A Case Study of Blended Learning in a Nordic Insurance Company

Four issues for E-learning in the workplace

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Abstract

Research questions and the context

The objective of this thesis is to study a newly introduced notion of blended learning that have gained much attention from both practitioners and research community although is not being clearly defined yet. The contextual framework for the study is based upon the case study in a Nordic multinational insurance company. It has offices in Denmark, Finland, Norway and Sweden, the Baltic countries, and Russia. The company has three business areas: Private, Commercial and Industry. They provide services on both national and international levels. The target group for this study is leaders from different countries, working within different business areas and representing different levels in a management structure. Training opportunities for leaders are provided through a variety of learning methods such as on-the-job training, E-learning courses, and courses and seminars that are based upon the blended learning methods.

The rapid diffusion of Information and Communication Technology (ICT) in modern businesses and their increasing use for educational purposes (e.g. web-based training) have brought about tremendous changes in the way we learn and communicate within and between organizations. Practitioners and researchers have turned to new arenas to understand to what extent collaborative learning may enhance learning outcome and in particular to nurture and give rise to individual learning. These changes have had impact on blended learning models as well. The success of instructional practices in new challenging context requires novelty and more complex methods for blended leaning. Thus, the theory-informed research question this study approaches is *"How blended learning integrates collaborative and self-paced learning to enhance learning outcome?"* This is seen in a broader theoretical perspective by applying socio-cultural approach principles to blended learning models.

Cultural diversity may become a constraining aspect for learning in the context of heterogeneous organizations. The second research question is predetermined by the requirements for more flexible learning in the context of cultural diversity the company operates. Moreover, due to the chosen target group the study appeals to the various extent of significance in different types of knowledge, either theoretical or practical, on different levels

in management structure. Then, the second research question is *"How factors like cultural diversity and the type of knowledge are taken into account when BL components are integrated (i.e. individual and collaborative)?*" The skills approach to leadership and the notion of cultural diversity help in approaching these factors.

To make the point I follow explicit, a distinction between two types of BL is required. It emerged after the pre-screening of data from the case study I conducted:

1. *Concept-oriented BL (CBL1):* the online part is concept-oriented and meant for individual use (e.g. self-paced E-learning), whereas F2F part is collaborative learning (e.g. scenario simulation, work groups, etc.);
2. *Collaboration-based BL (CBL2):* the online part is computer-supported collaborative learning (e.g. online communities), whereas the F2F is individual oriented (e.g. conventional classroom instruction, PowerPoint presentation, mentoring).

I define the difference between these types in the distribution of the two components (online and F2F) between individual and collaborative learning. If CBL1 can be seen as conventional BL, than CBL2 takes the advantage of the modern technologies that support communication and collaborative interaction. Thus, the main objective of this study is to rethink design principles used for CBL1 and suggest a possible theoretical framework for further research in this domain with emphasis on the authentic CBL2 environments development.

Methods of inquiry

Data collection techniques comprise interviews, direct observation, participant-observation, and reading relevant written material obtained from the company (e.g. manual of E-learning courses with screen shots of system).

Twenty-seven participants were interviewed. They were divided into three groups according to their role in the training practices at Company: 1) Nineteen users (this group is represented by participants in the courses coming from Denmark, Latvia, Lithuania, Norway and Sweden; 2) five developers from Denmark, Norway, and Sweden (employees of the company who play different roles during the process of developing training material are included under this category); and 3) three external consultants from Norway and Sweden (who are the

representatives of the consultancy company who have been delivering courseware solutions to If for a long period of time: both E-learning and blended learning courses).

The data consist of about 30 hours of open-ended face-to-face interviews and one-hour interview taken on the phone. The three-day observation of a course held in Estonia and my own experience as a participant of a two-days course in Sweden are taken into consideration when analyzing the data.

Empirical findings

Data is based upon the information from the interviews, observation, and participation in the courses as well as on the examples from the E-learning/blended learning courses that serve as a contextual framework for the data analysis.

In order to answer the two main questions, the data results were integrated into four different categories:

1. The contribution of individual and collaborative learning
2. Scaffolding self-regulated learning and collaborative interaction
3. Adapting E-learning in a multinational organization
4. The interdependency of course organization and content

First the empirical findings are presented through the analysis of the interview extracts organized under the categories above, which is followed by a broader elaboration on research questions from the theoretical perspectives presented in this thesis.

Conclusions

The current study identified some constrains of CBL1 that are seen in limitations CBL1 provides in terms of collaborative interaction. These assumptions are supported by other studies and claims for more profound design principles. However, no single answer which type of blended learning one should favour has emerged during the data analysis, as the study on blended learning was limited to CBL1 for some reasons. Thus, there is a need for further research on CBL2. This thesis suggests that the idea of interdependency of social interaction and individual learning can serve as a design principal and analytic lens for blended learning.

These ideas were adopted in other studies approaching the problem of how to enhance individual learning through collaborative interaction, e.g. CSCL and CSCW.

The fact that cultural diversity may diminish learning processes in international perspective is supported by this study. As a better solution of having common courses is not found in this study, I suggest that it is interesting to develop this field further in terms of blended learning. On the contrary, the study reveals that there can be drawn a clear distinction between the methods for theoretical and practical knowledge training.

Acknowledgements

After one year of intensive work, I may assert that this thesis wouldn't have been accomplished without contribution of so many people that I would like to express my gratitude to here.

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I appreciate the contributions to this master thesis writing from If. I will thank Torgeir Jacobsen for showing interest in the ideas of the project I proposed and Aud N. Rogstad, my contact person in If, for helping me with every single request. I will thank all the respondents for being both critical and sincere in their answers. I would like to thank If for opportunities to participate in blended learning courses. These experiences provided not only valuable data for the study but gave me a favourable time to extend my own knowledge and competence in some fields.

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I wish to say thanks to InterMedia for providing me with a study place and opportunity for participation in the jubilee celebration where my tentative findings were presented in a form of a poster.

And of course, I would like to thank my adorable three-year old son, Daniel, for saying, “Mommy, you should go back to your studies” when I was trying to play with him. This provided me with a motive to study intensively. At last, I’m appreciative for my husband being patient and showing understanding in importance of this thesis for me. Thanks to my loving family for encouraging me.

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1 Introduction

Key words: Collaborative learning, collaboration-oriented blended learning, cultural diversity, E-learning, knowledge society, scaffolding, self-regulated learning.

The aim of this thesis is to study a newly introduced and commonly employed notion of blended learning (BL). The focus is on understanding what BL means in the context of workplace learning, what advantages and disadvantages can be identified and, on the basis of empirical findings, to discuss how BL courses are set up with the objective to enhance learning outcome through combination of individual learning with collaborative learning at the same time taking into consideration the factors as cultural diversity and types of skills.

The rapid diffusion of Information and Communication Technologies (ICTs) in modern businesses and their increasing use for educational purposes (e.g. web-based training) have brought about tremendous changes in the way we learn and communicate within and between organizations. The implementation of technology-enhanced learning (TEL) has attracted a great interest from the practitioners in the field of workplace learning (Mørch et al. 2008). Many companies have started to implement E-learning solutions as a source for flexible training of their workforce. But the first generation of E-learning turned out not to fulfill its promises to replace time-consuming and high-cost conventional teacher-led training. In a nutshell one can say if the earlier E-learning settings had a focus on individual learning, it tended to see the learner as a passive recipient of information that would hardly be reflected in practice. In the context of knowledge society it is not sufficient to see the learner as a passive agent. Instead individual learning is seen as part of a socially embedded process, highly dependent on the interaction with others. Collaborative interaction puts understanding of the subject matter on a higher level supported by active participation in the learning process and the construction of knowledge through agency. These changes are predetermined by the requirements of the new knowledge economy. Practitioners and researchers have turned to new arenas to understand to what extent collaborative learning may enhance learning outcome and in particular to nurture and give rise to individual learning. For example, these considerations resulted in the establishment of the field Computer-Supported Collaborative Learning (CSCL). CSCL provides a framework for development of technological solutions that focus both on communication and collaboration with others as well as interaction with

the system itself (e.g. by applying multimedia learning principles and by providing appropriate scaffolding). Moreover, these changes may be said to result in one specific type of BL, namely BL that integrates individual and collaborative learning. This is seen in this thesis as a result practitioners and researchers realizing that there are fundamental shortcomings of self-paced E-learning. These shortcomings are identified in this thesis and others have also to some extent identified them (Dahl & Rolfsen 2005; Netteland 2008). I present my findings from a case study in an insurance company, and discuss the findings by comparing the results with those reported by others. I believe this is within the scope of previous work on BL as it was coined to extend the opportunities of E-learning by combining different media.

