

READINESS OF THE FUTURE TEACHERS TO PREVENTION AND PROTECTION IN EMERGENCY

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Abstract: *This report focuses on the current problems of readiness of teachers to implement the thematic complex “Human Protection in Emergency” into educational plans at elementary schools. The selected results of a research study are presented hereby. The study was done at Charles University in Prague (Pedagogic Faculty) in cooperation with the Fire Service of Czech Republic. The aim of the research was to monitor the level of awareness concerning the problems of protection in emergency among students of pedagogy, to find out about their needs in the given area and their readiness to impact pupils according to the valid curriculum. The results were used in drafting of a new accredited educational program “Teaching of education towards health”.*

Keywords: *Human protection in emergency, education towards health, training of teachers*

Progress of education in the area of protection in emergency

Menace of population due to the, so called, emergency cannot be underestimated in any time. The present conception of protection of population points out especially the need of education and building-up people’s responsibility for their protection. It stands on the assumption that a well informed person is able to estimate dangerous situation more realistically, to prevent exceptional risk events and, when the need arises, to help not only to himself but to others as well.

How is this assumption accomplished? When evaluating the present state of population awareness of possible emergency situation and drills in case of emergency we must consider the historical context of education progress of elementary and secondary schools and university training of teachers in the given area.

“Emergency – harmful effects of forces and phenomena caused by human activity, natural effects, and also accidents, which threaten lives, health, property or the environment and require rescue and liquidating works to be carried out” (Law no. 239/2000 Code, about the integrated safety system and law amendments).

From 1973 to 1991, according to Law no. 73/1973 Code, national defect education was compulsory for the elementary and secondary schools. In years from 1991

to 1997 (after the national defect education had been cancelled) there were no lessons covering this area, nor teachers gained this kind of training. From 1995 to 1997 an experiment was carried out at selected elementary and secondary schools, with the aim to verify whether, under the terms of in-that-time valid curriculum, there was a possibility to include some of the themes concerning human protection in emergency in some selected subjects and through this way to fulfil the required targets without the need of creating a new subject.

Further on to the results of this experiment, on 4th May 1999, Instruction MŠMT čj. 34776/98-22 was established, which ordered all the schools providing elementary and secondary education to include this issue into their education by 1st September 1999. In the same time, a methodical brochure for teachers was published, which included detail information and recommendations for teaching in the subject area. According to the Government Resolution of ČR and recommendations of the Czech School Inspection these instruction were updated by School, Youth and Physical Education Ministry in 2003.

Based on the new Instruction MŠMT (čj. 12 05/03-22) concerning integration of human protection in emergency into educational programs, the issue of human protection in emergency was included into educational documents. The supplement of teaching documents “Human protection in emergency” (čj. 13 586/03-22 from 4th March 2003) included the following additions: The subject matter Human Protection In Emergency in the extent of six lessons a year for every level was implemented into teaching documents for elementary schools, secondary schools and colleges and into teaching documents for special schools. The content of teaching was based on the methodical materials prepared by HZS ČR. Since 2002 several other methodical materials for teachers and textbooks for pupils of elementary and secondary schools were published in Czech Republic. Within the last few years, schooling of teachers in this area has been carried out within the courses of lifetime education and with the help of HZS regions in their educational facilities. However it has not been included into the pre-gradual studies of teachers.

Protection in emergency in transformed school

The situation has significantly changed in relation to the progressive transformation process in school system. The issue of human protection in emergency is included in the general educational programs for elementary, grammar and secondary schools.

In the General educational programs for basic education there are certain expected outcomes within the educational areas “Human and his world” and “Human and his health”. It is stated that pupils should be able:

- put useful behaviour manners into practice in situations where life and health are threatened and also in model situation simulating emergency events (outcome 1, elementary schools),

The law stated that “national defence education should be an organic component of education of students and pupils and that it should be carried out in terms of

obligatory defence education, other subjects, in other forms of teaching and in interest defence activities”.

