

# Samhandling Under Risk: Applying Concurrent Learning to Prepare for and Meet the Unforeseen

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**Abstract:** This chapter aims to examine how *samhandling* and concurrent learning work together. “Concurrent learning” is a form of simultaneous learning, where many learning processes related to *samhandling* take place at the same time. *Samhandling* and concurrent learning are also functional processes, in the sense that learning also occurs through daily interaction activities or actions. At the same time, concurrent learning and *samhandling* are interdependent and they are, therefore, in a sense part of the same process (hence *concurrent* learning). The chapter identifies five factors identified as important to *samhandling* and concurrent learning. These are: (1) Awareness of basic assumptions regarding people; relations and teamwork are essential; (2) Space, (3) Giving of themselves, (4) Making processes transparent and addressing problems as early as possible, and (5) Reflection as a key to *samhandling* and concurrent learning. *Samhandling* and concurrent learning represent a mindset, a way of working and a form of learning, which together help to meet and/or develop the skills needed to tackle the challenges of flexible organizations.

**Keywords:** *Samhandling*, interaction, concurrent learning, leadership, preparedness, organizational learning, flexible organizations, unforeseen.

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## Introduction

In this chapter, we want to examine how *samhandling* (interaction) and concurrent learning work together. Concurrent learning is a comprehensive concept as we use it. Therefore, in this chapter we carry out an elaboration of the concept and the processes that this term is intended to cover, and further demonstrate the impact these processes have on *samhandling* under unpredictable conditions. Relationships play a crucial role in achieving this interaction and are significant in all of the phases in an unforeseen situation, as illustrated in the Bow-tie Model presented in Chapter 1 (Torgersen, 2018). *Samhandling*, as we see it, is a deeper form than collaboration, based on complementary skills; therefore, relationships and the way they are formed and developed, are of such great importance. This requires a strong focus on relational aspects. Another important concept is concurrent learning, as a means of increasing efficiency in strengthening relational aspects. Using several examples, we will argue that concurrent learning is, in many ways, crucial for *samhandling* at risk, where the conditions along the way are unpredictable – both dangerous/undesirable and harmless/desirable situations. Based on these examples and our definitions, we develop five aggregate approaches that can help to promote awareness and implementation of concurrent learning in practice under the assumed conditions. Some of the examples are from high-risk industries. Others are not, but nevertheless have important attributes that can help us understand *samhandling* and learning under uncertainty. Lagarde (1993) points out that foundations (patterns of *samhandling*) need to be established before a crisis appears.

## The definition and the construct of concurrent learning

Concurrent learning means that participants learn from one another in the *samhandling* process, like footballers who are familiar with each other's strengths and build on these so that mastery is achieved in common (Eggen & Nyrønning, 1999). Seligman (2003) calls this signature strengths. In this context, signature strengths should make each participant better. During the process, participants use each other and build

on each other for learning. Concurrent learning involves not only being familiar with one's own competence, but also learning so that individuals can connect to their own expertise and thus develop this further with the others to create something new. This learning process takes time – it *needs* to take time, and the process must be deliberate and organized.

*“A deliberate and continuously functional and interacting learning process among actors that occurs simultaneously with the interaction”.*

Steiro & Torgersen (2013:335)

This kind of learning is not accidental; it is intentional and purposeful, in the sense that stakeholders or participants need to be both aware of this process and focus on the relationship between one's own and others' expertise and diversity. *Samhandling* and concurrent learning is also a functional process, in the sense that learning also occurs through daily interaction activities or actions. At the same time, concurrent learning and interaction are interdependent and they are therefore, in a way, a part of the same process (hence *concurrent* learning). *Samhandling* and concurrent learning represents a mindset, a way of working and a form of learning, which together help to meet or develop the skills needed to tackle the challenges of flexible organizations. Arrangements, the development of training and management, and the utilization of complementary expertise and concurrent learning, are all important strategic measures for the efficient development of flexible features for organizations (Steiro & Torgersen, 2013).

