

# First Steps in the Development of an Internet-based Learning Platform for Strategic Crisis Managers

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disaster management. This paper describes the process of developing a learning environment specifically for disaster managers with strategic responsibilities. Focusing on competence development, the underlying concept emphasizes peer-like exchanges and self-directed learning rather than passive, externally organized training methods. For that purpose a web-based learning platform is being developed in combination with competence development modules tailored to the needs of crisis managers. The envisioned learning platform utilizes blended learning and social learning concepts and technologies to facilitate knowledge building, adapted and customized to the needs of the crisis managers. End-user requirements will be individually assessed in order to generate up-to-date content while considering the wider EU-context.

### Keywords

Internet-based learning, (social) learning management system, psycho-social support, disaster/crisis management, competence training.

### INTRODUCTION

Within our EU-funded research project PsyCris (*PSYcho-social Support in CRISis Management*) we are placing a special focus on crisis managers and how psycho-social support (PSS) could look like for this group of people. With crisis or disaster managers we mean individuals permanently or temporarily involved in

### ABSTRACT

Based on interviews with European crisis managers and other stakeholders, we identified specific learning requirements regarding psycho-social support in

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disaster management and response on a strategic level, often working in organisations that deal with national or local disaster control (e.g., Red Cross, fire brigades, public and health authorities, military, etc.).

We chose crisis managers, for several reasons: Most research regarding the psychological impact of disasters focuses – naturally – on disaster victims and first responders, but not on the rather small group of decision makers and responders in leadership positions. Since disasters are emotionally charged events, effective management of crises requires high levels of awareness of one's self, others, and the environment as well as the competence to deal with complex demands, and high levels of uncertainty (cf., Shrivastava, Mitroff, and Alpaslan, 2012). Furthermore, crisis managers face additional stressors during a disaster exactly because of their leadership responsibilities (cf., Regehr and Bober, 2005). As these managers are involved in initializing PSS measures for victims and first responders alike, they have a key role when it comes to PSS in all phases of a disaster. Their knowledge about and attitude towards PSS will influence not only the structures they work in but also the larger community involved in the respective disaster situation (cf., Haus, Adler and Duschek, in press). Another aspect in the field of PSS is the need to involve, for example, public authorities, self-help groups, public health institutions, and other stakeholders to different degrees during the various phases following a disaster. Hence, crisis managers also need to be in a position to consider a disaster scenario from the perspective of different stakeholders (cf., Shrivastava et al., 2012).

It appears that available training as well as competence development opportunities for this group of people seems to be still scarce, especially when it comes to the topic of psycho-social support. Recently developed programs from other EU-funded research projects mainly target strategic planning and decision making (e.g., Ahmad, Balet, Boin et al., 2012; Bacon, MacKinnon, Cesta and Cortellessa, 2013). But how should trainings/competence development on the topic of psycho-social support look like given the idiosyncratic nature of disasters and the various learning requirements such a special group may have? In the following we propose a flexible, self-organized learning concept, reflect on its development process, and present some initial steps how such a concept might be implemented.

## WHAT LEARNING REQUIREMENTS AND EXPERIENCES ARE REPORTED BY CRISIS MANAGERS?

As a starting point of our research we investigated PSS structures across our EU project partners' countries. The results suggest much diversity in measures, organisational structure and quality of psycho-social support, not only differing in each country but even within different legislative regions of each country, especially the larger ones with federal structures. Against this background it became apparent that any training format would need to be very flexible and able to meet the very diverse end-user requirements.

In order to learn more about the actual training needs and learning requirements of crisis managers concerning PSS we conducted 34 extensive interviews with disaster managers from Austria, Germany, Israel, Lithuania, Luxembourg, and Spain. To tap more deeply into the experiences of the managers, one of three detailed multi-media presentations of actual disaster scenarios (flood, airplane crash, and terrorist attack) was shown before the interview (by thematic choice of the respective manager). The semi-structured interviews included topics such as the current state of existing PSS structures and own experiences in actual disaster situations or stress management. These interviews will form the basis for further in-depth analysis with an elaborated qualitative method called *GABEK WinRelan*. As an initial step, the interviews were screened for country-specific experiences, learning requirements and needs in regards to PSS, and in light of the status analysis of existing PSS structures in the above-mentioned countries. Overall, it became apparent that there is need not only for more information and education on PSS, but also a need for more PSS offers for managers themselves as well as their staff. Not surprisingly, improvements on a system level are wished for (standards, structures, financing, communication) and more trainings and competence building measures in general. Concerning learning processes in particular, crisis managers expressed the following interests:

- Reflections of in-depth analyses after operations
- Learning from good and bad practices
- (Real) case studies and simulations

- More international exchange, specifically, learning from experiences with large-scale disasters in other countries

In other words, *learning from each other* was a common theme.