Bulletin MŠMT issue 6/1999.

Government resolution of Czech Republic no 11, 8th January 2003, addressed the abstract of selected problems for priority solving, which were identified during the crises situation that occurred as a consequence of floods in August 2002.

More detailed data and recommendations are presented especially in the methodical brochure “Human protection in emergency”, which was published in March 2003 by MV – general directorate of Fire Service of Czech Republic.

- express responsible behaviour in situations where health and personal safety are threatened and in case of need to provide adequate first aid (outcome of basic education).

Meeting of the above stated targets presents the fact that all schools in Czech Republic will implement the theme Human protection in emergency (together with the program support of health at schools) into their educational programs, systematically and in relation to the age specifics and requirements of pupils. It is recommended to use subject Education towards health as the fundamental area for spiral development concerning this issue when implementing it at the second level of elementary schools. It is obvious that the new approach towards education in this area will, without doubt, put excessive demands on teachers in both preparation process and its realization.

Research investigations

In order to find out the actual possibilities of implementing “Human protection in emergency” into study programs of pre-gradual education of pedagogues there was a pilot project carried out at Charles University in Prague, Pedagogic Faculty in August 2007. Its outcome is the proposal of study modulus, which, after being verified at Pedagogical Faculty of Charles University, will be offered to other universities that prepare teachers. The General Directorate of Fire service took part in the preparation and realization of the project.

Under the terms of this research project accessible documents concerning the problems of protection in emergency were accumulated: legislative framework, involvement and competence of individual resorts focusing on the educational area. A list of professional publication that is presently available was produced.

Targets and methods of orientation probe between the students and teachers

The necessary starting point for composition of an effective study program for pedagogues is an objective evaluation of the present education reality in the area of emergency.

With the intention to create a sufficient foundation on the theoretical level and also in relation to the real needs there was an orientation research probe prepared and realized focusing on the students of pedagogy.

The aim of the research probe was:

- to observe the level of awareness among students of pedagogy in the area of protection in emergency,
- to find out their educational needs in the given area,
- to evaluate their readiness to impact pupils in accordance to the valid curriculum.

We expected that the knowledge of student in the given area would reach at least 60 % (that means that the answers will be correct at least in 60 %). To express the hypothesis we were led by the fact that:

- emergencies has become a current reality in this world and the skills connected with protection in emergency are highly required for saving lives and supporting health of every individual.
- According to MŠMT the problems of human protection in emergency was included into educational programs of elementary and secondary schools a few years ago. Therefore it can be assumed that the current students of universities have been in some way educated in this area.

To verify the hypothesis the method of an anonymous questionnaire was used. The questionnaire had the following structure:

- A. information about respondents (sex, age, field of study, carrier),
- B. knowledge test (outline of elementary and secondary schools),
- C. possibility of free expression on the observed issue.

3.2 Characteristics of the observed group of respondents

The questionnaire was distributed in summer term (2007) to students of various study fields at Charles University in Prague – Pedagogic Faculty. There were 210 completely filled questionnaires. The ratio of participants was 89 % of women and 11 % of men.

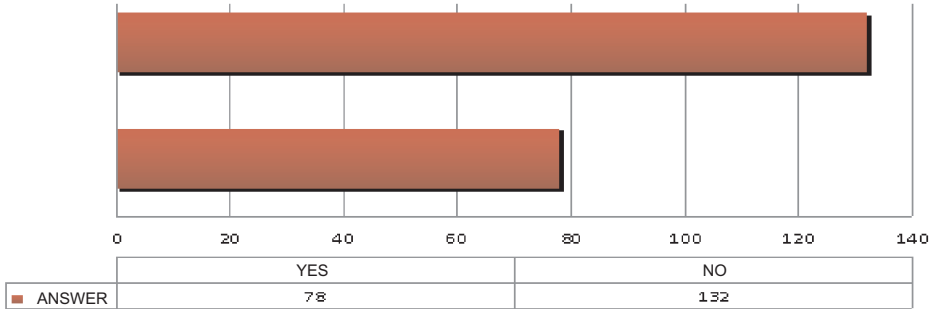
According to the completed secondary education 58 % of students graduated at grammar schools, 33 % at professional secondary schools and 6 % stated it had been collage (7 students did not tick any of the given possibilities). Most respondents (84 %) were at the age of 18 to 25.