## The Mann Gulch Disaster revisited

During a wildfire in California, a quickly-assembled team of firefighters came under pressure and were trapped inside the forest fire. The fire took place between the 4<sup>th</sup> and 5<sup>th</sup> of August, 1949. This is an outdated example and the context regarding firefighting and hierarchy should be taken into account. However, it has been argued that the example also provides an important lesson for contemporary management in a dynamic society (Torgersen & Steiro, 2009). The group shared a meal and a plane flight before they were parachuted into the area. Weick (1993) writes that

according to their sources, it looks as if there was little dialogue between members. After landing, the team leader wanted to make contact with a forest ranger that knew the area. He left the group alone, apparently with few instructions, nor that it seems that the second leader in command made any effort. The team consumed a meal by themselves while the leader had a meeting with the forest ranger and was updated on the situation in the area. Eventually, the team leader returned to the group and they moved into the burning area together. Gradually, the wind changed direction, putting the fire team at risk. The team leader gave orders for the team to drop their equipment, in order to move away from the fire more quickly. This created unrest and confusion; it is not unreasonable to suggest that this is the first sign that the group was beginning to fragment and presumably questioned the team leader's authority. Eventually, the group was caught between a wide river and the forest fire. When they realized they were trapped inside the forest fire, the team leader ordered them to start a protective fire and then to lay down inside the burnt-out area. The proposal must have appeared to be an act of desperation to the members of the team because the team leader was the only one who followed the plan. This meant that the team disbanded. Two members of the group managed to get across the river and escape to a hillside. The leader survived. The other members who fled all perished (Weick, 1993). We have used this example several times in teaching about understanding human interaction, group dynamics and trust between people (Steiro & Torgersen, 2015). It also serves as an illustration of the challenges that temporary organizations can experience. A project which we can mention is this fire team, which is an example of a dynamic structure (Mintzberg, 1979; Torgersen & Steiro, 2009). But that does not imply that this structure can automatically operate dynamically. There must be some conditions in place. The Mann Gulch Disaster is often used today as an illustration of the challenges that dynamic organizations, such as a rapidly-reduced project, can meet (Torgersen & Steiro, 2009). In this context, the authors has told the story of the Mann Gulch Disaster for learning purposes and challenged officers in training to think through what could have been done differently. A key point is that they are often section leaders, so the level of abstraction is not too high. They could get

into a situation where time is limited and they receive either a new team to lead or a new composite layer. We assumed that firefighting competence and skills were in place. They were also a heterogeneous group and assumed that they might take the relationship for granted. The suggestions that students and cadets come up with after hearing the story are as follows: the firefighters could have been introduced to each other, presenting their expertise and skills; they could have held a pre-job meeting; “what-if” analysis could have been used; the assistant squad leader could have been sent to obtain information from the ranger; the team could have had a joint briefing with risk assessments; everyone could have eaten a meal together. Such organizations are typically very dependent on trust (Torgersen & Steiro, 2009; Sørhaug, 1996). Another point is that, in hindsight, it would have been possible for this group to create more concurrent learning and thus improve *samhandling*. It also shows that through reflection, solutions come quickly. The final point is that the Mann Gulch Disaster stresses the importance of establishing *samhandling* patterns, ideally beforehand. Antonsen, Skarholt and Ringstad (2012) claim that what is needed in a crisis must be present in some form in a normal operation. They refer to Lagadec (1993): “*The ability to deal with a crisis situation is largely dependent on the structures that have been developed before the chaos arrives.*” (Lagadec, 1993:54) In a crisis situation, Weick (1993) pinpoints the concept of “bricolage”; that is, the ability to “*create order out of whatever materials are at hand.*” (Weick, 1993:639) This brings us to the next paragraph, which is not an example of a crisis organization, but perhaps the best example of developing *samhandling*, at least in Norway. Football coach Nils Arne Eggen made it a part of everyday language. But as we shall examine, it does not come for free.

