 42 questions. Students have 60 minutes to complete the tasks.

The task structure is the following:

Task 1. In the first task, student will be offered text divided into paragraphs. He must read and select for each paragraph the appropriate heading from the list provided. Some suggestions are extra.

Task 2. Students will need to read the text and answer 5 questions by choosing one of the answer options.

Task 3. The task of matching texts to the proposed topics.

Task 4. In the fourth task there will be a text in which student should fill in the gaps with the proposed options. As in the first task, there will be extra options.

Task 5. The text with spaces that must be filled with words from the proposed options. The difficulty is that student need to choose a word among those similar in meaning, to determine stable expressions.

Task 6. The task is similar to the previous one, but here the verbs in the correct form are selected.

Now let's study the issue if it's possible to place tasks of these types in the Moodle environment so that students can prepare for CEE in conditions close to real. Let's look at what opportunities in terms of tests this environment provided the teachers and students with.

Teacher can use the following types of test questions in Moodle.

Multiple choice. The student is asked a question and offered several options. He should mark correct answer (Fig. 1). There are two types of questions of this type: with only one correct answer; with one or more correct answers.

Питання 1
Відповідей ще не
було
Макс. оцінка до
1,00
Відповісти
питанням
Редувати
питанням

Read the text and choose the correct answers.

The marine radar is an equipment that is perhaps used the most on the ship's bridge by the OOW in carrying out a safe navigational watch.

A mandatory aid to navigation, the radar is used in identifying, tracking (with integrated ARPA) and positioning of vessels (including one's own vessel) among other things in order to adhere to the COLREGS so as to safely navigate a ship from one point to another.

The marine radar is classified under the x-band (10 GHz) or S-band (3GHz) frequencies. The x-band, being of higher frequency is used for a sharper image and better resolution whereas the S-band is used especially when in rain or fog as well as for identification and tracking.

Tracking ship devices are compulsory as per COLREGS (International Regulations for Preventing Collisions at Sea).

SOLAS Chapter 5, Regulation 19 states that "All ships of 3000 gross tonnages and upwards shall, in addition to meeting the requirements of paragraph 2.5, have a 3 GHz radar or where considered appropriate by the Administration a second 9 GHz radar, or other means to determine and display the range and bearing of other surface craft, obstructions, buoys, shorelines, and navigational marks to assist in navigation and in collision avoidance, which are functionally independent of those referred to in paragraph."

The entire SOLAS Chapter 5, Regulation 19 can be read [here](#). Additionally, Annex 16 dealing with specific information with regard to the marine radar onboard can be read [here](#).

With the help of ship radar, accidents can be prevented at sea with the use of the various inherent functionalities of the radar (determining the CPA and the TCPA, EBL, VRM, etc).

However, even while the ships are docked in the port, with the help of these radars, the coast guard, VTS, and the other authorities can use them to monitor the traffic in the small radar range.

The ship radar has a screen (referred to as the Plan Position Indicator) that displays all the targets that are present within the radar range. Since all the objects are clearly visible on the screen, navigating and monitoring the position of the ship becomes really feasible, hence the term 'aid to navigation'.

1. What is integrated into a radar?
2. What action is mandatory according to COLREGS?
3. What parts of SOLAS provide the guidelines for radar usage?
4. What is the function of a radar?
5. What is PPI?

Fig. 1. Example of task "Multiple choice" from Moodle

As we can see, this type of question in Moodle is suited for CEE block "Reading", task with the choice of one correct answer.

Alternative question (true/false). The student chooses the answer to this question from two options True / False. CEE does not have this type of task.

Embedded answers. This is convenient tool that allows the teacher to freely construct test questions, leaving a field for entering answers of types Multiple choice and Short answer in the question text. This type of question is suited for CEE Use of English section, which combines filling in the gaps and multiple choice (Fig. 2).

Питання 1
Відповіді ще не було
Не оцінено
Відкрити питання
Редувати питання

Fill in the gaps.

