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USE OF LMS MOODLE IN THE PROCESS OF CADETS' SELF-STUDY IN FOREIGN LANGUAGE

O. M. Sovhar*, H. P. Sovhar**

Among the priority tasks of today's higher education is preparing specialists capable of independent research, accumulation and application of knowledge. The article considers self-study as key element of education and cognitive activities of future officers of the Armed Forces of Ukraine and examines the organization of self-study in the context of mastering a foreign language with the use of the learning management system Moodle. It has been established that applying new methods and techniques, alongside other forms of self-study, selecting and designing more suitable activities for cadets during independent training as well as integrating the learning management system Moodle enhances the overall process of learning a foreign language and increases the overall productivity. Introducing the LMS Moodle into self-study while mastering a foreign language in military higher education institutions contributes to acquiring essential skills, namely, obtaining the necessary information, analyzing professionally oriented foreign language texts, assessing and applying available information to accomplish missions and communicating in a foreign language. Conducted research shows that cadets' engagement in self-study improves if the course is methodically designed to create a holistic educational information environment. "Pedagogy of social constructivism" which underlies the philosophy of the Moodle learning management system enables the effective organization of interactions which is crucial in acquiring competency in a foreign language. Moodle facilitates the design and development of courses adapted to the specifics of a particular discipline, considering the requirements of the teacher and the needs of the cadets, who, with the help of this platform, are able to build a comfortable learning trajectory.

* Candidate of Pedagogical Sciences (PhD in Pedagogy), Docent
(Hetman Petro Sahaidachnyi National Army Academy, Lviv)
okssov@yahoo.com

ORCID: 0000-0002-3101-7409

** Teacher

(Hetman Petro Sahaidachnyi National Army Academy, Lviv)
annasovgar@gmail.com

ORCID: 0000-0002-5411-8967

Incorporating given approaches when introducing and practicing educational content streamlines understanding of course material, fosters motivation to master a foreign language and results in improved efficiency of learning.

Key words: *cadets, self-study, foreign language acquisition, LMS Moodle, information and communication technologies, activities, recourses.*

ЗАСТОСУВАННЯ MOODLE У САМОСТІЙНІЙ РОБОТИ З ІНОЗЕМНОЇ МОВИ КУРСАНТІВ ВВЗО

О. М. Совгар, Г. П. Совгар

У статті розглянуто самостійну роботу як важливий фактор самоосвіти та навчально-пізнавальної діяльності курсантів вищих військових навчальних закладів та описано організацію самостійної роботи майбутніх офіцерів у контексті вивчення іноземної мови за професійним спрямуванням. Проаналізовано використання системи управління навчанням Moodle як засобу організації самостійної роботи майбутніх офіцерів Збройних Сил України (ЗСУ) та досліджено структуру мультимедійного комп'ютерного курсу "Дистанційний курс з іноземної мови" й висвітлено шляхи її реалізації на платформі дистанційного навчання, а саме розподіл навчального матеріалу на модулі. Також проаналізовано типи діяльностей, які доцільно виконувати в системі Moodle. Представлено алгоритм роботи курсантів під час проходження курсу для вдосконалення комунікативної компетентності з іноземної мови. Визначено, що самостійна робота майбутніх офіцерів ЗСУ під час вивчення іноземної мови із застосуванням LMS Moodle уможливорює набуття важливих вмінь та навичок, а саме аналізу іншомовних професійно орієнтованих текстів, отримання необхідної інформації, оцінки та застосування наявних відомостей для ефективного вирішення бойових завдань та здійснення комунікації іноземною мовою. Визначено, що ступінь готовності курсантів до виконання самостійної роботи зростає при організації її як цілісного курсу, створеного на базі методично організованого інформаційного навчального середовища. Основною перевагою системи управління навчанням Moodle, є ефективна організація взаємодії між викладачем та курсантами. Імплементация висвітлених підходів опрацювання та засвоєння навчальних матеріалів засобами Moodle при дизайні освітнього процесу сприяє підвищенню ефективності навчання, спрощує сприйняття навчального контенту та поліпшує мотивацію до вивчення іноземної мови.

