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ORIGINAL

Approaches to Student Training in Life Safety in the Context of Internationalization: Insights from Global Practices

Enfoques de la Formación de Estudiantes en Seguridad de Las Personas en el Contexto de la Internacionalización: Perspectivas De Las Prácticas Globales

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ABSTRACT

Introduction: independent mastery of certain competencies requires special focus and structure. In the era of internationalization and globalization, this process is positioned as one of the most important competencies of a specialist.
Method: the study applies the analysis and synthesis of systemic practices of information education using targeted tasks that complement students' competencies and professional needs. The purpose of the article is to analyze modern approaches to the organization of information education of students in the field of language life with the involvement of the potential of modern educational technologies.
Results: the systematic information education in developed foreign countries, which involves the use of targeted tasks that complement the competencies and professional needs of students, is considered. The proposed approach has proven itself in teaching students of different age groups. It has been proved that modern educational technologies of information education contribute to the formation of a quality basis in the field of life safety in the learning process, which stimulates further independent expansion and improvement of knowledge by students in the implementation of educational and professional activities. The main methods, programs and means of non-formal education in life safety are outlined.
Conclusions: the study proves that the use of innovative educational technologies allows to avoid fragmentation in the formation of knowledge, skills and abilities in life safety, to prevent potential difficulties in the practical application of the acquired knowledge in the realities of the professional environment. It is substantiated that non-formal learning allows creating prerequisites for successful self-realization and continuous self-improvement, mastering new competencies, and increasing students' motivation to learn. It is proved that the educational environment in the era of internationalization is endowed with opportunities for active international communication, development of research initiatives and academic mobility.

Keywords: Integrated Educational Environment; Life Safety; Innovative Educational Technologies; Integration; Globalisation; Systematic Approach; Competencies; Pedagogical Technology.

RESUMEN

Introducción: el dominio independiente de determinadas competencias requiere un enfoque y una estructura especiales. En la era de la internacionalización y la globalización, este proceso se posiciona como una de las competencias más importantes de un especialista.
Método: el estudio aplica el análisis y la síntesis de las prácticas sistémicas de la enseñanza de la información mediante tareas específicas que complementan las competencias y las necesidades profesionales de los estudiantes. El propósito del artículo es analizar los enfoques modernos de la organización de la educación informacional de los estudiantes en el ámbito de la vida lingüística con la implicación del potencial de las modernas tecnologías educativas.
Resultados: se considera la educación sistemática de la información en los países extranjeros desarrollados, que implica el uso de tareas específicas que complementan las competencias y necesidades profesionales de los estudiantes. El enfoque propuesto ha demostrado su eficacia en la enseñanza de alumnos de diferentes grupos de edad. Se ha demostrado que las modernas tecnologías educativas de la educación de la información contribuyen a la formación de una base de calidad en el ámbito de la seguridad de la vida en el proceso de aprendizaje, lo que estimula una mayor expansión independiente y la mejora de los conocimientos por parte de los estudiantes en la realización de actividades educativas y profesionales. Se esbozan los principales métodos, programas y medios de la educación no formal en seguridad vital.
Conclusiones: el estudio demuestra que el uso de tecnologías educativas innovadoras permite evitar la fragmentación en la formación de conocimientos, destrezas y habilidades en seguridad vital, prevenir posibles dificultades en la aplicación práctica de los conocimientos adquiridos en las realidades del entorno profesional. Se corrobora que el aprendizaje no formal permite crear prerrequisitos para la autorrealización con éxito y la autosuperación continua, el dominio de nuevas competencias y el aumento de la motivación de los estudiantes para aprender. Se demuestra que el entorno educativo en la era de la internacionalización está dotado de oportunidades para la comunicación internacional activa, el desarrollo de iniciativas de investigación y la movilidad académica.

Palabras clave: Entorno Educativo Integrado; Seguridad Vital; Tecnologías Educativas Innovadoras; Integración; Globalización; Enfoque Sistemático.