Invasive Aquatic 1 in ship's ballast water is one of the biggest problems faced by the shipping industry. Posing a great 2 to the marine ecosystem, these aquatic species 3 to an increase in bio-invasion at an alarming rate. Under IMO's "International Convention for the Control and 4 of Ship's Ballast Water and Sediments", implementation of ballast water management plan and ballast water treatment system on board ships 5 important.

In order to ensure their ships comply 6 the rules and regulations set by IMO regarding Ballast Water Management, several shipping operators have started 7 ballast water treatment systems on their ships. A variety of technologies are 8 available in the market for treating ballast water on ships. However, constraints such as availability of space, cost of implementation, and level of 9 friendliness play an important role in usage of a particular type of ballast water 10 system.

Питання 1
Відповіді ще не було
Не оцінено
Відкрити питання
Редувати питання

Read the text and fill in the gaps. There are two choices you do not need to use.

All international sea going ships under the Convention must implement a 'Ballast water management plan' that enables the ship to manage their . The plan is designed to meet the requirements for compliance with the Convention and the G4 Guidelines produced by the IMO. It includes standard operational guidance, planning and management, as well as additional details including sampling points and systems. Additionally all ships over 400GT must also carry a ballast water record book that details such requirements as the filling and discharge of each tank, according to .

Ships that comply with the Convention will receive and are duly required to carry an international ballast water management certificate. To receive a certificate, a ship will have to supply the necessary documentation showing compliance with the Convention and a survey will be carried out on-board. A survey may be carried out by a flag State, or by a Classification Society who . The convention is monitored by Port State Control, who must assess the ballast water management plan and its operation on the ship.

Under the Convention, ships are required, according to a timetable of implementation, to comply with the D1 or D2 standards. The D1 standard requires ships , and specifies the volume of water that must be replaced. This standard involves exchanging the uptaken discharge water from the last port, with new sea water; it must occur at a minimum of 200 nautical miles from shore. The D2 standard is more stringent and requires the use of an approved ballast water treatment system. The system must ensure that only small levels of viable organisms remain left in water after treatment so as to minimise the environmental impact of shipping.

New ships will be required to install and comply with the D2 standard from the 8th September 2017, once the Convention has entered into force. Existing ships, , have potentially until the 8th September 2024, by which time all ships will comply with the D2 standard.

It is also possible for ships to discharge ballast at approved shore reception facilities in ports, as article 5 requires that when cleaning or repair of a ships ballast tanks occurs, ports should have adequate reception facilities for the sediments.

who are subject to the phased implementation schedule have been authorised by a flag State ballast water exchange has to be done in mid-ocean

time, date, location and the treatment applied to the water ballast water and sediment discharge to a certain standard to carry out a ballast water exchange

even after journeys of several months duration

Fig. 2. Examples of task "Fill in the gaps" from Moodle

The teacher can give such task for revision of grammar tenses, collocations, phrasal verbs, prepositions etc. The students will need the knowledge of this information when they do CEE Use of English part. In this task students will have no options; they will have to print their answers (Fig. 3).

Питання 6
Відповідей ще не було
Макс. оцінка до 5,00
У Вікіпедії питання
Роздрукувати питання

Write the correct preposition.

Navigation out open sea isn't easy either but by virtue of lesser traffic and ample sea room, it doesn't pose as much of a threat that posed in congested waters. Approaches such that in Singapore or China have dense traffic in the form of fishing boats, small crafts in addition larger merchant vessels which, by default, means that a higher degree of precaution, situational awareness, and decision making is to be exercised such circumstances.

Питання 8
Відповідей ще не було
Макс. оцінка до 5,00
У Вікіпедії питання
Роздрукувати питання

Complete the sentences with the correct verb forms.

For navigating through congested waters, the officer on watch must know his duties well and (to be) aware of the positions of ships in the vicinity and other fixed structures. He (must, to make) full preparations to sail through such areas. Practical ship handling is a skill acquired with experience, and the OOW must never hesitate (to call) the Master in case of the slightest doubt. After all, the Master (to term) as a 'Master' for obvious reasons. Having said that, the following points (to lay out) to assist the OOW with regard to his decisions in congested waters: comply with COLREGs at all times and change over to hand steering.

