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The impact of educational programmes on building safety culture in modern society

El impacto de los programas educativos en la creación de una cultura de la seguridad en la sociedad moderna

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Abstract

Safety culture is an important element in the development of human thinking before making decisions in emergency situations. The aim of the study is to determine the specifics of the impact of educational programmes on building safety culture in modern society. The authors achieved the aim of the study by employing of the method of analysis, the Likert scale, the impact ratio calculations, the criterion of psychological training, the response coefficient, the J. Phillips' correlation coefficient. The study determined that it is necessary to take into account the development of psychological stability, the impact of possible risks for building a safety culture. It is also necessary to ensure consideration of simulated situations for identifying response mechanisms. The study established that the influence of educational programmes on building safety culture is related to the development of logical thinking. The practical significance of the work consists in determining the mechanisms that have the greatest impact on the possibility of forming a

safety culture in the educational process. The research prospects will be related to the comparison of the effectiveness of the proposed mechanisms during the management of emergency situations in the context of martial law and the influence of adverse weather conditions.

Keywords: Emergency situation, protective function, psychological stability, risk, logical thinking, modelling.

Resumen

La cultura de la seguridad es un elemento importante en el desarrollo del pensamiento humano antes de tomar decisiones en situaciones de emergencia. El objetivo del estudio es determinar las características específicas del impacto de los programas educativos en la creación de una cultura de la seguridad en la sociedad moderna. Los autores alcanzaron el objetivo del estudio empleando el método de análisis, la escala de Likert, los cálculos de la relación de impacto, el criterio de formación psicológica, el coeficiente de respuesta y el coeficiente de correlación de J. Phillips. El estudio determinó que es necesario tener en cuenta el desarrollo de la estabilidad psicológica, el impacto de los posibles riesgos para construir una cultura de la seguridad. También es necesario garantizar la consideración de situaciones simuladas para identificar los mecanismos de respuesta. El estudio determinó que la influencia de los programas educativos en la construcción de la cultura de la seguridad está relacionada con el desarrollo del pensamiento lógico. La importancia práctica del trabajo consiste en determinar los mecanismos que más influyen en la posibilidad de formar una cultura de la seguridad en el proceso educativo. Las perspectivas de la investigación estarán relacionadas con la comparación de la eficacia de los mecanismos propuestos durante la gestión de situaciones de emergencia en el contexto de la ley marcial y la influencia de condiciones meteorológicas adversas.

Palabras clave: Situación de emergencia, función protectora, estabilidad psicológica, riesgo, pensamiento lógico, modelización.

Introduction

Safety culture is an integral part of social development, which is aimed at preserving psychological and physical health. Therefore, the educational process should provide for building a safety culture in modern society, which will enable students to build an understanding of possible unforeseen situations and behaviour during such situations (Hassanpour & Rassafi, 2021; Di & Gong, 2024; Han & Choi, 2024). Martial law in Ukraine requires paying special attention to the development of students' understanding of a safety culture. The relevance of the chosen topic is determined based on the established data.

Safety culture is a set of features that contribute to the regulation of people's behaviour during emergency situations. The educational process contributes to the formation of students' understanding of how to deal with emergency situations (Fabi & Thampi, 2022). In order for students to perceive information, it is necessary to ensure the search for non-standard learning mechanisms, the possibility of applying innovations. Conscious perception of safety culture can be achieved due to the formation of human intelligence, which contributes to the perception of information and its processing. Systematisation of information contributes to activation of thinking for human behaviour during emergency situations. The peculiarities of safety culture can be studied using a separate subject or during the integration of the main criteria into other subjects (Anton et al., 2021; Kovalenko et al., 2023). The training process should include studying not only the peculiarities of an emergency situation, but also the mechanisms for avoiding undesirable consequences, taking into account possible risks. During the educational process, it is necessary to ensure the improvement of students' psychological, intellectual, and ethical readiness for an unforeseen situation (Weinberg & Kimchy Elimellech, 2022).