INTRODUCTION

The need to develop a high level of knowledge, skills and abilities in life safety for students of any future profession is driven by internationally stringent requirements to reduce the number of occupational diseases and accidents in the professional environment. The low efficiency of sectoral education and students' lack of personal motivation to develop life safety skills lead to systemic non-compliance with life safety requirements by all parties to labour relations. This trend requires the integration of an innovative concept of informal education into the modern higher education environment, which contributes to the formation of sustainable skills of continuous self-education.

Modern life safety curricula focus mainly on formally studying industry-specific laws and regulations. educational solutions. At the same time, despite the apparent need for students to acquire essential competences, there is a need to transfer innovative educational technologies of informal learning that take into account the constant dynamics of both the life safety industry and educational technologies and are complementary to professional needs and requirements for competitiveness in the labour market.

The article aims to analyse modern approaches to organising information education for students in language life, taking into account the potential of modern educational technologies.

Modern scientists actively study informal education as a basis for the continuous self-improvement of specialists in the context of globalisation and the internationalisation of the educational environment. They pay special attention to the search for the most effective model of informal education and the possibilities of its adaptation to traditional educational systems.

Some authors[1,2] identify several primary functions of informal learning, including socio-cultural, adaptive, and competence. These functions serve as the basis for the formation of sustainable motivation for students to master skills, knowledge, and abilities to preserve their health and life in professional activities and everyday life. In continuation, Yuldashev et al.[3] argue that information education contributes to improving industrial safety and the conscious, responsible performance of specialists in their work duties.

Several researchers[4,5,6] point out that new educational material in information education programmes should be presented as accurately and clearly as possible, and the educational process itself should be flexible

and systematic. Together with the involvement of modern educational technologies, this will significantly increase the level of professional competence of students in life safety.

At the same time, Drozd[7] and Shelever[8] emphasise that it is most appropriate to implement certain learning content in information education with the help of visualisation tools that help to establish a connection between new knowledge and already known information. Visualisation helps to optimise the learning process, allowing students to understand the context of practical use of life safety information. According to the authors Sydorenko et al.[9] and Vovk et al.,[10] this will encourage students to actively participate in further tasks of practice-oriented learning in the form of, in particular, presentations, reports, and projects that require active application of the acquired knowledge and skills.

In general, most scholars whose publications focus on the development of lifelong learning analyse fundamental issues. At the same time, the organisation of the process against the background of active internationalisation of the educational and professional environment requires additional attention.

METHOD

The materials and results of previous studies that formed the basis for writing the article are publications indexed in the leading scientific databases Scopus and Web of Science. The keywords used for the search were 'integrated educational environment, life safety, innovative educational technologies, integration, globalisation, systematic approach'. The criteria for inclusion and exclusion of publications were the spatial and temporal indicator and the level of information reliability. The research materials included industry publications, the results of scientists' theoretical and methodological developments, and materials from scientific and practical conferences in information education. The sampling criteria were the maximum closeness of the topic to the field of life safety under study and the timeframe from 2019 to 2024. The sample size of the primary information sources corresponds to the practical realities necessary for the successful conduct of this study. Initially, more than fifty industry publications were collected, and twenty-five of them were used for the study according to the defined criteria. The method of bibliographic review was used for their processing.

Several general scientific methods were used, in particular, analysis and synthesis, structural and logical methods, comparison, and generalisation. Analysis and synthesis were used to systematize modern theoretical concepts on information education, clarify definitions, and define basic concepts and determinants.

The comparison was used to categorise and highlight the criteria for choosing practical pedagogical tools for information education in internationalization, globalization, and the dynamics of labour market requirements for modern specialists.

The structural-logical method was used to develop proposals for integrating innovative solutions in information education into the traditional learning environment and to identify related risks and obstacles.

RESULTS

Against the backdrop of globalization of the educational and professional environment, the world's leading countries are actualizing the development of non-formal and informal learning as an alternative to traditional forms of education. An awareness of the importance of human capital in the process of overall social progress drives this trend. Investments in education and continuous professional training, emphasis on the quality of essential universal competences, and skills of continuous self-improvement are common practice-oriented strategies of modern education in the developed European environment.[9] The intensification of the information load on students and the active internationalisation of education require the transformation of traditional educational systems.

