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Changes in modern university: challenges of today and development trends

Education is a process of interaction and communication among all participants, in which each of them has an impact on the outcome. Today, in the conditions of the modern world, cooperation between the teacher and the student acquires new forms and characteristics. The teacher is no longer just a source of knowledge but becomes a partner and helper for the student. The quality of communication between the student and the teacher depends on their readiness for dialogue and mutual understanding, absence of coercion and orders. A comprehensive approach to education and communication allows for a deep understanding of the processes and their improvement. Higher education institutions need to pay special attention to issues of strategic communication development, branding, and image. Clear and well-planned communication systems should be implemented at the level of structural units in order to achieve success. Providing adequate material and technical resources as well as information and communication technologies is crucial for effective use of various teaching methods and forms. However, communication between a teacher and a student should not only be about academic topics, but also about support, motivation, and personal development.

Keywords: adult higher education, communication, ergonomic technologies, higher education

Introduction. Monitoring of higher education has revealed the need for continuous learning to achieve success in any field. The modern world is fast-paced, with more and more processes being automated, and people are required to acquire new skills to meet the demands of digital transformation of the economy. This leads to an increase in demand for technical specialties that enable digital transformation and expand the range of people interested in obtaining education [1].

Moreover, the COVID-19 pandemic has accelerated the need for digital transformation, with remote work and online education becoming the new norm. This has further emphasized the importance of continuous learning and the acquisition of digital skills. As a result, universities and other educational institutions are adapting their programs to offer more technical and digital courses to meet the changing needs of the job market.

The growing availability of online courses and other forms of distance learning has made continuous learning more accessible than ever before. Students can now take courses from top universities around the world without leaving their homes, and working professionals can update their skills without having to take a break from their careers. This has opened up new opportunities for lifelong learning and professional development, and has made it easier for individuals to stay relevant and competitive in their fields.

However, the need for continuous learning goes beyond technical and digital skills. Soft skills such as communication, collaboration, and problem-solving are becoming increasingly important in today's workplace, and employers are looking for candidates who possess these skills in addition to technical expertise. Therefore, universities and other educational institutions must also focus on developing these skills in their students to prepare them for success in the workforce. Overall, continuous learning is essential for both personal and professional growth in today's rapidly evolving world.

Analysis of recent research and problem statement. Continuous learning has become essential not only for individual success but also for the success of organizations. Companies that invest in employee training and development have been shown to have higher productivity and profitability [2]. Therefore, employers are increasingly seeking out candidates with a willingness to learn and develop new skills.

Furthermore, continuous learning also plays a vital role in employee retention. When companies invest in their employees' professional growth and development, it fosters a sense of loyalty and commitment among the workforce. Employees feel valued and are more likely to stay with the company for a more extended period, reducing recruitment and training costs.

In today's knowledge-based economy, the value of a company is closely linked to the intellectual capital of its employees. Therefore, organizations that encourage continuous learning and create a culture of learning are more likely to attract and retain top talent. This creates a competitive advantage for companies in the long run, as they have a workforce with a diverse skill set and a willingness to adapt to new technologies and trends.

Continuous learning is essential for both individual and organizational success. It enables individuals to remain competitive and relevant in the job market, and organizations to stay ahead of the curve and attract top talent. As the pace of technological change continues to accelerate, continuous learning will become increasingly critical for all individuals and organizations. Continuous learning is critical in today's fast-paced and rapidly changing world. It enables individuals to remain competitive in the job market, organizations to stay ahead of the curve, and society to progress as a whole. Indeed, in the current age of digital transformation, continuous learning is more crucial than ever before. With technological advancements and automation replacing traditional job roles, individuals need to constantly acquire new skills to remain relevant in the job market. At the same time, organizations need to invest in their employees' professional growth and development to remain competitive and innovative.

Moreover, continuous learning not only benefits individuals and organizations but also has a positive impact on society as a whole. It promotes economic growth, social mobility, and personal fulfillment, as individuals are better equipped to contribute to society's needs and tackle complex challenges. Continuous learning is also essential for sustainable development, as it fosters a culture of innovation and creativity that can drive progress towards a more sustainable future.

