Sc.D. (Pedagogical sciences), Full Professor, **NINA SLYUSARENKO**
Kherson State University
Address: 27, 40-richchya Zhovtnya Str., Kherson, 73000, Ukraine
Phone: +380506041048. E-mail: ninaslusarenko@gmail.com

Post-graduate student, **MARIYA SOTER**
Kherson State University
Address: 27, 40-richchya Zhovtnya Str., Kherson, 73000, Ukraine
Phone: +380993177538. E-mail: kulbatska@mail.ru

FORMATION OF READINESS OF FUTURE MARINE ENGINEERS FOR INTERCULTURAL COMMUNICATION USING GAME SIMULATION TECHNOLOGY

The article is dedicated to the problem of formation of future marine engineers' readiness for intercultural communication. The purpose of the article is defined as analysis of the formation of readiness of the future marine engineers for intercultural communication by means of game simulation technology. The authors analyze the of scientific and pedagogical literature highlighting different aspects of the problem under research, define the main terms and notions, and focus on pedagogical technologies, contributing to the formation of future marine engineers' readiness for intercultural communication. The issue of readiness for intercultural communication of the future marine engineers is dealt with in the works of such researchers as F. Batsevych, H. Devyatova, V. Yeromina, A. Kozak, O. Krychkivska, N. Paperna, A. Sadokhin, M. Safina, A. Solodka, M. Sokolova, L. Yusupova. The simulation game technologies have been presented as the mean of developing students' instrumental motivation to learn a foreign language in general, as well as to develop skills of intercultural communication. The authors analyze different types of games used in the educational process (business, role-plays, didactic, simulation games etc.), as well as the components included in the structure of the game activity (motivating, orientating, executive, monitoring, and evaluating.

Key words: future marine engineers, intercultural communication, professionalism, readiness for intercultural communication, game simulation technology.

Introduction

The processes of globalization in today's society lead to increased cooperation between countries, nations and their cultures. The international community is actively involved in integration processes by means of close cooperation between countries in various spheres of life such as labor and academic mobility, cultural exchanges and direct contacts between public institutions, social groups, scientific partnership, trade, tourism etc. Thus, the communication with representatives of different cultures is not just a reality, but a dire necessity today.

In the context of Ukraine's entry into the world community, there is an urgent need to adjust the process of students' career preparation to the global trends. The orientation of the future specialist to the practical mastering of at least one language of international communication is the principal task as it is the language that facilitates the establishment of international contacts and interaction with representatives of different countries, cooperation and understanding among foreign colleagues for sharing professionally valuable information and work experience.

This problem is quite important, especially, for future marine engineers in the context of international professional mobility as their professional activities are usually associated with the work as part of international teams. Thus, future marine engineers must be ready not only to fulfill their professional functions but also to have the ability to use the foreign language as a means of solving tasks, taking into account the specifics of intercultural communication. The experts emphasize that "inability to communicate provokes the high level of stress on board the ship, so the language factor has much more significance for mariners than their technical competence" (Kahveci, Lane & Sampson, 2002, p. 143).

The results of modern scientific research and practice prove that training of future marine engineers in higher educational establishments primarily focuses on acquisition of professional knowledge while knowledge of intercultural communication (an integral component of building a constructive dialogue, cooperation, tolerant interaction with representatives of different countries, ability to perceive and understand other cultural positions and values, views on intercultural communication as a method of subject-to-subject interaction in the multicultural environment) is often ignored.

The aim of the study

Based on the above, we consider the readiness for intercultural communication as the necessary condition for the successful professional activity of marine specialists. In this context, there is a need for detailed study and analysis of the issues that are directly associated with the readiness of the future marine engineers for intercultural communication.

The purpose of the article is to analyze the formation of readiness of the future marine engineers for intercultural communication by means of game simulation technology.

