

DIFFERENT APPROACHES TOWARDS TRAINING FOR CRISIS – A PRESENTATION OF A COMPARATIVE STUDY

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ABSTRACT

Preparedness for crisis has become a focus for Norwegian municipalities. In order to be prepared, one needs to learn about crisis and how to avoid or handle them. Crisis training has been undertaken for many years. The exercises' undertaken has mostly been response exercises. There is valuable learning from this type of exercises, but there may be even better ways to conduct exercises that will enhance the experienced learning outcome.

This study presents two different ways of doing exercises, and where the difference is in the preparation prior to the exercise. This is a pre-study to a larger project and will be undertaken as a comparative study with two comparable groups. Group 1 will be exposed to frequent hints via email regarding the exercise and Group 2 other group will not. The foci will be on how the two groups perform (regarding the same exercise scenario) from an observers view, how the two groups perceived their experienced learning outcome from the exercise, and it is also considered to do a test (multiple choice) that may show what they perceived from the exercise.

The theoretical backdrop for this type of exercises will be mainly from experiential learning theory, behavioristic learning theory, and learning theories that embrace participation and engagement. The study will be both inductive and deductive, and the data will mainly be qualitative and consist of interviews, observations and some recordings.

INTRODUCTION

On the 22nd of July 2011 one man managed to strike two places with devastating impact, killing a total of 77 people. This was the single largest terror attack in Norway in recent history. It showed that Norway as a Nation was rather unprepared for terror strikes. Norway needed to muster for an improved defense against terror. Hence the focus on preparing for crisis and training in order to be prepared has increased and become organized.

On the 7th of October 2011, the regulation regarding the overall emergency preparedness changed and now the municipalities have responsibility regarding the general emergency. This includes developing a risk and vulnerability analysis, and training for different emergency scenarios.

Developing these plans and training in order to achieve an acceptable level of preparedness, are tasks that the

employees in the municipality are instructed to undertake, in addition to their ordinary work load.

This requires effectiveness regarding the training. The aim of this project is thus to find optimal solutions for training for sustainable emergency preparedness.

This paper explores the theoretical reasoning for two different approaches towards training for crisis preparedness. The aim is to present the theory for how the training can be optimal and maximize the learning outcome. This deductive approach will form the basis for conducting an experiment with two similar groups regarding training.

THEORETICAL BACKDROP

In this section it will be argued for the two different ways of training.

Training for response

To be able to react on command and on orders is well documented in the army, in the police and other call out services. In these professions it is vital that they react and it is thus important to train for this. A major part of their education is thus adapted for this purpose.

The employees in an administration in a municipality are trained for completely different tasks, like accountancy, administration, for example. To train for response for this group of people requires different training in order to be able to react on incidents.

The training as it is facilitated today is via using a computer based system. Here they can access table top exercises. Every second year the municipality need to undertake a major emergency exercise.

Training for learning and knowledge transfer

Since it is not a part of their ordinary work (to train for crisis), it is important to keep in mind that they need to learn from each exercise. There will be limited access and opportunities of training reaction patterns and it is thus even more important to learn from each opportunity and be able to transfer knowledge from one incident to other incidents.

The five stage model for organizational learning

The five stage model for organizational learning (Irgens, 2011) is about taking learning from an individual

level up to an organizational level. The start is with the individual from the individuals learning from experiences and training and the influence this learning has. The next step is the learning of new vocabulary and models. The next level is to integrate the knowledge and adding it to one's own experiences. Then follows the utilization of the knowledge and finally we have reached the organizational level where there is an impact for the organization with regards to a collective level of practice.

The SEKI model for knowledge transfer

Nonaka and Takeuchi developed the SEKI model (Nonaka & Takeuchi, 1995) which is about how to share and transfer knowledge in a community of practitioners.

The model shows how knowledge can go from socializing and making tacit knowledge (Polanyi, 1966) explicit through dialogue, coupling explicit conceptual knowledge with explicit systemic knowledge, and then internalizing the knowledge via experiencing and experimenting and then socializing and sharing knowledge. The underlying concept of learning in a community of practitioners is described by Lave and Wenger and their introduction of situated learning and learning in "Communities of Practice"(CoP's) (Lave & Wenger, 1991).

Adult learning

CoP's consist of adults in a work situation. CoP's enables knowledge sharing and transfer through social interaction and common reflection and is generally used regarding work tasks, but can also be transferred into a practicing preparedness for crisis.

Adults learn from involvement and from taking responsibility for one's own learning process (A Arntzen Bechina & Vold, 2011; Eikeland, 2002; Eikeland & Berg, 1997; Filstad, 2010; Filstad & Blåka, 2007; T Vold, Yildirim, Ree-Lindstad, & Souami, 2010). Creating and supporting initiatives and engagement will also support learning (Keregero, 1989).