### ***Samhandling* in Rosenborg Football Club under Nils Arne Eggen’s leadership**

Nils Arne Eggen was very preoccupied with collective issues and his philosophy is best illustrated in the following quotation: “The highest form of collaboration is when the player moves away from ‘must do’ to ‘want to do the same’. The basis lies in the individual player’s educational skills;

that is, the ability to make others good, take responsibility for others' development and performance, and take responsibility for the team's performance. In other words, to use his own skillfulness to make others good and the team good." (Eggen & Nyrønning, 1999:143–144, authors' translation). It is interesting to note that Nils Arne Eggen uses an example from jazz, claiming that "...not until common ground is established does the creative improvization provide meaning and development." (Eggen & Nyrønning, 1999:125, authors' translation) Rosenborg Football Club (RBK) managed to win the Norwegian National League for 13 years in a row. Between 1995–2002, they qualified for the Champions League tournament every year. In addition, they qualified for the quarter final in season 1996/1997 and won in their group in the 1999/2000 season. Løfdali (2014) points out the importance of interaction in RBK during coach Nils Arne Eggen's reign. He writes, "*Eggen's explanation of what made RBK's success possible can be summarized in one word – samhandling [interaction]. The players display a distinct image of how football should be played, and his unique ability to transmit this to the players.*" (Løfdali, 2014:29, authors' translation). It is important that those who have a role also receive clear instructions regarding what is lying in it (Katzenbach & Smith, 1993). Rosenborg's way of playing was based on coach Nils Arne Eggen's clear picture on how to play and the players ability to reproduce and transfer it to new players (By Riise, 2016; By Riise, 2014; Fredriksen & Moen, 2013). This would not have been possible if it was not backed up by the clear assumptions of Nils Arne Eggen, "*You get good by making others good,*" and "*it's about channeling ego forces*" (Hoff-Leirvik, 2009:232). The system is important but it is also important that the players actually want to interact, rather than having to interact. In this way, they place the interests of the community above their own abilities.

RBK focused heavily on training. Typical of this was high intensive training and focus on "simultaneous movements" and "creating plural situations". It was important that the intensity level was high, while at the same time, it had to be done right. Nils Arne Eggen would shout, "Stop!" When the game stopped, the coach demonstrated how it should be done (Hoff-Leirvik, 2009). We see that the principle of subsidiarity was important educationally for Eggen; i.e. feedback closely linked to

action, thus creating learning in action (concurrent learning), not in a conference room after the training session but in a spontaneous meeting on the field.

## Dynamic interaction in a software firm

Chmiel (2000) has argued that we need to research organizations that are typically at the forefront of technology in order to learn and understand more about organization. Such organizations may be software-developing companies, as suggested by Chmiel (2000). Therefore, we have studied a software-developing firm which applies agile methodologies (Steiro & Torgersen, in press). Agile methods were originally developed when people realized that the development of software had to be dynamic, when the customer wants it and the market appears to be changing. They can be seen as a reaction to plan-based or traditional methods, which emphasize “a rational, engineering-based approach” (Dybå, 2000). The new focus is on methods which sorts under the umbrella of Agile methods and leanness (Dingsøy, Dybå & Moe, 2010). Williams and Cockburn (2003) state that agile software development is about feedback and change, where short feedback-loops are necessary to achieve a desirable and predictive outcome. The agile manifesto prioritizes the following:

- Individuals and interactions over processes and tools
- Working software over comprehensive documentation
- Customer collaboration over contract negotiation
- Responding to change over following a plan

(From the “Manifesto for Agile Software Development” authored by Beck, Beedle, Bennekum, Cockburn, Cunningham, Fowler et al. 2001)

