EXPERIMENTAL RESEARCH OF FUTURE NAVIGATION OFFICER'S LEADERSHIP QUALITIES LEVEL FORMATION

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ABSTRACT

The article is devoted to experimental research of future navigation officers’ leadership qualities level formation in process of their professional training at Kherson state maritime academy. The main attention is concentrated on specific tasks offered to the future navigators in process of professional training, which create particular pedagogical conditions and foster the formation of high level leadership qualities. Here also is considered the criteria, indexes and levels of leadership qualities formed. It was experimentally proved, that the most entrants aren’t aware of their main functional responsibilities in future profession, don’t know both about «leadership» as a notion anything, the same as about the main leadership characteristics. In turn the cadets are able to develop all necessary characteristics in their further educational process, having for this full range of academic procedures. Resultant criteria of leadership qualities formed levels found in process of experimental research appeared to be: low, middle and the highest (emotional stamina and leadership initiative). The focus on the formation of leadership qualities of future navigation officers is emphasized to be a priority in a system of their professional training. The prospects of further researches in this sphere concern the development of a special training program for future navigation officers’ leadership qualities formation.

KEYWORDS: Leadership, Leadership Qualities, Navigators-Leaders, Communicative Qualities, Organizational Skills, Experiment

INTRODUCTION

The specifics of working on board in an open and boundless sea, in a limited social environment, in sudden, life-threatening to crew members and to the ship itself situations, actualize the problem of identifying and developing future navigation officers’ leadership qualities.

Under the category "navigation officer’s leadership quality " is meant the totality of his highly-developed individual cognitive processes (feelings, perception, memory, imagination, thinking, its different types and attributes), abilities (intellectual, communicative, organizational, creative), mental states (emotionally-volitional, feelings) in the dominance of high level of energy as a factor, that induces the subordinates to realize their tasks in order to ensure the safety of navigation.

Therefore, one of the important tasks of professional training for future navigators is to create favorable pedagogical conditions for the formation and development of a high level of leadership qualities. In its turn, the formation and development of leadership qualities of future navigators-leaders should be followed by systematic diagnostics and pedagogical correction of the results.

The relevance of leadership in the collective management, its theoretical and practical significance, is strongly evidenced by the analysis of recent research and publications in which a solution to this problem has been
initiated. Some aspects of this problem were studied by B. Ananiev, I. Bekh, L. Bozhovich, V. Vdovyyuk, P. Halperin, V. Davydov, D. Elkonin, A. Karpov, G. Kostyuk, A. Sirotenko, and L. Stoliarenko. The problem of leadership in the military units was developed by V. Vdovyuk, G. Krivoshey, and G. Shevchenko. Today, however, there is still no holistic approach to the study of leadership qualities of navigators that would meet the requirements of modern maritime international conventions. The research is based on the studies of foreign authors and Ukrainian scientists (D. Adair, H. Owen, V. Hodgson, N. Gazard, B. Kellerman, I. Adizes, J. Maxwell, D. Goulman, A. Jeffrey, A. Krems). The problem of leadership and leadership qualities is also being studied by modern Ukrainian scientists and scholars of other countries (O. Yevtikhov, S. Kalashnikov, O. Koberv, O. Kokun, O. Makovsky, A. Mitlosh, N. Radina, N. Semenchenco, and others).

Emphasizing Previously Unsolved Parts of a Common Problem. The analysis of the psychological and pedagogical literature showed that, despite the considerable amount of scientific research, the problem of development of leadership qualities of navigators in the period of their studies at the maritime higher education institution requires new approaches for theoretical generalization and practical solution.

The Purpose of the Article is to determine experimentally the level of leadership qualities of future navigators in higher education institution and find methods that would enhance the level of leadership qualities of maritime cadets in process of their professional training.