Theoretical perspective

The overall perspective of the research and thus the main lens through which data are analyzed are the ideas within the socio-cultural approach to learning, namely Vygotsky's idea on the *duality of learning* that says learning occurs on two levels, individual and social. Vygotsky formulated the genetic law of cultural development that emphasizes the social interaction precedes the individual learning. Within this law the learners with less experience depend upon those with higher expertise in the beginning of the learning process. *Scaffolding* within the *Zone of Proximal Development* (ZPD)[1] is another important concept that describes the process when less experienced individuals learn from others with more expertise by means of language and other artefacts and this process guides the learner's experience. Finally, learning is transferred into different contexts when learner broadens experiences and is able to learn on his/her own, this process is guided by *self-regulation*. These ideas and concepts have had a big influence on technological scaffolding in many generations of computer-based communication (CMC) and computer-based training (CBT). The most relevant contemporary areas of these lines of research to my thesis are Instructional Design (ID), Computer-Supported Collaborative learning (CSCL), and Computer-Supported Cooperative Work (CSCW).

Another theoretical perspective that takes a central part in the thesis is the *skills approach* to leadership. It can be referred to as being more practice-oriented theory in contrast to Vygotsky's ideas. The followers of this approach assert that people are not born to be leaders but rather may acquire leadership through learning and experience (Northouse 2007:41,43

[1] The difference between what a learner can do on his/her own and with the support from others

referred to Katz 1955, Mumford et al. 2000). Katz (1995) has formulated the three-skills (technical, human and conceptual) approach and depicted how the centrality of these skills varies between levels in management structure (Northouse 2007 referred to Katz 1995). Taking this model as a starting point, a new model will be developed that shows the dependency between the distribution of BL components (i.e. individual or collaborative) and the management levels. The model is also based upon studies on competence development as a combination of different types of learning (formal and informal) and knowledge (theoretical and practical) (Svensson et al. 2004)[2].

Research questions

BL is commonly defined as a combination of two components: online and conventional classroom learning (or face-to-face), whereas both components may serve as a medium for either individual learning (e.g. self-paced e-learning or PowerPoint presentations) or collaborative learning (e.g. CSCL, synchronous or asynchronous, or group learning in a classroom) (Bersin 2004; Bonk & Graham 2006; Rossett 2003). One objective of BL is to enhance learning outcome by taking into account both individual and collaborative aspects of learning. This is supported by Vygotsky's ideas that I presented above. Thus, a theory-informed research question that I wish to explore in this thesis relates to the components of BL and in particular the integration of individual and collaborative learning.

The main research question this study approaches is:

1. How blended learning is used to integrate collaborative interaction and self-paced (individual) learning to enhance learning outcome?

In this part I'm interested to see how individual and collaborative learning are integrated into a BL course and distributed between the two commonly accepted BL components, online and F2F with the objective to enhance learning process. This question is within the scope of Vygotsky's ideas on duality of knowledge and scaffolding.

The target group for this study was leaders representing different countries (cultures) and different levels in a management structure. Another interesting point to be studied is:

2. How factors like cultural diversity and the type of knowledge (management skills) are taken into account when BL components are integrated (i.e. individual and collaborative)?

[2] These ideas will be introduced in chapter 3.

I am interested to find out whether there are any considerable differences in how BL components (i.e. individual and collaborative) are integrated if one regards the factors mentioned above. To this question I'm intended to answer by referring to studies on competence development, cultural diversity/identity and skills approach to leadership.

In order to answer the two main questions, the data results were integrated into four different categories:

5. The contribution of individual and collaborative learning
6. Scaffolding self-regulated learning and collaborative interaction
7. Adapting E-learning in a multinational organization
8. The interdependency of course organization and content

I make use of the following distinction throughout the thesis, concept-oriented blended learning (CBL1) and collaboration-oriented blended learning (CBL2). This distinction emerged during pre-screening of the data and is in accordance with the research questions. What both approaches have in common, and a commonly cited success factor of BL, is the combination of individual and collaborative learning. They differ in how this is distributed between online and F2F activity due to different factors influencing the BL models.

This distinction is interesting because the company chose to use a conventional BL approach (CBL1), rather than an approach that would take advantage of CSCL technology (CBL2)[3]. CBL2 is introduced to address the shortcomings of self-paced E-learning that I found in this study.

In addition, in the literature BL is not only about combining individual and collaborative learning, but also on other ways to extend E-learning. For example:

- Formal and informal learning (either conscious or unconscious)[4]
- Any type of F2F learning that is supplemented by TEL and etc.

Case

The KIFF project is a non-funded collaboration between If and InterMedia, University of

[3] This has been improved after the study was conducted. The company has launched a new LMS system that allows more advanced use of technology

[4] This distinction will be discussed in section 3.2.2

Oslo. KIFF is a Norwegian acronym that stands for "Kunnskapsbasert If Forsikring," corresponding to the English equivalent “Knowledge-based If”.

If is a Nordic multinational concern. It has offices in Denmark, Finland, Norway and Sweden, the Baltic countries, and Russia. Three Business Areas comprise the company: Private, Commercial and Industrial. They provide services in the insurance industry both on national and international levels.

The learning and competence development of the leaders is the core value in If. The possibilities are diverse: from on-the-job training to e-learning courses and well-designed courses and seminars that are based upon the BL methods. But the integration of the components in BL courses is predetermined by several factors.

The company has some years of experience in applying BL approach to training. Recently, some measures to solve problems of delivering training with global perspective have been undertaken. But there are always some constrains that are to be overcome in order to succeed in delivering training solutions.

Two students are doing research and writing their master’s thesis in the project (Karin Heiene in addition to me). Each of us works within own field of interest. The project is therefore divided into two sub-projects.

Motivation and Rationale

There is a great amount of literature written on BL, but most of the contributions are based upon the best practices and provide practitioners with useful advice on how to implement a BL course considering different constrains. But still BL seems to be an ambiguous notion and a few studies provide with theoretical bases on the understanding of BL as a method. The contribution with this paper is the understanding of the notion BL by seeing how this method integrates individual and collaborative learning and what are the factors effecting the combination. The objective of this thesis is to rethink the notion of blended learning by extending CBL1 and suggest a theoretical framework that may serve as design principles for blended learning environments with emphasis on CBL2.

Recently, with the emergence of new view on learning and the increasing implementation of TEL in the context of workplace learning this field has been expanded and it is interesting to follow those changes from a theoretical viewpoint in order to be able to implement these theories in practice later on.

The structure of the thesis

The thesis is organized as follows: in the chapter 1 a common introduction is given. Chapter 2 aims at bringing in the concept of BL, its advantages and disadvantages, and at presenting related studies on the workplace E-learning and BL. Chapter 3 is divided into three theoretical perspectives, the scope of which is extended by introducing different concepts within knowledge society, workplace learning and technologies for individual learning and collaborative interaction. In the chapter 4 the presentation of the case is given with the purpose to present the context of the study, i.e. how BL is utilized in practice. In chapter 5 the methodological considerations are elaborated. Chapter 6 present the empirical analysis of data that is followed by a summary of the core findings. In chapter 7 I discuss the main research questions in a broader theoretical perspective. The conclusions and directions for further work follow this.

2 Blended learning

"Although blended learning has become somewhat of a buzzword in corporate and higher education settings, there is still quite a bit of ambiguity about what it means" (Bonk & Graham, 2006).

When I was out to interviewing with the respondents from the company I was wondering whether anybody knew or at least ever heard the notion of "blended learning". A few of the respondents did. But the first comment I got about the blended learning was: *"For me blended learning is like blended Scotch whisky, should be just the way that it tastes: not too strong, not too weak but good. So that is what I'm thinking about blended learning. It is a mix that is good".* This metaphorical statement is an exact definition that underpins the importance of balance in a blended learning solution. So what is actually blended learning and why it attracts so much attention, both from educational institutions (schools, universities etc.) and organizations that believe that training and competency development of their assets is the core path to success? Why to blend and what it takes to blend?

In this chapter I will introduce the notion of blended learning, its advantages and disadvantages, and present related studies. In the end I will outline the points unaccounted for in the research on blended learning and which have a direct relevance to my study.

2.1 Towards the definition of blended learning

Many authors assert that the notion of blended learning (BL for short) was introduced as a result of practitioners realizing that stand-alone E-learning had failed to fulfill its promises to replace the time-consuming and high-cost conventional teacher-led training (Bersin 2004). By providing the employees with a great variety of E-learning courses the companies expected them to learn actively and to apply that knowledge directly at work (Singh 2006:474). However, many of these attempts made learning repetitive, unmotivated and sometimes boring. BL was coined to solve the problems early on, and has gradually become to replace E-learning as the preferred implementation of BL. But as with the case of E-learning, BL also has shortcoming, which I discuss below.

