

# Principles of Decision-Making of Firefighting Managers, Based on Essay Analysis

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## ABSTRACT

**Introduction:** this article focuses on determining the principles of decision-making of firefighting managers in emergencies. **Method:** the author used a freely compiled essay analysis, made by firefighters with several years of practical experience. **Results and discussion:** the research ascertains that firefighters clearly know their special decision situations, and that they are forced to make them under time pressure, and also that the cornerstones of the practical experience are highlighted in the essays. Based on relevant statutes and the cornerstones elaborated in the essays, the author logically arranged them and determined the principles of decision-making of firefighting managers in emergencies.

## KEYWORDS

*Firefighting manager, recognition primed decision, principles of decision-making, essay analysis.*

## INTRODUCTION

It is well known that it is difficult to define the genre of an essay. Those attempting to do so will certainly fail (Kerner, 2009). Bakó's opinion is that "*it is easier to define what an essay is not than to compact it in one sentence*" (Bakó, 2002). Due of the nature of the genre, essays have several divisions, groupings, however, the reflection is a common feature of all (Gyergyai, 1984), that is, its author freely explains his own views on the subject, which can shift even in the direction of self-expression and self-confession (Szabó, 2001).

According to Samuel Johnson (1709-1784), an essay is no other than "*The free flow of thoughts of the mind, a single raw work, it is not an orderly, organized work.*"<sup>4</sup> The analysis of the free flow of ideas is obviously not easy; however, there was a need for this spontaneously appearing expression of opinions for author's researches. He was curious about the information on qualitative processing, in which firefighters with more or less experience mention the difficulties of their own decisions and of their companions, and their specialty. Author wanted to draw up characteristics from them, which are able to generally demonstrate and express the difficulties, the circumstances of one of the specific types of emergency decision-makers, of firefighting (rescue operations) managers.

Applying the method of analyzing essays, author shares Thorn's (2000) view that a researcher following the qualitative method "*does not always exactly know what and how to ask, but entrusts himself to the characteristics of the phenomenon researched, lets it control the research according to its own internal logic*" (Juhász, 2008). It is not the undemanding state or lack of interest qualifying the preparation of the research, but on the contrary, it is a predictive factor, which allows to ensure the extent of freedom, which the researcher needs (in this case the author), for the sake of achieving the goals of the study. With response to this thoughtfulness, research wanted to take advantage of the freedom of opinion of firefighters by ensuring the extent of freedom provided by the essay during the research, and based on the above, and by the possibility that is proven suitable, researched by others.

## APPLIED METHOD OF ANALYSIS OF THE RESEARCH HYPOTHESES AND THE ESSAY

### Research Hypotheses

Using the well-known regularities of author's own experience, as well as of the adherence to practical activities, repeated many times, research had an assumption: *based on hypothesis, the cornerstones of practical experience will be outlined from the content of the essays and the factors will be formulated that affect or limit their*

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<sup>4</sup> <http://hu.wikipedia.org/wiki/Essz%C3%A9>



*decisions in the most disadvantageous way.* Author regards it as a clear result, if emergency or the related notion, *limited time* in a commonly understood sense, appears in the papers predominantly and in large numbers.

### Method Applied for the Analysis of an Essay Freely Compiled

In order to perform the analysis, 13 students of the *Firefighting specialization*, having several years of practical experience, submitted essays freely compiled. The least experienced person had been a firefighter for five years, the most experienced one for 24 years. Most of them, based on engagement, had gained significant experience in the management of firefighting before. Their task was to formulate a short essay (minimum 3, maximum 10 pages) on their experiences and lessons learnt relating to their decisions made during interventions, everything or anything that pops up in their minds, freely without limits. The fact that author did not give them any other restrictions or guidance, research intended to ensure the broadest possible framework for their free and spontaneous expression of opinion.

They received a one-month deadline to write their essays. 12 papers were sent on deadline; 10 could be evaluated by their quality; 2 were obviously completed with minimum targets in mind necessary to meet the requirements of the semester. The shortest content without compulsory elements (front page, contents, declaration on own sources) was expressed in 3 pages (2 essays), but there was an essay exceeding the maximum (1 essays with 11 pages of content in merit). The average extent of the content in merit of the papers was 6.4 pages. All essays, as a compulsory element, also contain a declaration, by which the students certify that the material was compiled by themselves.

Research referenced marking with at least one but no more than two codes (e.g. DPF, D5C) during analyses, after each core or specific findings, as justification, but in cases where they are acceptable and easy to retrieve from the papers, clearly as the opinion of the vast majority of students (reference to e.g. time pressure or professional experience), research did not see the need.

### RESULTS OF THE ANALYSIS OF ESSAYS FREELY COMPILED

Author used basically two guiding principle for evaluation; one of them was the matching of responses to the accepted tactical elements used by the fire fighting tactical handbook (Bleszity, 1989), the other was the *expert estimation method* based on the author's own 12 years firefighting experience.