The educational programmes should be aimed at the development of a new students' worldview, which will contribute to the practical implementation of the protective function. The development of students' awareness has a relationship with the safety culture, which allows solving the tasks regarding safe

behaviour. The development of motivation makes students to be motivated to study safety culture (Timchenko et al., 2022). The level of development of safety culture depends not only on the development of consciousness, but also on one's own experience, which may depend on social, environmental, legal conditions, etc. Safety culture is interconnected with social nature, which involves mutual understanding of people during emergency situations. The educational process should provide approaches to the regulation of student behaviour based on relevant norms and instructions (Aćimović, 2022; Finkeldei et al., 2022). It is also important to develop emotional stability, which will contribute to the quick implementation of an action plan in emergency situations and an adequate assessment of the possible risk occurrence. Psychological stability will allow to obtain better results in the perception of negative impact. The educational process should be provided with correctly developed educational materials that correspond to the current conditions and contribute to the delivery of education in times of emergency (Ren et al., 2023).

The analysis of existing materials on safety culture identified gaps in the information on the development of safety culture under martial law. Current mechanisms of implementing a safety culture in the educational process are superficially described in the works. The aim of the research is to study the impact of educational programmes on building a safety culture in modern society.

The aim involved the fulfilment of the following research objectives:

- Identify the approaches that must be taken into account in the educational process for building a safety culture;
- Determine the level and features of the impact of the educational process on the development of safety culture;
- Measure the level of students' psychological readiness for emergency situations, focusing on the use of the psychological readiness criterion;
- Determine the level of students' response to an emergency situation as a result of the use of modelling techniques.

The study of theoretical information and relevance of the selected topic was implemented in the introduction. A literature review was included in the article to enable a more detailed study of the specifics of the topic and its advantages and possible gaps. The "Methodology" section was aimed at clarifying the main research procedures and methods that contributed to the final results. The research results identified approaches that contribute to forming a safety culture; peculiarities of the influence of educational programs on the development of safety culture principles. Also, during the study, the level of psychological preparation of students for the occurrence of an adverse situation and the level of response of students to the occurrence of an emergency situation using the principles of modelling were determined. In the "Discussion" section, the authors confirmed the novelty of the work based on comparing the obtained results with already published articles. The conclusions reflect the short results of the work that correspond to the research objectives.

Literature Review

One of the priority areas of studying safety culture is radioecology, which can be studied in physics, chemistry, ecology, mathematics, etc. Studying the peculiarities of radio-ecological safety is connected with conducting radio-ecological monitoring of territories, drawing up radiation hygienic passports of the territory. Forecasting the radiation situation and accident prevention mechanisms are also important. The learning process should provide for the formation of human culture and radio-ecological competence. This approach enables adjusting people's actions and ensures organisational safety (Keykhaei et al., 2024). Studying the features of evacuating people during a fire as part of the Life Safety course showed a positive impact on the understanding of the situation by respondents who have training experience. The experience made it possible to assess the risk of fire in a building made of non-combustible materials. The learning process should include features of risk perception, evacuation during a fire, advantages and problems of evacuation, development of various fire development scenarios. The results showed that the conducted

trainings prepared the students for the possibility of emergency situations during a fire (Menzemer et al., 2024). Behaviour in emergency situations depends on the individual choice of a person, peculiarities of thinking, which allows maintaining the correct action plan. Deep learning develops human logic, which minimises the number of errors, and affects the improvement of cognitive and visual intelligence. Thinking may be developed as a result of immersion in a particular situation, which affects the speed and accuracy of response in emergency situations (Bahamid et al., 2024).

The Minecraft application was used in the educational process to study the features of handling and evacuation during a fire. The interactive platform was used for recognition of people's coordinates for conducting virtual experiments. A realistic simulation of the occurrence of a fire was provided on the basis of movement and behaviour pattern of pedestrians, which involves focusing on certain emergency response mechanisms. This contributes to the development of self-organised behaviour and the psychological impact of an emergency on a person (Shi et al., 2024). During the analysis of an emergency situation, it is necessary to take into account the possibility of avoiding panic during an unforeseen threat. During training, it is necessary to provide an explanation of the possibility of negative situations, which helps to coordinate actions and avoid crowd panic. Simulation experiments are important for understanding human behaviour, which contributes to proper response in emergency situations (Pişirir et al., 2024). Human behaviour during an emergency evacuation depends on spatial knowledge. Virtual reality techniques were used in the training process, which allowed to simulate a fire in a shopping centre. The results of the study showed that evacuation using navigation reduced the time to find an exit. This allows for the training of practical skills in handling fire and people's preparedness for emergency situations (Mao et al., 2024).