The most common way of explaining BL is to see it has a combination of E-learning and face-to-face (or classroom) learning, meaning that its instructional design integrates

conventional face-to-face teacher-led learning and online self-paced learning (Bonk & Graham 2006:5; Allan 2007:4). This connotation is imprecise, as the models of BL have undergone considerable change during the years, especially in the context of workplace learning (Graham 2006:6; Kim 2007:2).

Below I will present some of the definitions of BL. Although that have many things in common they also differ or emphasize different characteristics, which show there is no single model for BL solutions. In fact, the variations are numerous.

BL may be defined as:

1. "…((A)) balanced learning. This balance is achieved by combining the advantages of two learning modalities, such as classroom instruction, with self-paced instruction that is delivered on the Internet" (Voci & Young 2001:157);

2. "Blended learning is a mix of self-paced (asynchronous) work and instructor-led (synchronous or face-to-face) elements" (Stewart 2002:270);

3. "…((The)) use of different internet-based tools including chat rooms, discussion groups, podcasts and self-assessment tools to support a traditional course" (Allan, 2007:4);

4. "…((A)) combination of two or more of all possible formal and informal learning types", including both face-to-face and online instructions (Kim 2007);

5. "... ((An)) integrated strategy for delivering on promises about learning and performance. Blending involves a planned combination of approaches, such as coaching by a supervisor; participation in an online class; breakfast with colleagues; competency descriptions; reading on the beach; reference to a manual; collegial relationships; and participation in seminars, workshops, and online communities" (Rossett 2003);

6. "Blended learning addresses many of the shortcomings of traditional physical classroom or pure E-learning courseware models by combing self-paced, collaborative, and human mentoring approaches, which lead to higher learning

completion rates" (Singh 2006:490).

Thus, any combination of educational media is possible in a BL model: synchronous or asynchronous, formal or informal learning, individual or collaborative, online or face-to-face.

The effectiveness of a BL course depends upon the blend (the mix of different components) (Trasler 2002). But at the same time the development of the blend is predetermined by a variety of factors. A blend may depend upon *content* (Bersin 2004:113); *learning objectives* (Bersin 2004; Kim 2007; Jagannathan, 2006:449); the *degree of immediateness*, whether there is a need for immediate delivery or there is time for a gradual design and development (Bersin 2004:111; Rossett 2003) the *context of learning* (Jagannathan 2006; Masie 2006:24; Singh 2006:479-80); *short-term use* or *possibility to redesign* a program (Allan 2007; Rossett 2003); *target group*: size of the group, job roles, proficiency in technology use (Bersin 2004:101-3) and etc.

As it was mentioned above, the main objective of BL is to enhance learning outcome by combining the two learning environments associated with online learning and conventional teacher-led classroom learning. But the current research reveals that the integration of two totally different instructions is still seen as ambiguous and challenging. Although there have been many attempts to define a common method fro BL (Offerman og Tassava 2006), this problem remains in spite of those efforts (Bersin 2004; Kim 2007). However, there is a range of practical applications and proven models for BL. Bersin (2004) has outlined two approaches to BL design: *program flow model*, a step-by-step instruction; and c*ore-and-spoke model*, optional and not strictly organized curriculum (Bersin 2004:56).

Allan (2007) referring to Sharpe et al. (2006) distinguishes three models: BL as a supplement to conventional courses and vice versa (e.g. additional material and guidance is provided online, such as chat, virtual learning environments, e-mail, discussion boards); transformative models that allow courses to be redesigned to adapt to the needs of learners and to specific contexts; the learner-led model that is seen as a combination of formal and informal learning with the use of specific technologies: iPod, mobile phone, web log, e-mail, wiki, etc. (Allan 2007:7).

Graham (2006) defines several models for BL studied from the corporate learning

perspective: activity-level blending; course-level blending; program-level blending; and institutional-level blending (Graham 2006:10-13).

While some authors are interested when and how online component should be used to supplement F2F sessions, others take an alternative view and study the online component as primarily important (Offerman &Tassava 2006:235).

Different researchers have identified what they believe are the key components of a successful BL solution in the context of workplace learning: the combination of self-paced and collaborative learning (Rossett 2003; Graham 2006:15; Collis 2006); social aspect (Masie 2006:25; Wenger & Ferguson 2006:80); self-regulated learning enhancement through social interaction (Dettori og Persico 2007:174); learner-centred pedagogy (or learner-centric learning) (Allan 2007; Baldwin-Evans 2006:157); scaffolding of the learning processes (both technological and pedagogical) (Collis 2006; Rossett 2003; Graham 2006:15); communication (Rossett 2003); community building (Hanson & Clem 2006:136); technological affordances (Bersin 2004:116); and reflection (Hanson & Clem 2006:137).

2.2 Advantages and disadvantages of blended learning

Due to the fact that the combination of the BL components may take many forms, it is difficult to comment upon advantages and disadvantages of BL in general. Moreover, if one takes into account different factors that have their influence on the models than the task will become even more challenging, since the influence of individual factors is more difficult to trace. Instead, one can study the advantages and disadvantages of all major combinations. This is the approach I will pursue.

In the figure 1 I have presented, based on the survey of previous work, four major BL components, online and face-to-face that are integrated in order to enhance both (self-paced) individual and collaborative learning:

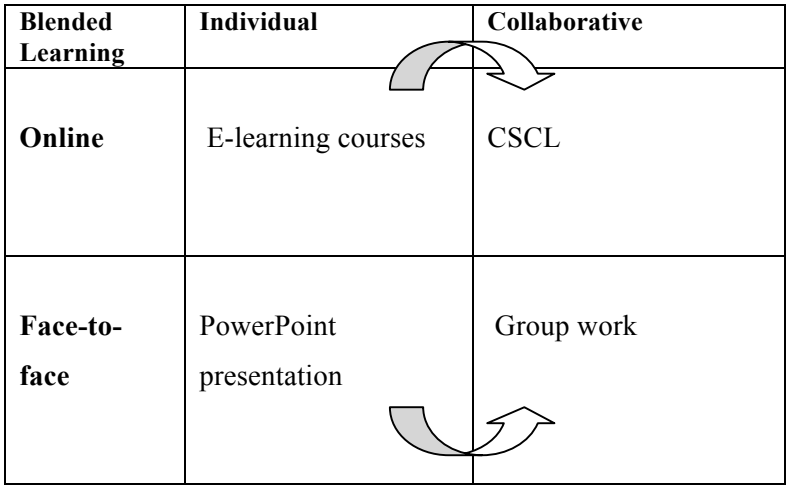

Figure 1 The core BL elements

According to the figure 1 four major elements can be distinguished in BL:

1. Online individual: comprises self-paced learning regulated and supported through technological/ or pedagogical scaffolding;
2. Online collaborative: learning online through interaction with other participants of a course either synchronously or asynchronously;
3. F2F individual: conventional teacher-led learning;
4. F2F collaborative: collaborative learning in the classroom or informal learning (e.g. project-based learning).

These dimensions represent different models of BL and can be designed in many different ways based upon the factors influencing the blend (see section 2.1).

Some of the authors I surveyed above identify strong and weak features of BL by discussing the components and identifying their strong and weak points. For example, BL is seen as a combination of online self-paced learning (E-learning) and teacher-led classroom learning, and these two components have been independently assessed in many different studies (Bersin 2004;Voci et al. 2001:157-158). I think this division restricts the scope to which BL may be understood, as both online and face-to-face components may aim at either collaborative or individual learning. Thus, the advantages and disadvantages are highly dependent on the context, which in this case is the combination itself. There are numerous possibilities to mix the components depicted above into something that could qualify as BL.

In general, the combination of these components make BL more flexible in time, pace and learning styles; cost-efficient; allow to combine communication, collaborative as well as self-paced learning; self-paced E-learning is usually used for preparation, brush-up of the material and follow-up (Voci & Young 2001; Graham 2006:8).

2.3 Related studies

In this section I will present three studies that are directly or indirectly referring to BL, but have relevance to the questions discussed in the thesis as they take into account one of the components of BL that is E-learning.