Considering the gained data, there is a larger number of respondents that visited secondary school from 2000 to 2005 within the observed group, which is the time when, through the methodical instruction, all schools had to include the theme “Human protection in emergency” into their teaching. This fact supported the set hypothesis about satisfactory awareness of the questioned students in the given area.

Completed education in the area of protection in emergency

Information about respondents' experience with school teaching concerning protection in emergency was one of the most significant findings.

WERE YOU DURING YOUR STUDY AT SECONDARY OR HIGHER VOCATIONAL SCHOOL AWARE OF THE PROTECTION IN



Although school legislative assigns the obligation to pay attention to the problems of protection in emergency at all types of elementary and secondary schools, 63 % of respondents stated that this issue had not been introduced to them during their studies at secondary school or college.

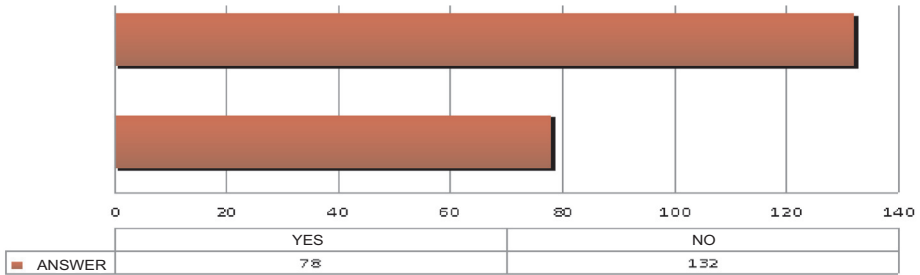
When the respondents were educated in the area of protection in emergency, they noted the following subjects: civics, family education, physical education, chemistry, and health or law education.

The answers gained in this part of the questionnaire are alarming. They provide a view into education reality in the observed area and recall some necessary questions: Did the school pay enough attention to meeting the tasks set in the relevant methodical instructions? How did they engage the problems of protection in emergency into education, when students are not aware of it now?

Selected results of the knowledge research

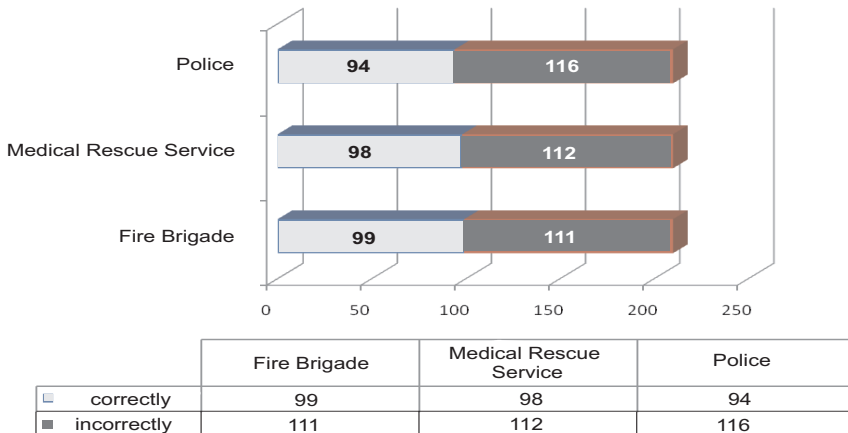
The key question was aimed at trying to find out whether respondents were able to identify the warning signal "General warning". Unfortunately, only in five cases (2 %) the respondents correctly recognized the fluctuating tone of siren that lasts for 140 seconds. Since the student did not know how to recognize the signals, they were not able to answer the following question, which concerned the use of signals, correctly.