The modern education system was formed in response to the beginning of industrialization, during the emergence and development of industrial enterprises. Such enterprises required a large number of workers who would perform narrow operations on a work schedule without unnecessary questions. To date, the education system in most countries has focused on accumulating knowledge. Currently, we are moving away from the era of industrialization, as all routine operations can be performed automatically through automation and digital technologies.

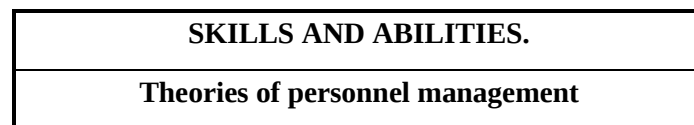
Furthermore, the traditional education system was designed to train individuals for specific careers or professions, with little emphasis on the development of soft skills or personal growth. However, in today's rapidly changing and interconnected world, the ability to communicate effectively, collaborate with others, and adapt to new situations is becoming increasingly important. Continuous learning allows individuals to develop these skills, which not only benefits their own personal and professional growth but also enhances their ability to contribute to society and create positive change.

Moreover, continuous learning plays a crucial role in addressing social and environmental challenges, such as poverty, inequality, and climate change. By acquiring new knowledge and skills, individuals can better understand the complexity of these issues and contribute to finding solutions. This, in turn, can lead to the creation of more sustainable and resilient communities and a better future for all.

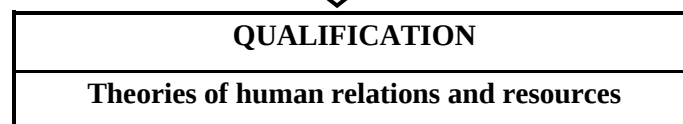
In summary, continuous learning is essential for personal, professional, and societal growth and development. It enables individuals to adapt to new challenges and opportunities, fosters innovation and creativity, and promotes sustainable development and social progress.

The purpose and tasks of the study. Modern learners need to be taught how to think critically, independently obtain and evaluate information, rather than just accumulate and memorize it [2]. Educational institutions are already forced to move from old, "industrial" educational programs to a system of learning that will prepare personnel for the innovative economy and information society. Consequently, teaching approaches will also change. Teachers will transform from knowledge transmitters to pedagogues-organizers. This has expanded the boundaries of personal and professional qualities, skills, and abilities of employees, which means a transition from a qualification approach to a competency-based one (Figure 1.1) [3].

Pre-industrial stage



Industrial stage



Post-industrial era



Fig. 1. Qualification requirements for teachers at different stages of development

Additionally, the focus of modern education is shifting towards fostering creativity, problem-solving skills, and collaboration, which are essential in the knowledge-based economy. The education system is also becoming more personalized, taking into account individual learning styles and preferences, and leveraging technology to provide flexible and accessible learning opportunities. As a result, learners are empowered to take control of their learning and pursue their interests and passions.

The competency-based approach to education emphasizes the development of specific skills and competencies, rather than simply acquiring knowledge. This approach is more aligned with the demands of the current job market, which requires individuals to possess a diverse set of skills and be able to adapt to new challenges and technologies. The competency-based approach also provides a more transparent and objective way of assessing learners' progress and capabilities, as it focuses on observable and measurable outcomes.

The shift towards a competency-based approach in education is a significant change in how learners are being taught. Rather than just acquiring knowledge, learners are now being taught how to apply that knowledge in real-world scenarios. This approach promotes critical thinking, problem-solving, and collaboration skills that are essential in the modern workforce. In addition, the use of technology and personalized learning styles provides learners with more flexibility and control over their education. The competency-based approach also helps to address the skills gap in the job market, by ensuring that learners are equipped with the skills that employers are looking for. Overall, the competency-based

approach is an effective way to prepare learners for success in the innovative economy and information society.

The education system is evolving to meet the needs of the innovative economy and information society. The focus is shifting towards developing competencies, critical thinking, creativity, and collaboration, rather than just accumulating knowledge. Teachers are transforming from knowledge transmitters to pedagogues-organizers, and learners are empowered to take control of their learning. The competency-based approach provides a more objective and transparent way of assessing learners' progress and capabilities, which is essential in the current job market.

Educational programs in the post-industrial era should be aimed at developing critical thinking, communication skills, creative inventiveness, and interpersonal interaction skills, as these are the most in-demand abilities in this era. As soon as any routine part of a given production process that is repetitive is automated, human labor in that part becomes no longer needed [4]. Such processes cannot be reverted.