Behavioural characteristics of people have the greatest influence on the effectiveness of evacuation of people during emergency situations. In the educational process, it is necessary to focus on the psychological component of evacuation and the optimal algorithm of influence on predicting the development of an emergency situation. It was established that understanding the methods of evacuation allows to shorten the path and the correctness of evacuation (Luan et al., 2023). Maintaining an emotional state during emergency situations is one of the necessary elements of training. Stress management strategies can be learnt through experimental training based on standardised examples. Research findings showed that reduced empathy is a useful tool for emotional protection during an emergency situation (Völker & Flohr-Devaud, 2023).

The analysis of academic articles established that the behaviour in emergency situations is primarily related to different types of fire. The training was implemented through the use of virtual models, and the training was developed for specialist students to a greater extent rather than for all students. The established results reflect gaps in research on building security culture during martial law.

Methodology

Research design

The first stage of the research involved determining the educational approaches that contribute to building the students' safety culture. The focus was on the courses Regional Development and Spatial Planning, Ecology, "Life safety" and others, which include the topics related to safety culture. Attention was paid to the study of regional aspects of the population's quality of life. This allowed us to localise the research object and focus on more specific approaches to modelling emergencies and ways to address them. The process allows us to take into account the needs of the population of a particular region, natural factors, etc. The second stage of the research provided for determining the influence of educational programmes on the development of safety culture. The second stage of the study was related to determining the level of psychological readiness achieved by the students to respond to emergency situations. The third stage of the research was related to determining the developed level of students' response to a simulated

emergency situation. The choice of a state of emergency was explained by the negative consequences of the influence of the martial law introduced in Ukraine.

Sampling

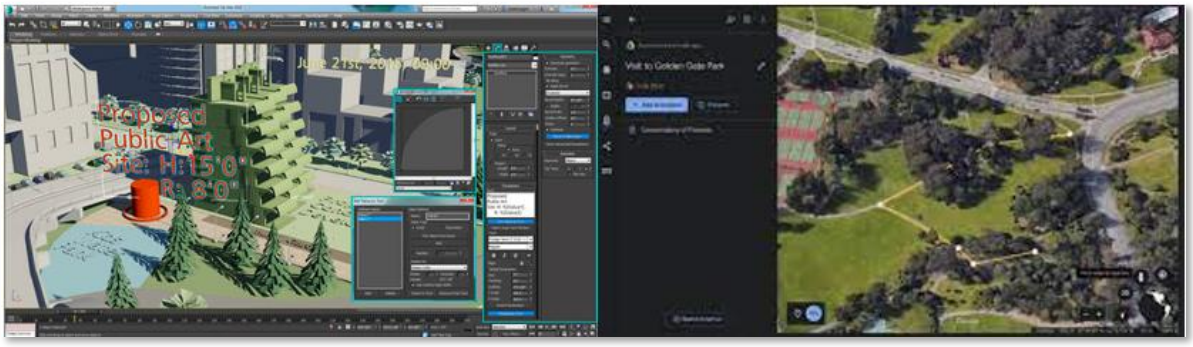
The study involved 160 students of:

- The Department of Philosophy and Political Science of Cherkasy State Technological University;
- The Department of Tourism, Theory and Methods of Physical Culture and Valeology of Khmelnytskyi Humanitarian-Pedagogical Academy;
- The Department of Geography of Ukraine of Yuriy Fedkovych Chernivtsi National University.

Restrictions on the students' selection are related to the inclusion of Regional Development and Spatial Planning, Ecology courses in the training programme. This enables only to determine the specifics of the safety culture in more detail, but also to obtain practical results. Before the research, the students were familiarised with the plan for the organisation of the educational process and their participation in each of the research stages.

Methods

The approaches to be followed in the educational process for building a safety culture were determined on the basis of the analysis of the features of the safety culture and its main principles. Emphasis was placed on the possibility of students' practical response to possible emergency situations, the peculiarities of their occurrence, and the creation of possible risks. Attention was also paid to preserving the students' mental health, minimising the impact of stress during a dangerous situation. Simulation of dangerous situations was developed using digital technologies (Autodesk 3ds Max, Google Earth) (Figure 1). The established educational approaches were included in the subjects Regional Development and Spatial Planning, Ecology, which provided for 4 months of training.



a) b)

Figure 1. Features of use in the educational process: a) Autodesk 3ds Max; b) Google Earth