MAIN TEXT

Leadership as a norm on board is established by the leading documents of international maritime navigation, in particular the International Convention STCW-78/95 [1], and such a document as the International Safety Management Code – ISM Code [2] obliges the establishment of a special hierarchy of relations on board and promotes the ensuring of navigation safety by installing a Ship Safety Management System [3] with appropriate levels of responsibility and rapid response.

The model of navigators’ leadership qualities consists of three levels: 1) the level of emotional stability; 2) the level of leadership initiative; 3) the level of professional competence. Since cadets are still in the process of vocational training, it is too early to ask the level of their professional competence as future leaders, and therefore this level will become relevant only after they finish their marine practice.

Therefore, the subject of our attention will be the development of psychological bases for cadets-navigators’ leadership qualities development of the first and second level.

Kherson State Maritime Academy was chosen as the experimental base for the research. The 1st-year cadets of two study groups of the Navigation Department of Kherson State Maritime Academy in a total number of 50 persons were selected as the respondents. The choice of this age group was conditioned by the prospect of their further professional training at KSMA and the formation on this basis of the first two blocks of levels of their leadership qualities - emotional resilience and leadership initiative, subject to psychological support.

The research was conducted in three stages. The first stage included the preparatory work, which involved the familiarization with the problem of research, the determination of the content of the main categories, scientific approaches to the study of the problem of leadership in scientific literature. In the second stage, an ascertaining experiment was conducted, which aimed at identifying the first-year cadets’ leadership qualities that are included in the previously defined leadership model of navigators leaders, at their initial level. The results obtained in the process of the ascertaining experiment made it possible to provide the psychological bases for further development of their leadership qualities at
appropriate levels by developing a special training program and conducting the psychological development work with the cadets of the experimental group. The next step consisted of checking the level of leadership development in the cadets of the experimental groups of KSMA, and comparing the results with those of the control group.

In order to select the techniques that allow determining the level of cadets’ leadership qualities studying at the maritime institution, we have analyzed the diagnostic methods and their capabilities. The detection of the level of development of cadets’ leadership qualities within the framework of the ascertaining experiment was carried out on the basis of the appeal to the group of empirical methods offered by scientists [4, 5].

Thus, the method of document analysis allowed us, on the basis of acquaintance with the specific materials (cadet’s personal case, that reflects his interests and psychological characteristics, questionnaire, conversation results), on the basis of their analysis, comparison and synthesis to interpret their essence and translate the fixed information into the status of sense. This intellectual procedure was the basis for the development of further training program for updating leadership qualities of the future navigators. We also used the classical empirical method of conversation.

The conversation as a form of information gathering method [4, 5] opened great opportunities for conclusions about the psychological signs of non-verbal communication of future navigators in the systems "researcher - cadet", "cadet - cadet", "cadet - psychologist". The conversation itself, despite the considerable time consuming, provided the opportunity to communicate directly with each cadet of the experimental group in order to draw conclusions about the degree of their communication skills development, the tendency to take the initiative in the conversation and to be a leader in it, about the speed of their response to the questions asked, its content etc.

The information received from the cadets on the basis of the interview made it possible to establish the presence of psychological signs of leadership of future navigators. We used the survey method in its broader format - the questionnaire. Questionnaires as a component of psycho diagnostic techniques, by the definition of scientists, allow the researcher to obtain information of subjective-objective origin through the respondents’ answers to the questions in the form of statements. They are classified by scientists into three main groups: state questionnaires; personal questionnaires; questionnaires [4]. Based on the specifics of our research topic, we used questionnaires.

Developing the questionnaire’s content, we adhered to certain rules: a) determining the content of the questionnaire, which acted in the form of questions for cadets: these questions concerned the self-assessment of the level of personal leadership qualities development, his attitude to the future profession, its main functions, the nature of interpersonal communication, other; b) we have chosen open-ended questions, as it provided more complete students’ answers which were to analyzed and summarized.