Theoretical framework and research methods

The research into the various aspects of teaching readiness for intercultural communication in the system of higher education has been done by many scientists (O. Yefremova, O. Kovalova, L. Kondrashova, O. Leon-tyeva, A. Lynenko, V. Molyako, K. Platonova). The issue of readiness for intercultural communication of the future marine engineers is dealt with in the works of such researchers as F. Batsevych, H. Devyatova, V. Yeromina, A. Kozak, O. Krychkivska, N. Paperna, A. Sadokhin, M. Safina, A. Solodka, M. Sokolova, L. Yusupova.

Results

The review of readiness of the future marine engineers for intercultural communication should be preceded by clarification of the concept of "readiness" in a broad sense. We should note that this concept is being explored by representatives of many sciences, including philosophy, psychology, sociology, social psychology, and pedagogy.

The analysis of various approaches to the interpretation of the concept of "readiness" allows to stating that the concept of "readiness" gets a specific content for every particular activity the students are trained in, and it embraces a complex system of personal qualities and traits that make specialists able to perform specific activities. Thus, the content and structure of readiness are determined by the requirements of specific activities.

A challenging task in the study of the concept of "readiness for activity/ professional readiness" is the identification of its major components, in other words, its structure.

V. Slastyonin (Slastionin, 1993) suggested including the following components into the structural organization of the professional readiness: psychological readiness (the formed (with varying degrees) focus on the activity, orientation to work); scientific and theoretical readiness (availability of the necessary amount of knowledge required for competent professional activity); operational readiness (availability of the required level of professional skills); psycho-physiological readiness (availability of appropriate prerequisites for mastering the professional activity as well as personal qualities being professionally significant); physical readiness (compliance with health and physical requirements of professional work and professional performance).

They distinguish continuous and temporary readiness. The former includes the positive attitude towards a specific activity; adequate requirements to the activity; sustainable, long-term important features of perception, thinking, emotional and volitional processes; the knowledge and skills required in this functional area whereas the temporary state of readiness reflects the characteristics and requirements of the upcoming situation (Haysyna, 2004). The origination and formation of the temporary readiness are directly connected with such factors as the understanding of the task, understanding of the responsibility, the desire to succeed, the development of a plan of future work.

K. Platonov identifies in the structure of readiness three interrelated components: moral, psychological and professional readiness. The author underlines that moral readiness is connected with the socially conditioned side of a person; psychological readiness refers to the combined individual characteristics of mental processes; professional readiness is associated with person's individual experience (Platonov, 1971).

The concept of "readiness" is also considered in the framework of the competence approach (J. Raven, H. Trofimova, A. Khutorskyi), which provides for the establishment of a new type of educational outcomes that cannot be reduced to the combination of information and skills but are focused on the ability and readiness of a person to solve different kinds of problems, to perform activities. These educational outcomes, called competencies, are regarded as readiness to solve complex real world tasks – professional, social, ideological, communicative and personal (Haysyna, 2004; Kozak, 2011; Slastionin, 1993). Thus, competence is considered to be the readiness and ability to work.

After analyzing the interpretations of the concept of "readiness", we came to the conclusion that this concept covers the level of mastering certain activities, and includes a complex system of personal qualities of an individual that characterize his/her comprehensive harmonious development, readiness for productive fulfillment of specific activities and, consequently, social activities.

Before describing the concept of "readiness for intercultural communication", it is necessary to specify the essence of the very concept of intercultural communication.

F. Batsevych, the author of the first Ukrainian dictionary of the most common terms of intercultural communication theory and practice, presents several definitions of the concept of "intercultural communication". On the one hand, intercultural communication is "the process of communication (verbal and nonverbal) of people (groups of people) who belong to different national language and cultural communities, who usually use different idiomatic and ethnic language, and have different communicative competence", and on the other hand, it is "the whole range of possible types of communication that happens outside the possible social groups (discourse systems), ranging from the groups whose members are representatives of different cultures to communication between men and women or colleagues of different ages etc." (Batsevych, 2007, p. 82–83).

S. Ting-Toomey, a communication researcher at California State University, points out that the concept of "intercultural communication" is used to describe the communication process between members of different cultural communities (Ting-Toomey, 1999, p. 16–17). In addition, she underlines that this term also includes the group interaction of such factors as beliefs, values, norms and scenarios of their interaction.

