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# DISTANCE LEARNING METHODS IN THE ORGANIZATION OF **INDEPENDENT WORK OF CADETS**

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## Abstract

This article considers modern forms and methods of teaching independent work in a distance mode in the training of future competitive specialists of maritime transport. The article notes the changes in the modern system of higher education, associated with the reduction of practical, laboratory classes and increasing the hours provided for independent work. The necessity of searching for innovative computerbased learning technologies, which create conditions for effective knowledge assimilation and formation of professional skills and abilities, is pointed out. The object of the study is the process of professional training, namely distance learning and phases of learning material assimilation. Learning activity in the distance learning system is presented as an opportunity to internalize theoretical knowledge and master practical learning skills outside the classroom. The subject of research in this article is the process of organizing independent work of cadets as a means of forming professional competencies. The necessity of optimal organization of independent work is analyzed, taking into account the requirements of modern educational standards and forms of control. The methods of research in the article are: theoretical (analysis of educational and methodological literature on the problem under study); empirical (various types of computer testing as one of the most common forms of control in the work of cadets and the role of teacher-tutor in the organization of learning activities used in checking the performance of independent work). As a result, the effectiveness of using different types of testing in the independent work of cadets is revealed.

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# 1. Introduction

Higher professional education at the present stage of development and improvement of the social structure of our society is a determining factor of students' social status. Professional and general cultural competences, formed in accordance with the Federal State Educational Standards of Higher Professional Education of the last generation, are an urgent need for the formation of competitive specialists. The quality of professional training, as well as the growth of the state economy, is determined by the level of modern education. Consequently, the provision of highly qualified university graduates provides for the increase in labor productivity, the introduction of new technologies, the development of production and the rise of the economic level of the country (Aleshchanova & Frolova, 2010).

Nowadays there is a search for innovative forms and methods of teaching independent work in the distance mode. This is due to changes in the system of higher education: classroom hours are decreasing and hours for independent work are increasing.

In accordance with the latest requirements of the Federal State Educational Standards of Higher Education, the independent work of cadets makes up from 1/3 to 2/3 of the academic time from the total volume of the academic discipline. It should be noted that the optimal organization of independent work provides for the quality of training in a given discipline, the formation of professional and general cultural competencies.

Self-work involves:

- i. compulsory study of educational material in full; observance of the sequence of development of skills of future professional activity;
- ii. development of motivation for self-education and self-improvement in the professional sphere;
- iii. development of critical thinking skills and self-organization skills;
- iv. formation of readiness for professional competitive activity.

The educational-methodical complexes of most disciplines of our university include independent work of bachelors and masters in the ratio from 55 to 70%, respectively. In this regard, it is necessary to pre-plan the educational process, activating the independent work of cadets taking into account the introduction of changes in the working programs, namely, in the content of sections, the number of hours and control. It should be noted that formal and uncontrolled increase of hours for independent work is impossible, simply reducing the classroom load. Consequently, there is a question of applying new teaching technologies, namely, modern methods of professional training of cadets (Ahmad et al., 2024; Singh et al., 2024; Waite, 2024).

#### 2. Problem Statement

With the development of theoretical foundations of foreign language teaching methodology, modern advances in distance education teaching technologies have significantly expanded the set of teaching tools used by the teacher in the process of optimizing learning activities, namely, audio-video materials. Distance learning is the result of a special organization of the learning process, which has become an objective reality, now actively implemented in practice.

Distance education is presented as a pedagogical system that can meet the educational needs of students regardless of their spatial and temporal location relative to educational institutions. This system includes the means, process and the result of professional education corresponding to educational standards, realized with the help of telecommunication technologies of teacher-student interaction, carried out in a specific educational environment (Popova & Galieva, 2017).

The distance format of foreign language teaching in a maritime university, built on a communicative basis with orientation on the personality of the cadet, forms in future specialists professional language competences based on universal values. Consequently, communication determines the main tendency of the distance foreign language teaching process.

At the present stage of development of methodological thought, mastering communicative skills means not only mastering the skills of listening and speaking, but also thinking in a foreign language. The use of information and telecommunication technologies in classes allows qualitatively forming professional competences of language knowledge.

Among modern methods of professional training of cadets used in our university, there are distance learning (DL) methods. These methods contribute to the increase of cognitive activity, formation of necessary skills for successful mastering of educational material. The variety of learning modes allows the teacher to creatively approach the organization of lecture, laboratory and practical classes. DO methods allow graduates to get as close to practice as possible, which contributes to the formation of their practical skills and easier employment.

Considering the peculiarities of knowledge assimilation in the ECE system, we can say that this process is represented by four fundamental phases: imprinting phase; memorizing phase; authorization phase; initiation phase (Barzaeva & Abdulazizova, 2015).