We used the expert method, in other words - the "method of expert evaluation" of the level of development of cadets’ leadership qualities by the two main levels we defined [6]. Practical psychologist working on the staff of KSMA, curators of training groups, and teachers of individual disciplines of the humanitarian cycle acted as experts. The significance of this method was that the experts’ information made it possible to analyze the presence of certain leadership qualities in specific cadets of the group, the frequency of their manifestations, belonging to the first level of emotional stability or to the second - the level of leadership initiative more deeply.

Based on the use of the method of independent characteristics, the expert-psychologist made his conclusions taking into account the cadets’ environment - teachers, Vice-Rector for educational work. Thus, at the beginning of the
academic year, the psychologist of KSMA tested the cadets of these two groups in order to determine the level of development of their communicative qualities and organizational capabilities by the method of COA by the authors E. Zharikov and E. Krushelnytsky [5]. As a result of the survey analysis, the following results were obtained (Table 1).

Table 1: The Results of Diagnosing the Level of Communicative Qualities of the 1-st Year Cadets at the Initial Stage of their Study at KSMA

<table>
<thead>
<tr>
<th>The Level of Communicative Qualities Development</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Abs.</td>
<td>%</td>
<td>Abs.</td>
</tr>
<tr>
<td>Experimental Group</td>
<td>3</td>
<td>12%</td>
<td>12</td>
</tr>
<tr>
<td>Control Group</td>
<td>6</td>
<td>24%</td>
<td>11</td>
</tr>
</tbody>
</table>

That is, at the beginning of the academic year, communicative qualities were identified in each group of first-year cadets, corresponding to three major levels: high, medium and low. The analysis of the results made it possible to conclude that the number of cadets with the same level of communicative qualities’ development was almost identical in each group. Thus, the highest number of cadets in both groups was characterized by the average level of communicative qualities’ development - 48% and 44% respectively.

The highest level was shown by 40% and 32% respectively. An equally smaller percentage of low level of communicative qualities’ development was found in - 12% and 24%. In general, at the beginning of the study at the maritime higher education institution, most freshmen were characterized by the availability of communicative qualities, namely 82%, which allow to further purposely improve them on the basis of psychological basics provision.

Also, at the beginning of cadets’ training at KSMA, a psychologist, based on the reference to the same methodology, conducted a diagnostic study concerning the identification of the level of organizational capabilities’ development in freshmen. Consequently, the following results were obtained (Table 2).

Table 2: Results of Diagnosing the Level of Organizational Capabilities’ Development in the First-Year Cadets

<table>
<thead>
<tr>
<th>Level of Organizational Capabilities’ Development</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>%</td>
<td>A</td>
</tr>
<tr>
<td>Experimental Group</td>
<td>6</td>
<td>24%</td>
<td>9</td>
</tr>
<tr>
<td>Control Group</td>
<td>8</td>
<td>32%</td>
<td>7</td>
</tr>
</tbody>
</table>

The diagnosis analysis revealed that there are significantly more freshmen whose organizational capabilities are at a low level of development, respectively in the experimental group - 24% of the total number of people in the group and in the control group - 32%. However, in each group, were identified a significant number of cadets - 40% whose organizational capabilities were at a high level of development, which was an objective prerequisite for the further formation of navigators-leaders.

In order to identify the students’ level of knowledge about the specifics of the rights and duties of the captain as the main leader on the ship, as well as their knowledge of the essence and importance of leadership qualities they will need in their future profession, we developed the content of the questionnaire, which reflected the focus of the topic of our research, and was accessible to the first-year cadets. The questionnaire was filled in by cadets in a group during a lecture with pre-set on self and quick answers.
To the first question ("Are you familiar with the main task of the captain on board?") 16 cadets (32%) answered "not quite", 25 (50%) - "yes", "no" - 9 (18%).

On the second question ("What are the most important qualities for a captain, in your opinion?") 47 cadets (94%) named the captain's character traits as chief qualities, including "rigor", "responsibility", "determination". Three freshmen failed to respond (6%).