The share of informal learning in the overall structure of the educational process is steadily growing, which is demonstrated by the information presented in figures 1 and 2. The average level of integration of informal learning in Europe is 10 %, but it is more than 30 % for developed countries.[11] Also, there is a representative relationship between a student's level of previous education and, his/her involvement in innovative forms of learning and the potential ability to continue self-learning.

Informal education allows students to study as independently as possible in the context of internationalization and practice-oriented learning. This form of life safety education allows students to develop life skills for a healthy lifestyle and increase the efficiency of life and work safety.[7]

The motivational component represents the conscious need to independently determine the goals of mastering life safety knowledge, skills, and abilities and the methods of achieving them.[4] Its systemic function positions life safety skills not as an actual state but as a continuous development in the long term.

It is also important for students to have value orientations in the practical application of life safety skills in their professional activities. Students should be interested in further delegating the acquired knowledge and experience in the field of study to colleagues.[5] They should strive to conduct an in-depth analysis of the identified problems in the industry.

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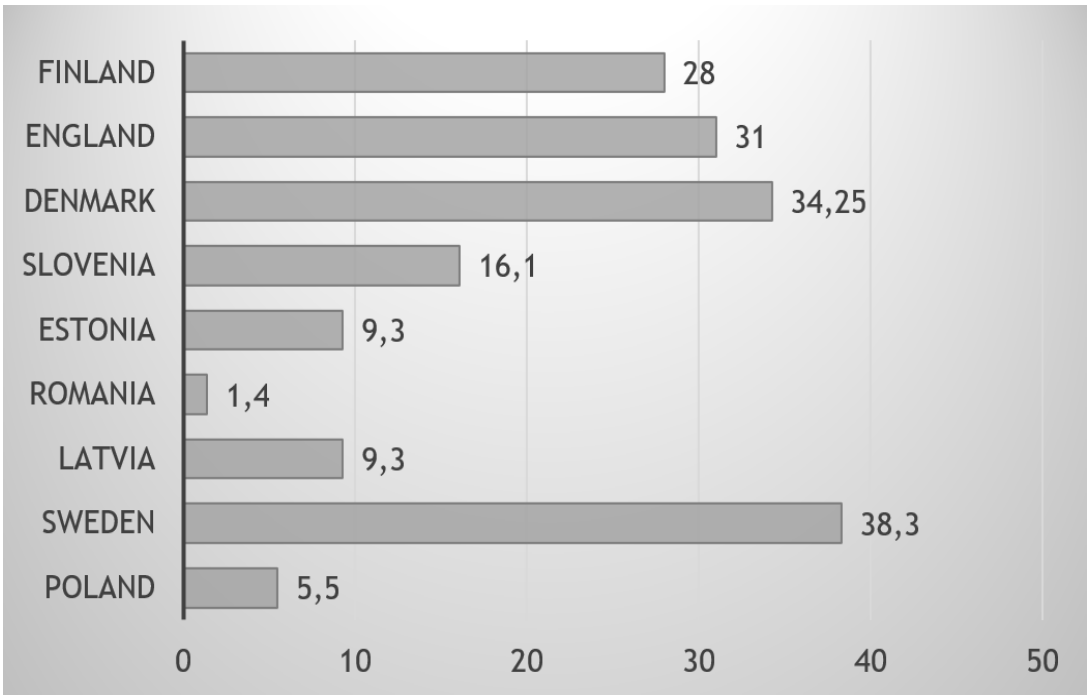
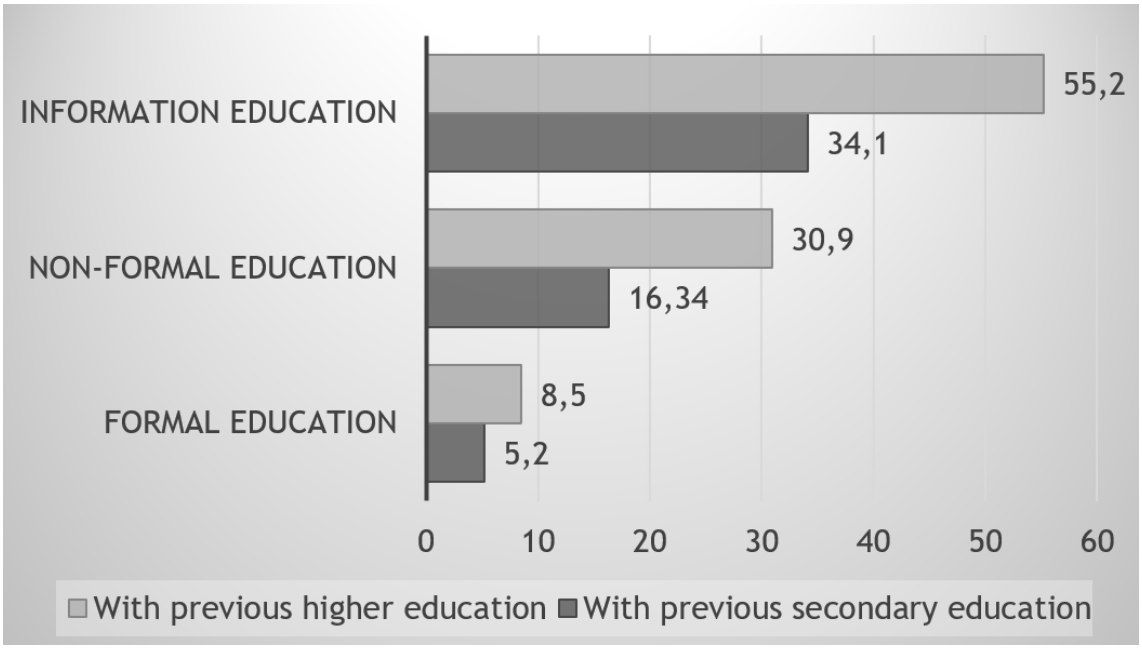