Ключові слова: *самостійна робота, курсанти, вивчення іноземної мови, система MOODLE, інформаційно-комунікаційні технології, ресурси, діяльності.*

Introduction of the issue. In the framework of Ukraine's expanding relations with foreign partners in all spheres, including military affairs, the realities of the present day necessitates a mastery of English, as a dominant international language. This, in turn, leads to the urgency to reconsider the goals, content and technologies of the language training systems for service members to meet European and Global standards. The requirement to search for new strategies, the optimization of methods, techniques and forms of

teaching and learning a foreign language, and the introduction into the educational process of military higher education institutions is now vital.

Particular attention needs to be paid to improving the organization of forms of educational activities such as self-study, that are aimed at education, self-development, innovation, and is supportive of cadets not only during their studies within military educational institutions but also encourage lifelong learning. Nowadays, self-

education has become an integral part of an officer's professionalism, expanding the growth and importance of self-study. Special attention is paid to military training, independent work and self-study by cadets, which is organized by unit commanders and supervised by departments. This is a mandatory educational activity which plays a significant role in shaping the outcome of learning a foreign language. The result of effectively organized self-study is the acquisition of foreign language competence by future officers of the Armed Forces. The key to quality self-study is the skillful organization of the process of learning a foreign language. Previously it was carried out directly in the classroom under the guidance and supervision of a teacher, during consultations or in the library, nowadays, with the advent of the Internet, new learning environments have been created, which allow for the organization of self-study with greater efficiency.

Current state of the issue. The problem of organizing self-study has attracted the attention of a number of scientists, including Antoniuk, I.I. Drach, I.B. Ivanova, and L.T. Tiuptia. In her research, N.V. Yagelska highlights the features of self-study in mastering a foreign language. Peculiarities of information and communication technologies (ICT) implementation in the educational process are investigated by A.V. Anisimov, V.Yu. Bykov, E.M. Zhelezniakova, I.O. Zmiivska, T.I. Koval, Yu. Nikolaieva, N.V. Rashevskaya, and S.O. Semerikov. N.M. Vasylyshyna focuses on the strengths of the application of digital learning at universities.

Outline of the unresolved issues brought up in the article. Despite the numerous findings on the problem of incorporating information and technology into self-study; methodological aspects, effective

forms and strategies of organizing and conducting self-study for cadets of military higher education institutions with the use of information technology requires additional study.

Aim of the research is to analyze the specifics of organizing self-study and suggest ways and means to efficiently implement the capabilities of the LMS Moodle as a tool for future officers of the Armed Forces of Ukraine to acquire foreign language communicative competence.

Results and discussion. We fully agree with the definition of N.V. Yagelska [10], who considers self-study as a form of organization and implementation of educational and cognitive activities, which is controlled by the teacher or the student, in accordance with the curriculum and individual needs in classroom or extracurricular activities aimed at acquiring professional knowledge and skills, as well as for self-improvement. According to M.S. Antoniuk [2] self-study in a higher education institution is an integral part of the educational process, a method of learning fostering reception of educational and cognitive activities, a system of targeted standardized educational activities with planned types and forms of assessment. We share the beliefs of scientists who regard self-study as one of the most important elements of the educational process, which is a synergy of different types of individual and collective learning activities that take place in classroom and during extracurricular hours, without the presence of a teacher or under his or her guidance [4; 5; 10].

Among the functions of self-study it is expedient to single out the following:

- educational (the ability to process resources, which leads to a deeper understanding of previously acquired knowledge);

- cognitive (acquiring new knowledge, expanding the mindset);
- corrective (contemplating over the latest approaches, categories, theories, concepts);
- stimulating (such an organization of self-study that brings satisfaction from the results of cognitive activity);
- didactic (aimed at forming such qualities as responsibility, purposefulness, will, discipline);
- cultivating (which aims to develop autonomy, creativity, research skills) [4].

An indispensable condition for the implementation of self-study is the presence of motivation and effective organization by the teacher. There are such forms of self-study as individual, group and frontal; it can be conducted in a classroom or be extracurricular. When organizing independent work, the teacher is guided primarily by the content of the discipline, the degree of cadets' training and their level of education. Self-study is designed to help cadets fully complete the foreign language course program of instruction and to acquire and develop skills and new knowledge in a foreign language. Such documents as the curriculum, syllabus and methodical recommendations are key in organizing self-study for cadets of higher educational institutions.