The third question ("In your opinion, are these qualities a captain receives from a birth or can he develop them purposefully?") was answered: "from birth" - 11 cadets (22%), "can develop" - 39 (78%).

The next question ("What qualities of a captain do you think relate to those of a leadership?") was answered by a quarter of cadets, i.e. 25%.

The fifth question ("Do you think you already have some leadership qualities? What are the specific ones") was answered as follows: "Yes" - 7 people (14; "I like to manage", "I like order", "I want to be a captain ", another - 39 cadets (72%); I do not know" - 4 (8%).

To the sixth question ("How often do you conflict with friends, acquaintances or university professors? With who in particular?"), more than half of the respondents expressed a tendency to conflict (31 persons, i.e. 61%), answered "Never" 7 cadets. "Sometimes" - 12 (24%). Out of the 43 freshmen who acknowledge the conflict within their lives ("Yes", "Sometimes") - 19 cadets (44.27%) had conflicts with their parents, 11 (25.63%) - with friends, 9 - with school teachers (20, 97%), with teachers of KSMA - 4 (9,28%).

To the seventh question ("Do you manage to solve any conflict between friends, relatives or acquaintances by yourself?"), the answers were as follows: "It is possible" - 26 (52%), "Sometimes" - 17 (34%). No - 7 people (14%).

To the eighth question ("Were you tired during the first year of study during the first semester?") 38 cadets answered" Yes "(76%), No " - 12 (24%).

The responses to the question, "What is your grade point average in the first session?" showed that 13 (26%) of freshmen have a GPA greater than 4.0; 37 (74%) - lower than 4.0 points.

To the following question ("How often do you feel the desire to help your classmates in their educational tasks?") 24 (48%) cadets answered "Never", "Sometimes" - 17 (34%), 9 (18%) - constantly.

The questions "If you find yourself in an unexpected or extreme situation, what states are you experiencing: fear, despair, confusion; are you trying to overcome the difficult situation by yourself; to ask for a help from others? "provided the following answers:" fear, despair, confusion "- 6 (12%) cadets; "Trying to overcome the difficult situation by myself " - 33 (66%); "Ask for help" - 11 (22%).

To the question "What qualities of a captain do you consider to be negative as they diminish his authority?" 18 cadets answered "I do not know" (36%), 32 (64%) answered "Doesn't worry about the team", "Loads with work", "Shows superiority to his subordinates" and the like.

The analysis of answers allows us to draw the following conclusions:
Half (50%) of freshmen do not yet have a clear idea of their basic functional responsibilities in the future, are unfamiliar with the essence of "leadership" phenomenon, the basic leadership qualities that they must possess in the future on board as a navigator; accordingly, they are characterized by the lack of sufficient vocabulary to explain the essence of leadership qualities, the presence and necessity of which they are not yet aware of; the first-year cadets of the Navigation Department do not have a clear idea of the psychological portrait of the captain-leader, whose professional image should be a model for each freshman in order to ensure a high level of leadership development from the beginning of training in a maritime institution; however, cadets consider it possible to develop their leadership qualities in the further learning process;

The vast majority of future navigators are prone to conflict situations (86%), which suggests that they have a low level of prudence and emotional stability, but the same number (43, i.e. 86%) considers it possible to be able to solve the conflicts on their own; most freshmen (38, 76%) are characterized by a low level of emotional resilience, which is manifested in the form of fatigue during adaptation at the initial stage of the study in higher education institution;

The majority of future cadets (41, 82%) have certain energy reserves for manifestation of efforts in the direction of overcoming difficult unexpected situations, which, provided the psychological basis of their purposeful actualization, will be a prerequisite for ensuring a sufficient level of their emotional stability, which is necessary for navigators-leaders for productive performance of their functional responsibilities;

86% of freshmen found low communicative qualities;

Half of the respondent cadets, including 26 persons (52%) have features of organizational capabilities;

The vast majority of first-year students (74%) have all the opportunities to significantly increase their mental and intellectual abilities during further study at KSMA.