This makes software development an interesting case for this book. Steiro & Torgersen (in press) sees an open and inclusive environment that is very mutually attentive. During this study, there was a change of leadership. The initial department leader was strongly inspired by the idea of building on processes and interpersonal resources. This was expressed both normatively and in practice. It was expected that one should offer

his or her competence, aim to go home at four p.m. and only occasionally work overtime, and be ready to perform the following day. Humor, a good mood and social activities were also emphasized. This particular leader was keen not to focus too much on individual performance or ego boosting. The department leader appointed his own successor. The new manager was more academically specialized in the field than his predecessor, but shared the same general ideas with regard to organizing and would continue to follow the main essence. At the time when the data was collected, there was no indication of any major changes. Minor adjustments were found but they did not seem to unsettle the main features. “Stand-up” meetings were held inside the manager’s office, where there was plenty of space for grids and charts that showed how they were performing and the challenges ahead. The room was bright and airy. Each employee was given a minute to explain what had been done, what was looking ahead forward and whether there were any challenges. This meant that each person was given a minute in the limelight, giving the manager a good idea of the current status. Typically, those that shared challenges and others came to “the rescue”, either by giving tips and advice or by putting their own tasks aside to help. One could use “programming in pairs” both for support, learning and to reduce stress (Steiro & Torgersen, in press).

## Relational aspects in the Royal Norwegian Air Force

The Royal Norwegian Air Force is characterized by having a relatively flat hierarchy and is competence-based, meaning that the person who has the most expertise leads a mission, not necessarily the person with the highest rank (Maaø, 2005). It is further characterized by numerous specializations that must interact to solve missions (Maaø, 2005). The Royal Norwegian Air Force Academy, which is responsible for officer training, emphasizes deep reflection as an instrument (Steiro & Firing, 2009; Moldjord, Arntzen, Firing & Laberg, 2007; Firing, Gudmundsdottir & Karlsdóttir, 2004). A heavy emphasis is placed on interpersonal relationships and this is given a great deal of attention. Steiro, Moldjord,

Firing & Fredriksen (2010) point out that debriefing has a long history in the Air Force. Traditionally, it has focused on operational and technical aspects. This is well incorporated. By also focusing on the emotional and interpersonal, new perspectives are opened up, allowing for increased and different kinds of learning (Fredriksen, 2015; Owesen, 2015; Steiro et al., 2010; Folland, 2009). Knowing each other's strengths and weaknesses, and adding uncertainty can contribute to concurrent learning (Steiro & Torgersen, 2015). A more holistic view of debriefing includes more of the emotional and relational aspects, important not only for learning but also for becoming better acquainted with each other's strengths.

## Concurrent learning in an oil rig company

In this study, informants aboard the rig were interviewed regarding what makes them avoid accidents, focusing on factors in normal or successful operations (Steiro, Thevik & Albrechtsen, 2017; Thevik, 2014). The rationale for the study is that, with regard to safety, too much focus has been on accidents and accident investigation and too little focus on normal operations, recovery or successful operations (Rosness, Haavik, Steiro & Tinmannsvik, 2016). The informants pointed out that good following-up, good control and reporting procedures, collaboration between different levels in the hierarchy and different jobs, good notification procedures, are special factors of significance. That the rig is well organized, everyone "pulls in the same direction" and that they think ahead in all operations were also mentioned as important factors. A good working environment and collaboration on board were often mentioned when explaining factors that make operations go well. Safety culture, support, job satisfaction, meeting points, low thresholds for input, good evaluation practices, learning from mistakes, less pressure, more understanding of operators – these were all cited as key aspects of successful operations (Thevik, 2014). Several informants pointed to important learning arenas and ways of learning, such as pre-job meetings, handover meetings, briefings, log, lessons learned, training programs and being able to stop up along the way. It appears that the rig is characterized by a culture of acceptance if someone needs to stop up and discuss something, or is experiencing

uncertainty or risk, so this is done. One manager put it this way, “*If we all get home from sea, the mission is successful.*” Open communications, which allow participants to address issues related to the task in hand and give the inexperienced and uncertain participants an opportunity to ask questions, should be independent of rank (Steiro, et al., 2017).