Certain teaching methods are applied at each stage (phase). One of the most widespread teaching principles used in POs is the modular principle. According to this principle, all teaching material is divided into blocks (modules); each module corresponds to a certain number of laboratory, practical and independent hours, depending on the discipline being studied. A special role in modular training is played by computer programs, electronic textbooks, various kinds of testing, which are actively used in the organization of independent work of cadets, their control and self-control. This contributes to the formation of solid theoretical knowledge and practical skills (Clare & Wilson, 2012; Tenishcheva & Avanesova, 2013).

In DPs, the following methods correspond to the first stage (phase):

- i. watching various videos;
- ii. listening to problematic, review, summarizing lectures.

At this stage there is an overview familiarization with the subject of study, formation of primary thought constructs and their storage in memory.

The second stage (phase) includes appropriate methods:

- i. memorization of textbook content;
- ii. performance of training exercises;
- iii. glossary work;

- iv. lecture classes with synchronized video and audio material, which allows one to perceive the educational material in an integrated way;
- v. work with educational computer programs;
- vi. building a logical scheme of the knowledge base.

At this stage, intensive memorization of educational material takes place; all types of memory are developed. The methods used in the memorization phase favorably affect the development of logical, creative thinking and imagination of cadets (Gruzdev et al., 2017).

Authorization is the third phase of learning material assimilation. The following methods correspond to it:

- i. workshops (active, creative);
- ii. coursework, test papers;
- iii. operational and ongoing testing;
- iv. IP counseling;
- v. lab work;
- vi. practicums and internships.

At this stage, the cadet begins to use the acquired knowledge and formed skills, retrieving them from the working memory, while there is an increase in the speed of his thinking activity.

The fourth stage (phase) is the final one. The initiation phase is considered as summarizing the process of knowledge assimilation. At this stage the methods are relevant:

- i. current certification (credit, exam);
- ii. final certification.

At the fourth stage, the current and final control of a theoretical level of knowledge and practical skills of cadets is carried out.

### 3. Research Questions

The main research questions are: The quality of professional training determined by the level of modern education. The provision of highly qualified university graduates for the increase in labor productivity, the introduction of new technologies. Search for innovative forms and methods of teaching independent work in the distance mode due to changes in the system of higher education: classroom hours are decreasing and hours for independent work are increasing. There is a question of applying new teaching technologies, namely, modern methods of professional training of cadets.

### 4. Purpose of the Study

The main purpose of the distance foreign language teaching process is the process of organizing independent work of cadets as a means of forming professional competencies. Among modern methods of professional training of cadets used in maritime university, there are distance learning (DL) methods.

## 5. Research Methods

In the Russian system of higher education, there are certain difficulties associated with modern market relations. This situation is dictated by the constantly changing market conditions, namely an oversupply of specialists in one professional activity and a deficit in another. The determining factor is the employers' order for young specialists, as well as the absence of state management of the market filling with university graduates and their distribution. The situation is complicated by the non-compliance of the level of an educational process without the use of modern computer programs and simulators.

In this regard, there is a need to consider in more detail the issue of the quality of professional training in higher education institutions. Analyzing the quality assurance of education, we noted the system approach, which is based on the standards of ISO-9000 series. This system of quality management seems to us to be a priority, as it gives an opportunity to provide educational services with subsequent successful employment in the maritime professional sphere. There are a number of factors in the development of an effective quality management system for training specialists, namely: modern information and computer technologies, equipment; systematic professional development of teaching staff; new specialties and specializations with appropriate training conditions, etc. Strict observance of the above factors leads to improvement of the educational process and quality competitive training of graduates.

Novorossiysk Maritime University is a leader in its industry with a functioning and certified system of quality cadet training. Leading maritime companies note the high level of specialist training, which undoubtedly increases interest in the educational institution and the number of applicants.

The requirements of the latest generation of FSES of higher education provide for a high level of a material and technical base with the use of modern technological equipment. At Admiral F.F. Ushakov State Maritime University, such equipment is represented by the latest simulators, which allow practicing practical skills of ship management in different situations (bad weather conditions, emergencies, unforeseen circumstances, etc.). Special attention should be paid to the GMDSSB simulator, which allows cadets to acquire professional skills and abilities to simulate ship-to-ship and ship-to-shore communication, as well as to use all ground and satellite communication systems in case of emergency.

Having analyzed the methods of DL, we concluded that they are complex, diverse due to a variety of methodological techniques and the use of modern teaching tools. Learning activities in the distance learning system give cadets the opportunity to master theoretical knowledge and practical learning skills. Taking into account the possibilities of modern computer technologies DO gives an opportunity to get knowledge both in the classroom and outside it, as well as to carry out self-monitoring and control by a tutor-teacher (Lipich & Balahura, 2024; Regnerová et al., 2024; Shumilina & Antsiferova, 2024).

A tutor (from English tutor, mentor) is a teacher, helping college or university students to build their learning process in the most optimal way (Galieva et al., 2019).