The education system must adapt to the new demands of the economy and focus on developing skills that are uniquely human and cannot be automated. These skills include problem-solving, emotional intelligence, and adaptability, among others. The traditional classroom-based learning approach is becoming less effective in the digital age, where information is easily accessible through various digital devices. Therefore, educational institutions need to adopt innovative teaching methods, such as blended learning and gamification, to engage and motivate learners and provide them with personalized learning experiences.

The current education system must undergo adaptation to cater to the demands of the post-industrial era and prioritize the development of skills that are not susceptible to automation. This necessitates a transition towards a competency-based education framework and the adoption of innovative pedagogical approaches that foster critical thinking, creativity, and adaptability. By undertaking these measures, we can equip learners with the necessary skills to confront the challenges and seize the opportunities presented by the digital age, and contribute to the overall advancement of society.

The education system must also prioritize lifelong learning to ensure that individuals are equipped to adapt to the constantly changing demands of the job market. This means that education should not end after graduation but should be viewed as a continuous process that individuals need to engage in throughout their lives.

To promote lifelong learning, there needs to be a cultural shift towards valuing and prioritizing education and providing accessible and affordable learning opportunities for all individuals. This includes providing support for adult education, upskilling and reskilling programs, and recognition of non-formal and informal learning. The education system must continue to evolve and adapt to meet the demands of the post-industrial era. By prioritizing the development of uniquely human skills, promoting lifelong learning, and adopting innovative teaching methods, we can prepare individuals to succeed in the digital age and contribute to a more prosperous and sustainable society.

The educational process has so far been built on the principles of pedagogical ergonomics. In this case, the main attention was paid to the factor of the learning environment, which includes the territory of the academy, the building, classrooms, and workstations with educational equipment, visual aids, lighting equipment, design, and microclimate. Based on the impact on teachers and students, the aim was to make the learning environment comfortable, for which textbooks, educational and visual aids, reference books, dictionaries, maps, laboratory equipment, and so on were developed. When selecting them, information, motivational, managerial, and optimizing possibilities were taken into account. The selection of specialists changed depending on the didactic concept, objectives, content, methods, and conditions of the educational process.

However, with the rise of digital technologies and online education, the concept of the learning environment has evolved. Nowadays, learners can access educational resources and materials from anywhere in the world and at any time. The focus has shifted towards creating a virtual learning environment that can provide learners with access to interactive and engaging educational content. The new approach to education emphasizes the importance of technology in the learning process and considers the needs of individual learners. The role of teachers has also shifted from being mere

transmitters of knowledge to facilitators of learning, who can guide and support learners in their educational journey. Therefore, adapting the traditional educational system to the demands of the modern era and incorporating technology into the learning process is necessary to make it more accessible and effective.

This shift towards digital learning has also led to a greater emphasis on developing digital literacy skills. In addition to traditional subjects, individuals must now also be proficient in digital literacy, including understanding how to use technology for communication, information gathering, and problem-solving. The ability to navigate digital tools and platforms is crucial for success in the modern workplace and in everyday life. The education system must recognize the importance of developing uniquely human skills such as critical thinking, creativity, emotional intelligence, and adaptability. These skills cannot be easily automated and will become increasingly valuable in the post-industrial era. By prioritizing the development of these skills, we can ensure that individuals are prepared for the changing job market and are able to contribute to a more prosperous and sustainable society.

The future of education lies in promoting lifelong learning and adapting to the demands of the digital age. This requires a cultural shift towards valuing and prioritizing education, incorporating technology into the learning process, and developing uniquely human skills. By doing so, we can prepare individuals to succeed in a rapidly changing world and create a more equitable and prosperous society for all.

