

EDUCATION: THE PROBLEMS AND MEANS OF MODERNIZATION

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Research experience of social security of educational process in Siberian University

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Abstract. This article discusses the issues of social security and activities to ensure the protection of students in the higher education institutions. On the example of monitoring for three years in the Siberian Fire and Rescue Academy of the Ministry of emergency situations of Russia, the authors analyze the influence of factors related to the functioning of the basic services of the Academy, determining the conditions of the educational process. In relation to the Siberian Fire and Rescue Academy, such indicators included 1) satisfaction of cadets with the work of catering service, 2) medical support service, 3) satisfaction of cadets with the quality of teaching disciplines, 4) assessment of the moral and psychological climate in the team by cadets, and 5) assessment of the state of social relations in the University by cadets. The authors draw conclusions about the dynamics of overall satisfaction of students and their attitude to individual service areas implemented in the educational institution.

Keywords: sociology, Sociology of education, Educational process, Social security of educational process, Factors of social security, Higher education, Universities of Siberia.

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INTRODUCTION

The concept of safety denotes the degree of an individual's protection from various endogenous and exogenous threats. The individual is never completely protected from potential threats, which makes the issue of safety an urgent and important management task. A threat is a combination of factors and conditions that have a destructive effect on an individual, endangering a person's well-being and development, and reducing his/her quality of life. The concept of social safety denotes a need to protect an individual from threats related to human activities that arise in social groups and organizations. Such threats appear in the process of interaction within social groups and organizations, as well as in the course of intergroup relations [9, p. 33].

The purpose of the article is to analyze factors that may reduce social safety and well-being in the educational process in a modern educational institution of higher education, which remains the main sphere of future specialists' professional socialization. Social safety issues in the educational process have rarely been addressed by researchers, and the educational process has mainly been considered from the point of view of pedagogical and psychological approaches. Despite the validity of the application of these approaches to the analysis of the educational process, they do not always allow focusing on the educational process as a process of existence and development of a social system in which social deformations can occur, leading to a decrease in the quality of functioning of its elements or its entire system. The theoretical tool relevant to the task is a sociological approach to understanding the educational process, from the point of view of which this process is viewed as social relations, interaction and exchange activities between individual and group social actors responsible for the transfer of professional experience.

The subject of this research is social safety and well-being in the educational process. In this regard, social safety is viewed as protection of the educational process from threats related to the activities of social actors—participants in this process at university. The conclusions are made on the basis of the empirical studies conducted under D. V. Savochkin's supervision at Siberian Fire and Rescue Academy of the Ministry of Emergency Situations in Russia (EMERCOM) in 2016-2018.

THEORETICAL APPROACHES

As a theoretical tool for the study of the social safety of the educational process, the authors use systematic structural and functional approaches which allow considering the educational process as a systematic unity of its structural components.

From the position of a systematic approach, the educational process is a functional unity of complementary components. They can be viewed in terms of their hierarchical and horizontal links. In a hierarchical dimension, this process includes two main subsystems—principle (governing) and subordinate (executive). The principle (governing) subsystem includes the administration of the university; the subordinate subsystem consists of the university departments that carry out the program prescribed by the governing subsystem. This program involves various

activities ranging from educational and scientific to financial and human resources management ones. The vertical dimension allows considering the educational process from the theoretical positions of sociology of management.

From the point of view of horizontal links, the educational process is a unity of educational and extracurricular components, where the first ones are represented by the departments of the university and their activities related to the implementation of the educational and scientific processes; the second ones appear as subsystems of legal, medical, psychological, technical, social and other types of student support which form organizational, technical and social conditions of their professional socialization.

From the position of a systematic approach, the educational process is an emergent quality—the result of systemic connections of all components of the educational process. Extracurricular elements of this process, along with educational and scientific ones, are a necessary factor involved in its implementation.

At each level of the educational process as a social system exists a risk of social deformations—negative deviations from the normal functioning of social processes and relationships, which leads to a decrease in the quality of systemic ties [3, p. 14]. The level of protection of the educational process from such deformations is the essence of its social safety.

