

Advanced Tools for Acquirement of Competencies by Crisis and Security Managers

[Vhodné nástroje pre nadobúdanie kompetencií krízovými a bezpečnostnými manažérmi]

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Abstract:

The solutions of security problems and crisis situations are accompanied by many specific traits. Some of them are typical for all crisis situations; some of them denote the one singular form of crisis only. A crisis of the technical or social system is a condition, with two possible results – the operation of system or its radical change leading to the renewal of system functions. Contemporary opinions about the solution of crisis situation concur that those crises produce new dimensions in the organization scene. Demands for people readiness at particular positions and for decision-making process are rising. Therefore the demands on crisis and security managers are rising too, proportionally with the complication of the situation. The crisis situations are special in work, time and information stress. First part of article includes definition of traits, qualities and skills, which are necessary for effective solution of problems in different fields of security. In second part a new tool is presented (eSEC portal), that allows users (e.g. students, professionals, teachers, researchers) to acquire special competencies in field of security.

Key-Words: competencies, skills, education, electronic portal, security, crisis.

1 Introduction

The security problems or crisis situations influence quality and effectiveness of decision-making processes of a crisis and security managers. Long-lasting work in strenuous conditions restricts human awareness, increases the risk of wrong perception of the information and its misinterpretation. For the defining of necessary skills and competencies for manager, it is important to know what is expected from them by the following elements of internal and external environment:

- levels of management,
- authorities of state administration on particular level,
- executive subjects of the organization,
- co-operating organizations,
- directly befallen public,
- general public, media, society.

That means that the security or crisis manager solving a crisis situation, security events or problems, has, above all, these roles:

- He decides about resources, tasks, particular measures, he solves arising problems quickly with the objective to eliminate the consequences of the crisis and to restart the function of the organization.
- He ensures the function of crisis information system, enables effective exchange of information inside the organization, between the co-operating elements and between management and public.
- He directs activity of all who take part in solving the crisis; decisively eliminates negative social phenomena, is responsible, consistent and decisive leader and coordinator.

There are lots of opinions on what are the competencies of the manager. The term itself can have various meanings: competency as a set of qualities, abilities to do something, as a qualification or as a set of responsibilities and authority. In connection with management we talk about manager competencies as about personal characteristics of executive managers. We must of course mention that these personal characteristics are meaningful only if managers' range of authority is strictly restricted. Then we can define competencies of a manager as a set of knowledge, abilities, skills and experiences together with physical and psychical readiness to use these qualities for effective execution of particular tasks according to given authority and general expectations [1].

At the present there are more approaches and opinions about managers' competencies. Some authors base them on goals, content and tasks of particular levels of management. Typical example is the model presented in most of management manuals, which distinguishes conceptual, social and technical abilities and skills. The content of these abilities depends on whether the author prefers functional or adjective approach. Lately we can see a diversion from traditional approach to the demands on managers' personality. The competencies to reach particular objectives on quality level of pre-set standard are preferred more than personal qualities needed for the function and role of a manager. As an example we can use the effort of the Institute of Management in Great Britain and Czech consulting firm Inventa Consulting to create the European standards of manager and professional competencies. The main goal was the creation of an effective instrument for evaluation of manager competencies. A competency is understood as readiness of manager to attain performance with his subordinate structures according to defined standard [2].

In case of crisis solving it is complicated to set precisely the expected result standard of the crisis management but understanding the competencies on two levels (functional and personal), as in the Table 1, is more apposite. Functional competencies are set of glib abilities focused on tasks of managed object. Personal competencies denote the ability of managing subject to keep himself on such professional readiness and in such physical and psychical condition (fitness) that he can realize his goals and tasks effectively.

Table 1 Two levels of manager competencies

<i>Functional Competencies</i>	<i>Personal Competencies</i>
<ul style="list-style-type: none"> • Creating of strategy, goals, assessment. • Managing of operations. • Managing of information. • Managing of human and other resources. 	<ul style="list-style-type: none"> • Self-knowledge, self-evaluation. • Professional development. • Physical condition. • Mental condition.