The impact of educational programmes on the development of safety culture was determined by involving students. The Likert scale was used to determine the influence of the educational process on the understanding and level of safety culture: positive, neutral, negative. Students should focus on the need for self-study of safety culture. According to the Likert scale, students assigned points from 1 to 3 to the most influential indicator (Lyu et al., 2024). The data were transferred from the students to the authors of the article via e-mail. A specific impact of educational programmes on the development of safety culture was determined using the method of analysis. An analysis of training programmes and specific features of safety culture was carried out in the research. The most influential indicators were determined with the help of calculations of the impact ratio developed by the authors of the article:

$$k_n^i = \frac{f^p + a + g^m}{n}, \qquad (1)$$

f^p – the frequency of using a particular principle in the educational process;
a – the need to apply a separate principle for building a safety culture;
g^m – the greatest manifestation of a separate principle developed in the learning process among students;
n – he number of principles that were selected for research.

The level of students' psychological readiness for an emergency situation was determined as a result of observing students' actions while solving situational problems. The students were also required to pass the Spielberger-Hanin test (Balboa et al., 2024), the results of which were used for calculating the psychological readiness. The Spielberger-Hanin test enables determining the predominant anxiety type. These indicators are important for monitoring students during an emergency situation. The test determines the level of anxiety at a certain moment.

$$c^{pt} = m^i + l^s + l^r, \qquad (2)$$

m^i – providing students with opportunities to conduct intelligent modelling of emergency situations;
l^s – the students' stress resistance level during emergency situations;
l^r – the level of students' readiness for an emergency situation.

Checking the practical level of students' response to emergency situations involved their simulation as a priority. The simulation involved consideration of situations that may arise during martial law. Some examples of simulated situations are presented in Figure 2. The authors indicated possible variants of the tasks that were set before the students. Students had to determine the level of negative impact of the situation, possible consequences, methods of protection, action plan, focusing on regional aspects of the quality of life. The results were determined on the basis of calculations of the response coefficient developed by the authors of the article:

$$k^r = \frac{m^r + m^t + i}{m^n}, \qquad (3)$$

m^r – a score for a meaningful response to the emergency situation;
m^t – a score for maintaining psychological stability techniques;
i – a score for compliance with emergency response instructions;
m^n – the maximum possible number of points that could be obtained by students.

Examples of simulated situations:

Task 1. Students need to assess the potential risks and plan for dealing with an air alert while outside. There is no suitable shelter nearby. Students need to assess the location to ensure safety and determine possible risks by analysing the terrain. It is also necessary to justify life-saving approaches (Figure 2).

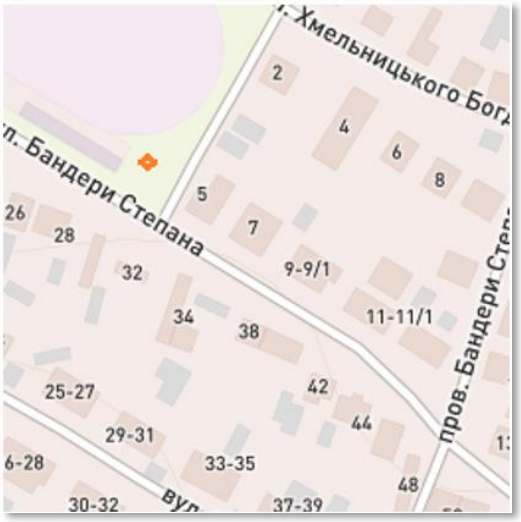


Figure 2. One of the examples of terrain for assessing the occurrence of possible risks.

Task 2. It is necessary to reduce a person's anxiety caused by the explosion he saw. This task involves a situational game with victims and bystanders, which is connected with developing communication skills.

The process consists of asking and answering open questions, which ensures the conditions of treatment of the victim and determines the response mechanisms. The task is aimed at determining the consequences of students' actions and the possibility of managing emotions. Mechanisms for providing pre-medical assistance to the victims were also involved.

Task 3. Determine the level of possible danger during an explosion based on a mass media report on emergency situations. Describe the possibility of self-protection, giving specific examples and the possibility of helping others. Simulate possible risks and elimination mechanisms.