A. Sadokhin describes the concept of "intercultural communication" as a special form of communication between representatives of two or more different cultures or cultural communities in the process of exchanging information and cultural values (Sadokhina, 2014). The author emphasizes that the concept involves communication between cultures, races, ethnic groups, religions and between subcultures within large cultures.

Some researchers (Devyatova, 2002; Kozak, 2011; Safina, 2005) identify the following characteristics of "readiness for intercultural communication":

– readiness for intercultural communication is defined as "a significant aspect of future specialist's personal readiness to a full-fledged socialization, social interaction and self-fulfilment in society";

– readiness for intercultural communication is a complex, multidimensional formation, which includes personal orientation toward intercultural communication, language competence, and communicative skills;

– readiness for intercultural communication is an integrative personal phenomenon that is manifested in a certain level of proficiency in a foreign language, linguistic-cultural orientations and communication skills.

Professional training of future marine engineers for intercultural communication is not always realized by them as an important condition for effective professional activities (Ting-Toomey, 1999). However, modern requirements of the leading shipping companies and crewing agencies include, in addition to the diploma of education or certificate of competency (COC), knowledge of foreign language (usually English), high level of communication skills and the ability to work in a multicultural crew. Thus, intercultural communication is becoming an important factor of successful professional activity of marine engineers.

Let us focus on pedagogical technologies, contributing to the formation of future marine engineers' readiness for intercultural communication.

The majority of scholars interpret the concept of "technology" as the art of having hold of the process, a sequence of actions using the necessary means (materials, tools, the algorithm of actions) (Gladush & Lysenko, 2014, p. 101). Thus, the technology, in the procedural understanding, is called to answer the question: "How to bring the activities to best results (by what means)"?

While the "pedagogical technology" is "a systematic category focused on the didactic use of scientific knowledge, scientific approaches to the analysis and organization of scientific process, based on teachers' empirical innovation and focus on high results" (Gladush & Lysenko, 2014, p. 406).

S. Vitvytska emphasizes that every educational technology should meet the key methodological requirements, so-called criteria of adaptability, namely: conceptuality (to be based on some concept that contains philosophical, psychological, didactic and socio-pedagogical justification of educational objectives); consistency (to have all the characteristics of a system); the logic nature, integrity and interconnection of all system components; controllability (to be able to set goals, to design education and training process, to conduct phased diagnosis, to vary the methods and means of teaching and correction of knowledge and skills); the reproducibility, i.e. the possibility of being applied in other similar conditions and with other participants; the unity of content and procedural parts, their interdependence; efficiency, that is, the optimality of effort in order to secure a planned result, a certain standard of teaching (Vitvytska, 2006).

Therefore, we regard that the choice of technologies to achieve the goals and objectives, and in

particular, to form readiness of future marine engineers for intercultural communication is conditioned by its contribution to the holistic improvement of the person's activities, of his/her effectiveness, instrumentalism, and technical mastery.

It is important to underline that there are three types of situations of marine specialists' foreign language communication according to the complexity and tension of the circumstances: ordinary, extraordinary and extreme (Kahveci, Lane & Sampson, 2002). The ordinary situations are characterized by difficulties in communication associated with the exchange of "regular/periodic/systematic" information. The extraordinary are the difficulties in communication associated with the need of making an operational, heuristic and very often collective decision as the information received is not consistent with the standard option. The extreme circumstances are determined by the information of the unique nature, causing difficulties that require full mobilization of the entire team and demand skills necessary for joint social and professional activities. Thus, extraordinary and extreme situations are characterized by the situation unpredictability and the lack of time for taking instant decisions (Kahveci, Lane & Sampson, 2002).

We can conclude that readiness of future marine engineers to act in the above-mentioned types of situations will determine the success of their professional communication. Therefore, we regard simulation of the professional situations of foreign language communication as the necessary condition of the formation of readiness of the future marine engineers for professional communication in a foreign language, for intercultural communication.