Recurrent themes that were highlighted as important to ensure safety were well-being on board, the psychosocial environment, being familiar with the colleagues and teamwork (Thevik, 2014). Investing in a good working environment appears to be important to several of the informants, and leaders on board are prominent exponents of this. Experienced managers on board emphasized the same values. On offshore drilling rigs, there may be a difference between suppliers with regard to inclusion and respect for their knowledge (Steiro et al., 2017). An employee from a service company compared the difference between this rig and foreign rigs, saying “*Here, I am not just the guy sitting in the cage. Here, I am respected as an engineer and get help.*” This quote demonstrates how important assumptions about other people are. Respect for others is a key concept in this assumption. It appears to be important to follow up this dialectic when we discuss *samhandling* and concurrent learning. An organization that opens up and includes different perspectives, by applying the ideals of the “World Citizen” and “World Hospitality”, gains power from exploiting the “difference” and may use complementary skills and knowledge more effectively.

## **Some steps towards increased *samhandling* and concurrent learning - a model**

We have been able to extract some generic lessons from the examples highlighted in this chapter should not be regarded in any way as blueprints. The context in which various organizations operate does not allow debriefing to be implemented without taking the organization’s history and context into account. This chapter has identified five factors that affect *samhandling* and concurrent learning, especially under unforeseen conditions, and that can contribute in preventing undesirable outcomes. These are presented in Table 14.1.

**Table 14.1** Five factors identified as important to *samhandling* and concurrent learning

Factors	Elaboration	Examples
<b>1. Awareness of basic assumptions regarding people; relations and teamwork are essential</b>	<p><i>Basic view of people and interaction is important.</i></p> <p><i>Respect for others' expertise and strengths is important.</i></p>	<p>Rosenborg Football Club (RBK) demonstrates the importance of having a clear and compact philosophy (Hoff-Leirvik, 2009). Nils Arne Eggen in RBK formulated the principles "it's about making others good" and "channeling ego forces" clearly stated (Hoff-Leirvik, 2009; Eggen &amp; Nyrønning, 1999). This is of particular importance before an incident occurs.</p> <p>Respect for others' competence and regarding diversity as a strength are important. This is perhaps the most important condition - that one is aware of what others stand for and how this actually affects interaction with others. You see that there is a mutual influence. This is of particular importance before an incident occurs. It is not very likely that this will occur during a crisis.</p>
<b>2. Space</b>	<p><i>Create space</i></p> <p><i>Use space for wondering and reflection</i></p>	<p>It's about creating space, even though the situation is marginal cf. examples from Weick (1993) and Folland (2009). This space can be created or time is scarce. Doing something rather than nothing seems urgent. The space must be used for learning if possible. <i>The space can be used for wondering.</i> Has anyone been in a similar situation before? What are the lessons learned from this job? Is there something we can use to advantage? By communicating their own wonder or questions, a leader can more easily open up for more questions but also different perspectives. The space should be used for learning - to both exploit and develop knowledge and skills. What can possibly be achieved? What are the obstacles to this space of action?</p>
<b>3. Give of themselves</b>	<p><i>Provide and offer something, which makes it easier to get something in return</i></p>	<p><i>It is about giving of themselves.</i> By providing, it is also easier to get others to open up more. This then enables the others to follow after. Again, the leader seems to be a crucial factor. This could be seen as similar to Points 1 and 2. However, the unforeseen, as illustrated in the Bow-tie Model in Chapter 1 (Torgersen, 2018), might demand new skills and competence that were not planned ahead, since the model assumes that we will usually lose control. This means that being open about our own uncertainty or fear, for example, might create new possibilities. As a leader, one cannot depend on demonstrating mastery of everything but rather, one should be open and curious about others' competence and skills.</p>
<b>4. Make processes transparent and address problems as early as possible</b>	<p><i>Address the problems early</i></p> <p><i>Gain insight into the basis for decisions, in order to verify and/or challenge these</i></p>	<p>The example from the software firm demonstrates this well. Regular stand-up meetings as a way of doing business make it less imposing to flag challenges. One can also draw parallels to Nils Arne Eggen and RBK, using other people's strengths and competence to prosper mutually.</p>