Data analysis

The obtained calculations were confirmed by using the J. Phillips' statistical correlation coefficient. Calculations were presented to confirm the level of students' psychological readiness and the level of students' response in emergency situations. Estimated indicators correlate when the J. Phillips' correlation coefficient approaches 1 (Barabash & Weigang, 2021).

$$p = 1 - \frac{6\sum d^2}{n^3 - n}, \qquad (4)$$

d – the difference of indicators, which reflect the comparison of different values among themselves;
n – the total number of parameters for statistical calculation;
$\sum d^2$ – the sum of the obtained difference of indicators.

Results

When building students' safety culture during martial law, the authors of the article developed approaches that must be taken into account in the educational process (Figure 3).

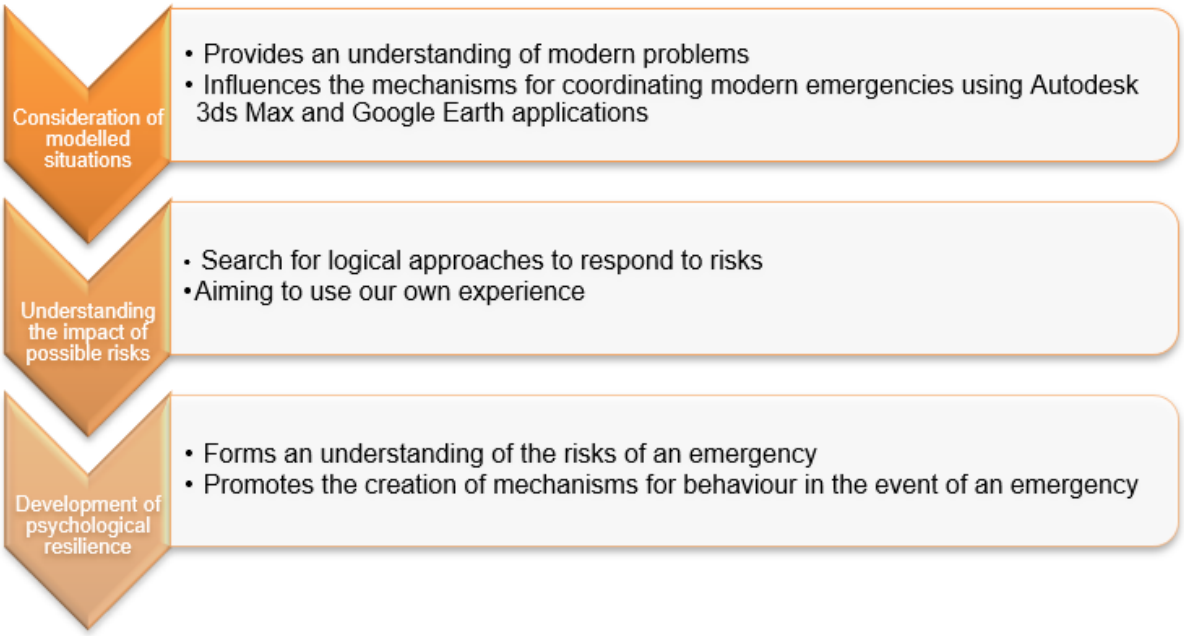


Figure 3. Approaches that contribute to building of a safety culture

The development of psychological stability is an important criterion for the perception of safety culture, as it forms an idea of the risks of a possible emergency situation and the handling mechanisms. Psychological stability ensures an up-to-date perception of an emergency situation. It should also be aimed at developing communication skills, which will contribute to active interaction with other students. Psychological stability should be aimed at avoiding panic and more conscious actions in accordance with certain conditions. Psychological stability is associated with adherence to certain values in emotional and cognitive behaviour. It should be associated with balance, which will enable resisting external influences and acting in accordance with instructions. Psychological stability helps to maintain a balanced state in extreme situations, avoiding rash actions. Self-control of behaviour helps to make a clear plan of behaviour in emergency situations.

Consideration of simulated situations develops skills of practical preparedness for an emergency situation. Simulation of emergency situations in the educational process may involve digital technologies. The Autodesk 3ds Max application facilitates the creation of two-dimensional charts. Google Earth is used to display the real situation. The process is aimed at following the instructions, which reflect a certain procedure for actions during an air alert, radiation safety, etc. This element is aimed at determining possible options for the development of an emergency situation and approaches to its resolution. The implementation of a well-thought-out plan involves determining the resources that must be attracted. Simulation promotes teamwork, which provides practical knowledge for dealing with and solving individual situations. Simulation provides development of analytical, research, communication and professional skills. Simulation stages identify the features of dangerous situations, determine possible obstacles, and orientation in the choice of possible actions. The simulation process is aimed at understanding modern problems and choosing the most effective ways to solve them.