Materials and methods of research. Practice has shown that modern audiovisual (screen-sound) and multimedia (PCs with audio and video devices) have the most effective impact on students, providing an opportunity to automate intellectual activity. A systemic representation of education is an approach to organizing and understanding the educational process as a holistic system, which includes not only students and teachers, but also various educational resources, methods and technologies, as well as the social, economic, and political environment in which it takes place. This approach takes into account the interaction of all components of the system and aims to achieve the most effective fulfillment of educational goals. In systemic representation of education, not only traditional academic subjects and knowledge are important, but also the development of competencies, skills and abilities that can be applied in real life and in the workplace. The systemic representation of the educational process for preparing specialists is presented in Figure 1.2 [6-7]. In education, two paradigms, two approaches have been formed - traditional and competency-based. The former includes cultural, educational, didactic-centric, and functional-communicative approaches etc. Opinions about the essence of the competency-based approach, which involves instilling competence in the student as "a set of interrelated qualities of an individual, objects, defined in relation to a certain circle and processes," differ [8-9]. A competent modern specialist differs from a qualified one in the ability to implement knowledge, skills, and abilities in professional activity. They possess general competence, with the help of which specialized competence is formed, which is capable of meeting the demands of practice and is clearly outlined in the curricula and training programs for relevant specialists [10-11].

The competency-based approach is gaining popularity in the field of education, as it emphasizes the development of practical skills and abilities that are directly applicable in the workplace. This approach represents a departure from traditional education methods, which prioritize memorization and rote learning over practical application and learning outcomes. To effectively implement this approach, a clear understanding of the specific competencies required for a given profession is necessary, and training programs and curricula must be designed to align with these competencies. This approach ensures that the educational system is preparing individuals with the necessary skills and knowledge to succeed in their chosen careers, and ultimately contribute to the prosperity of society. The use of modern audiovisual and multimedia technologies is essential in supporting this process, providing learners with dynamic and engaging tools and resources to develop and apply their competencies.

The systemic representation of education, as described earlier, highlights the effectiveness of modern audiovisual and multimedia technologies in the educational process. In addition, it acknowledges the importance of developing competencies, skills, and abilities that can be applied in real-life situations and the workplace. The field of education has seen the emergence of two paradigms, the traditional and the competency-based approach. The latter emphasizes the development of practical skills and abilities,

which are directly applicable in the workplace, and is gaining popularity in the field of education. The competency-based approach ensures that educational programs align with specific competencies required for a given profession, thus preparing individuals with the necessary skills and knowledge to succeed in their chosen careers. The use of modern technologies, such as audiovisual and multimedia tools, is essential in supporting this process, as they provide learners with engaging resources to develop and apply their competencies effectively.

Instead of following the concept of "profession" as a set of skills is required to combine these skills to perform a given task. This approach is called the task-based approach and is becoming increasingly popular in modern education. The task-based approach emphasizes the importance of developing problem-solving skills and the ability to work in a team. It focuses on the practical application of knowledge and skills in real-life situations, rather than just theoretical understanding. This approach helps learners to develop a holistic understanding of a subject and to acquire the necessary skills to tackle complex problems. In the task-based approach, the emphasis is on the learning process rather than the result, as the process of solving a problem is just as important as the solution itself. Therefore, learners are encouraged to experiment, make mistakes, and learn from them.

The success of any professional is recognized that it depends largely on the skill and qualification of the teaching staff. Education is not just what happens in the classroom, it also encompasses a wider aspect of interaction between students and lecturers, curriculum, and even exams" [12-13].

Investing in the development and training of teachers is crucial for shaping the educational experience of learners. The use of modern teaching methods and technologies can enhance the quality of education and make it more engaging and effective. The professional development of teachers should also include opportunities for them to update their knowledge and skills regularly. Encouraging continuous learning among educators is important for the benefit of learners and society as a whole. Moreover, the evaluation of the effectiveness of the educational process should not be limited to the academic performance of the students but should also take into account the personal growth and development of learners.

Aside from investing in teacher development and training, Establishing a favorable environment for learners is crucial. This includes facilitating access to appropriate learning resources and technologies, as well as creating a welcoming and equitable learning atmosphere. Inclusivity is crucial in the education system to support learners with different abilities and from diverse cultural and socioeconomic backgrounds.

Evaluating the effectiveness of education should not be limited to just measuring students' academic performance, but should also consider their personal growth and development. This entails employing various assessment techniques that gauge not only cognitive knowledge but also non-cognitive skills such as communication, teamwork, and problem-solving. Assessments should be employed to advance the educational process and foster continuous learning, rather than simply as a means of measuring academic achievements.