The employment of the structural-functional approach makes it possible to consider the educational process as a unity of two dimensions.

Structural dimension describes the educational process as a set of components necessary for its implementation. *Functional dimension* allows studying the functionality of each element of the system that interacts with its other elements. If all elements of the system are effectively implemented, the system attains a state of equilibrium, which is an important condition for achieving the regulatory goals of the system. When social deformations occur in the system, it stops functioning normally, which can lead to degradation of its main processes.

“Thus, dysfunctions in the extracurricular activities of the university, associated with the disruption of a healthy moral and psychological climate or deterioration of the social well-being of the participants of the educational process, can affect educational and scientific activities, which can lead to a general decrease in work efficiency” [7, p. 29].

Analysis of social safety and well-being in the educational process can be carried out by means of sociological monitoring [7]. This method implies the conduct of annual repeated sociological studies aimed at revealing the current state of extracurricular components of the educational process, the social factors of the educational and scientific processes. The data obtained in the course of monitoring give an idea of the real and potential threats that can lead to either mild or significant social distortions in the implementation of the educational process at the university. Such information is a necessary basis for making timely management decisions.

Monitoring the social safety of the educational process involves identifying the main indicators that mark its essential components. The general criterion that forms

the basis of the indicators, according to the authors, should be the level of satisfaction of the subjects of the educational process with this process as a whole and its individual components. Monitoring of satisfaction must be carried out at all levels of the vertical dimension of the educational process: the level of students, the level of employees, the level of administrative employees of the university.

The article presents the results of social safety monitoring at Siberian Fire and Rescue Academy of the State Fire Service of the Emergencies Ministry in Russia. One of the aspects of the social safety of the educational process which was subjected to analysis is full-time cadets' satisfaction with the quality of the Academy's main services which determine the conditions of the educational process. With regard to Siberian Fire and Rescue Academy, the following criteria were taken into account: cadets' satisfaction with 1) the catering service; 2) the medical service; 3) the quality of teaching; 4) the moral and psychological climate in and outside the classroom; 5) the state of social relations at the Academy. As a result, actual and potential deformations of the educational process were identified. Conducting monitoring studies also made it possible to analyze the dynamics of the values of these indicators. The results provide the management board of the Academy with relevant information about the state of social safety and well-being at the Academy, which becomes an important factor in the effective regulation of this process.

CHARACTERISTICS OF THE EDUCATIONAL INSTITUTION

Siberian Fire and Rescue Academy of the State Fire Service of the Ministry of the Russian Federation for Civil Defense, Emergencies and Disaster Relief (hereinafter the Academy) is the seventh educational institution in EMERCOM of Russia established in 2008.

The Academy trains specialists in the field of fire and technogenic safety for the regions of the Siberian Federal District. Along with higher vocational education, the Academy offers postgraduate vocational education and additional vocational education.

In 2018 more than 500 cadets and full-time students of the faculty of fire safety engineers and more than 800 part-time students studied at the Academy.

For three years, a project related to the identification and monitoring of social safety factors that affect the cadets' overall satisfaction with their studies was implemented at the Siberian Fire and Rescue Academy. At the same time, a technology aimed at forming a "feedback" between the governing system represented by the management of the Academy and the subordinate one represented by the students was created.

The Academy has earned a reputation of paying great attention to the study of social safety problems, both in research and within the framework of such courses as Life Safety, Noxology, Social Informatics, Safety Sociology, etc.

The research project titled "Monitoring Social Safety" is a logical continuation of the management policy developed in recent years in the Siberian Fire and Rescue Academy of the State Fire Service of the Emergencies Ministry in Russia.

The need for sociological research as a means of obtaining feedback is mentioned in the works of such well-known scientists as S. V. Aziamov [1], S. G. Kara-Murza [2], V. G. Nemirovsky [4], D. D. Nevirko, V.E. Shinkevich [5] and others.

Obtained in 2016 and in 2017, research materials helped to positively influence a number of factors, such as food in the canteen, heat and water supply in the student residences, relations with course officers and others, which had a noticeable effect on cadets' degree of satisfaction with the education at the Academy. The trend identified in 2018 confirms these findings and demonstrates the sustainability of these positive processes.