Implementation of E-learning in Telenor

Grete Netteland (2008) had conducted a study in the Norwegian telecommunications company, Telenor. In 2001 Telenor decided to co-locate more than 6000 employees at one place at Fornebu, Oslo and implement e-learning with the objective to use it as a learning tool to enhance competence development of employees. In her doctoral dissertation *"E-learning for change in a large organization-identifying problems and opportunities in the implementation of E-learning"* Netteland points out the challenges the company faced and on the basis of these findings suggests some solutions for a successful implementation of E-learning in a large heterogeneous organization.

The core problem with the implementation of E-learning in Telenor was in "one fits all" principle they applied. This belief takes no consideration in the contextual differences between the departments, working environments, work methods, IT competences, learning styles as well as external factors as e.g. cultural differences. Thus, one and the same training was provided to different departments. The central point Netteland follows in her study is that work-relatedness of training and the context differences are the crucial factors of success, especially in a large organization.

Netteland defines the core factors that are crucial for the implementation of E-learning in a large organization (Netteland 2008:215):

- The content of E-learning should be adapted to the local context and needs
- The implementation plans should let a differentiated approach

- The E-learning implementation must consider the differences in departments (i.e. production processes)
- The E-learning should match existing learning system and allow integration with future learning system in every business unit
- Relevant content is the major factor of success

Integrated workplace E-learning: pedagogy, technology and organization

This study is the outcome of the project connecting pedagogical, technological and organizational aspects of E-learning, *"Læring og kunnskapsbygging på arbeidsplassen"* (LAP) conducted in Visma Services, Oslo ("Learning and knowledge building at workplace" in English). The main objective of the study was to investigate the use of E-learning and other web-based learning systems as well as to develop a new effective learning system (Mørch & Solheim 2005:3).

The study on E-learning from the pedagogical perspectives depicts some of advantages and success criteria (Dahl & Rolfsen 2005:32-9):

- E-learning can't replace other forms for learning but rather serves as a supplement to other forms of learning e.g. for conventional learning (i.e. blended learning)
- E-learning content should be related to the learning objectives and daily work
- The content of E-learning should be easy to understand and implement in practice (i.e. concept-oriented E-learning)
- E-learning is flexible in time and pace and serve as a learning medium for many learners regardless of location
- E-learning gives an opportunity for "learning-on-demand"
- E-learning allows integration of different pedagogical designs

Case study on blended learning at Shell EP

Collis et al. (2005) conducted a case study on research of one hundred courses within Learning and Leadership Development (LLD) unit of Shell EP built in accordance to blended learning. A Web-based course management system was used to facilitate and support the learning processes (concept learning, collaboration, communication).

A new type of an effective course is presented in this study: the combination of formal and informal learning supported by online learning (both individual and collaborative) and facilitated/scaffolded through the interaction with peers, experts, course instructors, and experienced leaders. All the courses were: built upon the work-based activities; sometimes did and other times did not include classroom sessions. Interaction was seen as the central activity in learning. The main objectives of these courses were to develop an environment for *authentic learning* (Collis, Margaryan & Amory 2005):

- Learning should be integrated into work activities and lead to implementation of the new knowledge into practice at once
- Learning should take place in a workplace rather than through self-paced E-learning modules
- Experience exchange with not only course collaborators but other colleagues is crucial
- Support using ICT-based learning system should be provided
- Learning should be in line with local context and culture

2.4 Summary and some critical remarks

In this chapter I have outlined the current trends in studies of BL. Although there is a great variety of literature written on BL, the notion seems to be not clearly defined yet. The notion has gained a great interest in the context of workplace learning, but the contributions to BL research are mostly practice oriented, and a few of the articles I have found are informed by theory.

Literature review on BL reveals that it is not reduced to the commonly excepted definition that says BL is a combination of online and F2F learning. On the contrary, consideration of other forms of learning and training in the context of workplace learning i.e. formal, informal and online extend this notion. But what all the combinations have in common is the importance of mixing individual and collaborative learning, where both may occur either online or F2F. This aspect with BL was applied to solve the problem with self-paced E-learning that is seen as purely individual form of learning.

There are different models of BL defined by different authors, but there is no single methodology of how to combine the BL components to achieve high outcome in learning. Previous studies show that the blend depends upon various external factors.

The main objective of BL is to enhance learning outcome by combining two types of learning environments, one associated with online learning and the other conventional teacher-led classroom learning. The literature review makes it obvious that the integration of these two components is still challenging and remains an open issue for further research. The purpose of this thesis is in understanding of BL as a method from a theoretical viewpoint.

Although there are a number of advantages of BL in comparison to self-paced E-learning, there are some weaknesses in BL as well. To identify those is the purpose of this study. To make the point I follow explicit, a distinction between two types of BL is required. It emerged after the pre-screening of data from the case study I conducted:

3. *Concept-oriented BL (CBL1):* the online part is concept-oriented and meant for individual use (e.g. self-paced E-learning), whereas F2F part is collaborative learning (e.g. scenario simulation, work groups, etc.);
4. *Collaboration-based BL (CBL2):* the online part is computer-supported collaborative learning (e.g. online communities), whereas the F2F is individual oriented (e.g. conventional classroom instruction, PowerPoint presentation, mentoring).

I define the difference between these types in the distribution of the two components (online and F2F) between individual and collaborative learning. If CBL1 can be seen as conventional BL, than CBL2 takes the advantage of the modern technologies that support communication and collaborative interaction.

3 Theoretical perspectives

In this chapter I will introduce the central theoretical perspectives that I make use of later in the thesis partly when analyzing the data and discussing the results. These perspectives are within the studies on workplace learning and design implications on ICT-tools that are used to enhance both individual and collaborative learning. The chapter consists of three sections and is structured as follows: first, I will introduce the notion of knowledge society and challenges the new knowledge economy has brought about; then I will elaborate on the new conditions in the domain of workplace learning with the emphasis on blended learning and competence development; the last section is devoted to design implications from the technological view point with emphasis on both individual and collaborative learning. The structure is built as a hierarchy meaning that every section is built on the assumptions from the all previously introduced. A common summary on the material presented is given in the end.

3.1 Knowledge society

The term *knowledge society* over the past ten years emerged to describe the core values and new challenges in the modern (post industrial, information age) society.

Drucker was among the first writers on management to put the notion of knowledge society under discussion (Stehr 1994:5 referred to Drucker 1969). Since then numerous authors in a wide range of fields have described various aspects of the new society and labelled them accordingly: knowledge society or knowledge-based society (Stehr 1994:5 referred to Drucker 1969 and Lane 1966), knowledge age (Scardamalia & Bereiter 2003), post-industrial societies (Stehr 1994:6 referred to Bell 1973). The term knowledge society (or KS for short) will be used in this thesis.

The emergence of the KS is predetermined by a gradual evolution: a change from industrial societies where the terms *property* and *labour* defined key characteristics, to the present day society where knowledge is considered one of the primary production resources and the core heritage value, which is judged by these writers as the "nuts and bolts" for the success of many enterprises in the future (Stehr 1994:6-8; Alvesson 2004). As a consequence of new demands the investment in social and human capital has increased dramatically in recent years in attempts to cope with the novelties at many workplaces. This issue has become crucial in facing challenges of KS, as the competitiveness of any organization today lies in its

willingness and ability to contribute to the competence development and learning of its employees. It is the knowledge level and the ability of a workforce to take advantage of knowledge to attain business goals that constitutes a difference between a successful company and the less effective one (Gottchalk 2004, *my translation*).

3.1.1 Knowledge society abilities

The increased search for innovation in learning at work has been caused by the growth of competitive environment of businesses, globalization, more demanding and aware customers, as well as reduced lifetime for products and services (Gjelsvik 2007:15, *my translation*). Thus knowledge and skills for innovation have become the core factors lying in the heart of the prosperity of many organizations today.

The new conditions have created a need for new models of how learning should be understood in accordance with the requirements of KS. Then development of thinking skills is crucial for the workers in new and challenging conditions facing her/him and the emphasis should be made on the *"transferable thinking skills" ("skills for the new century", "skills for the workers of the future" or "skills for the knowledge society"*), rather than on *"content-knowledge and task-specific skills,"* according to Wegerif (2002). The latter is seen as more rigid and allows less flexibility and innovation. According to Wegerif (2002) thinking skills comprise: information processing, reasoning, enquiry, creative thinking and evaluation (Wegerif 2002). It is the ability of learning how to learn new things; flexibility, mobility, creativity; active involvement into decision-making and into solving more complex problems; thinking critically and learning in collaboration with others; i.e. the continuous improvement of one's knowledge that are the essential characteristics required to a modern worker (Wegerif 2002; Illeris 2008; Scardamalia & Bereiter 2003).