As a generalization, there is a reason to conclude that the first-year cadets of higher education establishments are characterized by the presence of leadership qualities at three main levels in their structure. At the same time, the first level of leadership qualities (the level of emotional stability) is at a low level and should be purposefully strengthened under appropriate conditions. The prerequisite for this is a sufficiently high level of purposefulness and vigorous reserve, which is necessary to a navigator for self-management of difficult situations, and the presence of which is detected in the overwhelming majority of cadets (82%). The second level - the level of leadership initiative - is characterized by a low level of communicative qualities of future navigators-leaders, although the signs of organizational capabilities are characteristic to the half of the cadets (26 persons, 52%) who were interviewed since the beginning of the ascertaining experiment. Accordingly, the intellectual abilities of navigators-leaders in freshmen are at a low level of development and should be actively developed in the course of further vocational training.

The obtained results provide the basis for determining the preliminary criteria for assessing the level of leadership qualities development of freshmen and revealing in them a sufficiently high level of purposefulness and energetic reserve, which is necessary for self-management in difficult situations.

Thus, cadets with a low level are characterized by poor leadership orientation, low academic performance and social passivity, indiscipline, conflict, low sociometric status in the team, the lack of communicative qualities. Future
navigators with a medium level of leadership development demonstrate satisfactory learning success, are respected by individual team members, perform individual assignments, but sometimes disrupt educational and extracurricular discipline, sometimes conflict with mates, aspire to leadership but do not always objectively evaluate their capabilities. Cadets with a high level of leadership qualities adequately assess their own capabilities, show aspiration for leadership, and are characterized by academic success and discipline, are respected by their mates, are able to establish conflict-free interpersonal interaction, have high sociometric status in the team.

In order to more thoroughly identify the level of formation of the basics of leadership qualities in the cadets of the first year of the Navigation Department we used the following diagnostic methods:

- Diagnosis of leadership qualities by E. Zharikov and E. Krushelnynsky [5, p. 18], which is designed to identify a person's ability to be a leader, as well as to identify the psychological characteristics of a leader's personality. This technique allows us to find out the overall picture of presence in freshman as future navigators, leadership qualities that they have formed during their life before entering the maritime institution of higher education.

- Test "Motivation for success" by T. Ehlers [5, p. 313]. This diagnosis is intended to determine the ability of the individual to be motivated to achieve a specific goal, to exhibit perseverance, vigor, ability to work for a long time in a stressful and even in an extreme situation, that is, identical to the conditions of working on board within the international seaport. Referring to this technique, we set out the identification of the level of emotional stability and vigor as first-level leadership qualities of future navigators-leaders.

- Methodology "Communicative and organizational inclinations" by V. Sinyavsky and V. Fedorishin [5, p. 221], which allows to identify the second-level leadership qualities in the first-year cadets - the level of leadership initiative (socio-psychological, organizational-managerial).

With the help of diagnostics by E. Zharikov and E. Krushelnynsky we revealed the levels of development of leadership qualities of future navigators in both study groups - experimental and control, who were on equal terms at the initial stage of training at KSMA - successfully overcame the necessary barrier in points, and were enrolled in the first year of study, successfully passed the tests and exams for the first academic semester and continued their studies in the first year. According to the KSMA Rector’s decree there are 25 cadets enrolled in each of the group. The analysis of the results of the ascertaining study showed approximately same data regarding the level of development of their leadership qualities at the initial stage of the experiment at four levels, which this technique involves - low, medium, high and too high. It has been found that the leadership qualities of a large number of cadets correspond to the average level of development (Table 3):