As the above-mentioned problematic issues are attributed by the authors to risk factors, they represent real or potential threats to the students' social well-being, and therefore, affect the quality and completeness of satisfaction with the cadets' education. In this regard, the identification of these factors, their understanding and subsequent constructive work is a reflection of effective management strategy of a modern establishment.

The development of extrabudgetary activities, an increase in the enrollment of students intending to major in *Forensic Examination* and *State and Municipal Administration*, where the customer is not the Ministry but individuals, greatly increases the relevance of such an important component as the attractiveness of the institution, its public image.

Sociological studies show that a significant part of the potential audience when choosing an educational institution is guided by the "informal" information, i.e., information that potential applicants receive from social media. If we take into consideration the fact that a significant number of students constantly use social networks, it becomes obvious that students' social well-being must be monitored.

In this regard, sociological studies can be considered the most popular method of tracking social well-being and can be regarded as a reliable tool that allows not only to collect necessary information, but also to give a competent assessment of the current situation.

Thus, the most important element in the development of the Academy as an independent and competitive entity on the educational services market is the formation of an effective feedback system between the Academy management and the students. It is this kind of managerial tandem that creates the conditions for working together to increase the effectiveness of educational activities, which is the key to successful development of the Academy in the face of the decline in governmental support and the increase in the role of extrabudgetary relations.

GOALS, OBJECTIVES AND RESEARCH METHODS

Students' social safety monitoring, which was conducted during a three-year period (2016-2018) with the employment of the standard methodology allowed identifying certain dynamics of the students' attitudes to a number of social safety factors during their studies at the Academy.

The main objective of the study was to analyze the overall dynamics of the attitudes of the respondents to the main factors of learning which influence the cadets' state of social well-being.

In the course of the study the following tasks were set:

- to identify the Academy students' social well-being and its dynamics;
- to identify the dynamics of individual risk factors that have a negative impact on the social well-being of the respondents;
- to establish the relationship between negative social safety factors and the students' gender and year of studies;
- to make conclusions and proposals for improving of social safety and students' social well-being in the Academy.

The survey was conducted annually during the period between 2016 and 2018, between October 1 and October 20. Each year, about 300 students participated in the survey.

As the main research method, the authors used a continuous survey based on the social well-being assessment questionnaire, involving full-time students in the 2nd, 3rd, 4th and 5th years of studies at the Academy.

Thus, in just three years, more than 900 full-time students in their 2nd, 3rd, 4th, and 5th years of studies majoring in fire safety (20.05.01), technogenic safety (20.03.01), and forensic examination (40.05.03) were surveyed.

First-year students were not included in the statistical population (since during the time of the annual survey they were still at the adaptation stage). Thus, the statistical population included four years of studies (from the 2nd to the 5th years), i.e., 400 students. Given that over 300 students were surveyed annually, the average annual sample comprised at least 75% of the number of students studying at the Academy full-time.

The surveyed included 14% of girls and 86% of boys, which corresponds to the real ratio of the number of male and female students studying at the Academy.

Thus, the findings obtained as a result of the survey have a high degree of reliability and can be extended to the entire statistical population.

DYNAMICS OF STUDENTS' ATTITUDES TO THE MAIN FACTORS AFFECTING SOCIAL SAFETY AT THE ACADEMY

Assuming that the overall satisfaction with studies at the Academy is a complex concept that includes a number of "risk factors", the first traditional question throughout the entire study period was: "How would you generally evaluate the conditions of your studies at the Academy?". During the three years of studying social safety factors, the overwhelming majority of students (from 73% to 87%) assessed the situation positively, giving mostly the following answers: "There are problems, but in general the situation is satisfactory" and "Everything is fine, minor problems do not count".

At the same time, a survey conducted in 2018 revealed an increase by 10% compared with the previous year in the number of students who tended to give the following answer: "The situation is problematic, but it is still possible to tolerate it" (22%).