3.1.2 Knowledge-intensive firms

Another important term in context of KS is knowledge-intensive firm (KIF for short). Alvesson has mainly developed it through his own research and incorporation of other researchers' contributions. Alvesson (2004) introduced the phrase *knowledge intensive* to be used in three different contexts: knowledge-intensive work, knowledge worker and knowledge-intensive firm (Alvesson 2004). The dictionary gives the following definition of the word *intensive*: *"concentrating all one's effort on a specific area"* (Crowther 1995). It

follows from this that one stresses the importance of a specific thing or value when adding the qualifier intensive. In our case it is knowledge that indicates something particular of knowledge-intensive work, knowledge-intensive worker as well as of knowledge-intensive firm.

According to Alvesson (in press), the term KIF was introduced to clarify the difference between KIFs and non- (or less) KIFs (Alvesson in press). The notion has gained a great interest and is widely used in the literature on organizational learning and knowledge management. However, there is no clear definition of what KIF actually means and the term is often taken for granted (Rylander & Peppard in press). Different authors have coined the term with slightly different meanings, but what links the various conceptions is the importance of knowledge in KIFs. Rylander referring partly to Starbuck (1996) defines KIFs as *"organizations where well-educated and qualified employees form a major part of the workforce and engage in mainly intellectual work"* (Rylander & Peppard in press referred to Starbuck 1996).

Alvesson (2004) says that KIFs*" can be loosely and preliminary defined as organizations that offer to the market the use of fairly sophisticated knowledge or knowledge-based products...at the same time these activities are based upon the intellectual skills...deployed...in development...and often also in the sales of products and in service work"* (Alvesson 2004:17-22). It follows from this that knowledge and emphasis on competence development are the key features of a KIF. Hence, the abilities of the employees to take part in knowledge productive work are crucial in creation of competitive advantages, developing products and to be able to perform in organization according to critical factors.

Although all firms consider knowledge as important part of daily work, knowledge in non-KIFs is characterized as being more profession-oriented, well defined and *"relatively homogeneous"* (Alvesson 2004). In contrast, knowledge in KIFs is socially recognized, created and recreated through social interaction and networking (Alvesson 2004:30, 2004:174 referred after Newell et al. 2002). Thus, the activity of a KIF is based on the application of knowledge or putting knowledge into practice (Alvesson 2004). It is the expertise of the workers that is crucial for the well adapted organization, but at the same time Alvesson stresses the *"ambiguity of knowledge"*, meaning that knowledge development, application and centrality has different value in different contexts (Alvesson in press). For

instance, the innermost role of knowledge may depend upon different factors: the immediateness of knowledge (knowledge-on-demand), occupation, working environment (changeable or stable) etc.

3.2 Workplace learning

The recent explosion of interest in workplace learning is related to the new conditions of knowledge society (Illeris 2008; Billett 2004). Current trend in workplace learning emphasize that learning is not well-defined curricular units to be taught to students as in educational institutions. On the contrary, learning in the context of workplace and competence development of personnel has gained a new renaissance (Illeris 2008). There is a trend now to change from *"institutionalized vocationally oriented"* education that served as a base for future stable performance at work to support for continuous updating of knowledge to learning on demand in the workplace (Illeris 2008). Thus, better adapted to work settings that are more flexibly and dynamically changing and not as stable as they were in the past.

Conventionally, learning at work has been depicted as a separate process, taken outside of the workplace and practices independently of work performance. But the assumption that the relation between learning and work is one-sided and only learning can impact work may be wrong and more recent studies conclude that work can also influence learning (Gruber & Palonen 2007 referred to Simons 2004). The new trend with KIFs is to reverse this view on workplace learning and instead draw on the importance of workplace-connected, work integrated, on-demand, or on-the-job learning (Solheim 2005:11-13; Svensson et al. 2004).

Tynjala et al. (2005) in their study on workplace learning have outlined some of the core principles of adult learning theories that are said to be closely connected to workplace learning: learning by reflection and through experience; social nature of learning; problem-oriented learning (e.g. problem-based learning (PBL), project-based learning); and flexibility of learning media (Tynjala & Hakkinen 2005:320-321).

In recent studies on the workplace learning the emphasis is made on strengthen both employees' cognitive, cultural and social abilities, because each of them play an essential role in the learning processes (Gruber & Palonen 2007). Hence, an increasing emphasis is made on strengthening the interaction between the social and the individual levels (Illeris 2008).

3.2.1 Cultural identity as a restricting factor for learning

The globalization and collective character of work-dependency in performing complex working task that is a characteristic of the modern work force (Lahn 2005:63, *my translation*) will bring in a cultural factor with MNE (Alvesson in press).

Modern organizations are characterized as being *"complex systems of inter-group relations and networks"* (Child & Rodrigues 2005) meaning that the diversity in cultural affiliation is big. Thus, identity is manifest in the relations and networks, which exist at different levels in the organization. Identity may be defined as similar expertise or occupational background, values, experience and environmental context, nationality or affiliation to specialized groups, departments or subunits that are the basis for identity construction (Child & Rodrigues 2005). At another level identity defines the values, behaviours and rules for which people belonging to a social group interact with and internalize (Child & Rodrigues 2005). But identity is not something fixed and stable as have been mentioned above, it is highly dynamic and changing over time adapting itself to external critical conditions (Alvesson in press, 2004).

Child and colleagues define *national-based identity* (or cultural identity) as one playing a crucial role for the learning in organization (Child & Rodrigues 2005). When it comes to learning across national cultural boundaries it requires an adaptation to local norms, or "recontextualization" (Child & Rodrigues 2005 referred to Brannen et al. 1997). This is not without its challenges. It is well known that people feel more comfortable working within their own social group and the willingness and effort to adapt to the more strenuous alternative of inter-organizational cooperation can be demanding (Child & Rodrigues 2005). Knowledge may become a means for creating common identity through offering organizational members a shared language and a common way of relating to themselves and their worlds (Alvesson in press). Thus, achievement of shared identity is crucial for coordination, communication and learning between the social groups (Alvesson in press). In particular it, may play a crucial role in learning and competence development, especially in the context of Multinational Enterprises (MNE) (Child & Rodrigues 2005). But this may become challenging.

3.2.2 Formal, informal, non-formal learning

Workplace learning can take a variety of forms: formal, informal and non-formal learning (incidental learning) (Lahn 2005:62, *my translation*). It is an ongoing debate on the effectiveness of each of these types for various types of work settings (Lahn 2005:62, *my translation*). There is an assumption that none of the mentioned above types of learning is fully sufficient (Tynjala et al. 2005:322 referred to Slotte et al. 2004; Svensson et al. 2004:479). Moreover, these types of learning are not clearly defined and different authors specify on the boundaries between them with slight differences. I will use the classification given by Nordhaug (1993), where he introduces informal learning (planned or non-planned) and formal learning (certified or non-certified) (Nordhaug 1993:36-38):

1. *Informal learning (non-planned or unconscious)* is related to the daily activities at work. It does not lead to certificate and typically not structured. It may be either intentional or non-intentional (e.g. learning of cultural values);
2. *Non-formal learning (informal planned or conscious)* is independent learning that is structured from the learner's perspective (e.g. development of one's competence through literature studying, from peer-to-peer interaction, mentoring, other's experiences, project-based learning (PBL) etc.);
3. *Formal learning* is typically structured and provided by training institution. May or may not lead to certification.

Several studies on the effect of formal training revealed that from 50% to 80% of courses (either conventional or E-learning) have little or no effect on learning as information gained during the formal courses rarely transferred to the real job situations (Karlsdottir 2007:66-67; Solheim 2005:11). Previous studies in the workplace learning make it obvious that much learning do indeed occur through the daily work. In some findings on-the-job training is considered to give more outcomes and be more effective in comparison to formal (institutionalized) education (Illeris 2008; Solheim 2005; Svensson et al. 2004). Facing the problem that this kind of learning to a large extent is accidental and one seldom have the opportunity to obtain "full coverage" when learning at work, many authors suggest that informal learning should be supplemented and supported by formal learning in order to create conditions for reflective learning (Svensson et al. 2004; Tynjala & Hakkinen 2005:322 referred to Slotte et al. 2004). At the same time related activities like self-directed learning,

new project work or PBL may increase the outcome from the informal learning (Illeris 2008 referred to Illeris et al. 2004).

