

INTERDISCIPLINARY CONNECTIONS IN THE FUTURE NAVIGATORS' TRAINING TO PROFESSIONAL COMMUNICATION

МІЖДИСЦИПЛІНАРНІ ЗВ'ЯЗКИ В МАЙБУТНІЙ ПІДГОТОВЦІ ШТУРМАНІВ ДО ПРОФЕСІЙНОГО СПІЛКУВАННЯ

The article deals with the problem of influence of interdisciplinary connections on the educational process of future navigators. The approaches to language training in maritime education institutions have been changed and updated. It was found out that the integration of educational space at maritime education institutions is carried out through the construction of the educational process on the basis of interdisciplinary connections of professionally oriented disciplines. Interdisciplinary integration is associated with a synergetic approach, which comprises professional collective interaction, requires organization, coherence, mutual understanding, development of technical, cognitive, reflective, communicative abilities, etc. Regarding the preparation of future navigators for professional communication, the integration of interdisciplinary links means the implementation of knowledge, skills and abilities in professionally oriented disciplines into the practice of English. Interdisciplinary connections were analyzed in the training of future navigators to professional communication, based on the following disciplines: "Organization of collective actions and leadership", "English Language", "Professional English", "Seamanship practice", "Manoeuvre and Handle a Ship", "Respond to Emergencies, Search and Rescue at Sea", "Safety and security at sea", "Global marine communications for search and rescue (GMDSS)". It is noted that in the process of professional interaction, navigators face various non-standard situations that require communicative understanding. It is proved that in the process of mastering theoretical knowledge in the training of future navigators, it is necessary to focus on the fact that this knowledge covers the full range of maritime activities, as well as it forms the basis for further knowledge.

Key words: *interdisciplinary connections, integration of maritime disciplines, foreign language, navigation safety.*

У статті розглядається проблема впливу міждисциплінарних зв'язків в освітньому

процесі майбутніх судноводіїв. Актуалізовано питання мовної підготовки в закладах морської освіти. З'ясовано, що інтеграція освітнього простору, в тому числі в закладах морської освіти, відбувається через побудову навчального процесу на основі міжпредметних зв'язків професійно орієнтованих дисциплін. Міждисциплінарна інтеграція пов'язана із синергетичним підходом, який включає професійну колективну взаємодію, вимагає організованості, злагодженості, взаєморозуміння, розвитку технічних, когнітивних, рефлексивних, комунікативних здібностей тощо. Стосовно підготовки майбутніх судноводіїв до професійної комунікації, то інтеграція міждисциплінарних зв'язків означає упровадження знань, умінь та навичок із професійно орієнтованих дисциплін у практику англійської мови. Проаналізовано міждисциплінарні зв'язки в підготовці майбутніх судноводіїв до професійної комунікативної взаємодії між такими дисциплінами: «Організація колективної діяльності та лідерство», «Англійська мова», «Англійська мова (за професійним спрямуванням)», «Морська практика», «Маневрування й управління судном», «Дії під час аварій, пошуку і рятування на морі», «Безпека та охорона на морі», «Глобальний морський зв'язок для пошуку та рятування (GMDSS)». Зазначено, що в процесі професійної взаємодії судноводіїв стикаються з різними нестандартними ситуаціями, які вимагають нових рішень та комунікативного розуміння. Доведено, що в процесі засвоєння теоретичних знань у підготовці майбутніх судноводіїв, треба орієнтуватися на те, щоб ці знання охоплювали всю повноту морської діяльності, а також утворювали підґрунтя для вдосконалення подальших знань.

Ключові слова: *міждисциплінарні зв'язки, інтеграція морських дисциплін, іноземна мова, безпека судноплавства.*

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Formulation of the problem. Interdisciplinary knowledge integration is becoming especially relevant in today's market conditions, which determines the integrated nature of professional activity. Integration processes are the key trend in the educational space, in particular the transport industry, which includes the marine professional activity. The integration of educational space, including marine education institutions, is carried out through the construction of the educational process on the basis of interdisciplinary links of professional disciplines. Therefore, the introduction of interdisciplinary links should be considered as one of the pedagogical conditions of the educational process at marine education institutions.

Analysis of recent research and publications. It becomes clear that quality training is possible only

in the presence of a comprehensive approach to the educational process, awareness of the importance of interdisciplinary integration to content forming.

In the "Ukrainian pedagogical dictionary" interdisciplinary connections are interpreted as mutual coordination of curricula, due to the system of sciences and didactic purpose [1, p. 210]. Interdisciplinary connections reflect a comprehensive approach to learning, which allows to identify the main elements of the content of education and the relationships between particular disciplines. Due to the integration of knowledge in the learning process on the basis of interdisciplinary links increases the productivity of cognitive processes.

In education there is interdisciplinary integration which can be horizontal and vertical. According to

V. Bondarenko and T. Abidova, interdisciplinary integration is the strengthening of interdisciplinary links while preserving the integrity of academic disciplines as separate semantic units of the educational process. It is about how developed interdisciplinary connections depend on interdisciplinary integration and, consequently, comprehensive training in the process of teaching disciplines [2].