### WHAT KIND OF LEARNING ENVIRONMENT IS NEEDED?

From the above, and from additional exchanges with stakeholders and potential end-users before and during the developmental process of the platform, we could confirm our initial hypothesis that an adequate and acceptable concept to foster competence building for crisis managers needs a shift from passive, externally organized instructions to self-organized learning. More precisely, such a concept would

- utilise and value the experiences and expertise of the managers themselves,
- facilitate peer exchanges in a trusting learning environment,
- enable exchanges and communication on a national, but also international level,
- use practical and relevant learning material
- be flexible in content (to account for the different requirements in different countries, and also for the rather diverse target group), and finally
- be flexible when it comes to usability (thus being compatible with daily work and ongoing responsibilities).

Based on foreground, we pursued an approach combining principles of blended learning (i.e., combining traditional face-to-face education with E-learning) and social learning (i.e., learning communities that may also extend into the workplace, cf., Sauter and Sauter, 2013). The learning platform will be internet-based in order to allow optimal accessibility, also across borders. In that way, a learning environment is offered that combines practical, problem-oriented workshops with periods of self-directed online learning and communication and workplace learning. This blended learning approach shows its advantages in greater flexibility: less dependence on the time constraints of trainers and trainees, more time for reflection, and meeting different needs and learning styles (Caravias, 2014).

One particular focus has been placed on competence building through relational (and possibly international) embeddedness (Anderson, Forsgren, and Holm, 2002). Under the assumption that competences are best developed via peer-like exchanges, the concept of learning partnerships has been considered fundamental in the development process of this learning environment (see below for actual and technical realization). Taken together, we follow the overall trend in vocational learning that reconnects learning processes to workplace and practice, taking into account the significance of social and more informal learning processes (Sauter and Sauter, 2013).

### THE PREPAREDNESS-PLANNING-PREVENTION (PPP-) PLATFORM (WORKING TITLE)

Capitalising on the possibilities of “Web 2.0”, the learning environment benefits from today’s social communication, networking and information features, such as: blogging, forums, social bookmarking, tagging, podcast or RSS feeds. For example, a Wiki on PSS knowledge shall be included. Individual E-portfolios support the documentation of one’s learning processes and competence development (“learning career”). Concerning surface and content structure, multimedia instructional design principles as described for example in Zhang, Wang, Zhao, Li and Lou (2008) are considered. (On a technical level we aim to be in line with international standards such as SCORM and AICC.)

Figure 1 illustrates the overall framework, set-up and methods of the platform’s underlying structure. The circular layout indicates how the self-organized learning process is connected to a learning community, which gets supported by different tools for organising the learning process and modules, the feedback and individual (self-)assessment. The envisioned results are two to some extent independent “products”. In the *qualification* part, “product 1”, crisis managers can acquire relevant, supplementary knowledge depending on their requirements through a number of methods (e.g., case studies, more formal E-learning, etc.). However, “product 2” is not meant as a subsequent phase, but is interwoven during the whole learning experience. The envisioned *competence development* thrives on the social and informal learning processes and the emerging community of practice.