3.2.3 Workplace blended learning: models and constraints

The models for BL have undergone some considerable changes since the notion was first applied. If earlier in the advent of web-based learning it was seen in separation with the conventional face-to-face learning than today the importance of integration of the two environments is seen as crucial for enhancement of learning outcome. These assumptions are supported by the research on workplace learning introduced in previous sections. Singh (2006) presented the evolution of the BL that depicts the core changes it has undergone recently: from instructor-led conventional learning mixed with the supporting materials (e.g. books) towards the gradual implementation of the technology (synchronous or asynchronous) that resulted in a simple blending, then in a seamless blending, and the latest trend seems to be the integration of BL with the activities in the daily work (Singh 2006:476-478).

BL for corporate learning has gained a great attention both from the practitioners and from the research community. Many researchers have started to look upon BL from a global prospective, revealing some constrains when taking into account issues like:

1. Regional, cultural, and professional backgrounds (Collis 2006:462);
2. Intercultural learning and instructional design principles to obtain cultural awareness (Stewart, 2002);
3. Adjustment of the programs (BL and E-learning) to the local settings (e.g. social contexts, culture, language, differences between departments etc.) (Jagannathan 2006:446-8; Netteland 2008);
4. Changing organizational culture to accept BL (Hanson 2006:145);
5. Building the organizational culture in achieving of *"shared beliefs, values, and practices of a group"* (Bersin 2004:99).

As it was mentioned above, considerable part of learning at work occurs through informal or non-formal learning, for example through peers interaction, job-based projects, and self-study (Baldwin-Evans 2006; Svensson et al. 2004). These findings have had an impact on the BL models as well (Svensson et al. 2004; Collis 2006). The importance of integrating learning into the daily work has resulted, for instance, in the *embedded BL* model (Oliver et al.

2006:502). This model integrates learning with work while maintaining the importance of teacher-, supervisor- or facilitator-led conventional learning (Collis 2006:461). Blending formal and informal learning can also be supplemented in other ways being mediated (Collis 2006:461-473; Baldwin-Evans 2006:157) or scaffolded (DeViney & Lewis 2006:474-490) by different forms of ICT, other learners, and even online coaches, tutors and agents (Mørch, Dolonen og Nævdal 2006) (Kirkley og Kirkley 2006) BL provides opportunities for authentic learning environments development through various types of support (Oliver et al. 2006:502-515).

Another point contributes to the effectiveness of BL in a workplace context is the relevance to the work and to the specificity of the context (the adaptation of the BL model to the specificity of company's culture, business goals and employees' needs) (Trasler 2002). Singh (2006) argues for the importance of "*a real-time work flow learning"* that incorporates elements of the environment, learning and work into an overall process that when supported by ICT can provide learners with increasingly sophisticated on-demand information (Singh 2006:480). Thus, a movement from a content-based to the context-based learning environment is an essential element of the current trend in BL at work (Jagannathan 2006:446; Singh 2006:479). How to deliver the right information, at the right time and through the right technology is the dilemma that needs to resolve for this type of BL at work to have major impact (Singh 2006:476; DeViney 2006:495).

Due to the requirements of knowledge society, technology advancement, increasing need for on-demand and context-specific learning, there is a need to rethink the BL methodologies, principles of instructional design so that to develop authentic learning environments that provide learners with appropriate scaffolding (Kirkley & Kirkley 2006:534).

3.2.4 Competence development through blended learning: a skills approach to leadership

New competence requirements for the employees have been defined for modern working life. A search for *"talented, competent, and dedicated people to effectively address the increasingly complex and profound challenges"* is a phrase that is used in some advertising to be in accord with the new priorities for modern organizations (McCuddy et al. 2007:3).

Competence is *"an individual's ability to act knowledgeably, effectively, deliberately, strategically, and reflectively in a situation"* (Svensson et al. 2004). It also includes knowledge, abilities and potential to perform successfully in challenging conditions (Wille 2003:5). Several authors claims that the success in learning at work in the knowledge society depends on one's ability of *"learning how to learn"* (Illeris 2008; Wegerif 2002; Bereiter 2002:225-227). According to Illeris (2008) it is the ability to cope with a great amount of information and the ability to arrange it systematically that is the core qualification of a modern learner (Illeris 2008).

Recent studies on workplace learning in terms of competence development drawn attention on integration of two different types of knowledge: practical (practical experience) and theoretical (theories, facts, models) (Solheim 2005:10; Svensson et al. 2004; Tynjala et al. 2005:322,324 referred to Slotte et al. 2004). These types of knowledge may be defined as:

> *1. Theoretical knowledge* comprises core concepts that are crucial to possess in order to arrange information, to use new tools and models, and to cope with different tasks; *2.Practical knowledge* is practical experience and referred to as more concrete and specific, but situated knowledge (Solheim 2005:10, *my translation*).

According to Svensson and colleagues the process of competence development comprises a combination of formal learning (that includes theoretical knowledge) and informal learning (usually a source for practical knowledge) and their reflection in practice (Svensson et al. 2004). As BL combines different forms of learning this combination has found its implication in the BL approach at workplace[5].

Many organizations increasingly invest into the competence development of their workforce with expectation of achieving a profit. A special emphasis is usually made on the development of leadership, as learning and competence development of leaders is crucial for any organization. It follows from the studies introduced above that the methods in the context of workplace learning are diverse (e.g. formal, informal, non-formal learning that are combined in a BL course). In this thesis I build up my assumptions on leadership training through BL approach that incorporates many different methods.

[5] See section 3.2.3

The *skills approach* to leadership that says that leaders' competences (knowledge and abilities) are the core factors of effective performance (Northouse 2007:39). The ability to solve complex problems is what makes the performance impressive and can be acquired through job experience and training (Northouse 2007:43-54 referred to Mumford et al. 2000). Especially this assumption is in line with the requirements of knowledge society.

In his discussion on the skills approach to leadership Northouse refers to the model of *three-skills approach* formulated and introduced by Katz (Northouse 2007:41 referred to Katz 1955). The model considers the differences between the three levels of leadership: supervisory management, middle management and top management. According to Katz (1955) the effectiveness of leadership relies on the three types of skills the importance of which depends on where a leader finds him/herself in the management structure (Northouse 2007:43):

1. *Technical skills* are the knowledge of the basic activities/products the company produces. With regard to BL I consider these skills as the core concepts, facts, theories (i.e. theoretical knowledge) as well as non-specific skills (e.g. a course in PowerPoint) and will call them *theoretical skills*.
2. *Human skills* are the abilities for effective communication. I will refer to these skills as *communication skills* that are personal abilities to work and communicate with people.
3. *Conceptual skills* are the abilities to set goals, to create a vision and strategic plans. I will call this type *practical skills or problem-solving skills* that is the ability to apply theoretical skills into practice through solving complex problems, i.e. development thinking skills (Wegerif 2002)[6]. The border between communication and practical skills training is less distinct than between theoretical and practical. These differences will be discussed in the analysis.

Katz asserts that if on the Supervisory management level technical and human skills are central, then moving higher to the Top management level the abilities in human and conceptual skills become the core factors of success; Middle management level is characterized as considering all the three skills as crucial (Northouse 2007 referred to Katz 1995).

[6] See section 3.1.1

I consider the model as an appropriate to use as a template in order to understand the integration of collaborative and individual learning into an overall BL leadership-training course. In accordance with the practice in If there may be traced a connection between these types of skills, level of management and the organization of training. So, referring to the model of three-skills approach as a basic I will introduce a modified model that may reveal the interrelatedness between the organization of BL courses and content (what type of knowledge is to be learned, practical or theoretical). As already mentioned I use the following types of skills to describe the core competences: theoretical skills, communication skills and practical (problem-solving) skills. In addition to the Katz's theory (1955), this model is based upon the ideas of competence development formulated by Svensson et al. (2004) and mentioned in this section, as well as on the analysis of data. The model will be extended in the analysis by adding two components, individual and collaborative in accordance to the findings on BL.

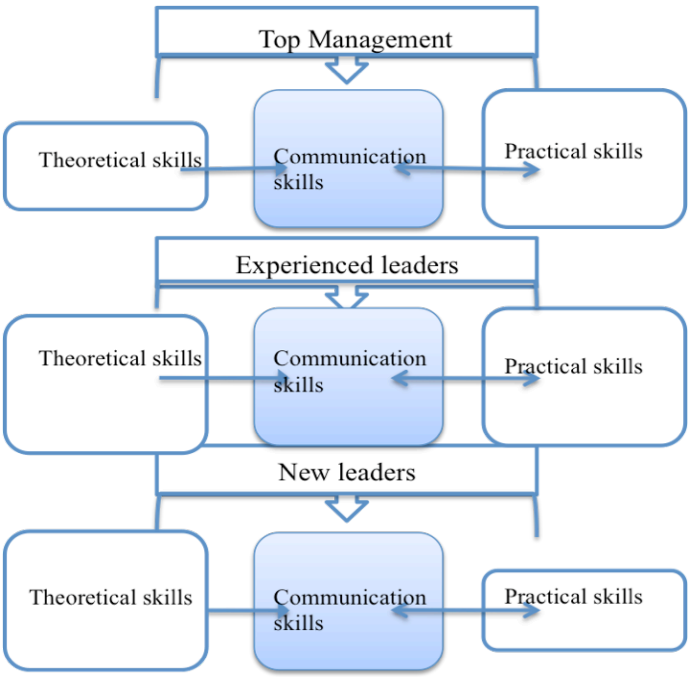

Figure 2 A modified model of skills approach (Katz, 1995) that shows the interdependency of types of skills and levels in management structure.