Source: According to the National Institute for Strategic Studies[11]
Figure 1. The share of informal learning in the overall educational process of higher education, %



Source: According to the National Institute for Strategic Studies[11]
Figure 2. Levels of students' prior education and integration into IT education

Reflection and cognitive skills also play an important role in ensuring an adequate basis for life safety information education. Cognitive skills manifest as practical skills of consciously controlling the results of one's professional activity, awareness of related threats and risks, and safe work with digital information in online communications.[2]

At the same time, the reflexive component is determined by the student's attitude toward himself/herself, his/her practical activity and the world around him/her. Reflection implies the presence of active self-awareness, an appropriate level of self-control and self-esteem, awareness of the results of their activities and responsibility for them, and the desire for self-realisation in professional activities.[10]

Organising information education in life safety involves integrating modern pedagogical tools with the

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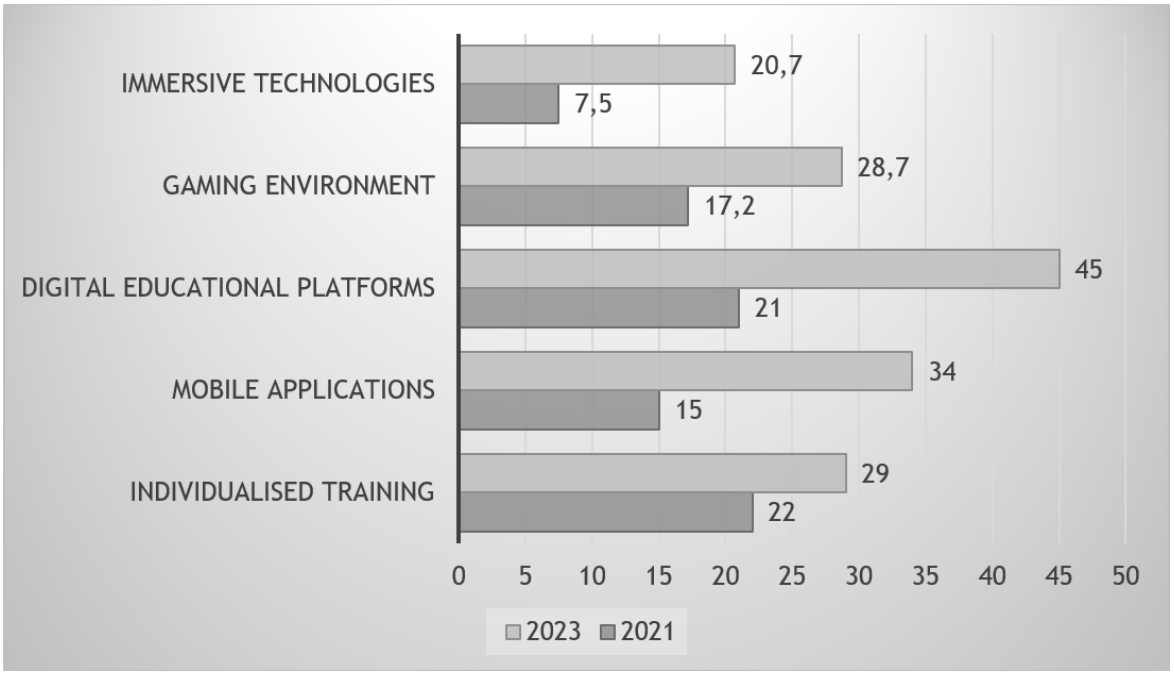
active involvement of digital, interactive, immersive learning technologies and individualisation of the learning process.[1] It is worth noting the most common innovative educational technologies that should be used in the process of mastering and improving life safety competences in the information educational environment, in particular:

- industry-specific online educational platforms: They allow students to effectively master specific competences, improve and upgrade them, and integrate global experience through online participation in projects, exhibitions, and conferences;
- practice-oriented learning: increases the level of student motivation and overall learning efficiency, allows the creation of a comfortable climate to activate cognitive skills, and implements theoretical knowledge in practice;
- virtual and mixed reality: improve learning by visualising abstract definitions, create the effect of real presence, develop critical and problem-oriented thinking processes, and allow for practical, realistic experience;
- project-based learning and the case study method: allows for streamlining educational and practical experience, integrates elements of life safety knowledge into the professional competences of any speciality;
- blended learning: provides individualised support for students, stimulates their independent work, helps to improve critical thinking skills, and facilitates the adaptation of students to digital perspectives;
- individualisation of learning: creates an opportunity for students to test their level of knowledge, skills and abilities, to choose additional material according to the desired level of complexity and individual needs, which increases student motivation and overall learning outcomes;
- mobile applications: provide access to advanced and systematic training materials that can be effectively used even directly in the course of professional activities, help in the personal development and improvement of a specialist, and ensure personalised learning;
- problem-based learning encourages students to find answers to problematic questions independently and promotes mutual learning when jointly solving tasks.[3,6,8]



Source: systematised based on European Education Area[12]

Figure 3. The level of implementation of innovative educational technologies in information education in European universities, 2021-2023, % of the total educational process

Figure 3 provides general statistical information on the dynamics of integrating innovative educational technologies into the information education system in European universities. According to empirical data, immersive technologies (virtual and mixed reality) have tripled in two years, and digital learning platforms and mobile applications have more than doubled. In addition, the integration of personalised learning technologies has increased significantly. This indicates the rapid digitalisation of the educational environment and the practical effectiveness of these learning tools in higher education.

The European integration course of Ukraine determines the vectors of future development of the national

educational environment. In the context of life safety courses within higher education, combining elements of formal, informal and informal learning systems is appropriate, contributing to the intensive development of relevant competences in students. In addition, internationalisation processes require the unification of requirements for specialists in line with European standards, and therefore, to ensure future competitiveness in the labour market, students should be familiar with international requirements of life safety legislation, which should be taken into account in the process of organising informal education.