Adopting a systemic representation of education highlights the importance of viewing education as a comprehensive system that comprises different elements such as students, teachers, resources, and the broader social, economic, and political context. The implementation of competency-based and task-based approaches, in addition to the use of modern teaching methodologies and technologies, can enhance the quality and effectiveness of education. Promoting lifelong learning and personal growth for learners necessitates the development and training of teachers, the establishment of a supportive learning environment, and the use of diverse assessment methods.

The teacher stops being a specialist-demonstrator and becomes an organizer-pedagogue. At the same time, more and more attention is paid to self-education and self-learning of students. In future exams, instead of knowing the numbers of articles and codes, etc., students will search for answers to questions such as what depends on the size of the reward, and the computer will record their searches [14]. Practical activities for students serve as the most adequate way to transform acquired knowledge into practical skills. The implementation of a competency-based approach to education will allow mitigating

the contradiction between the content of the student's educational component and the requirements of principals for the level of specialist education in general [15-16].

**PRINCIPLES OF ORGANIZATION OF THE EDUCATIONAL PROCESS FOR
MARITIME SPECIALISTS TRAINING**

System principles	Scientific and pedagogical principles	Ergonomic principles
Structural-functional	Adequacy of the content of the discipline	Chronometric consistency".
Communication	Methodological technological	Psychophysiological adaptability
Information-management	Motivational stimulation	Safety
Activity approach	The connection of education with life.	Reliability
Individualization.	Scientificness	Comfortability
Base link	Accessibility	Aesthetics
Historicity	Clarity	Informatization
Appropriateness	Predictiveness	Automation

Fig. 2. Principles of organizing the educational process for training specialists

As the education landscape evolves, the traditional role of teachers as knowledge providers is transforming into that of organizers and facilitators of the learning process. Students are now encouraged to engage in self-learning and self-education, with practical activities serving as an effective means to apply and transform acquired knowledge into practical skills. The competency-based approach to education emphasizes the practical application of knowledge and skills in real-life situations and helps to close the gap between what is taught in the classroom and the requirements of the job market. In evaluating the effectiveness of the educational process, but not only academic performance but also the personal growth and development of learners.

The modern economy is increasingly becoming digitized, and as a result, more and more young people are choosing technical specialties. The demand for IT professionals remains high, but as digital knowledge becomes more widespread, IT expertise will shift from being a specialty to a basic literacy skill, much like English language proficiency or translation skills [17-19]. In addition, interdisciplinary education is becoming more important as technology intersects with various fields such as healthcare, finance, and agriculture. Students need to have a broad knowledge base and the ability to work collaboratively with professionals in other fields to effectively utilize technology in solving complex problems. As the digital landscape continues to evolve, education must keep pace to ensure that students are equipped with the skills and knowledge necessary to thrive in the modern economy.

However, technical skills alone are insufficient for the development of the digital economy. Soft skills, communication skills, the ability to work in teams, adapt to others, and, as banal as it may sound, to look into the eyes of one's interlocutor rather than at a computer screen are all extremely important. Unfortunately, traditional educational institutions do not give enough attention to these skills[20]. Therefore, a holistic approach is important to consider as education that incorporates both technical and soft skills. Digital literacy should not only focus on the technical aspects of using technology but also

on its responsible and ethical use. Students should also be trained in critical thinking and problem-solving, creativity, and entrepreneurship, as these are essential skills for the digital age. Educational institutions should collaborate with the industry to provide practical experience and internships that enable students to develop their soft skills and gain real-world experience. By doing so, the education system can better prepare the workforce for the challenges and opportunities of the digital economy.

On this background, the role of the teacher is increasing not as a supplier of information, but as someone who engages in reflection and reasoning. Thus, the student learns to perceive information, reflect on it, and act on it, which can only be achieved through communication with professors and researchers. In this case, the educational process aims to develop the intellect of those who come as students [21-22].

This shift in the role of the teacher requires a significant change in the traditional approach to education. Teachers must now create a learning environment that promotes critical thinking, problem-solving, and creativity, rather than simply conveying information. To do this, teachers must themselves be lifelong learners and continuously update their knowledge and skills to keep up with the rapidly evolving world of technology and its impact on various industries. Moreover, teachers must be able to provide personalized and flexible learning experiences that cater to the unique needs of each student, helping them achieve their full potential. Overall, the modern teacher must be equipped with a diverse set of skills that goes beyond just subject matter expertise and includes pedagogical expertise, communication skills, and the ability to motivate and inspire students.