3.3 Technologies for individual learning and collaborative interaction

In the context of the new economy, where knowledge is seen as the core value, learning

practices will have to be transformed. With the impact of computers into the learning practices a special focus on collaborative learning environments have gained a great interest among researchers. A need for alternative and more profound strategies in teaching in order to answer the new conditions has become apparent.

Autonomous learning, the inappropriateness of conventional instructional methods and the importance of collaborative learning are some of the central subjects of interest in the current research on learning with technology (Law 2005:373). To provide a way for autonomous or self-regulated learning that is achievable e.g. through appropriate scaffolding both on individual and group/community level is the crucial elements for gaining a favourable outcome in learning (McLoughlin 2002). Self-regulation (self-regulated learning) may be understood as *"a goal-oriented process of active knowledge construction"* (Dettori et al. 2005). Goal setting, choosing or planning strategies in achieving these objectives and an ability to evaluate one's own results, as well as motivation and emotions are the core principles of self regulation (Dettori et al. 2005; Ormrod 2004:327).

Self-regulated learning can be traced back to the studies of socio-cultural approach to learning (Ormrod 2004:170). This tradition was formulated by the Soviet psychologist Vygotsky and underpins the importance of influence of social interaction on the processes of knowledge construction by individuals (Säljö 2002). Vygotsky formulated a genetic law of development that underpins the interdependency of social and individual learning. He argued that learning occurred on two levels, first on inter-psychological (social character of learning) and intra-psychological (learning on the individual level). The latter is said to guide and regulate one's own learning and may be referred to as self-regulated learning (Ormrod 2004:170). Communication is seen as a connecting point between these two levels, contributing to both collaborative learning and self-regulated learning (Säljö 2002). The learning process is seen as a gradual appropriation of new and more complex knowledge through e.g. collaborative problem solving (Säljö 2002). The integration of individual and collaborative learning allows for construction of knowledge on a higher level. Although learning is situated in social context it is not reduced to it. Ideas and experiences are developed into new practices through collaborative interaction (Säljö 2002). That is impossible on individual level only.
The idea of another important concept that promotes self-regulated learning, *scaffolding* derives from the studies of Vygotsky as well. Vygotsky asserted that the process of learning and development occurred on two different levels and the difference between them he

referred to as the Zone of Proximal Development (ZPD for short). One level is what a learner can do on her/his own (actual developmental level); and the other level is what a learner can achieve with the assistance of other members of a learning community, either tutor or peers (level of potential development). The role of tutor is to provide the learners with the knowledge within their ZPD first, and then assist in the development to a higher level (Vygotsky 1978 referred to in Dillenbourg 1996). Hence, a learner goes through several stages in the process of internalization (e.g. learning a new concept): from reliance on the information coming from the tutor to collaboratively solve problems and reflection on the acquired knowledge (Dillenbourg 1996). Bruner, Ross and Wood (1976) adopted this idea when they describe learning interventions between learner and teacher that aim at support of learning processes and termed this process, scaffolding (McLoughlin 2002). Later on the idea of scaffolding was adopted as an instructional design technique for development of both virtual and conventional learning environments to facilitate learning. But current researches support the idea of rethinking the notion of scaffolding: if in conventional settings scaffolding was teacher-initiated and learners were perceived as passive recipients of information, then nowadays there is a requirement for learners as active participants that collaborate with each other through self-regulating learning processes (McLoughlin 2002 reffered to Collis & Moonen 2001). Today scaffolding can be provided either through teacher assistance (pedagogical support), by means of educational technology (technological support) (Ludvigsen & Mørch 2007) or social scaffolding (McLoughlin 2002). It is deployed to facilitate both individual and collaborative learning outcome. Thus, providing learners with support by developing structured learning environment play a crucial role to support self-regulated and collaborative learning (McLoughlin 2002; Dettori et al. 2005).

To elaborate on shortcomings of self-paced E-learning, to understand the differences between the CBL1 and CBL2, and to study the principles of BL course design that have an objective to enhance self-paced and collaborative learning, I see it as important to elaborate on the notions introduced above (self-regulated learning, collaborative learning and scaffolding).

In this section I will elaborate on the following areas of research: Instructional Design (ID), Computer-Supported Collaborative Learning (CSCL) and Computer-Supported Cooperative Work (CSCW). I will present the two important ID techniques that are usually intended to enhance individual learning, *self-regulated scaffolding* and *multimedia learning*. Later on I will introduce the challenging questions of CSCL and collaborative learning environment

design techniques, in particular *collaborative scripting* and *collaborative scaffolding*. I will present the core concepts in the domain of CSCW that have been adopted in studies on CSCL, in particular *groupware* and *social awareness*, and the principles of *discretionary vs. mandate use.*

3.3.1 Support for self-regulated learning: self-paced scaffolding and MML

Instructional design (ID)

ID constitutes a range of specific strategies/methods of a learning content design and media development aiming at facilitation of learning processes and achievement of pre-defined learning objectives. There are different ID models. But no matter which model one appeal to, there will be always one core principal that insists on the systematic and thorough planning (Smith & Ragan 2005:4). There can be distinguished three core actions that are the essential components of every ID model: analysis, strategy and evaluation (Smith & Ragan 2005: 8-11).

ID is based upon different theories: communication theory, systems theory, theories of learning, and theories of instruction (Smith & Ragan 2005:23). The Bloom's taxonomy is said to become the most influential on the ID (Lasher 2008; Smith & Ragan 2005:32). The taxonomy is presented as a hierarchy consisting of six levels. The theory combines lower-level skills[7] (e.g. memorizing or recall of information, facts, theories and concepts); and higher-level skills[8] (e.g. skills in problem solving, critical thinking and analytical skills). Both types of skills are seen as being essential elements for designing a course instruction (Ormrod 2004:84-86). According to this taxonomy the learning material should be presented first in a simple way introducing some core concepts and then proceed forward towards more advanced concepts:

1. *Knowledge*: memorization or recall of the existing facts and concepts;
2. *Comprehension*: understanding, interpretation and translation of the information to one's own words;
3. *Application*: practical use of the acquired information, e.g. through problem solving;
4. *Analysis*: break the information into its integral components and identify the relations

[7] I refer to this type of skills as theoretical in the thesis. See section 3.2.3
[8] This type of skills is defined as practical. See section 3.2.3

between them;

5. *Evaluation*: analysis of the validity of the information;

6. Create: arrange the components in a different way allowing new solutions and the creation of new patterns.

Adopted from Anderson 2001:67-8; Ormrod 2004:84-85.

According to Bloom, the forthcoming concept of ID is to develop such an instruction that facilitates learning of most of the students (Smith & Ragan 2005:32).

The classification has had big impact on educational practices in the conventional classroom setting. These practices have been adapted to serve as a basis for ID of web-based learning. But if earlier introduced (conventional) ID principles saw the learner in isolation and disregaded the social aspect of learning, then today these principles are seen as inappropriate and new challenges have been brought into the field of ID: the learning environments should provide with support of social processes (Hakkinen 2002; Stahl et al. 2005). The challenges concerned self-regulated learning as well. In addition, the problem with the modern web-based courses is in disregard of instruction and learning issues by the instructional designers, who instead focus their efforts on the media development (Clark 2006). As a result there is a lack of *pedagogical support* in web-based courses and the main outcome of learning that is learning itself is missing (Clark 2006:344).

Self-regulated scaffolding

Technology enhanced learning that purpose at individual knowledge enhancement is usually associated with E-learning. According to Clark and Mayer (2003), E-learning can be defined as *"instruction delivered on a computer by way of CD-ROM, Internet, or intranet…designed to achieve specific learning goals";* and is characterized by the following features: relevance of the content to the learning goals; it provides with examples of the real situations; include both words and pictures; it creates new knowledge in accordance with the individual needs or in order to improve the organizational performance (Clark & Mayer 2003:13; Clark & Feldon 2005:591).