(Continued)

**Table 14.1** (Continued)

Factors	Elaboration	Examples
<b>5. Reflection is a key for samhandling and concurrent learning</b>	<p><i>Pre-brief and "what if" analysis</i></p> <p><i>Time out. Stop, reflect and share</i></p> <p><i>Debrief to learn and improve</i></p>	<p><i>Pre-brief and "what if" – analysis.</i> In the Mann Gulch Disaster case, the team could have used a pre-briefing to prepare. "What if" – analysis could have been used to plan in advance. The team leader, as we have seen, had some ideas about what could be done in a similar situation, but did not address them before it was too late. In retrospect, he should have asked what they would do if they were trapped, so they would at least have been better prepared mentally. Would that have helped? It might also have laid open the team leader's competence, and allowed trust to be built and developed before entering the operation.</p> <p><i>Time-out as a means to stop, reflect and share.</i> Football coach Nils Arne Eggen often stopped training and drew attention to learning. A central point was the proximity in time as a pedagogical principle. Time-out, as we see it, is perhaps the most important tool for concurrent learning as with debriefing.</p> <p><i>Debriefing is an important way to sum up and to proceed.</i> It is important to be concerned not only with the technical and tactical dimensions but also to devote attention to interpersonal relationships. It is important that the organization trains reflection skills.</p>

## Conclusions

Concurrent learning means that participants learn from one another in the interaction process. *Samhandling* and concurrent learning represent a mindset, a way of working and a form of learning that also help to strengthen relational aspects. Groups and organizations that build on and apply concurrent learning will accomplish more and do it earlier. They will build more trust and thereby create more of the reciprocity that is essential for developing and maintaining relationships. Respect for others' expertise and regarding diversity as a strength is central to interaction and concurrent learning, in order to fully gain benefits from complementary skills and competence. A central premise here is that you need to be conscious of what you actually stand for and how this assumption regarding yourself and others influences relations. Such evolving relationships are central to all work processes. Groups and organizations that build on and apply interaction and concurrent learning will

accomplish several things. They are also more likely to be receptive to change and able to adjust their course to accommodate change. We also assume they have the ability to be more proactive.

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# Competence for the Unforeseen – The Importance of Human, Social and Organizational Factors

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**Abstract:** This study examines self-assessment of preparedness for unforeseen events and how it varies between groups and individuals according to roles and functions within an organization. The study has two objectives. The first is to analyse the relationship between general self-efficacy, perceived competence in demanding situations and social support, and based on this, to assess the efficiency of interaction (*samhandling*) in organizations and preparedness for the unforeseen. The second aim is to examine how these factors vary according to professional experience. A survey questionnaire was completed during winter 2016/2017. All 624 respondents were male or female employees of the Norwegian Armed Forces, based in different units, with different levels of competence, and included commissioned and non-commissioned officers, officer cadets and conscripts. The response rate was 77 percent, and a total of 810 personnel were approached. This study incorporates central concepts of individual and social resources that could permit the prediction and understanding of resilient behaviors in complex and demanding situations. Interaction was found to be the most important predictor of preparedness for the unforeseen. This study also shows that interaction combined with general self-efficacy and social support can account for a considerable proportion of the variance in preparedness for the unforeseen. The results indicate that it is possible to prepare for unforeseen events by implementing measures that improve social factors in particular.

**Keywords:** *Samhandling*, interaction, preparedness, social support, competence, leadership, organizational learning, unforeseen.

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