In the research of O. Moskalenko, it was studied interdisciplinary connections in flight specialists' training, and it was proposed the implementation of these connections by means of training professionally oriented courses in English, not just studying of basic concepts and terms of special aviation courses at English classes [3, p. 298]. In our opinion, this approach contributes to the achievement of two goals: increasing the level of knowledge of English and obtaining basic knowledge in professionally oriented disciplines.

It should be noted that the exchange of information at sea, as well as in the air, is conducted in English, which is one of the official languages of the IMO (International Maritime Organization). In this context, O. Moskalenko emphasizes that "it is important to develop methods to increase the level of flight safety by improving the level of professional communication of future pilots" [4, p. 239]. The same approach is applied to maritime professionals. Theoretical substantiation of different approaches to foreign language teaching in maritime educational institutions allowed to conclude about the constant improvement of the organization of the educational process, in particular on the basis of an interdisciplinary approach.

The research of the interdisciplinary links of professional disciplines was conducted by I. Smyrnova, in which it was confirmed that they function in complex interconnection, subordinate to the system of scientific knowledge of each discipline and perform the integration functions. The scholar provides the definition "integration of knowledge", by which she implies "the process of establishing integrity associated with certain changes in previously disintegrated elements, which, due to synthesis, allow interaction, change of original elements, involvement in new connections, which leads to changes in the structure of system components. new functions of the elements of this system" [5, p. 37]. In our opinion, the formulation of tasks on an interdisciplinary basis allows maritime cadets to solve the tasks creatively, using clarification, anticipation, questions, knowledge previously obtained from other professionally oriented disciplines.

Defining unsolved parts of the problem. Interdisciplinary connections in the training of future navigators to professional communication are traced in the following disciplines: "Organization of collective actions and leadership", "English Language", "Professional English", "Seamanship practice", "Manoeuvre

and Handle a Ship", "Respond to Emergencies, Search and Rescue at Sea", "Safety and security at sea", "Global marine communications for search and rescue (GMDSS)". Thus, connection of professional technical disciplines with the English language becomes obvious, which is first of all important for the safety of navigation. Developing interdisciplinary connections, we can optimize the process of learning English, not only as a separate discipline, but a tool to gain professional skills. This problem needs further research.

The purpose of the article is to analyze the interdisciplinary connections between professional disciplines in the training of future navigators to professional communication.

Presentation of the main material. The content of the professional disciplines is formed on the basis of educational and professional characteristics, which integrate knowledge, skills and abilities of the future specialist. The content of the discipline can vary from time to time, taking into account new requirements, achievements, scientific and technological progress, the amount of teaching hours. This approach makes it possible to make certain changes in the teaching of the discipline or cycle of courses, to optimize them. As the aim of the study is to follow the interdisciplinary connections in the preparation of future navigators for professional communication, it is necessary to classify the professional disciplines within which this preparation is provided. Based on the analysis of the curriculum, three groups of disciplines were classified, in which the professional communicative interaction of navigators is formed: 1) disciplines of general humanitarian communicative training, aimed at the formation and development of a comprehensively developed personality of the navigator, the expansion of his outlook and functioning in a multicultural environment; 2) disciplines of professional and communicative training, which are focused on preparation for professional communicative interaction as part of the crew and negotiations in English with foreign partners; negotiations at the port of arrival; the establishment of interaction on board the vessel; 3) disciplines of professional and practical communicative training, involving the application of knowledge, skills and abilities of professional communication in practice (Table 1).

One of the ways how to optimize the content of disciplines, in which professional communicative interaction of future navigators is formed, is use of interdisciplinary approach. According to the information presented in Table 1, the formation of readiness for professional communication of future navigators is a long-lasting process in which an important role is played by interdisciplinary links, through which the integration of professional disciplines is achieved through "English" and "Professional English".

In the aspect of the acquisition of theoretical knowledge in the training of future navigators, it is

Disciplines in which the readiness for professional communicative interaction of future navigators is formed

| Disciplines of general humanitarian communicative training | Disciplines of professional and communicative training | Disciplines of professional and practical communicative training |
|---|--|--|
| <ul style="list-style-type: none"> – Professional Ukrainian – History and Culture of Ukraine – Organization of collective action and leadership – Society and State | <ul style="list-style-type: none"> – English Language – Professional English | <ul style="list-style-type: none"> – Seamanship Practice – Manoeuvre and Handle a Ship – Respond to Emergencies, Search and Rescue at Sea – Safety and Security at Sea – Global Maritime Distress and Safety System (GMDSS) |

necessary to focus that this knowledge covers the full range of maritime activities, as well as form the basis for improving further knowledge. An indicator of the completeness of the obtained theoretical knowledge is their practical application in the professional activities of navigators. Let us consider the interdisciplinary connections in future navigators' training to professional communication in more detail.

