

Formation of economic culture among cadets of a maritime university in the context of digitalization of education

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Abstract. One of the significant problems in the professional training of future maritime transport specialists is the formation of an economic culture among modern cadets, which is necessary both for everyday life and for the quality performance of future official duties. The future professional activity of maritime transport specialists is associated with the constant performance of long-term voyages to various countries for the transportation, delivery, unloading and loading of various cargoes. During their stay in the ports of foreign countries, the command staff of transport ships interacts with representatives of these countries: customs officers, employees of port administrations, employees of various companies, cargo owners. Such interaction requires the master and his assistants to have a solid economic knowledge, economic thinking and economic culture.

1 Introduction

One of the essential problems in the professional training of future maritime transport professionals is the development of an economic culture in today's cadets, which is necessary both for everyday life and for the qualitative performance of future duties.

The relevance of the topic at hand is illustrated by the following factors:

- deepening of the processes of economic and socio-political transformation of Russia and its transformation into a modern democratic state;
- establishing new socio-economic relations that require every Russian citizen to have a sufficiently high level of general economic culture and the ability to quickly navigate the continuous development of market relations;
- persistently changing the priorities and general cultural values of Russian society;
- largely digitalising and continually updating audiovisual and information technology;
- having the need to improve the economic training of cadets due to the significant increase in economic relations in a digital society [1, 2, 3].

The above factors convincingly confirm the need to intensify economic education for young students and to develop a high level of economic culture in every young man and woman. In the current environment, Russia needs active, proactive, enterprising citizens who effectively and efficiently participate in large-scale economic transformations and digitalisation of all spheres of life.

The legal framework for economic education and the formation of a legal culture among students is represented by a set of modern legislative acts, including the

Constitution of the Russian Federation; the Federal Law of 29 December 2012. "On Education in the Russian Federation" with amendments and additions; the Concept of Modernisation of Russian Education for the period until 2025; the Resolution on the draft model law "On State Youth Policy for CIS Member States" from 2011; the federal project "Modern Digital Educational Environment in the Russian Federation" and others. The corresponding FSES and the curriculum are also oriented towards equipping cadets with a legal culture. Key provisions of the regulations emphasise the need for continuous development and the fostering of an economic culture of all participants in the educational process. Economic culture, seen as a component of personal self-development, must respond to the demands of a highly technological digital society, as it predetermines its living conditions, communication relations in the socio-economic community and projects its well-being.

The spontaneity of personal socialisation, the lack of a unified system for educating citizens, and especially young people, with the necessary economic knowledge, hinder the process of economic education. A large proportion of citizens do not even have a basic economic culture. All economic innovations, especially the transition to modern forms of economic activity (digital cards, electronic payments, remote ordering, and payment, etc.) are difficult for older people.

Under these conditions, institutions of higher and secondary education, which have the function of training future professionals, are called upon to organise targeted activities to familiarise boys and girls with an economic culture. Through the efforts of the majority of leaders, proactive teachers and researchers, many higher education institutions are searching for effective approaches to the organisation of economic education and the formation of a legal culture among students, ensuring

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their employability and competitiveness in the modern labour market.

The formation of legal culture, economic thinking, economic competence and the search for ways to improve economic education were considered in the works [1–8].

However, there is no discussion of the topic of fostering legal culture among maritime cadets.

2 Problem statement

The future professional activity of maritime transport professionals involves the constant performance of long voyages to different countries to transport, deliver, unload and load a variety of cargo. While in ports in foreign countries, the crew of transport vessels interact with representatives of those countries: customs officers, port authority staff, employees of various companies and cargo owners. This interaction requires the captain and his assistants to have a sound economic knowledge, economic thinking, and economic culture [4, 5, 6].

The unfolding digitalisation of education has required a qualitative change in the content of future professionals' professional training, improving economic training, which will reliably ensure that maritime graduates enter the maritime professional sphere.