According to many researchers (Gladush & Lysenko, 2014; Selevko, 1998; Slastenin, 1993; Fisenko, 2011) among the technologies allowing to simulate the real professional communication situations, there are game simulation technologies that are quite effective. It is necessary to pay attention to the definition of the concept of "game technology". Most of the researchers (S. Honcharenko, N. Klarin, I. Lerner) consider this technology as a set of procedures, a specially built system of clear and effective actions aimed at the formation, expansion, and generalization of knowledge.

It is well known that every game has its particular structure.

G. Selevko highlights the structure of the game as an activity and as a process. The scientist singles out in the structure of the game as an activity: goal setting; planning; goal implementation; analysis of the results. However, he distinguishes in the structure of the game as a process such components as the roles that are assumed by the players; game actions as a means of implementing these roles; game use of items, substitution of real items by game items; real relationships between players; the plot (content) being the field of real activity reproduced in the game (Selevko, 1998, p. 52).

A. Savchenko focuses on such components included in the structure of the game activity as motivating (needs, motives, interests, desires that determine the willingness to participate in the game); orientating (the choice of means and methods of game activities); executive (actions, operations allowing to achieve the goal); monitoring and evaluating (correction and stimulation of play activities) (Savchenko, 1999, p. 191).

As there are different types of games used in the educational process (business, role-plays, didactic, simulation games etc.) and each of these types has its own implementation technology that affects the process of preparation for its implementation (game design) it is possible to say that there exist different game technologies (Kichuk, 2005).

Let us consider in detail the use of game simulation technologies in the process of preparing future marine engineers for intercultural communication in the course of "Foreign language". According to recent studies, it is possible to distinguish the following features of game simulation technologies: the possibility for a future specialist to plunge into the environment close to real conditions; provision of the learning process with dynamism and expressiveness; reproduction of the subject and social content of the students' future professional activity; formation of the system of relations typical for specialists in the relevant field (Gladush & Lysenko, 2014).

Therefore, we can state that game simulation technologies are modeling future professional activity of students; teach them how to act in certain real world situations.

Examples may be game simulation technologies aimed at making future marine engineers perform the following standard tasks: "Performing duties of watch keeping in engine room", "Maintenance of the engine room" "Repairing process", "Work in emergency conditions" etc. The scenarios of such simulation games, in addition to plot events, describe the structure and purpose of the simulated processes, contain the lists of requirements for each role. Thus, these games train the tactics of behavior, actions, functions and responsibilities of a particular person. To conduct games envisaging role playing there is developed the so-called "situational model" and the roles with "compulsory content" are distributed among the participants.

So, in the context of formation of readiness of future marine engineers for intercultural communication

in the course of "Foreign language", we can note that such game simulation technologies develop not only skills of foreign language communication but also skills of learning; skills that help future specialists develop their own professional algorithms of dealing with situations of various complexity and tension involving foreign language communication. This will help reduce uncertainty and anxiety of future professionals in such situations and successfully overcome intercultural communication barriers.

Note that the main difference between the game and practice is the fact that a simulation game, exists as an artificial entity limited by rules and conditions. Besides, during the simulation game each student is assigned an individual role in the group. The teacher performs the role of a mediator (Fisenko, 2011, p. 95–96).

Thus, a simulation game allows: first, to improve the skills of solving typical professional problems; to develop a comprehensive view of the future professional activity; to show the students the level of their preparation and his knowledge; o make instruction more individual. Modeling of time various episodes of professional activities with the help of simulation games permits the future marine engineers to develop traits and skills relevant for their further career basing them on the acquired knowledge.

Conclusions

The research conducted allows us to consider the readiness of future marine engineers for intercultural communication as part of their professionalism, as functional state and as a sustainable personal quality including the following aspects: orientation towards positive motivation to professional intercultural interaction showing respect to other cultures and traditions, dialogue, business cooperation, tolerance, the subject-subject interaction, empathy. The use of simulation game technologies helps to more effectively prepare future marine engineers for intercultural communication, as the search for solutions in the artificially-created problem situation, which is directly related to the future professional activity, allows developing students' instrumental motivation to learn a foreign language in general, as well as to develop skills of intercultural communication.

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