In order to consider individual components of a comprehensive assessment, the respondents were asked the following question: "Which of the issues listed concern you most?" Each respondent could choose several answers from those offered in the questionnaire (but no more than three). The respondents' answers are presented in Table 1.

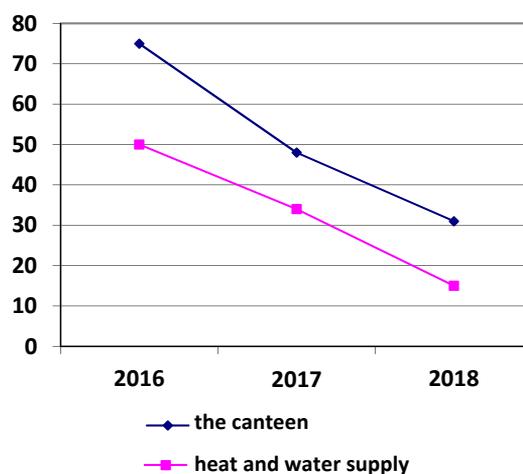
Table 1. Distribution of respondents' answers to the question "Which of the listed topics concern you most?" (%)

Students' answers	2016	2017	2018
The work of the canteen	75	48	31
The work of the medical center	19	18	11
Classroom conditions	7	8	7
Cleanliness in the halls of residence	—	0	1
Relationships between students	2	4	6
Relationships with the course officers	22	10	14
Heat and water supply of halls of residence and educational buildings	50	34	15
Education quality	15	14	22
Collecting money from cadets	10	3	3
Absence of concerns and complaints	8	19	18
Your own answer	9	8	16

First of all, it should be highlighted that during the three years of research there were no issues that would disturb most of the respondents (no single issue exceeded 50%). The table shows that during the research the significance of such previously "urgent" issues as "dining room work", "heat and water supply in the students residence halls and educational buildings" (50-75% of the responses) noticeably decreased. The significance of these issues dropped by a factor of 2–3 (Fig. 1).

At the same time, compared to other problems, nutrition (work of the canteen) was the most significant issue for the majority of the respondents. Thus, in 2018, every third respondent noted this (31%). Second significant issue unexpectedly became the "quality of education." If during the previous years, this topic worried 14-15% of students, in 2018, these figures rose up to 22%.

Fig. 1. The changes in students' attitude to the canteen, heat, and water supply



The relevance of other topics is much lower: 15% of the respondents mentioned the issue of “heat and water supply in the halls of residence and educational buildings”, 14% mentioned “relations with course officers”, 11 %—“the work of the first-aid station”—11%. The relevance of such a topic as “the work of the first-aid post” also significantly decreased over the last year (from 18 to 11%).

Since one of the most important factors for cadets was the quality of food in the canteen, the following question was asked: “Are you satisfied with the food in the canteen?”. The answers to this question are presented in Table 2.

Table 2. Distribution of respondents’ answers to the question “Are you satisfied with the food in the canteen?” (%)

Students’ answers	2016	2017	2018
Completely satisfied	06	08	06
Yes, it is above average	09	09	10
Partially satisfied	29	34	38
It is below average	33	21	14
Not satisfied	21	19	16
No comment	02	09	16

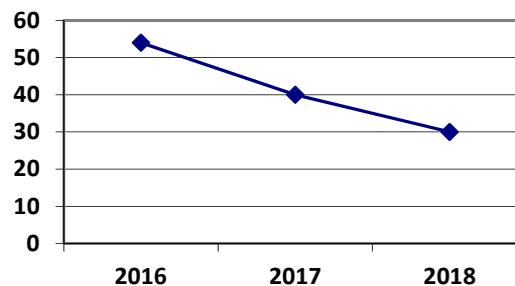
Table 2¹ shows that during the research period, satisfaction with food in the canteen of the Academy remained approximately at the same level.

At the same time, there is a clear tendency for the decrease in the negative assessment of food in the canteen, which is manifested in a reduction in the number of respondents who mentioned the option “below average” and “not satisfied” (Fig. 2).