Understanding the impact of possible risks is related to the development of safety culture features for the formation of students' safe behaviour. Understanding the occurrence of possible risks involves the analysis of various information about exposure to develop measures for their prevention and management. This approach will ensure the selection of the most logical approaches for responding to certain events. Knowledge of the impact of possible risks contributes to the selection of mechanisms for reducing the negative impact. The educational process should also provide for determining the causes of possible risks, using the possibilities of professional activity. Studying the impact of possible risks may be related to

holding conferences, business debates. This learning criterion should be oriented towards life and professional experience, which will contribute to the implementation of new ideas, focusing on the formation of certain values, understanding of one's own benefit. The exchange of skills contributes to a deeper understanding of the safety culture by students and the possibility of finding non-standard solutions for dealing with non-standard situations.

The research determined how educational programmes contribute to the formation of the safety culture principles. Their role was determined in general, without focusing on a specialised academic subject only (Table 1, Figure 4).

Table 1.
The influence of educational programmes on building safety culture principles

Development features	k_n^i	J. Phillips correlation coefficient (p)		
		$\sum d^2$	n	p
Psychological development	2,71	25,7	4	1,57
Communication skills	2,87	27,4	4	1,74
Logical thinking	2,93	29,5	4	1,95
Digital competence	2,64	24,1	4	1,41

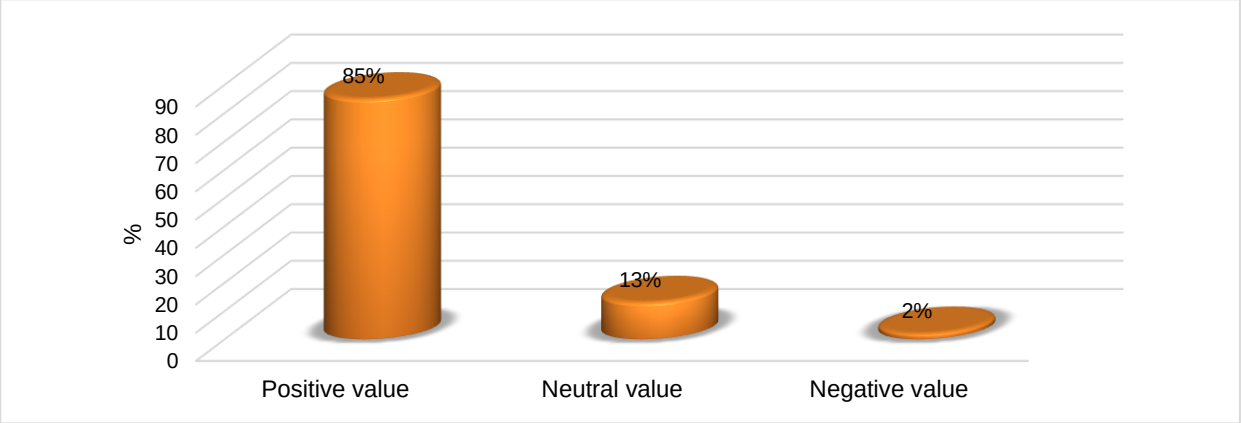


Figure 4. The general importance of the educational process for building safety culture

Educational programmes have a positive impact on building a safety culture, which is associated with psychological development, communication skills, logical thinking, and the development of digital literacy. Logical thinking skills are developed during the study of various both professional and general academic subjects. Logical thinking enables reacting correctly during the period of adverse situations, to develop a particular plan. In addition, logical thinking allows taking into account possible risks, which contributes to a better understanding of the safety culture under the influence of emergency situations.

The development of communication skills is also an integral part of the educational process, which is related to the discussion of information, work in groups, etc. Communication skills make it possible to ensure social cohesion and avoid contradictions. This approach during the discussion determines the most favourable option for actions. Psychological development can also occur during training, which allows you to respond correctly to the occurrence of emergency situations. This helps to eliminate stress and promotes conscious perception of the right decisions. Psychological development contributes to the individual preparedness of a person, focusing on the specifics of the safety culture. The use of innovative approaches in the educational process enables expanding the mechanisms of in-depth study of specific information. The use of modern technologies contributes to the detailed study of methods of action during emergency situations

using simulation techniques. The research established a general positive influence of the educational process on building safety culture. This is due to the possibility of developing various skills in the course of professional activity.