The discipline "Organization of collective actions and leadership" has interdisciplinary links with the discipline "English", which is manifested in the purposeful formation of leadership qualities of the navigator in the educational process based on the use of interactive forms and methods of teaching. The requirements are described in Model Course 1.39 "Leadership and Teamwork", which is designed for team members in order to understand and know leadership and teamwork, the formation of skills to competently perform the duties of shift service on vessels (with a gross tonnage of 500 tons and more), or a responsible shift of the electromechanical part in the engine room, or a shift mechanic with periodic duty-free maintenance of machinery. At the end of the course the student must: know international and national regulations, their requirements and recommendations; have knowledge of the application of effective resource management; have information about the application of decision-making methods [6].

As the composition of the future crew is multicultural, training should be in English. Students take part in competitions, leadership trainings, business and role-play games, socio-political events, press-conferences, intellectual tournaments, open tribunes, defense of creative projects. All these activities require teamwork, where each participant can demonstrate and improve their leadership skills. In the process of teaching the discipline "Organization of collective actions and leadership" in English, the teacher not only develops leadership skills, but also cares about the general cultural development of students by creating a stimulating and developmental environment, positive emotional atmosphere in English classes, which involves creative communication and partnership, interaction of teachers and students.

The disciplines "Maneuvering and ship management" and "English (for professional purposes)" interact in the context of vessel movement. The problem of ship collisions or situations of dangerous approach of vessels at sea, which are often caused by human error due to incomplete or inaccurate information, is becoming increasingly important with the growth of shipping. Such information is transmitted to the traffic services in English. The important role is played by correctly and timely transmitted information, based on the supply of information about traffic to navigators and maritime traffic services, which allows to form safe trajectories for all vessels, to implement full external management of the process of ship divergence.

Interdisciplinary links of the courses "Actions during accidents, search and rescue at sea" and "English (for professional purposes)" are seen in the coordinated actions of the crew and rescue services in the case of unusual situations. Of course, such situations can arise anywhere, so coordination in English is extremely important.

Disciplines "Safety and security at sea", "English (for professional purposes)" provide for the development of professional scenarios of non-standard and emergency situations in English. One of the central problems in ensuring the safety of navigation is the prevention of ship collisions in areas of intensive navigation and terroristic acts. If there is an unusual situation, the algorithm of the crew must be clear, consistent and as efficient as possible. Taking into account that the crews are made up of foreigners, the action must be constantly practiced in professional scenarios, as the navigator may get lost, lose emotional balance, which can lead to disaster. The probability of performing the right actions in the process of professional communicative interaction will increase significantly if to train such situations in English.

The purpose of studying Model Course 1.21 "Personal Safety and Social Responsibility" is the acquisition of knowledge, skills and abilities of professional activity, aimed at facing the risk of emergencies and natural hazards that may lead to adverse consequences; formation of responsibility for personal and collective safety; acquisition of competence in

the basic rules of safety on board the vessel and the impact of any external factors that may pose a threat while working on board; developing awareness of the risks and dangers associated with working on a vessel. While studying the course, students must master the competencies to solve professional tasks of personal and collective safety in dangerous and emergency situations, to form motivation to strengthen personal responsibility for ensuring a guaranteed level of safety of the vessel. Mastering the discipline will allow the students to perform professional tasks, taking into account the risk of internal and external hazards that cause emergencies and their negative consequences, given the basic safety rules on board and the impact of any external factors that may threaten the lives of navigators while working on the vessel, to be informed about the risks and dangers associated with operating a vessel [7].

The discipline “Global Maritime Search and Rescue Communication (GMDSS)” is related to the disciplines “Professional English” and “Safety and security at sea”. These three disciplines relate to the use of modern information and management tools and technologies to ensure the safety of navigation. Information about devices and displays is provided mainly in the form of abbreviations and acronyms, which are deciphered in English. Continuous improvement of computer information software for ship maneuvering leads to increased requirements for the level of knowledge of English to improve the efficiency, accuracy and reliability of navigation.

The course “Specialized marine English for GMDSS operators is aimed at acquiring the necessary skills to use written and spoken English in order to convey information related to the safety of life at sea. For example, students must complete tasks with communicating with coastal stations, reading the instructions of GMDSS operators, or establishing professional communication in case of a disaster. All the requirements for professional maritime communication are provided in Model Course 3.17 “Maritime English” [8].

Conclusions. Thus, optimizing the process of training professional communicative interaction of future navigators, the following features should be taken into account: the specifics of the implementation of basic innovative methods and approaches

in the educational process of maritime professionals; specifics of the system of control and monitoring of the educational process; degree of mastery of methods of pedagogical skills of scientific and pedagogical staff; level of mastery of specific pedagogical technologies and tools; the purpose of educational activities depending on the form of its organization; expediency of teaching methods; the relationship between theory and practice; scientific level of educational process management; monitoring of educational activities with its further adaptation.

Prospects for further scientific research include the analysis of interdisciplinary connections as the means of improving of professional training of different categories of specialists.

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