Fig. 3. Examples of task “Embedded answers” from Moodle

Matching. The teacher gives a list of questions and answers to them /titles and small texts to match. The student must find the correct answer among the options (Fig. 4).

Питання 1
Відповідей ще не було
Не оцінено
У Вікіпедії питання
Роздрукувати питання

Match the titles with the paragraphs. There are two choices you do not need to use.

1

Conventionally, bunkering is done in ports but with modern techniques and heavy traffic, bunkering can now be done at sea under normal weather conditions. The most common type of bunkering procedure at sea, is ship to ship (STS) bunkering, where one ship acts as a terminal whilst the other moors. The second type is stern line bunkering, which is the easiest but, at the same time risky way of transferring fuel during bad weather. In terms of fuel, there are two principal types of bunker fuel oil. Residual fuel: a mix of refinery residual fuel and distillates blended to meet specification requirements. It is available in different viscosities and high and low Sulphur variants. Distillate fuel: a product obtained by condensing the vapours distilled from petroleum crude oil or its products.

2

The first thing that has to be established before any bunkering procedure, is to identify the person in charge (P.I.C) for both the receiving and the delivering vessel. These people must have full control over the vessel during the transfer. Prior to bunkering, usually a pre-bunkering meeting with all individuals involved is held, in order to identify risks, discuss plans and agree upon a fixed set of operating procedure. Before the process begins, it must be ensured that all the associated individuals are adequately prepared and have been allocated to their designated jobs.

3

A typical bunkering plan should include the following. Grades to be transferred, their amount and details, such as volumes, loading temperatures etc. Stability & Stress condition: Draft forward, draft mid, draft aft and sea condition. Emergency procedures: In the event of a spill, the vessel's emergency procedures must be immediately initiated as per the Emergency Procedure Manual.

4

Before the bunkering operation commences, the responsible officers should complete and sign the Bunkering Safety Check-List. The Bunkering Safety Check-List uses statements assigning responsibility and accountability. Once signed, this provides the minimum basis for safe operations as agreed through a mutual exchange of critical information.

5

During the start of the bunker, the pumping rate is kept low. All associated valves positions and tanks are verified for correct order with any leaks in the hose connection. The hose should be properly supported to avoid undue strain on manifolds and tails. Pressure gauge and tank levels must be closely monitored, and associated valves be operated with low flow rate during changing over tanks.

Other critical issues	How to prepare a complete bunkering plan	Preparing bunkering safety checklist	Types of bunkering and bunker fuel oil
During bunkering procedure	Ways to receive marine fuel bunker	Actions prior to bunkering	

Fig. 4. Example of task “Matching” from Moodle

Short answer. Answering questions + a word or a short phrase that the student types on the computer.

Random question. This is a tool that allows you to randomly select questions that are available in a given category before inclusion in the text. The random question does not contain its own learning information, it is only links to other questions in the category.

The teacher can conduct preparing for CEE in the classroom or give students homework or in the form of self-study. If preparation for testing is carried out in the classroom, then the teacher selects the start time of the test, its completion, time limit (80 minutes), and period for submission (5 minutes).

The teacher can choose additional restrictions on attempts, namely: a required password; wait time; browser security (while passing the text, the pop-up window fills the entire screen and students cannot open other tab windows due to JavaScript protection). Tests may also contain a passing score (minimum passing score: 3.5), which is indicated as green (test passed) or red (test failed) in the electronic grade book. The teacher may submit several test attempts before announcing the test results. Each attempt is scored automatically [1, p. 151]. If students practice passing CEE tests at home or in the form of self-study they may have as many attempts as necessary to get the best result.

Moodle allows teacher to fully reflect the CEE tasks. Thus, Moodle is a fairly convenient and effective tool for preparing bachelors, especially distance learning students, for CEE. Teacher can use the following types of test questions in Moodle: multiple choice, embedded answers, matching.

The teacher can conduct preparing for CEE in the classroom or give students homework or in the form of self-study. Moodle has such advantages: flexibility, adaptability to individual capabilities of the students, references and hints, impartial assessment of the attainment via automated testing, differentiating of the student groups. But at the same time Moodle system is quite complex for users; there are certain costs for training specialists and costs for supporting the system.

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