The tutor fulfills the role of an intermediary in the process of distance education. He/she is responsible for the organization of the educational process, must provide the student with the necessary educational material, consultations on available issues. Therefore, the tutor should have a deep knowledge

of his discipline and take into account the level of training and abilities of each cadet, which helps him in developing the curriculum, planning assignments and control. Theoretical material and practical activity of a cadet should be closely interconnected. If this condition is met, the tutor works creatively, applying the latest innovative technologies, creative approaches to the study of the material (Kuznetsov, 1998).

Modern information and telecommunication technologies in distance learning of a foreign language represent certain ways and methods of designing and performing psychological and pedagogical activities of the teacher and cadets. The thinking activity of students is activated in the study of unfamiliar educational material and they apply already acquired knowledge, which, of course, forms professional skills and abilities.

It seems that in the conditions of higher education, the optimal model of distance learning is the model based on case-technologies (means of learning are audio and video materials), which makes distance learning more realistic. It should be noted that case-technologies include searching for a solution to a production problem, analyzing specific situations, performing specified actions according to instructions, role-playing and business games used to remove language and communication barriers. The basis of case technology is problem-based learning aimed at acquiring sustainable knowledge while solving both theoretical and practical tasks in problem situations. A problem situation arises in the cognitive and thinking activity of cadets with visible difficulties, contradictions, conditions and requirements.

We consider case technologies based on the modes of action performed in problem solving, the transformation of the actions and the degree of difficulty of the task at hand (Dokuchayeva et al., 2024; Tang & Yang, 2024).

It is important to properly organize independent work of cadets using distance education technologies. The tutor-teacher should clearly understand what difficulties a student may encounter when doing independent homework, what types of tasks are the most difficult, how much time will be needed to complete them. It is necessary to clearly formulate the tasks for each type of work, explain in the classroom the sequence of execution and the peculiarities of using grammatical rules and lexical units. The most difficult type of independent work in English is the translation of word combinations and sentences from Russian into English. Having acquired the skills of performing such tasks in the classroom, understanding the sequential chain of their actions, it will be easier for the cadet to perform even difficult tasks. It is especially important to teach to do not word-by-word translation (spending a lot of time writing out unfamiliar words), but to convey the main meaning of the text. The development of new technologies, multimedia, access of each cadet to the Internet are additional opportunities for effective foreign language teaching. Teachers of our university use specially prepared additional audio and video materials for independent individual work, which helps the cadet to make his own non-standard decision, imitate a conversation, dialog. The student creatively approaches the fulfillment of tasks, persistently achieves the goal, which is important for his self-development and self-education. Consultations with the teacher-tutor can take place both by e-mail and in the classroom during direct communication.

In the system of distance learning the interaction between tutor and students takes place online. An important condition for the effectiveness of independent work is its control. Control is the observation of

the process of assimilation of knowledge, skills and abilities and comparison of actual learning results with the planned ones in accordance with norms and standards (Popova & Galieva, 2017).

The purpose of control of students' independent work is to assimilate in full the educational program, to prevent possible errors and omissions. Independent training of cadets is aimed at the final control.

## 6. Findings

Distance mode of learning includes the means, process and the result of professional education, realized with the help of telecommunication technologies of teacher-student interaction, carried out in a specific educational environment.

The distance foreign language teaching, built on a communicative basis, forms future professional language competences based on universal values. Communication determines the main tendency of the distance foreign language teaching process.

Mastering communicative skills means mastering the skills of listening, speaking and thinking in a foreign language. Modern computer technologies in classes are necessary for forming professional competences of language knowledge.

Distance learning (DL) methods allow the teacher to creatively approach the organization of lecture, laboratory and practical classes. These methods contribute to the formation of professional skills and easier employment of future competent specialists.

#### 7. Conclusion

Interactions between tutor and cadets in distance learning are carried out in the information environment of the university with the prevention of potential inaccuracies or omissions. So, the working program of the discipline (WPD), the program of practice and other normative documents are included in the general curriculum of the university.

Distance learning uses modern learning technologies, which make up for the lack of classroom hours allocated for obtaining theoretical knowledge and formation of practical skills and abilities, as well as the implementation of control and self-control. Traditionally, the following types of control are distinguished: input (testing to determine the initial level of knowledge of cadets); current (control of knowledge on the studied topics); certification (control of compliance of acquired knowledge with the goals and objectives of FSES HE).

One of the most common forms of control, which is used to check the performance of cadets' independent work, is computerized testing. Modernly developed tests can be used at all stages of control (entrance, current, final testing) and include an appropriate number of tasks necessary to assess cadets' knowledge. Therefore, cadets are offered a number of computerized tests to evaluate their independent work (an example of such testing is the well-known Marlins tests). The scores obtained in the current testing are taken into account in the final control and are an indicator of professional compliance with the production practice.

Hence, effective independent work of cadets contributes to the active search for modern social and pedagogical technologies of higher professional education development. Currently, distance learning methods used in the organization of cadets' independent work make it possible to compensate for the lack of classroom hours and contribute to the training of competitive future specialists.

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