WERE YOU DURING YOUR STUDY AT SECONDARY OR HIGHER VOCATIONAL SCHOOL AWARE OF THE PROTECTION IN



Unfortunately, even in the question about the basic elements of integrated safety system we cannot talk about the expected 60 % of correct replies – see the chart. All the three elements ISS were stated by 94 (45 %) of respondents. What is also interesting is the fact that not even one answer included information about the possibility to contact the hot line 112 or the police.

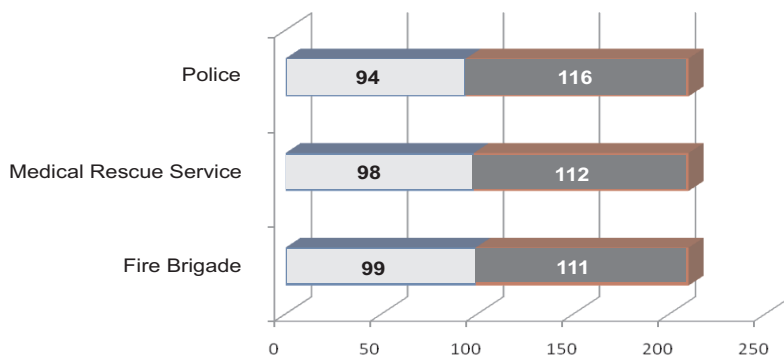
SPECIFY THE BASIC COMPONENTS OF THE INTEGRATED RESCUE SYSTEM



Evacuation of school

The respondents were asked about what they would do in case of evacuation. Unfortunately their answers recalled a serious concern. In case of an emergency situation that would be announced by as warning signal, the whole half of them (51 %) would call their relatives, 81 % would try to get home, no matter the circumstances. Most students did not consider the rules of evacuation at all.

SPECIFY THE BASIC COMPONENTS OF THE INTEGRATED RESCUE SYSTEM



It is noteworthy that only 74 of the questioned students (35 %) know where the assembly point in Pedagogic Faculty of Charles University is. 133 respondents (64 %) do not know where the place is. 3 students (1 %) did not answer this question at all. The evacuation plans are available to students in free access places at the faculty.

Exposure to dangerous substances

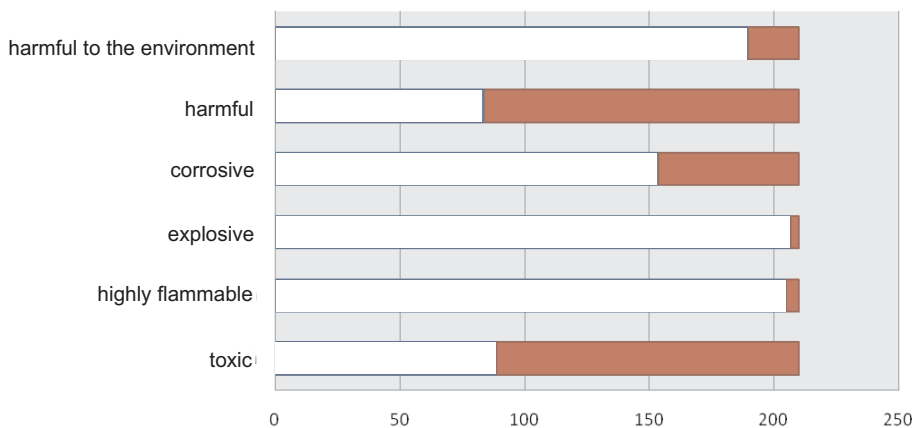
One of the articles focused on the knowledge of symbols for marking dangerous substances:



The ability to recognize the symbols is important for everyday life of an individual, not only in case of emergency. The knowledge of the symbols that are placed on the covers of common products helps us to consider the possible risks when using them and to protect our health when manipulating with dangerous substances.