The reason for the decrease in the level of dissatisfaction with the food in the canteen is probably not the improvement of the quality of food, but the increase in the number of respondents who do not use the canteen in the Academy. This is partially confirmed by the increase in the number of respondents who “found it difficult to answer this question”: 2016—2%, 2017—9%, 2018—16%.

¹ These indicators were used in the monitoring, and the materials obtained with their help for 2016-2017 were published in our work [7, p. 31] and are presented in this article for comparison. Data for 2018 are published for the first time.

Fig. 2. The level of respondents’ dissatisfaction with food in the canteen



The question: “What exactly are you not satisfied with in the canteen?”, which appeared in the surveys during the three-year period under study, suggested no more than 2-3 answers. Most of all, the respondents (mostly 2nd and 3rd-year students) were dissatisfied with the quality of cooking (60-80%). More than one-third of the respondents, mostly 2nd and 3rd-year students, criticized a limited menu. At the same time, the research revealed a clear tendency towards the decrease in the negative assessment of the food in the canteen, which is manifested in the reduction in the number of respondents who mention “below average” and “not satisfied” options. Also, over the past three years, the number of “not enough food” responses has significantly decreased (from 25 to 12%).

The next factor related to social safety and well-being at the Academy was health care service. The dynamics of the attitudes of students to the work of the medical center is presented in Table 3.

Table 3¹ shows that in the evaluation of the work of the first-aid station, there has been a positive trend, which is manifested in the increasing satisfaction with the medical care at the Academy. Thus, overall satisfaction (with the prevalence of the “fully satisfied” and “above average” responses) increased over two years from 45% to 57%, and dissatisfaction, on the contrary, decreased from 17 % to 11%.

¹ These indicators were used in the monitoring, and the materials obtained with their help for 2016-2017 were published in our work [7, p. 31] and are presented in this article for comparison. Data for 2018 are published for the first time.

Table 3. Distribution of respondents' answers to the question “Are you satisfied with the work of the infirmary?” (%)

Students' answers	2016	2017	2018
Completely satisfied	23	23	25
Yes, it is above average	22	26	32
Partially satisfied	34	31	24
It is below average	12	12	09
Not satisfied	05	05	02
No comment	03	02	05

Table 4. Distribution of respondents' answers to the question “What are the reasons for dissatisfaction with the work of the infirmary?”

Students' answers	2016	2017	2018
In the case of illness, one has to buy their own medicine	51	49	39
Medical staff attitude	07	08	10
The quality of the food	04	03	05
Completely satisfied	04	33	34
No comment	25	10	11

The respondents who are not satisfied with medical care usually enumerated the reasons presented in Table 4. The respondents were allowed to choose no more than 2-3 answers.

Thus, a factor that has been steadily decreasing the respondents' satisfaction with the medical services over the past years is the fact that during an illness student have to buy their own medication. Compared to this factor, all other causes of dissatisfaction are of much less importance. As the study showed, mostly female students (27% of the respondents) were concerned about the work of the Academy's medical center, whereas male students showed much less interest (only 8% of the senior students).

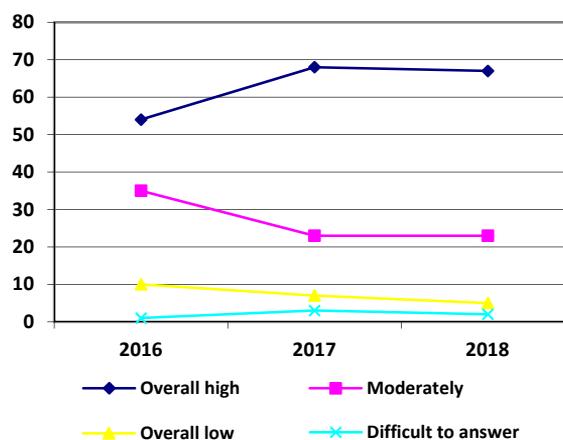
An important aspect of cadets' life is their relationship with course officers: 14% of the respondents noted "relationships with course officers" among the most disturbing problems (in 2016—22%, in 2017—10% of the respondents).