The analysis of the theory and practice of economic education for students of maritime educational institutions, the requirements of FSES HE and employers have revealed the following contradictions:

- between societal demands on the economic culture of maritime graduates under the conditions of digitalisation of education and the lack of scientific justification of this process;
- between the state maritime industry's need for competent maritime personnel with a developed economic culture and the absence of a pedagogical model for fostering economic culture among maritime cadets in the context of digitalisation of education;
- between the need to organize a holistic process of economic culture formation among cadets of a maritime university and the undeveloped software, considering the digitalization of education [1, 7, 8].

The revealed contradictions made it possible to formulate the research problem, which consists in identifying the conditions for the formation of economic culture among the cadets of a maritime university under the conditions of digitalization of education.

3 Research Questions

The object of the study is the process of economic culture formation among the cadets of a maritime university in the holistic pedagogical process.

The subject of the study is the formation of economic culture among cadets of a maritime university based on a targeted programme.

Hypothesis of the study: the formation of economic culture of naval cadets in the conditions of digitalization of education will be effective in case of the following:

- the economic training process will focus on the development of self-organisation, self-learning and self-control;
- the content of cadet economic training considers the levels of mastery of the target programme "Economic Culture of a Marine Specialist" by the students;
- the economic activities of future maritime cadets are based on the analysis of real economic situations;
- the self-monitoring and self-assessment of cadets' economic culture formation is carried out according to the cognitive, motivational and demand, activity and reflexive indicators.

Considering the stated objective and hypothesis, it was possible to define the following objectives of the study:

- To analyse scientific research of Russian and foreign scientists and to clarify the essence of the concept "economic culture of maritime cadets".
- To identify the specific features of economic culture formation among the cadets of a maritime university under the conditions of digitalisation of education.
- To develop and test in the process of experimental work the pedagogical model of formation of economic culture in cadets of a maritime university [9, 10].
- To identify the pedagogical conditions for the formation of economic culture in the cadets of a maritime university under the conditions of digitalization of education.

4 The Purpose of the Study

We defined the following objective of the research: to substantiate pedagogical conditions of economic culture formation in cadets of a maritime university in the context of digitalization of education.

5 Research Methods

The methodological basis of the study consists of the following

- *the activity-based approach* (it involves the organisation and management by the teacher of the cadet's activities while solving specially organised learning tasks of different complexity and problems, developing different types of competencies of the student and the cadet himself/herself as an individual);
- *the personality-developmental approach* (it ensures that each student's subjective experience is identified and helps them to become individual, self-developing and self-actualising);
- *the contextual approach* (it helps to describe the object under study in detail and to analyse not only the essential features inherent in the concept under study, but also the environment, situation, background, circumstances, setting, conditions, specificity of the object under study, as well as the standpoint, vantage point, aspect or angle of the study, attitude towards it).

We should also define digitalisation of education and economic literacy. Digitalisation of education refers to the

use of various computer programmes or applications and other digital resources to deliver e-learning remotely or at school or university. For example, these could be tasks that are done in the classroom using electronic media - like a computer or a tablet.

The main difference between digitalisation and informatisation, however, is that there has to be a digital system that

- 1) can act independently;
- 2) has analytical and predictive functions, in other words, it can do things for a person.

For example:

- a) the gadgets have Sberbank software, which can do a financial analysis based on card purchases, making the best budget spending plan for the next month, not forgetting regular expenses.
- b) Mobile Beeline – based on self-reported telecommunication usage, can calculate the traffic for a specific person and offer the best tariff;
- c) the digital system solves the problems itself, but as long as it is given them by a human being;
- d) to call it artificial intelligence is not entirely reasonable. It is more likely that in the present period we are faced with a middle variant: no longer human thinking, but not yet machine consciousness.

Economic literacy is the readiness to participate in economic activities, consisting of knowledge of the theoretical foundations of economic activities, understanding of the nature of economic relations and relationships, and the ability to analyse specific economic situations.

In this study, the integrated application of these approaches involves creating learning situations for cadets to problematise their natural experience of economic learning tasks and modelling their solutions through the use of modern information technology.