<table>
<thead>
<tr>
<th>Table 3: Results of Diagnostics of First-Year Cadets’ Leadership Qualities</th>
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<tbody>
<tr>
<td>Level of Leadership Development</td>
</tr>
<tr>
<td>Low</td>
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<tr>
<td>A</td>
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<tr>
<td>Experimental Group</td>
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<td>Control Group</td>
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</table>

Analysis of the results of diagnostics showed that 22% of cadets who are at the initial stage of vocational training have a low level of future navigators’ leadership qualities. This group is not active in the learning process, in the cadet's life, is prone to deviation in the extracurricular life, according to the regime offered by the educational part. For a large...
number of future navigators (50%), the average level of leadership qualities is inherent, which, while providing them with the appropriate psychological and pedagogical favorable conditions of the educational process, has the opportunity to grow significantly.

This group of respondents is characterized by stability of education, discipline, cadets complete educational tasks in time, take exams, and take full part in cadet’s life. According to the study, 18% of freshmen are characterized by a high level of leadership development. This contingent within the professional training of navigation officers can be regarded as basic, since already in the first year, these cadets have a stable learning activity, are characterized by initiative outside of class time, easily help their teammates, are responsible, purposeful and easy to approach in interpersonal relationships, and therefore in the long term, if they receive the right level of professional knowledge, they should claim a high level of leadership.

However, ascertaining experiment data show that 10% of first-year students have too high level of leadership qualities, which in the first year of their training can cause some attention of teaching staff, since these cadets are prone to psychological subjugation of their mates, encouraging them to violate the curriculum, fulfill their private plan tasks, etc.

Next, we conducted a diagnosis of the level of motivation development for success of freshmen, which determines their energy, commitment, emotional stability in overcoming certain difficulties in an emotionally difficult situation. For this purpose, the test "Motivation for success" by T. Ehlers was used. The following results were obtained (Table 4).

Table 4: The Results of the Detection of the Motivation for Success in the 1st-Year Students

<table>
<thead>
<tr>
<th>Level of Development of Motivation for Success</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>Абс.</td>
<td>%</td>
<td>Абс.</td>
</tr>
<tr>
<td>Experimental Group</td>
<td>12</td>
<td>48</td>
<td>9</td>
</tr>
<tr>
<td>Control Group</td>
<td>9</td>
<td>36</td>
<td>7</td>
</tr>
</tbody>
</table>

The results obtained from the ascertaining experiment indicate that the motivation of a significant number of the 1st-year students of a maritime institution of higher education (42%) is characterized by a low level, which may be due to various reasons: they are aware of dangerous nature of their future profession, awareness of a significant number of accidents in international maritime shipping, frequent deaths of crew members due to mistakes made by captains and / or officers, and more. However, the motivation of 32% of the 1st-year cadets is equal to the average level, which allows them to successfully overcome the psychophysical load within the higher educational maritime institution as a result of gradual adaptation to the specifics of the study in the semi-mode marine higher education institution, obeying the morning troop, round-the-clock duty, on schedule, at KSMA watch, duty to wear marine uniform, etc. According to the results of the study, 12% of future navigators-leaders show a high level of motivation, they easily overcome the period of adaptation to the training regime, have an idea of the dangers of the future profession, which do not suppress them, and on the contrary, stimulate training to gain a diploma.

Too high level of motivation, purposefulness and emotional resilience is shown by only 0.5% of freshmen, which can be regarded as an accident or as a result of adaptation through direct, accidental staying in sea before entering higher education institution.

Then we turned to the methodology "Communicative and organizational inclinations" by V. Sinyavsky and V. Fedorishin in order to determine the level of cadets’ communicative and organizational capabilities, which make up the
second level in the overall structure of their leadership qualities and allow to quickly establish positive interpersonal relationships, also encourage others to perform certain tasks (Table 5).