Nowadays, learning which occurs in the information and communications environment, incorporating modern technologies of distance and e-learning are becoming more widespread in educational institutions of Ukraine [3]. Therefore, when organizing effective self-study, it is advisable to use information and communications resources, namely multimedia and computer classes with access to the Internet, educational multimedia materials (movies, videos, audio recordings, presentations), authentic and adapted educational methodological literature. The ability of cadets to perform self-study will be

optimized by organizing it as a holistic system of well-thought-out and methodically prepared educational and developmental environment using real and virtual tools. The choice of these tools is determined by the purpose and objectives of teaching a foreign language in a military institution and the initial level of cadets' training/language competency.

Domestic educational content follows the global trends aimed at accessibility and flexibility of education. In particular, the Hetman Petro Sahaidachnyi National Army Academy, along with traditional learning technologies, has incorporated e-learning initiatives. This approach to learning involves both direct contact and online classes, among others, on the platform of Moodle, the use of which is aimed at supporting the educational process.

Moodle or (Modular Object-Oriented Dynamic Learning Environment), belongs within the category of learning management systems (LMS) and course management systems (CMS). Moodle is a virtual learning environment (VLE), i.e. a platform for learning, which provides those who teach and those who learn with a comprehensive set of tools for computer-based learning. Among its the advantages are the ability to install educational resources (training materials), provide access to resources and manage them; promote interaction between participants of the educational process in the form of Internet conferences, forums, discussions, and the exchange of messages, which may include, tasks for students, comments on tasks, feedback and assessment [1].

The use of these system technologies allows cadets to build their own strategy to study the discipline and helps not only to acquire knowledge, skills and abilities, but also to form a certain structure of personal qualities. Research on the

formation of professional competence of future officers by means of network technologies has allowed to establish that introduction of the educational and methodical complex containing distance courses developed by means of Moodle with use of the modular approach, representation of knowledge as dynamic, multimodal structure contributes to experience of independent acquisition and renewal of professional knowledge, personal involvement in this process and responsibility for it [7].

The Moodle environment provides cadets with:

- access to educational materials, testing tools;
- tools for group work (Wiki, forum, chat, seminar, webinar);
- the ability to view the results of the distance learning course;
- the ability to view test results;
- the ability to communicate through personal messages, forum, chat;
- the ability to upload files with completed tasks;
- the ability to use reminders about events in the course [8].

Teachers can:

- use tools for the development of author's distance learning courses;
- upload training materials in .doc, .odt, .html, .pdf formats, as well as video, audio and presentation materials in various formats and through additional plug-ins;
- add various elements of the course;
- make modifications of educational materials;
- use different types of tests;
- automatically generate tests;
- automate the process of assessment, view reports on cadets performance and reports on which tasks have been completed;
- use diverse software for distance learning.

The spectrum of interactive elements, which are based on interaction and communication, can be divided into two categories, which indicate the purpose of the element in the learning process:

1. Elements of joint activities, namely the Glossary, Wiki, Forum, etc., which provide tasks aimed at organizing cooperation and collaboration for cadets and teachers' communication aimed at formation of new knowledge, skills and abilities. Assessing the implementation of such elements is possible, but for the most part not pedagogically effective.

2. Tools for assessment and evaluation (Tasks, Test, Lecture, etc.). This category of interactive elements aims to adequately reflect the level of knowledge and skills cadets have gained.

Modular learning is carried out on the basis of a flexible approach to determine the sequence of presenting the material, and the module itself is defined as a holistic structure that combines educational content and technology to master it [9]. An important criterion for constructing the module is the structuring of the cadet's activities within the stages in which knowledge acquisition occurs: perception, understanding, comprehension, memorization, application, generalization, systematization [8].

Moodle offers an ample number of activities and resources through which learners can acquire or practice learning material or be subsequently assessed and evaluated. A resource is an item that supports learning, for example, a file, a video or link to a website. A resource unlike an activity is static; that means the learner can merely read or look at it, but not participate. An overview of the most commonly used resources and activities is provided in table 1.