Especially personal competencies (personal characteristics – innate, hereditary, but also further developed), in connection with some kind of retreat from usage of psychological methods of manager evaluation, are underestimated. There are lots of particular experiences and professional studies, which prove that often the reason of managers' failure is not

professional incapability, but failure of his proven managing methods (especially in crisis). He is not psychically ready to manage this change. For the manager it is not enough to manage competencies demanded by functions and roles on particular levels of management (e.g. conceptual, social, professional, technical etc.), but he also has to be able to manage himself, physically and psychically manage all demands of the stress situation. In Eberspächer's opinions, physical and mental condition is part of personal competency [3].

The content of the functional competencies can be expressed in the following way:

- a) *Generic competencies*: analysing and planning abilities, abilities to evaluate and realize, abilities to effective leading, social abilities and communication skills. [4]
- b) *Special competencies*: specific form of generic competencies and other abilities needed for solution of security problems in specific sphere of security (e.g. Industrial security, Economic security, Information security).

Generic competencies can for example take following form:

Analysing and planning abilities:

- Ability to analyse information about potential risks and about development of security and crisis factors.
- Ability to set aim and main tasks with preference of saving lives, predict the development of the security factors, decide about sources of crisis.
- Ability to coordinate work on preparation of security conception, crisis plans, knowledge of demanded techniques and methods.

Abilities to evaluate and realize:

- Monitor fulfilling of tasks.
- Evaluate potential security risks and their consequences.
- Examine the balance between tasks and needs and development, react according to changes.
- Set tasks, stimulate their fulfilment.
- Coordinate important information sources.

Abilities to effective leading:

- Acquire the people for fulfilment of tasks, give orders, stimulate, motivate, evaluate.
- Take care about their professional, physical and psychical readiness.
- Create team and coordinate their activities, monitor their enthusiasm, know how to assess needs for rest and exchange.
- Manage more styles of leadership according to need and situation to solve potential conflicts.

Communicative skills:

- Monitoring and observation of what is going on and correct description of the situation.
- Monitor communication, listen actively, ask for actual information, know to distinguish important from less important.
- Ability to communicate with people living in affected area.
- Persuade, formulate decisions clearly.
- Be able to inform the public about the situation, goals and tasks of security or crisis management activity briefly, truly and seriously.

It is possible to acquire these competences by different methods:

- Educating, studying, and getting acquainted with new knowledge and experiences.

- By innate activity in given sphere, acquirement of practical habits and experiences, gaining confidence in own abilities, reinforcing own physical and mental characteristics (e.g. mental resistance).
- Participating on practical occupations, exercises, workshops etc.
- Abovementioned generic competencies transform in specific conditions into special competences, which can be used particular fields of security.

2 Problem Formulation

One of possible ways how potential crisis or security manager can acquire generic or special competence is his education, which can have different form, content and extent (e.g. secondary education, college education or lifelong education, internal or external form of education). Publications and periodicals can be considered the eldest source of information. However, in 21st century; the system of learning from scripts, textbooks, publications and printed periodicals is no longer sufficient, or suitable.

Main disadvantages of printed publications and periodicals include:

- Long interval between writing of content by author and its publishing.
- Reduced number of readers limited by number of published prints.
- Reduced possibility of immediate feedback of readers to published contents.

Listed disadvantages of printed publications and periodicals were partially removed by different forms of e-learning. Application of Moodle platform (abbreviation for Modular Object-Oriented Dynamic Learning Environment) in information systems of educational institutions can serve as example. Moodle is a free source e-learning software platform, also known as a Course Management System, Learning Management System, or Virtual Learning Environment (VLE). As of December 2011 it had a user base of 72,177 registered and verified sites, serving 57,112,671 users in 5.8 million courses [5].

Main disadvantage of these university educational systems is limited number of users that are allowed to access the system. In many cases only students of school where given system is operated have access to information (in worse cases only students of specific school year or study program). For example, pedagogues, students from other schools or professional public, do not have access to system. Another disadvantage of classical form of e-learning is decentralization of these systems, their frequent duplicity, incompatibility and unavailability. Shortage of actual educational systems is also frequent separation of taught theory from demands of practice. It is necessary to focus more on the way the attendants of educational process can be prepared for challenges brought by job market, what competencies are demanded from them and how is it possible to connect educational systems of different institutions most effectively. Therefore it is a social demand to create effective tool for increasing of quality of education in the field of security.