Over the past two years, satisfaction with the work done by the course officers increased. Thus, the number of "high" and "above average" responses increased from 55 % to 67%, while "low" and "below average" responses decreased from 10 % to 5%. The average assessment of the course officers also dropped from 35% to 23%.

Among the main complaints against the course officers were petty quibbles (23%), a negative image and immoral behavior of some officers (20%). At the same time, compared to 2016, a positive shift was observed in relation to these factors (Fig. 3). Such a factor of dissatisfaction as rudeness towards cadets dropped significantly (11% instead of 26%). Each of the listed points (petty quibbles, rudeness, immoral behavior) are much more often noted by female than male students.

One of the most important issues of studying at university is the quality of education. If in previous years this topic worried 14-15% of the students, in 2018 this issue became topical for 22%. At the same time, over the past three years, the attitude of the trainees to the quality of education changed insignificantly. Thus, the majority of the respondents (about 60%) estimated the quality of education at the Academy as "high" and "above average". One-third of the respondents assessed it as "average". Only 5-8% of the respondents assessed it as "below average" and "poor".

Fig. 3. Respondents' assessment of the performance of the course officers



In assessing the quality of teaching, a third of the respondents were satisfied with everything. The fifth part of the respondents noted some teachers' petty quibbles (this factor as a whole remains stable throughout the research) and remarked that certain courses are conducted by teachers who do not have sufficient experience in the field of fire safety. Compared to 2016, the significance of the latter slightly decreased. The rudeness of teachers as a factor affecting the quality of teaching was not indicated by any of the respondents.

Data analysis showed that the main reason for the increased relevance of the quality of education is related to the responses of the 5th-year students (44%). This is clearly seen in the following answers in the questionnaires: "little practice", "some subjects (courses) are not needed", etc. Some students even call it "theoretical training", apparently wanting to emphasize that they need more skills and abilities which will be needed in the near future for successful work in the units.

In our opinion, the respondents' concern about the quality of education is not associated with a decline in the quality of teaching, but is due to an increase in anxiety about their future, the success of which they associate with the development of practical skills in their future profession. It should also be noted that female students are more concerned about their future than male students (38 and 22%, respectively). It can be assumed that the latter is associated with female respondents' increased emotionality and a higher level of anxiety about their future.

Another important factor in students' social safety at the Academy is satisfaction with psychological climate.

The study showed that the assessment of the psychological climate in student groups remained positive between 2016 and 2018. In the majority of groups, the atmosphere was rated as friendly. In 2018, 66% of the respondents rated the atmosphere as "very good" and "above average", in 2017—74%, in 2016—66%. The "average" assessment of the psychological climate is given by a quarter of the respondents (about a third in 2016); only 3% of the respondents described the psychological climate as "below average". In this case, young men were more prone to high assessment of the psychological climate, and girls—to average. Thus, throughout the entire research period, the psychological climate in the vast majority of educational groups remains favorable.

CONCLUSION

In summary, a number of conclusions can be made regarding the conducted research.

One of the most important tools for the effective management of social safety in an educational institution of higher education, including military educational institutions, is the technology of establishing feedback, which is carried out through conducting sociological research, in this case—monitoring social safety.

The study revealed the main social safety factors associated with services that provide adequate living and learning conditions, such as food services; medical services; social relations in the Academy; psychological climate in student groups; the quality of teaching academic subjects.

In addition, the research revealed a number of tendencies towards changes in the aforementioned spheres aimed at reducing or increasing students' overall satisfaction

with the Academy. For example, during the research, no issues that disturbed most of the students (50% or more) were identified. Negative assessment related to such issues as “the work of the canteen” (75 %), “heat and water supply of halls of residence and educational buildings” (50%) decreased by a factor of 2 and 3 respectively. Positive trends emerged in the assessment of other safety factors, such as healthcare and medical services, quality of education, relations with teachers and course officers.

Thus, if we understand social safety as protection against threats related to the activities of social actors participating in this process at the Academy, the latter is convincing evidence of the constructive impact of the research into students’ social safety at the Academy.

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