Table 1.

Name (description)	Purpose
RESOURCES	
<p>Book enables creating a multi-page resource comprising chapters and subchapters. It can contain media files or text and can be used to display lengthy passages of information broken down into sections.</p>	<p>To manage complex course material organised by chapter To allow learners to download and print material As a portfolio of learner's work</p>
<p>File Learners need to have the appropriate software on their computers in order to open the file.</p>	<p>To upload, view or share PowerPoint slides To upload, view or share lesson handouts</p>
<p>Folder It can be added to display a number of related files inside a single folder, reducing scrolling on the module page.</p>	<p>To contain a series of files on one topic, for example a set of past examination papers in pdf format or a collection of image files for use in learners' projects To provide a shared uploading space for teachers on the course page (keeping the folder hidden so that only teachers can see it)</p>
<p>The Handbook It includes the following sections: module details, outline syllabus and teaching and learning methods, assessment information, staff contact details</p>	<p>To create a common understanding of the course specifics</p>
<p>Hyperlink enables providing a web link as a course resource, such as websites, documents or images.</p>	<p>To provide a quicker access to a learning material.</p>
<p>Text adding text to information or giving headings to lists of resources Moodle page,</p>	<p>To split up a long list of activities with a subheading or an image To display embedded content, such as video, Google Map, Twitter feed etc. To add a short description to a course section.</p>
ACTIVITIES	
<p>Assignment enables communicating tasks, collecting work and providing feedback.</p>	<p>To submit any digital content (files), such as word-processed documents, spreadsheets, images, or audio and video clips. To type text directly into the text editor. To remind learners of 'real-world' assignments they need to complete offline and thus not require any digital content.</p>
<p>Checklist allows to create a checklist / to do list / task list for learners to work through.</p>	<p>To provide a clear understanding what needs to be done. To control access to additional resources or activities.</p>
<p>Choice/Vote</p>	<p>As a quick poll to stimulate thinking about a</p>

enables asking a single question and offering a selection of possible responses.	topic To quickly test learners' understanding To facilitate decision-making.
Evaluation allows creating a learner evaluation activity based on a predefined template.	To give grades and track the learners' progress.
Forum A social space for communication	To get to know each other For course announcements To discuss reading materials or course content To continue online an issue raised previously in a face-to-face session For discussions among teachers. A help centre where tutors and learners can provide advice For extension activities
Glossary enables participants to create and maintain a list of definitions, like a dictionary, or to collect and organise resources or information.	A collaborative bank of key terms A 'useful tips' resource of best practices for a practical subject A sharing space of videos, images or sound files A revision resource of facts to remember
Group self-selection Allows creating and selecting groups.	Fosters team work, cooperation and collaboration.
Questionnaire	To construct surveys using a variety of question types, for the purpose of gathering data from users.
Quiz enables creating tests comprising questions of various types, including multiple choice, matching, short-answer and numerical.	Assessment for reading assignments or at the end of a topic As exam practice using questions from past exams To deliver immediate feedback about performance For self-assessment
Scheduler The activity helps in scheduling appointments with the learners	For booking tutorial slots For arranging seminars times

The choice of this system is quite conscious, as its settings allow you to adapt each course not only to the specifics of a particular discipline, but also to the requirements of the teacher and the needs of the cadets, who with the help of this platform can build a comfortable learning trajectory. Let us consider the features of the organization of self-study in the

learning management system Moodle using as an example the "Distance Foreign Language Course" (DFLC). It was created based on the principles of an electronic textbook design, suggested by T.I. Koval [6].

The course consists of 14 modules. Each module has a unified structure to facilitate the navigation process for cadets, and comprises entrance and

final tests to determine the individual learning trajectory.