Conclusions. Developing intellect is a complex task that requires time, communication, and certain technologies. If we can accelerate solving this task by using digital technologies or other educational technologies, that's good, and we all benefit from it/ However, substituting the question of the tool for the question of the goal is not desirable. [23] Not only teaching students how to learn, but also conveying the importance and purpose of education is crucial [23-25]. Therefore, in addition to technical and soft skills, instilling in students a sense of purpose and a lifelong love of learning is important for teachers. By doing so, students will be better equipped to navigate the ever-changing landscape of the digital economy and to continue to develop their skills throughout their careers. Ultimately, the goal of education is not just to acquire knowledge or skills, but to cultivate a curious and adaptable mind that can thrive in any situation. This requires a holistic approach to education that considers not just technical skills, but also personal growth, social development, and a sense of purpose. Only then can we truly prepare the next generation of learners for the challenges and opportunities of the digital age.

While digital technologies and educational tools can accelerate intellectual development, The main idea of education is to develop a curious and adaptable mind that can succeed in any situation. Teachers should not only teach students how to learn but also inspire them by conveying the importance of education and instilling a sense of purpose and passion for lifelong learning. An all-encompassing approach to education is essential, including technical skills, personal growth, social development, and a sense of purpose, to equip students for the ever-evolving digital age and facilitate their skill development throughout their professional careers.

The development of intellect is a complex and multifaceted task that requires a holistic approach to education. While digital technologies and educational tools can be helpful, the ultimate goal of education is to cultivate a curious and adaptable mind with a sense of purpose and passion for lifelong learning. By focusing on personal growth, social development, critical thinking, and ethical considerations, we can prepare students for success in the digital economy and encourage them to make a positive impact on the world.

REFERENCES

1. Petrov, I. M., & Kuzmenko, E. S. (2018, February). Prospective transcontinental system of transport and energy communications. In *Proceedings of the VIII International Scientific and Practical Conference "Problems of Development of Transport Logistics" Inter-TRANSCLOG'2018 February 16-27, 2018 - Odessa-Batumi-Samsun: ONMU* (pp. 104-116).
2. Petrov, Y. M. (2018, April). The influence of ship parameters on the duration of their cargo processing. In *Proceedings of the International Scientific and Practical Conference "Strategic Imperatives of Modern Management and Current Problems*

of Social-Psychological Development of Competencies of Marine Industry Professionals", April 20, 2018. Izmail: DI NU "OMA" (pp. 140-144).

3. Evdokimova, V. A., Deevova, O. V., & Khayet, L. G. (2015, May). Crew Psychological Training as a Tool for Increasing Ship Safety. In *Proceedings of the Seventh International Scientific and Practical Conference "Modern Information and Innovative Technologies in Transport (MINTT-2015)" May 26-28, 2015. Kherson: Kherson State Maritime Academy.* (pp. 53-56).

4. Hryhorev, N., Dvynyn, A., & Nakonechnyi, M. (2017). Anxiety as a factor of accidents. *Morskoi flot*, 2(1530), 14-16.

5. Golikov, V. V., Obertyur, K. L., & Safin, I. V. (2012). Scenario-based study of the activities of marine transportation system operators based on guaranteed safety principles in emergency situations. *Ship power plants: scientific and technical collection*, 30, 194-203.

6. Cole, E. (2016). *Online Danger: How to Protect Yourself and Your Loved Ones From the Evil Side of the Internet.* BenBella Books.

7. Shakhov, A.V., & Bokareva, M.O. (2014). Risk management in ship repair projects. *Bulletin of the National Technical University "Kharkiv Polytechnic Institute". Series: Strategic Management, Portfolio Management, Programs and Projects Management*, 2(1045), 81-86.

8. Altbach, P. G. (2016). The Challenges Facing Higher Education Today. *International Higher Education*, 86, 2-4.

9. Sokol, I. V. (2011). Formation of professional competence of future navigators in the process of studying professional disciplines: abstract of the thesis for the degree of candidate of pedagogical sciences, specialty 13.00.04. Kherson State University.

10. Frolova, O.O. (2015). Formation of socio-cultural competence of future navigators in the process of studying professionally oriented disciplines: author's abstract of the thesis for the degree of candidate of pedagogical sciences, specialty 13.00.04. Volodymyr Hnatyuk Ternopil National Pedagogical University.