Further on the research showed that, concerning this issue, there is a need to pay extra attention to education towards health.

DESIGNATION OF HAZARDOUS SUBSTANCES ON THE LABEL

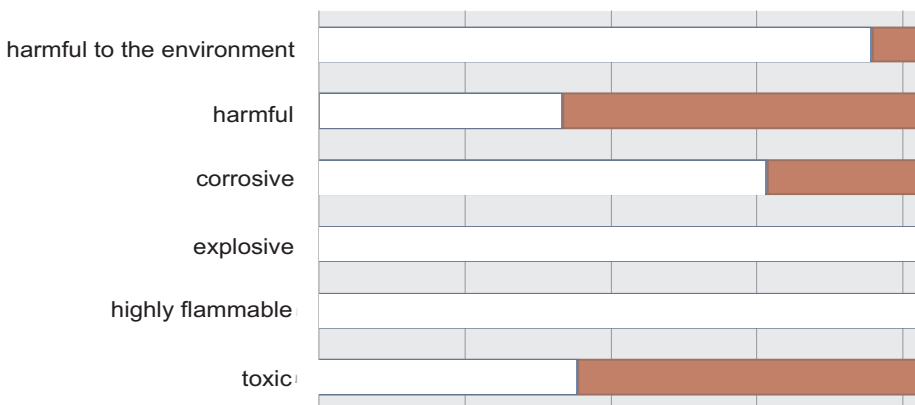


	toxic	highly flammable	explosive	corrosive	harmful	harmful to the environment
□ correctly	89	205	207	154	84	190
■ incorrectly	121	5	3	56	126	20

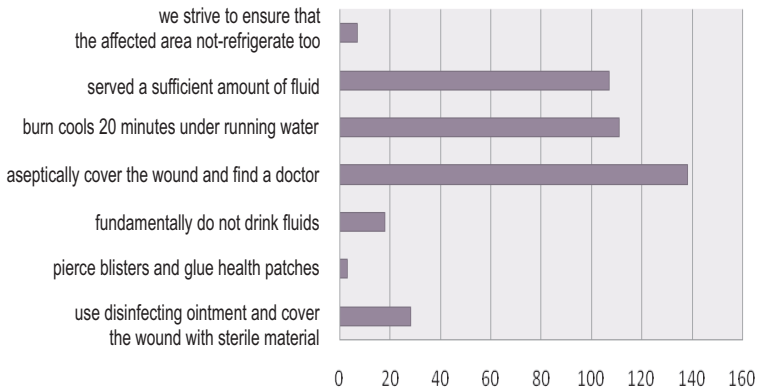
Based on the chart it is clear that only 89 participants of the research (42 %) marked the toxic substance correctly and only 84 of them (40 %) knew the symbol that is used for substances that are dangerous to health. In other cases the symbols are probably so obvious that the respondents had no doubts about marking them correctly.

Procedures in first aid in case of burns and scalds

DESIGNATION OF HAZARDOUS SUBSTANCES ON THE LABEL



FOR BURNS



	use disinfecting ointment and cover the wound with sterile material	pierce blisters and glue health patches	fundamentally do not drink fluids	aseptically cover the wound and find a doctor	burn cools 20 minutes under running water	served a sufficient amount of fluid	we strive to ensure that the affected area not-refrigerate too
amount	28	3	18	138	111	107	7

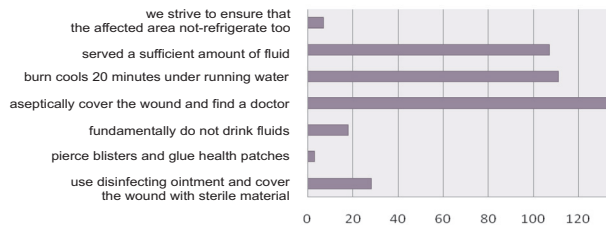
*Some students marked more possibilities.