The theoretical basis of the study includes:

- fundamental theories and practices of personal economic culture development (V. N. Abrosimova, V. I. Eroshin, Y. I. Kuzminova, A. N. Fadeev and others);
- Psychological and pedagogical concepts of developing self-learning and self-control in the conditions of educational organisations (S.L. Kostenko, A.A. Krylov, N.D. Levitov, E.S. Polat, I.G. Sudak, P.M. Erdniev, etc.);
- works revealing the characteristics of personality-developmental learning (B.G. Ananyev, A.G. Asmolov, E.V. Ivanov, A.N. Leontiev, S.L. Rubinstein, V.A. Slastenin et al.);
- works determining the unity of different functions to teaching, education and development of self-control of a personality as a subject of modern education (L.S. Vygotsky, A.N. Leontiev, S.L. Rubenstein, etc.).

During the research we used the following *methods*: theoretical analysis of economic, psychological and pedagogical, sociological scientific sources and scientific literature of domestic and foreign researchers; quantitative and qualitative analysis of empirical data

obtained through observation, questioning, interviewing; expert evaluation: modelling, experiment, statistical methods of empirical materials processing; analysis of guiding documents, FSES SPE and other normative acts defining the priorities of economic education.

6 Results and Discussion

In the process of research based on theoretical analysis we have established the essential characteristic of economic culture of maritime cadets and peculiarities of its formation. We will define economic culture as developed economic thinking, a system of knowledge and skills that ensure purposeful, independent activity to meet individual economic needs using both traditional and new information technologies. The economic outlook, understood as a reflection of views, perceptions, assessments of various phenomena occurring in the economic community, decisions made and taken, which guide future maritime specialists in their economic activities, forms the basis of formation of economic culture of cadets [1, 10, 11].

Economic knowledge is a set of economic insights for cadets into the relationships in the financial-economic, information-analytical, and practical spheres of maritime service. In the context of modern education, technology and digital devices increase the effectiveness of the formation of economic culture of cadets, i.e., they enable the management, evaluation, interpretation, and application of diverse information in real economic practice.

The developed model of economic culture formation of maritime cadets includes the following main blocks: *target* (independent acquisition of economic knowledge and skills to apply it, using the experience of modern information technologies; increasing the level of formation of such economic qualities as self-regulation, diligence, entrepreneurship, self-organization, self-awareness in the economic community); *conceptual*, reflecting possibilities of activity, context and personal activity approaches in development of economic culture of cadets, principles of information technology in conditions of digitalization of education (efficiency, clarity, complexity, self-organization); *content and technological* (pedagogical conditions, educational technologies and program modules with orientation on self-organization, self-learning and self-control in information and educational environment); *evaluative* (criteria, indicators of economic culture formation level of cadets).

The proposed target programme “Maritime Specialist Economic Culture”, structured in six blocks:

- *introductory*: an explanation of the current world economic situation, building a body of economic knowledge (personal, economic, productive, public);
- *general cultural*: study of the history of economic development, familiarity with domestic traditions in the economic community;
- *cultural and recreational*: meetings with business people, managers and owners of small businesses, factories, banks, etc., theme nights, quizzes, watching

films with economic content, KVN, Olympiads, tournaments, etc;

- *sightseeing*: visits to factories, housing management companies, banks, business parks, etc;
- *activity-based*: participation in cultural and educational events, conferences, roundtables, press conferences, online discussion sites on economic issues and challenges;
- *communicative*: holding events together with other organisations, Skype conferences, wall newspapers, publication of propaganda and educational articles, participation in campaigns with economic content, round tables, etc. [1, 12].

7 Conclusion

Based on the analysis of scientific and methodological sources and empirical data obtained in the course of the study, we have identified the main pedagogical conditions of effective formation of economic culture of maritime cadets, which were obtained in the analysis and generalisation of the pedagogical experiment conducted at the State Maritime University named after F.F. Ushakov:

- creating an informational and educational environment of economic context for the formation of economic culture of cadets in the educational space of a maritime university;
- continuous development and expansion of the pedagogical competence of teachers at Ushakov University in economic sciences;
- developing the cadets' interest in economic knowledge and in learning and mastering the target programme;
- existence of a set of methods determining the level of formation of economic culture of cadets in the educational space of the State Maritime University named after F. F. Ushakov.

The pedagogical experiment and the results convincingly proved the validity of the hypothesis and the relevance of the research topic.

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