11. Torsky, V.G. (2016). The main requirement for successful maritime training - professionalism of the teaching staff. *International Journal "Marine Review"*, 1(61), 14.

12. Golikov, V. V., Obertyur, K. L., & Safin, I. V. (2012). Scenario-based study of the activities of marine transportation system operators on the principles of guaranteed safety in emergency situations. In *Marine Power Plants: Scientific and Technical Collection* (Is, 30, pp. 194-203). ONMA.

13. Kurland, A.M., & Morozova, I.V. (2015). The problems of preparing specialists for the maritime industry of Ukraine in modern conditions. In *Proceedings of the International Scientific and Practical Conference "European Choice of Ukraine: Problems of Development of Ferry Transportation in the Black Sea"* (pp. 74-77). Odessa: ONMU.

14. Mal'tsev, A.S. (2009). Optimization of personnel management. *Production Management*, 1, 14-19.

15. Hritsuk, I.V., Panchenko, S.V., Kagramanyan, A.O., Hritsuk, Yu.V., & Volkov, Yu.V. (2017). Features of remote identification of a vehicle under conditions of informational support for operational processes. In *Proceedings of the scientific-practical conference of KhHMA - 2017* (pp. 194-196).

16. Petrov, I.M. (2015). Heuristic algorithm of marine agent behavior in case of oil spills within the framework of service ergatic system. *Navigation: Collection of scientific works*, 25, Odessa: "IzdatInform", 135-145.

17. Scott, P. (2018). The challenge of transforming higher education. *International Higher Education*, 92, 4-5.

18. Brown, M. (2018). The fourth industrial revolution and higher education. *International Higher Education*, 95, 6-7.

19. Marginson, S. (2016). The Worldwide Trend to High Participation Higher Education: Dynamics of Social Stratification in Inclusive Systems. *High Education*, 72, 413-434. <https://doi.org/10.1007/s10734-016-0016-x>.

20. Kolb, D. A. (2014). Experiential learning: Experience as the source of learning and development. *FT press*.

21. Cantwell, B., & Kauppinen, I. (2014). Academic capitalism and university incentives for faculty entrepreneurship. *The Journal of Technology Transfer*, 39(3), 422-440.

22. Maldonado-Maldonado, A. (2016). Quality assurance and the challenge of the changing higher education landscape. *Quality in Higher Education*, 22(1), 1-7.

23. Clark, B. R. (2015). The modern integration of research activities with teaching and learning. *Journal of Higher Education Policy and Management*, 37(2), 151-163.

24. Altbach, P. G. (2018). The changing geopolitics of higher education. *International Higher Education*, 94, 3-5.

25. Altbach, P. (2019). The Past, Present, and Future of the Research University. *Prospects*, 48, 5-11.

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Зміни в сучасному університеті: виклики сьогодення та тенденції розвитку

Освіта - це процес взаємодії та спілкування між усіма учасниками, кожен з яких має вплив на результат. Сьогодні, в умовах сучасного світу, співпраця між вчителем та студентом набуває нових форм та характеристик. Вчитель вже не є лише джерелом знань, а стає партнером та помічником для студента. Якість комунікації між студентом та вчителем залежить від їхньої готовності до діалогу та взаєморозуміння, відсутності примусу та наказів. Комплексний підхід до освіти та спілкування дозволяє глибоко розуміти процеси та покращувати їх. Вищі навчальні заклади повинні приділяти особливу увагу питанням стратегічного розвитку комунікації, брендування та іміджу. Чіткі та добре сплановані системи комунікації повинні бути впроваджені на рівні структурних підрозділів для досягнення успіху. Надання адекватних матеріально-технічних ресурсів, а також інформаційно-комунікаційних технологій є вирішальним для ефективного використання різних методів та форм навчання. Однак, комунікація між вчителем та студентом не повинна бути тільки про академічні теми, а також про підтримку, мотивацію та особистісний розвиток. Сучасний університет повинен враховувати зміни в суспільстві та економіці, використовувати нові методи та технології навчання, а також створювати умови для комфортної та продуктивної роботи студентів та викладачів.

Ключові слова: вища освіта дорослих, спілкування, ергономічні технології, вища освіта.