DISCUSSION

The problem of transforming the traditional educational system forms a wide range of scientific issues within the modern discourse. In particular, Karvatska and Savka,[13] Seo et al.,[14] and Swuste et al.[15] have formed the prerequisites for the effective development of informal and non-formal education based on the systemic concept. Researchers Karvatska and Savka[13] note the effectiveness of blended learning in the context of opportunities for constant dialogue, joint learning activities and preservation of the individual orientation of the educational process. At the same time, it is controversial that these scholars position the transformation of education as a process based solely on innovation. Our article reveals the essence of the modern education system as a purposeful process of acquiring knowledge, skills and abilities based on the synergistic use of traditional and innovative pedagogical technologies on the principle of mutual complementarity.

At the same time, the authors emphasise the need for appropriate resource support for innovative learning. Gajek et al.[16] and Leask[17] argue that introducing innovative learning technologies against the global internationalisation of education allows for a coordinated approach to the systemic management of human capital formation processes. Researchers Ismara et al.[18] state that a modern specialist must have universal competences, including life safety, ensuring a highly competitive position in the international labour market.

The position of these scholars seems controversial, given the need to ensure the readiness of participants in the educational process to innovate and a high level of their motivation. In addition, the effectiveness of the educational process in the context of innovative approaches is determined by learning habits (responsibility, adaptability, perseverance, etc.); comfort of the learning environment; time management skills; methodology and motivation.

Separate publications[19,20] are devoted to analysing the potential of innovative educational technologies as a practical tool for information education. Scientists identify factors influencing the effectiveness of the educational process in the context of digitalisation. These include openness to innovation, adaptability and readiness for limited conditions, providing feedback and counselling. We should agree with the scientists, emphasising the need to ensure that the educational solutions used meet the requirements of the modern young generation. Numerous online resources and interactive technologies allow not only to master essential life safety competences, but also to practice them in the practical field through immersive technologies, check the level of mastery using a mobile application, or upgrade existing skills with the help of an online assistant.

Some scholars[21,22,23] determine the importance of preventive learning systems in information education on life safety. The student must master practical skills of occupational and household safety, the ability to think critically and master the tools of problem-based decision-making. Given the specifics of the subject of life safety, its competences are universal and necessary for a specialist in any field. In view of this, Sanabria [23] suggests the use of immersive reality and virtual technologies. The scientist's proposals seem reasonable, as interactive means are seen as the future of education.

According to Zhu et al.,[24] modelling educational content with elements of immersiveness increases students' awareness of security issues by creating a sense of real presence in a particular situation. In continuation, Arifin et al.[25] position educational applications as an alternative to traditional teaching tools and methods, arguing for the need to take into account the specific cognitive characteristics of modern students, their professional development, and the upgrade of the list of essential competences of a competitive specialist.

It is worth noting that the scientists' proposals are appropriate given the possibility of creating different scenarios and levels of complexity using an immersive environment that allows students to practice developing sustainable competence skills. An additional tool for checking the effectiveness of learning is online tests and surveys with automatic processing of results.

Despite scholars' considerable interest in the issue, the practical adaptation of information education strategies to Ukraine's realities remains poorly understood.

CONCLUSIONS

The modern educational environment goes beyond the traditional methodology, which makes the role of non-formal learning more relevant. This trend requires the integration of the innovative concept of non-formal education into the modern higher education environment, which contributes to the formation of sustainable skills of continuous self-education. It is based on the principles of integration and globalisation, the need to ensure the competitiveness of a specialist in the labour market, increase the motivation and professional

competence of students, and professional self-realisation of the individual.

The advantages of the proposed strategy of life safety education are adaptability and flexibility, lack of time limits and procedural formalities. This makes it possible to increase students' competence and motivation for continuous improvement, to develop active international communication and research initiatives, as well as academic mobility.In general, the training of students in life safety in the context of internationalisation should be considered as a purposeful process of acquiring knowledge and skills based on the synergistic use of traditional and innovative pedagogical technologies on the principle of mutual complementarity.

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