The content of the papers is a good lesson learnt for a variety of reasons. Students refer, in almost all the cases, to classic, founding psychological, sociological, management theory, decision theory knowledge, studied earlier. Thus, the role of *Maslow's hierarchy of needs* (DPF) and of *stress* (D5C, SX9) influencing decision is available in field of psychology, the "*great man*" and "*trait*" theories as the 1920's *feature theory* (DPF, BYM) characterizing the topic of management theory, however, from a developmental point of view, by this it ends vividly with the *style theories* (leadership styles) associated with the names of Lewin and Likert in each case! One paper referred to author's earlier elaboration (Restás, 2001) relating to the topic (D5C). Based on the above, it shows from the essays that the training of firefighters in subjects like management (leadership) or decisions did not keep pace with the teachings of later schools; they end with the *leadership styles* preferred in the 60's.

Along with granting constitutional rights, however, the law<sup>5</sup> imposes obligations on the firefighting manager, whose stringent performance is inevitable to meet the technically proper implementation of the intervention. Therefore, special requirements are clearly spelled out in the papers against a firefighting manager. These show that *students attach primacy to professionalism*, to which the link *the hands-on experience* (SX9, BYM) or explicitly or implicitly express it the context of their message (BJS, C84). This primacy can be attributed to two factors fundamentally interrelated, one of which is the *constraint to decide*, emphasized in almost all cases, the other is the *time factor*, declared in all the papers, without exception. They set out counter-examples consistently conflicted to emphasize experience, in which they present the lack of professionalism (BJS, C84), or refer to its impact causing inability to decide (G87, PDS).

They show the effects of the start of an intervention, influencing the efficiency of the entire firefighting in different ways, but all mention professional experience and time factor:

- „*I think this is the moment when the success or failure of the elimination of the incident is decided. Most depends on the first 3-5 minutes*” (BJS)
- „*there is no time or possibility for compromises, one has to act immediately*” (RWL)
- „*(a firefighting manager) has only minutes, moments to make his decisions.*” (RWL)
- „*we feel the decision is burden on us as we approach the irreversible moment*” (PVR)
- „*(the personnel) having arrived at the site faces the facts. The majority of our static decisions are discarded, dynamic decision processes commence.*” (DPF)
- „*it is essential that (a firefighting manager) assesses the situation in a short time and not be protracted in issuing instructions*” (SX9)
- „*the chief fire officer on site has only seconds and in many cases little or misleading information to make his decision.*” (D5C)

<sup>5</sup> Hungary, MoI Decree No. 1/2003. on the Rules of Firefighting, Annex, item 32.

They search for solutions in the essays to clarify and explain the features of decision-making without any request. Thus the attempt to establish a static division of decisions (e.g. drills) before an intervention or dynamic division at the incident sites can be found (DPF, SX9), the static arrangement of decision support tools (BJS), the scrutiny of the conceptual differences between decision and selection, keeping in mind time factor (PVR, SX9), the gradual learning process (G87), but also the evolvement of programmed and routine decisions (RWL, FEG). Summarizing the above, author ascertain that firefighters clearly know their special decision situations, that they are forced to make them under time pressure even if its expression or appearance can be quite different in each paper. Despite this fact, or exactly because of the significant differences, it is obvious, however, that they are not able to create a uniform image or provide satisfactory explanation to its real background.

The activity of firefighters, the primary aspects the circumstances of intervention are quite distinct in the essays and can be expressed as follows:

As the primary aspect of interventions, all unambiguously identify *lifesaving*, but *safety* (C84, D5C) and *professionalism* (RWL, FEG) are also present. There is a firefighter, who pairs safety with *special knowledge, experience* and *routine* (SX9), and there is another one, who attaches a greater role to avoiding *stress* (C84, D5C).

It is unambiguous that they regard as important the role of the *knowledge of the site* (BYM, G87) and „*clairvoyance*” as well, the ability with which they comprehend the site and the given situation (D5C, RWL). It is remarkable how important role they attach to calmness by using different expressions like „*laid back*” (BYM), „*cool head*” (DPF), which obviously refer to the danger of their opposite as well. To explain it, author could list his own experience as well, but the statement may be experience, in which one expressed: „*It is important that it is not events which should drift the personnel, but the person in charge should control and direct the activities on site.*” (G87)

The inevitability to comply with the law is mentioned in 7 essays, 6 out of them tried to emphasize it by copying the rights and obligations of a firefighting manager stipulated by law word for word. This strict compliance with the law, also justifiable by other researches, is obviously characteristic of all order-controlled organizations (e.g., Mezey, 2009). Despite the above fact, we can see in the essays some examples of forced but conscious and necessary infringements of rules:

„*One may not order something that is against the law. My personal opinion is that some exceptional cases, however, may give reason not abide by the rules. These may be cases when all the experience and individual skills of a leader are necessary in a given situation to be able to find a solution, which legislators could not have in mind or it is not properly regulated.*” (BYM)

*As a summary of the above, author ascertain that, the cornerstones of the practical experience are highlighted by the content of the essays, and all the factors conceived that influence or limit the decisions of firefighting managers the worst, is fulfilled. Author’s assumption, according to which the role of time is sensibly predominant, even by expressing the concept of constraint in different ways, can be justified in each essay.*

As a circumstance influencing a decision or defining its professionalism other cornerstone can be conceived, e.g. the *primacy of lifesaving* overriding everything, the importance of *safety* and professionalism, or preserving calmness by avoiding *stress*, i.e. the continuous maintenance of decision capacity.

The latter, i.e. the maintenance of decision capacity clearly ensures the fulfillment of the previous cornerstone; ranking and arranging them, and the aspects of the target function of interventions logically supplemented, the principles of firefighting (rescue) can be ascertained.

Another issue also emerges from the papers that a fire or incident appears in the thoughts of the students in the form of images very clearly. They regard as unambiguously important the role of *knowing the site* (BYM, G87) and also that they be able to immediately see through, assess and comprehend a given situation (D5C, RWL). Author draws the conclusion from this that situation exercises at different locations and the detailed analysis, „*scrutiny*” of previous cases, can also significantly increase the efficiency of later decisions. To facilitate it, an excellent opportunity is provided by plotting boards (sand tables) designed and set up for different situations, but even the use of 3D imagery IT programs. Through these assets one could illustrate the movement of responders and vehicles step by step, the progress of events, the different opportunities, and just as well the emerging dangers.

Based on the essays, author ascertains that students not only have general organizational and managerial knowledge, but they aware of their importance as well. They regard the anomalies between the stipulations put down in conventional education materials and the mechanisms experienced during decision-making under the pressure of time as job-specific features. They link the classic knowledge mostly usable in the periods between incidents to the maintenance of the daily operational order of an organization, which means, as concluded by the author, that the operational mechanism of a fire brigade, from several aspects, is identical to that of other organizations.

## CONCLUSIONS - THE PRINCIPLES OF FIREFIGHTING

Research has not found an example of the *declared* ascertainment of the principles of firefighting. Despite this fact, it can be justified both by elaborating the essays and the relevant statutes<sup>6</sup> and accepted without dispute that the first and foremost principle cannot be other than saving and protecting *humans* lives. This is defined in the Rules<sup>7</sup> as a primary role, but any firefighter's immediate response can only be the same, obviously; this is clearly justified by the elaboration of the essays. Accepting lifesaving as the basic principle, putting the following tasks in a logical order, we come to a hierarchic structure.

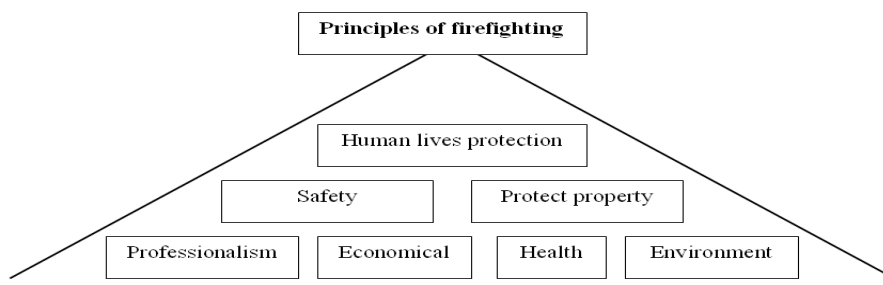


Figure 1 The principles of firefighting

Based on the above, the first principle is the *protection of human lives*. In the hierarchic structure, the most important task after lifesaving is to maintain *safety*, which includes both subordinates and the victims of an incident. Looking at the orientation of the organizational objectives, the performance of the mission, the efforts made to *protect property* should be regarded as of equal value. The maintenance of safety can be ensured by *professionalism*, which, logically, must also certainly fulfill the expectations of *being economical*. The efforts made to protect property may not incur the disproportionate deterioration of *health* or *the environment*, so, these concepts, in my opinion, should also be regarded as principles. The principles hierarchically built are in interaction with each other; however, the horizontal order is not fixed on an identical level. Therefore, *professionalism* during the *protection of property* is also authoritative, just as *health* or *environment protection* belongs to *safety*. Author illustrated his recommendation on the hierarchic division of the principles of firefighting in figure 1.

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<sup>6</sup> Hungary, Act XXXI of 1996 on the protection against fire, on technical rescue and on the fire service.

<sup>7</sup> Hungary, MoI Decree No. 1/2003. on the Rules of Firefighting.