Table 5: Detection of Communicative Qualities’ Development of the 1<sup>st</sup>-Year Cadets

<table>
<thead>
<tr>
<th>Level of Communicative Qualities’ Development</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
<th>Too High</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>%</td>
<td>A</td>
<td>%</td>
</tr>
<tr>
<td>Experimental Group</td>
<td>5</td>
<td>20</td>
<td>11</td>
<td>44</td>
</tr>
<tr>
<td>Control Group</td>
<td>7</td>
<td>28</td>
<td>9</td>
<td>36</td>
</tr>
</tbody>
</table>

Analysis of the results of the ascertaining experiment showed that the communicative qualities of almost a quarter of cadets (24% of all surveyed) are below average. This prevents them from overcoming various communicative barriers: psychological, linguistic, social, as well as making new contacts with strangers.

These cadets are characterized by a certain amount of shyness, they make contact with their mates without much desire, while answering at the seminars often reduce the quality of their knowledge due to uncertain tone. In the future, this circumstance may hinder the success of their work as a navigator, reduce the ability to become an authoritative person and, accordingly, a leader accepted by the entire crew of the ship. Within the educational process and the cadets’ extracurricular life, the low level of communicative qualities hinders the productive social and psychological adaptation to the conditions of the study in the maritime institution of higher education, to ask commanders-tutors, curators, teachers questions. Accordingly, the organization of purposeful psychological support within the educational process will be greatly useful for this group in order to improve the level of development of their communicative qualities, for example, social perception of empathy, reflection as their varieties, actualization of technique and culture of language, etc., as well as formation of abilities.

However, 40% of cadets showed an average level of development of communicative qualities, which means that this group of freshmen has the prospect of their further improvement during the next years of study, communicating with comrades with a higher level of development of analogous leadership qualities, and, accordingly, through specially organized communicative trainings. According to our study, 28% of cadets had a high level of communicative qualities’ development, which is equal to about a third of all cadets surveyed. These future seafarers have a high level of likelihood of becoming a navigation officer who, based on their communicative qualities, will be able to actualize other leadership qualities. Among the respondents, only 2% of cadets had too high level of communicative qualities, which, in our opinion, cannot be regarded as an additional positive, since excessive communicative qualities can tend to lead to a violation of certain subordination on board, a certain required distance with an undesirable approximation to the well-known informal model of a “backslapper”. But overall, the data on the levels of communicative qualities’ development in the freshmen suggest that three-quarters of recipients have a solid basis for further improvement of their communicative qualities, have the qualities and communicative skills, and establish communications of various types, including interpersonal and group communication (Table 6).
Table 6: Results of Diagnostics the First-Year Cadets’ Level of Organizational Capabilities’ Development

<table>
<thead>
<tr>
<th>Level of Organizational Capabilities’ Development</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental Group</td>
<td>A</td>
<td>6</td>
<td>24</td>
<td>9</td>
<td>36</td>
</tr>
<tr>
<td>Control Group</td>
<td>A</td>
<td>8</td>
<td>32</td>
<td>7</td>
<td>28</td>
</tr>
</tbody>
</table>

The level of organizational capabilities was also rated by us on the scale of "low level", "medium level", "high level" and "too high level". Based on the analysis of the data, it was determined that problem with organizational capabilities affects a significant number of respondents, in particular 28%, i.e. their level is low. These cadets are characterized by the lack of personal initiative in organizing extracurricular activities, often trying to avoid the execution of certain group tasks, making personal independent decisions in unexpected situations. The average level of development of organizational capabilities is related to 32% of freshmen, which is one third of the total number of respondents. This group of future qualified navigators is a part of the cadet's self-government asset. 30% of first-year cadets have a high level of organizational capabilities’ development, they take initiative on suggestions - how to solve a certain situation, help a sick friend who cannot attend classes for a long time, have a sense of responsibility for their work and pride from its implementation. Only 10% of students have a high level of organizational capabilities. These first-year students quickly find themselves in the ranks of student self-government members; they easily organize inter-university events together with cadets of other courses and faculties;

Conducting an ascending experiment allowed us to formulate criteria for assessing the leadership qualities of first-year cadets of higher education at three main levels: low, medium and high in each of the two groups that were the focus of the study - emotional resilience and leadership initiative. As the expediency of considering the cadets’ leadership qualities in the complex was proved, in characterizing the criteria, we were guided by the principle of a unified approach to determining their essence.