The study involved determining the level of students psychological readiness for emergency situations (Table 2).

Table 2.
The level of students' psychological readiness for an emergency situation

Psychological readiness level	% of respondents	Psychological readiness	J. Phillips' correlation coefficient
High	74%	14.3	High level – medium level: 1.373
Medium	23%	11.2	High level – low level: 1.806
Low	3%	7.6	Medium level – low level: 1.005

The focus on the students' psychological training showed its high level. Such data are related to the identification of possible risks and mechanisms of the development of emergency situations, the understanding of which was formed during the simulation of various situations. The learning process is aimed at reducing the level of danger, which reflects the students' psychological readiness. Increasing the level of psychological training is connected with an active state of war, which requires correct mechanisms for its implementation. This was reflected in the possibility of perceiving a negative factor and understanding the necessary measures to save one's life. The accumulated professional experience enabled students to implement the skills of behaviour in emergency situations. Positive psychological training was delivered under the influence of constant diagnostics of students' condition and adjustment of their activities in compliance with safety culture. Students obtained psychological training on the basis of developed experiments with the help of simulated situations. Achieving psychological preparation is associated with the perception of emergency situations as a result of observing the possible consequences of development. Among students who received a medium level, the results were associated with a realistic perception of events and an understanding of the mechanisms for solving adverse effects. Psychological readiness allows for successful regulation of security measures.

The level of students' response to the correct sequence of actions during emergency situations was determined. The results were obtained based on emergency simulations (Table 3).

Table 3.
The level of students' response to an emergency situation during simulations

Psychological readiness level	% of respondents	Students' response	J. Phillips correlation coefficient		
			$\sum d^2$	n	p
High level	82%	4.5	9,003	3	1,250
Medium level	18%	3.1	8,410	3	1,103
Low level	-	-	-	-	-

It was established that a low level of response was not recorded among students, as the training provided for the development of psychological stability techniques, identification of possible risks. A high level was mainly achieved, which is associated with the simulation of narrowly focused situations, such as martial law. High results were obtained because the students could understand the principles of spreading emergency situations and assess possible risks. Calculating the occurrence of possible risks contributed to a better understanding of the safety culture and the search for mechanisms aimed at developing an action plan to eliminate the negative impact. A high level was also achieved as a result of the students' compliance with the established instructions. According to the instructions, the students could clearly follow them to implement actions during emergency situations.

Additionally, based on the correlation analysis by J. Phillips, the relationship between the level of psychological training of students and the level of their response to an emergency in the course of simulation was determined. The results are presented in Table 4.

Table 4.
Comparison of the correlation analysis of students' psychological training and the level of developed skills to respond to an emergency

Formed level	Psychological preparation	Level of response	Correlation analysis
High level	1,373	1,250	1,312
Medium level	1,806	1,103	1,405
Low level	1,005	-	-

The obtained results reflect the relationship between the formed level of psychological training and the level of students' response to the possibility of an emergency. The results showed that obtaining high results in the studied indicators has a greater level of influence, which is manifested in a more accurate performance of the tasks, focusing on the experience gained. The achievement of an intermediate level of knowledge by students is reflected in the presence of greater differences in the mechanisms of response to the occurrence of a relevant emergency and the level of psychological training, as it requires additional independent training to achieve higher results. Also, students need to focus on studying regional peculiarities for a qualitative response to an emergency.

Discussion

Emergency rescue training is an important element of the training process, which contributes to the improvement of rescue capabilities. However, the training should be related to the assessment of the possible impact of emergency situations and building of an appropriate model. The use of analytical methods allows for a comprehensive construction of the response assessment in an emergency situation (Ruan et al., 2022). Simulation of behaviour in the educational process makes it possible to identify different scenarios of student behaviour during emergency situations. It can be emergency evacuation, intelligent control. The research results showed that individual and group behaviour is given a lot of attention, but interaction between peers during an emergency situation is not common. The learning process involves taking into account cognitive behaviour, the interconnection of social relations. Modelling student behaviour allows for consistency of action during emergency situations (Fan et al., 2020). Providing effective fire evacuation management strategies to improve pedestrian safety in the training process should be based on understanding the specifics of fire evacuation. The behaviour options were modelled using the Minecraft programme, which involved the inclusion of obstacles on the main path, internal obstacles, etc. In terms of training, this approach made it possible to identify risky behaviour, route formation possibilities, etc. (Zhang et al., 2023). The published articles focused on the development of emergency management strategies based on regulatory mechanisms. In our work, attention was paid not only to modelling mechanisms, but also to the development of psychological stability, understanding the impact of possible risks.