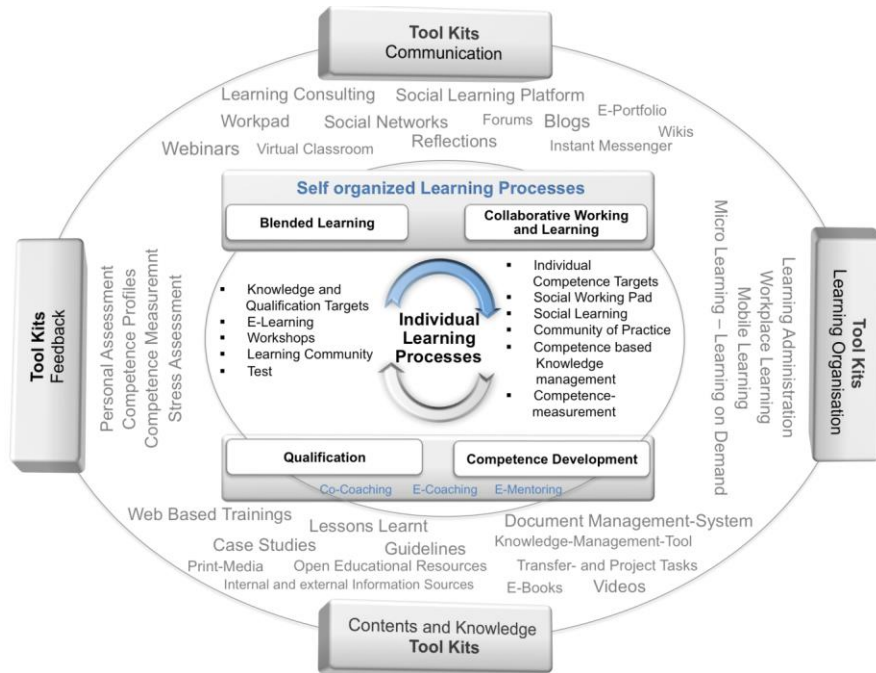


Figure 1. Framework for Competence-oriented Blended Learning Arrangement

Figure 2 illustrates the timing of these two products. Regarding the initial training phase, we propose that the learning material would be contextualized regarding the type of disaster (i.e., human-made, natural, or technical disasters) and involve the use of classic knowledge bases as well as interactive material. Drawing on Wulf, Brands and Meissner (2010), who investigated how a scenario-based approach can be used to facilitate strategic planning, the platform uses case studies of previous disasters in order to elicit concrete problems as well as lessons learnt based on the disaster managers' experiences. In addition, these case studies include links to supplementary information, allowing the trainee to deepen their

understanding of that particular case or specific aspects of PSS within it. The insights gained are further discussed and reflected upon during face-to-face workshops, webinars, and via self-directed learning.

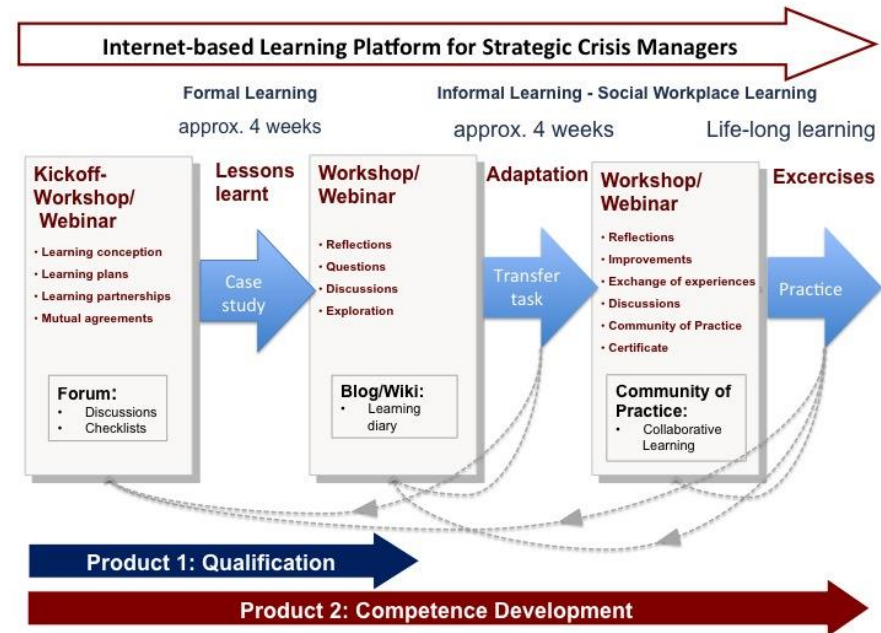


Figure 2. Blended Learning Arrangement Process

Under the assumption that crisis managers would benefit most from peer-like exchanges to develop their competences further, we suggest to encourage the formation of learning partnerships of at least two trainees. Their learning arrangement may be defined by mutual agreements regarding their learning requirements. We further suggest assigning an additional tutor to scaffold the learning process. The envisioned internet-based concept would allow each

learning partnership to stay in constant communication, either amongst themselves or with a defined learning community and their tutor. Hence, the platform not only functions as a virtual classroom, but also as a forum where questions, reflections and achievements may be discussed with other experts. The learners would also have the opportunity to receive on-going feedback and support in order to optimise their individual learning strategies.

Following the initial case study phase, the learners are presented with the possibility to transfer their individual reflections directly into their existing working environment in order to further deepen their knowledge. The underlying idea is for the learner to explore how the newly gained insight could be adapted to the respective structures. In yet another step, the learner could try to implement new aspects that came as a result of the training so far, during a practical exercise to put them to the test. For these stages we also envision the platform to be a valuable space to exchange experiences and to create new customized knowledge.

In fact, we hope that the described social learning concept may eventually build a community of practice (expert network) and fosters team building in which new information can continuously be fed back into the process, rendering the platform a dynamic, self-updating learning environment.

#### OPEN ISSUES AND CONCLUSION SO FAR

Although we presented quite concrete suggestions for certain parts of the platform, the envisioned concept is still in its very early stages. However, as we continue to develop the described learning environment, we are fully aware that many questions still beg for answers. What about language barriers? How to best form learning partnerships? What qualifications would tutors need? Would it be beneficial to accredit such training? How could the newly gained insights be fed back into system – meaningfully as well as technically?

While the list of questions could go on, it needs to be noted that some of them might just be part of the learning process itself; on the other hand we hope that the involvement of the scientific community as well as our ongoing research may help in finding some of the answers. As stated above, the PPP Platform is envisioned to be a flexible, continuously growing and improving learning environment and as

such we not only expect to keep on refining it, but also to discover more questions.

#### ACKNOWLEDGMENTS

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