3 Problem Solution

Faculty of special engineering of University of Žilina in Žilina is technologically and managerially oriented faculty. It educates college-educated professionals for demand of public administration and business entities in field of crisis management with emphasis on protection of persons, economy and environment. Basic mission of faculty is to provide college education in accredited study programs of bachelor, master and doctoral studies, to expand knowledge by means of creative scientific research in field of crisis management, to provide lifelong learning related to its accredited study programs:

- Crisis management.
- Security management.
- Rescue services.
- Transport in Crisis Situations.

Due to its specific position and orientation within European academic educational institutions in field of security, the faculty set as its goal to create Pan-European open system that will allow access to information of different character for wide professional public, simultaneously allowing them to add and update deposited information.

Main objective of this system is increasing of both formal and informal education level in field of security with emphasis on development and increasing of user competencies. For achievement of this objective faculty acquired grant from The Education, Audiovisual and Culture Executive Agency of the European Commission for solving of project entitled "Competency Based e-Portal of Security and Safety Engineering". Goal of this project is to create electronic portal that will serve for development and increasing of student competencies (future crisis and security managers), pedagogues operating in field of security, but also professional public within European Union.

During solving period of said project (2009 - 2012) a portal entitled „eSEC - Competency Based e-portal of Security and Safety Engineering“ (www.esecportal.eu) was created, which offers its users possibility of creation of individual plan for acquirement of required competences within different European institutions (e.g. educational/training institutions, government, private organizations, third sector, etc.).

Before creation of the portal, fields of security in which the users can acquire their special competencies were specified: Economic security, Energy security, Environmental security, Fire protection, Industrial security, Information security, International security, Civil protection, Occupational and health safety, Protection of persons and property, Public security, Transport infrastructure security.

Subsequently there were 11 competences specified for each of these twelve fields of security. For example, for Information security there were these competencies defined: Verification, End point security, Certificate, Computer security, Malware, Cybercrime, Encryption, Information security management system, Security of information systems, Recovery and Social engineering.

With goal to harmonize content and structure of portal with vision and demands of potential users, a survey was carried out (145 respondents – teachers, students, professionals from practice), focused on determination of what users consider to be the main drawbacks of already existing educational systems (Table 2) and which modules would help acquire and develop their competences the most (Table 3).

eSEC portal allows the user to look up information based on his choice of competences and criteria, either within „Competency Based Creation of the Curriculum“, or within particular modules:

- Subjects (approximately 2600 Bc. MSc, PhD. subjects)
- Scholarship Agencies
- Glossary of Terms (500 basic terms and definitions in filled of security and safety)
- Blogs
- Forum
- Resources (e.g. journals, magazines, texts, books, encyclopaedias, audio, video, etc.)
- Student Projects (e.g. semester projects, bachelor/master/dissertation thesis, habilitation, presentation)
- Calendar of Events (e.g. conferences, exhibitions, presentations, seminars, trainings, workshops, etc.)
- Labour Market
- The European Journal of Security and Safety (<http://www.esecportal.eu/journal/index.php/ejss>).

4 Conclusion

Newly created eSEC portal will enrich principles of classical education with concept of competencies, which end user (e.g. student, professional from practice as crisis or security manager, teacher, researcher) pursues to acquire. Innovative character of portal from the viewpoint of education in field of security consists mostly of connecting, centralising and actualising of demands from practice, educational institutions and requirements of other participants of educational process on platform of open information system. Innovation of eSEC portal lies also in:

- Increasing of employability of wide public based on connection of competences required by practice and those the eSEC portal user may acquire, that will bring education closer to requirements of practice,
- Creating, making accessible, adding, searching, and updating of information sources from field of security within one access point,
- Possibility of creation of individual study plan by users,
- Centralisation of human resources and creating of reports about innovative methods in teaching.

Celý článok on line na webe:

<http://www.wseas.us/e-library/conferences/2012/Singapore/EDUC/EDUC-09.pdf>

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