It is important to consider crowding when creating an emergency plan. The educational process should include understanding the methods of forecasting emergency situations, studying their features. It is also necessary to understand the principles of evacuating people, certain routes, the occurrence of additional disasters because of the crowding of people. Prediction of anomalies will contribute to the safety of people (Bahamid & Mohd Ibrahim, 2022). Building a fire safety culture in the educational process can be related to the analysis of systematic reviews and fire reports. Increased immersion in the problems of fire causes higher learning outcomes. The learning process should take into account interdisciplinary approaches that aim to achieve high goals (Menzemer et al., 2023).

The rules of behaviour during natural hazards (earthquakes) should be considered in the educational process, which allows to avoid unpredictable negative consequences. It is necessary to take into account the development of unforeseen situations (changes in the behaviour of the population, increased crowding, changes in transportation, etc.). Taking specific situations into account allows minimising risks. Understanding the possibilities of using innovative ideas helps to find the shortest routes and reduce evacuation time. Spatial knowledge has been found to be the most effective predictor of evacuation (Keykhaei et al., 2023). In the presented works, possible students' behaviour in emergency situations are determined as a result of studying various options for evacuation, which helps to find the most effective mechanisms. Our study established that the effectiveness of safety culture also depends on other factors that were formed during training (psychological development, communication skills, logical thinking, development of digital competence).

Emergency response mechanisms are associated with a high level of uncertainty and complexity. In the educational process, it is necessary to ensure the peculiarities of the exchange of text information during an emergency situation, which ensures a team response and the achievement of higher results (Diachenko et al., 2022; Weger et al., 2022).

The analysis of studies determined that the safety culture in the educational process can be built as a result of studying different evacuation plans. It is also important to understand the features of the territory for the possibility of effective evacuation during an emergency situation. In our work, the emphasis was mostly on students, which involved taking into account the psychological component in the educational process, modelling various situations and determining the impact of possible risks. The work also determined the general impact of the educational process on the development of safety culture. On the basis of simulated situations, the level of psychological readiness for emergency situations and the level of response to them was determined among students.

Limitations

The conducted research was aimed at the formation of a safety culture as a result of the impact of emergency situations, which are connected with the state of war. Other directions of emergency situations (natural, man-made, etc.) were not considered in the work. The presented limitation does not have a significant impact on the obtained results, as the impact of emergency situations during martial law is interconnected with different directions of emergency situations. The work analysed the impact of the educational process on building a safety culture based on the example of the selected student group.

Recommendations

The concept of "security culture" is an integral element of the development of modern society under martial law. Building a safety culture in educational institutions makes it possible to understand the consequences of emergency situations and minimise the negative impact. Understanding the importance of the educational process in building a safety culture contributes to the search for new mechanisms for its development.

Conclusions

The authors achieved the research goal primarily due to the identification of approaches that can contribute to ensuring the educational process. One of the approaches is the development of psychological stability, which is aimed at actual perception of an unfavourable situation. Psychological stability is associated with the need to train conscious actions. Focusing on simulated situations will ensure the development of practical skills and the ability to follow instructions during emergency situations. Understanding the impact of possible risks is related to the understanding of the features of adverse situations and methods of its distribution.

It was established that the educational process is positive for building a safety culture, as it contributes to the development of logical thinking (2.93), communication skills (2.87), psychological development (2.71), and the development of digital competence (2.64). The positive impact of the educational process is associated with the formation of an understanding of the peculiarities of adverse situations and mechanisms for minimising the negative consequences for health. Among the respondents, it was established that building a safety culture in the educational process had a positive effect on their achievement of a high level of psychological readiness (14.3 among 74% of students). First of all, the process is related to accepting an emergency situation and keeping calm during its occurrence. It was determined through emergency simulation that the majority of students (82%) achieved a high level of response.

The practical significance of the work is the possibility of building a safety culture, focusing on effective indicators of influence in the educational process. Research prospects may be related to the comparison of mechanisms of building safety culture in different countries.

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