Learning through experiencing and using reflection to support the learning process is described by David A. Kolb in his experiential learning cycle (Kolb, 1984). One learn from the experiences and reflect through analyzing and reflecting on the experiencing.

Using reflection for learning can be done at many stages (Boud, Keogh, & Walker, 1985). John Cowan describes how reflection before an action can be used for learning purposes(2006). Donald Schön describes a *reflective practitioner* to be reflection both *during* an action and *after* an action (Schön, 1987, 1991), all in order to support the learning process.

Other types of reflective learning can be using learning journals or reflective journals (Bassot, 2013; Moon, 2004, 2006). Reflecting by cultivating knowledge harvested from experiences can have a substantial effect with regards

to the individuals learning process. Using a computer system to log and manage reflections and experiences may work similar to how reflective journals are described as.

Senge's fifth discipline: systems thinking

Through systems thinking the individuals learn to understand the dependency towards the system and the system's influence on change. To learn to see the "greater picture" also mean that one sees connections between different situations, how this will affect change, and how this will affect the organization (Senge, 1992).

To be able to recognize situations that will affect an organization, is similar to what Group 1 will be a subject to during the testing as they will be given information that is supposed to contribute to understanding and handling the crisis. To be able to see the "system" and interpret the consequences in order to handle the crisis is amongst what will be tested both in the pre project and in the main project.

Learning from gaming and simulating

Simulation and gaming for learning have emerged as its own research area. Many initiatives are being explored from gamebased exercising to simulators. In the military, simulators have been used for decades in their education of military staff and soldiers (T Vold & McCallum, 2011).

Simulation and gaming has also been used for other types of knowledge sharing and transfer (A Arntzen Bechina & Vold, 2007, 2011; A. Arntzen Bechina & Worasinchai, 2006; T Vold & McCallum, 2011; Tone Vold, Yildirim-Yayilgan, & Sørnes, 2014).

TRAINING FOR CRISIS

Most of the training that is provided via the computer based system used in the municipalities in Norway, is given as table top exercises or as larger emergency exercises. However, the scenario is given as one story and for training when scenario is made available.

Is this how crisis occur? Or are crisis "warned" through different pieces of information? Are there indicators of an emerging crisis?

In the report from the 22nd of July 2011 (Gjørsv, 2012), we can read about several indicators to the major terror attack. Reports from audiences, video monitoring and other details together indicated an emerging crisis.

It is important to point out the difference in the training where the scenario is given in full and the "real life" *emerging* crisis.

Would it not be feasible to simulate how a crisis *emerges*? The claim is that by feeding the participants to the training event with tips and hints *prior* to the simulated emergency exercise, the learning outcome from the training would become enhanced as it would also include putting together bits and pieces of facts to make up the complete

scenario for the exercise. This training would thus encompass training for *recognizing* an emerging crisis.

PROPOSED MODEL FOR EXPERIMENTING

The model for experimenting in order to test out if providing tips and hints prior to the exercise *will* provide a more sustainable learning and thus improved crisis preparedness is as follows:

The experimenting will be to have two similar teams, preferably within the same area of expertise and run a comparative study (Halvorsen, 1993). One team will prior to the exercise be exposed to tips and hints to simulate an emerging crisis, and the other team will be given the scenario for training only.

The exercises will start simultaneously and indicators like how well they handle the crisis and how fast they are able to resolve the crisis can be used to evaluate the outcome of the different approaches. Other measures will be done *during* the exercises, ascertaining how well the different groups responds to the case and if there are any differences in perceiving the tasks to be handled.

Also a qualitative investigation will be conducted. Interviews (Dalen, 2011; Denzin & Lincoln, 2005) both with individuals and with groups (Guldvik, 2002) will be undertaken to see how the participants perceived the hints and tips as a support to the learning process.

A survey a few weeks after the exercise will also be conducted as this will not only support the learning process (Moon, 2004; Schön, 1987), but also investigate how the learning from the experiencing through the exercise ripens and manifests itself as sustainable learning. This reflection over time can give indicators of how the individuals have perceived and integrated their new knowledge.

CONCLUSION AND FURTHER RESEARCH

The paper proposes a comparative study where one team is a subject of *emerging* crisis and the other team is only given the script.

The desired outcome of the study is to establish if facilitating for training on *emerging* crisis will provide better preparedness for crisis.

By facilitating for reflection processes prior (Boud et al., 1985; Cowan, 2006) during and after (Schön, 1987, 1991; von der Oelsnitz & Busch, 2006) and utilize the reflections regarding previous exercises featuring learning journals in the form of input to computer system (CIM) (Bassot, 2013; Moon, 2006) the aim is to introduce a more sustainable learning model for improved preparedness in municipalities.

The next step is now to prepare the case for training and design the tasks in a way that it will be possible to measure whether or not hints provided before the day of conducting the exercise will have an impact on the experienced learning outcome. The test groups will have to

be organized to be as similar as possible in order to be able to compare the groups' performances.

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