Cardiopulmonary resuscitation

The key skill when giving first aid are operations leading to an immediate restoration of the fundamental life functions.

According to the recommendations of European resuscitation counsel in 2005 there was a change in the proportion when giving cardiopulmonary resuscitation. For children above one year and adults the proportion should be 30 chest compressions and two breaths into the mouth.

FOR BURNS



	use disinfecting ointment and cover the wound with sterile material	pierce blisters and glue health patches	fundamentally do not drink fluids	aseptically cover the wound and find a doctor	burn cools 20 minutes under running water	served a sufficient amount of fluid	we strive to ensure that the affected area not-refrigerate too
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Only 53 respondents gave a correct answer then (25 %), most of the questioned student, precisely 103 (49 %), stated the proportion 15:1. Proportion 3:1 is used for children younger than one year – this possibility was marked by 21 % (45 students). 9 students did not answer this question.

Suggestions and comments

Based on the blank answers it is obvious that students are aware of their non-sufficient knowledge in the area of protection in emergency and especially the fact that they are not ready to provide first aid. To illustrate this we present some of their statements: "I don't really know what I would do in such situation.", "There should be more practical education in this area, especially then courses of first aid for both pupils of elementary schools and teachers.", "It is a good idea to teach about this issue at pedagogical faculties."

Implementation of protection in emergency into education of teachers

Through the research investigation it was confirmed that the awareness of students of pedagogy in the area of prevention in emergency is utterly insufficient. That is why, concerning the first stage of the resolving project, a proposal of conception of blanket integration of the observed issues into the presentational studies of pedagogy was created. Consequently verification of the suggested contents is to be done.

There is a need to incorporate the required issues of protection in emergency into the education programs on three levels:

- In studies of pedagogy for first level at elementary schools – as a part of the modulus of education towards health with the emphasis of providing first aid.
- In preparing pedagogues for secondary schools and the second level at elementary schools on the same ground – as a fundamental part of an offer for the subject to student of bachelor's and Master studies. The subject has to be composed in integral conception of healthy lifestyle, health literacy, and first aid. Output of teaching – protection in emergency – as a part of the class teacher's activity.
- In preparation of pedagogues – specialists in the area of education towards health – as a part of a composed study field – education towards health. Here the students (by completing a chain of mutually corresponding subjects) gradually gain deep professional skills concerning protection in emergency and the whole picture about the strategies of healthy lifestyle and the possibilities to protect their health and health of others even in the events of emergency, possibly in case of a mass thread.

The results of the research probe and other activities of the project that focused on the improvement of preparation of future teachers at Pedagogical Faculty of Charles

University were presented at the national expert seminar, which took part in September 2008 under GŘ HZS. This meeting of specialists on the international level became a significant crossroad for searching for effective approaches and forms in education of teachers in the area of human protection in emergency.

PŘIPRAVENOST BUDOUCÍCH UČITELŮ K PREVENCI A OCHRANĚ ZA MIMOŘÁDNÝCH UDÁLOSTÍ

Abstrakt: Příspěvek je věnován aktuálním problémům připravenosti učitelů implementovat tématický celek Ochrana člověka za mimořádných událostí do vzdělávacích programů základních a středních škol. Předloženy jsou vybrané výsledky výzkumné studie, která se uskutečnila na Univerzitě Karlově v Praze – Pedagogické fakultě ve spolupráci s Hasičským záchranným sborem České republiky. Cílem šetření bylo sledovat úroveň informovanosti studentů učitelství v problematice ochrany za mimořádných událostí, zjistit jejich vzdělávací potřeby v dané oblasti a jejich připravenost působit na žáky v souladu s platným kurikulem. Výsledky byly využity při koncipování nově akreditovaného studijního programu Učitelství výchovy ke zdraví.

Klíčová slova: ochrana člověka za mimořádných událostí, výchova ke zdraví, vzdělávání učitelů