Thus, the low level of leadership qualities of the first-year cadets is characterized by: passivity in the cadet’s extracurricular life; indifference; low level of study motivation; the presence of psychological barriers in communication with others; modesty, and often shyness; the use of vague expressions; a tendency to avoid performing certain group tasks and make independent decisions in unexpected situations.

The medium level is characterized by the following: stably responsible attitude to the process of studying; discipline; timely completion of tasks; successful overcoming of psychophysical workload within the educational establishment; fast enough adaptation to the specific conditions of study at a maritime school; commitment, friendliness; compulsory duty scheduling and completion of atypical tasks.

The high level is characterized by the following features: manifestation of autonomy and personal initiative within the cadet’s daily life (assistance, compassion for others); propensity to create and chair social microgroups; vigor, purposefulness, emotional resilience in overcoming certain difficulties in emotionally difficult situations; ease of overcoming the period of adaptation to training at the maritime institution; the desire to overcome difficulties; activity within the framework of cadet self-government, general university activities; the ability to organize other cadets to accomplish the task. (Table 7)
Table 7: Characterization of Levels of Leadership Qualities’ Development of 1st-Year Cadets

<table>
<thead>
<tr>
<th>Level of Formation of Leadership Qualities</th>
<th>Characteristics of Leadership Qualities of Future Navigators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>Passivity towards the cadets’ life, indifference; the lack of motivation to study; the presence of psychological barriers in communication with others; modesty, and often shyness; use of vague expression; a tendency to avoid performing certain group tasks and to make independent decisions in unexpected situations.</td>
</tr>
<tr>
<td>Medium</td>
<td>Stably responsible attitude to the process of studying; discipline; timely completion of tasks; successful overcoming of psychophysical load within the institution of higher education; fast enough adaptation to the specific conditions of study at a maritime school; not deviation of duty and from completion of atypical tasks; commitment, friendliness.</td>
</tr>
<tr>
<td>High</td>
<td>Manifestation of autonomy and personal initiative within the cadet’s life (assistance, compassion for others, etc.); propensity to create social microgroups for the purpose of leading them; vigor, purposefulness, emotional resilience in overcoming certain difficulties in emotionally difficult situations; ease of overcoming the period of adaptation to training in a maritime institution; the desire to overcome difficulties; activity within the framework of cadet self-government and university activities; ability to organize other cadets to accomplish the task.</td>
</tr>
</tbody>
</table>

CONCLUSIONS

The conduction of the ascertaining experiment in order to identify the level of leadership qualities’ development of first-year cadets in a certain structure has revealed the following: a large number of first-year students have a low and medium level of leadership development, and only 10% have a high level. The level of motivation to be a leader and the level of their emotional resilience in most future navigators is also at low and medium levels, respectively, 42% and 32%. Communicative qualities as a type of leadership qualities in a quarter of recipient cadets are at a low level of development, the average level corresponds to 40% of freshmen, and a high, respectively, to 28%. The inclination to organizational activity is characteristic for 62% of cadets, respectively, the average level is characteristic for 32%, high - for 30% of freshmen. We did not carry out the ascertaining of the level of the leadership qualities’ development of the first-year cadets of the third higher level as a professional activity, since the cadets only entered the path of professional training and the development of their leadership qualities of this level will be ensured in the course of their further professional training.

The experiment gives the grounds for providing the psychological bases for enhancing the 1st year cadets’ leadership qualities of the Navigation Department of maritime institution of higher education by developing a special training program for developing the cadets’ leadership qualities and providing on its base the psychological improvement of future navigators.

REFERENCES