Pilot testing and approbation confirmed its effectiveness and allowed for identification of a number of advantages over traditional textbooks and audio recordings:

- Activating the learning process through dialogue and interactivity (automatic checking of tests and quizzes, unlimited number of attempts for cadets to practice, after which the program will report the correct answers, the use of sound keys, preparation of a report on the work done and communication with the teacher via e-mail, forums, chats);

- Enabling individualization of learning (the ability to independently determine the sequence of processing cycles of the course and the number of exercises, the use of prompts and supports, an unlimited number of attempts to make audio recordings, do additional exercises;

- Opportunities for planning, self-control, self-analysis and reflection of their own learning activities;

- Enhanced visual and aural support (use of video phonograms, pictures and audio recordings, ppt presentations, YouTube videos);

- Increasing interest and motivation.

Each element of the course, such as an exercise, task, glossary, text, grammar presentation, audio or video piece etc., can be rendered in separate e-documents connected within a distance learning system. DFLC comprises such elements as glossary, presentation of grammatical material (various forms of rendering), tests and tasks for assessment, complementary media materials, chat, forum, etc. A wide array of exercises is provided to develop and improve reading, listening, speaking and writing skills. The use of media optimizes the visualization and perception of educational material. Interactive elements such as tests and tasks with nested answers, multiple choice, identifying missing words,

dragging in the text, dragging to the picture, etc. are designed to activate the mental activity of cadets, as well as serve as a means of assessment and self-assessment. The quiz is the main means of assessing cadets' progress, which allows the teacher to first form a bank of test questions and set different parameters (time, place and duration of testing, number of attempts, number of points for tasks completed, show or not show cadets the correct answers, etc.). Glossary allows to create and use translations or/and definitions of various terms and abbreviations. The teacher can insert translation or definitions or have cadets do it, monitoring and assessing it. Cadets are given convenient glossary search tools. The terms available in the glossary can be highlighted in color and by clicking on them, cadets are referred to articles on the respective terms. Assignment means that cadets are to complete a certain written task (abstract, project, report, letter, e-mail, presentation etc.). On completion cadets upload their works to the server as a file and the teacher will evaluate them and provide feedback or even post the writing for everyone on the course to see and comment on it. It also includes a list of hyperlinks to additional exercises on the Internet (More Exercises) and recommendations for use of the (Help) program. The structural element of the representation of grammatical material is intended to cover topics on grammar. Without a doubt, theoretical material on any grammatical structure is easily accessible to all search engine users, and one can do without distance learning technology. Moodle, however, allows presentation of the content on several different pages in various formats, for example, in the form of video explanations from YouTube, visual tables and figures, where the desired topic is concisely structured, short descriptions with detailed analysis of typical examples are provided, and exercises to practice and

consolidate educational material are given. A correct answer to a question can lead to transition to the next page of the topic or content. One can work on the topic at discrete intervals, and there is a possibility to continue from the place where one previously stopped. To ensure better perception of the material, it is divided into text pages one by one on the screen, which does not require excessive scrolling. To make comprehension from the computer screen easier, texts are offered in different fonts – courier, underline, bold and; fonts can be of different colors and are be used to highlight examples, notes, or remarks, which improves concentration on selected objects. However, it is advisable to use all the elements sensibly in order to not to overload the learning material. Cadets must go through theoretical material and "consolidate" or test themselves by doing practical exercises. In case of the correct answer there is a transition to the next question, otherwise he or she is forced to return to the previous point again. This approach will allow cadets to process theoretical material at the appropriate level, and the teacher will be able to track what part each cadet has passed and his results.

Conclusions and research perspectives. It has been determined that self-study by cadets in the process of mastering a foreign language helps to obtain necessary information, acquire important skills, namely to independently analyze foreign language professionally oriented information, effectively evaluate, use input data for optimal combat tasks completion and communicate in a foreign language. The article demonstrates that cadets' level of readiness for self-study increases when it is organized as a holistic system created on the basis of a methodically organized educational information environment. The Moodle LMS is an open learning management system that implements the philosophy of "pedagogy of social constructivism",

focused primarily on the organization of interaction between teacher and cadets. It can be stated that by practicing activities designed in Moodle significantly enhances the effectiveness of learning, fosters perception of educational material and serves as a powerful incentive to learn a foreign language. Prospects for further research are envisioned in examining strategies on how to efficiently implement information and communication technologies in the process of learning a foreign language.

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