The purpose of the first generation E-learning was intended for individual self-paced study (Clark & Feldon 2005:591). These types of E-learning are usually compared to PowerPoint presentation; learning is usually seen as boring and not motivating. Another problem with E-

learning may be seen in their incompatibility with the requirements of the knowledge society, where development of the skills e.g. for working in team, collaborative problem solving, specialized knowledge etc. (see the section 3.1.1) are the essential elements for successful learning and performance (Ludvigsen & Mørch 2007). Still most of the web-based courses are built upon the purpose of purely distribution of the concepts and facts at the same time not taking into consideration the importance of collaborative construction of knowledge (Clark 2006; Lasher 2008). But the skills for knowledge society cannot be acquired through memorization (Clark 2006; Ludvigsen & Mørch 2007). They have to be learned by active participation.

The naïve belief that learning is possible in unstructured and unguided multimedia learning environments that leave the learners for a self-regulated study is wrong (Clark & Feldon 2005:108; Clark 2006:344). Although, together with the advancement of technology the E-learning has become more interactive allowing both synchronous and asynchronous communication and interaction among learners and between individual learner and tutor(s), e.g. by sending a feedback via e-mail, through chat function, or by posting comments on discussion boards (Clark & Feldon 2005:591), these functions serve as a supplement and E-learning has still the objective on individual learning enhancement. The extents to which different E-learning courses provide the opportunity to communicate with other learners and with the system (e.g. intelligent agents, structured environment, feedback) are varying and depend upon different issues: the learning objectives (to inform or to perform), the learners' skill levels (studies on expertise), and context specificity (Clark & Mayer 2003); (Clark & Feldon 2005). Thus, the same instructional methods in E-learning may be more or less effective in different contexts (Clark & Feldon 2005:594-5; Qvortrup 2007:76).

The current studies on self-paced E-learning reveal its shortcomings that are said may be overcome by applying different ID techniques e.g. using pedagogical scaffolding provided by online coaches, tutors and agents (Mørch 2006); social scaffolding e.g. by adding a chat or forum function (McLoughlin 2002); or technological scaffolding e.g. extending the self-paced E-learning environments by adding multimedia learning principles (Mayer 2006). The later will be introduced in the next section.

Multimedia learning (MML)

Mayer and Clark have studied the advantages and disadvantages of MML principles in web-

based training. MML is defined as the strategy of presenting the material through two different media: in verbal form (printed or spoken text); and in pictorial form (use of static graphics: illustrations, graphs, diagrams, maps, or photos; dynamic graphics: animation and video) (Mayer 2005:2; Mayer 2006:372).

The theory on MML is based upon the principles from cognitive science theories (e.g. Paivio 1986, Sweller 1999, Mayer 1996 2003) that serve as a starting point for the possibilities of adjustment of learner-centred approach to the technological instruction and serve as criteria for successful implementation of web-based multimedia learning (Mayer & Moreno in press). But it is not enough to combine two media being guided by common sense. MML is used not only for the sake of a better presentation of the material to the learners, but multimedia instructional messages should enhance or guide the process of learning as well (Mayer & Moreno in press; Mayer 2005). It follows that MML has two objectives 1) the organization of multimedia presentation that 2) aims at learner's knowledge construction (Mayer 2005:2).

On the basis of his research results Mayer presents ten principles of multimedia learning design (Mayer 2006; Mayer & Moreno in press; Clark & Feldon 2005:97-112):

1. *Multimedia principle*: people learn better when material is presented in both words and pictures than in words only. Thus, in a good instructional design both information-processing channels (verbal and pictorial material processing) are put to work.
2. *Contiguity principle*: people learn better when the words and pictures correspond each other rather than split from each other.
3. *Coherence principle*: there is no use to apply irrelevant words, pictures, and sounds. These extra features may distract learner from learning. The shorter and the more concrete the presentation, the better the learning outcome is, as it allows a learner to select relevant information and organize it in more efficient way.
4. *Modality Principle*: people learn better from words and pictures when words are presented orally rather than in a written form.
5. *Redundancy Principle*: people learn better if only animation and narration is used rather than animation, narration, and on-screen text.
6. *Personalization Principle*: the learning outcome is lower when formal rather than conversational presentation of the words is used.
7. *Voice Principle*: the presentation of the words in a machine rather than in human

voice hinders the learning process.

8. *Signalling Principle*: People learn better when the important words are marked with the signals.
9. *Interactivity Principle*: People learn better when they can do the course in their own speed rather than when they have to follow a continuous presentation.
10. *Pre-training principle*: People learn better with the pre-training on each component rather than without it. The current research says that the individual differences in prior knowledge are directly connected with the ID of multimedia learning: learners with more advanced knowledge need less pedagogical support than those with less expertise.

These principles have been applied and questioned in other studies on multimedia learning, e.g. Clark & Feldon (2005:97-112), Sweller (2005:159-66).

3.3.2 Support for collaborative learning: collaboration scaffolding and scripting (CSCL environments)

The advancement of Information and Communication Technologies (ICT) has resulted, among others, in the emergence of Computer-Supported Collaborative Learning (CSCL) as a new framework in ICT and learning. CSCL is the emerging field that connect researchers from different disciplines in understanding of how ICT can enhance learning outcome of people learning together in groups: co-located or distributed (Ludvigsen & Mørch 2007; Stahl et al. 2005).

CSCL systems are used in both formal and informal learning settings by scaffolding group interactions in discourse communities, communities of learners and communities of practice (Jonassen 2005:248).

The success of the CSCL learning environment depends upon several important factors, among them (Jonassen 2005:247-63):

1. *Nature of technology* used to support CSCL with respect to learners (e.g. different learners appropriate technology differently, depending upon cultural background, language skills etc.) (Jonassen 2005:251 referred to Lahti et al. 2001);
2. *The group composition* (e.g. gender, group size etc.) (Dillenbourg 2002);

3. *Task nature* (meaningful task: case studies, debates, problem solving);
4. *The effects of* different communication *scaffolds* on group performance (e.g. technological and pedagogical);
5. *Community building* during the CSCL sessions (building of social awareness and shared understanding among learners) (Jonassen 2005:260 referred to Hakkinen 2002).

The challenge in the studies on CSCL is in understanding how to combine computer-supported and collaborative learning into a seamless process that enhance learning and help in achievement of its objectives (Stahl et al. 2005; Hakkinen 2002). With the impact of computers in learning and training practices the focus has always been to explore the possibilities of technologies, instead of taken into consideration the question of technology adaptation to the needs of learners (Hakkinen 2002). The current research on the CSCL takes the advantage of the latter approach. The studies, methods and techniques in CSCL are based upon the assumptions of cognitive psychology theories and situated/socio-cultural perspective (Ludvigsen & Mørch 2007). Thus, researchers take into account the cognitive processes of the learners as well as the context in which learning occurs in order to answer the forthcoming question on how to successfully combine the two worlds: ICT and collaborative learning.

Collaboration scaffolding

Collaborative learning is seen as an effective instructional technique that helps to enhance learning outcome. But without appropriate scaffolding it may fail to achieve desired result (Fischer 2007).

CSCL systems are meant to support joint learning in properly designed learning environments through e.g. inquiry based learning or problem solving with peers. The border between individual and social learning is becoming less fixed and individual learners and group are seen as mutually dependant, where individuals are engaged into the common task (Stahl 2002). CSCL environments provide learners with both medium for communication (e.g. e-mail, discussion forums, chat, videoconferencing etc.) and different forms of pedagogical and technological scaffolding that enable dialogue, reflection and interaction (McLoughlin 2002; Stahl et al. 2005).

CSCL systems support both distributed (geographically dispersed users) and co-located

learners (sitting in front of one computer, e.g. computer simulations) (Stahl et al. 2005). But the forms for communication and collaboration in CSCL systems are different from those used during conventional classroom sessions and even in self-paced E-learning (Jonassen 2005:262-3; Dillenbourg 2002).

Thus, the central question in CSCL studies is how to apply the proven practices of collaborative learning in the context of conventional classroom learning to the design of the CSCL learning environment without distracting from "natural" collaborative learning nor direct interfere with this process (Dillenbourg 2002; Hakkinen et al. 2003).

Scripting

Previous research indicates that structured and guided delivery of the material is crucial and these principles should be adjusted to all the learning delivered either in the conventional classroom or online (Dillebourg 2002; Hakkinen 2002; Hakkinen et al. 2003; King 2007:13-4). The concept of *script* was introduced to overcome this problem. It has originated in different disciplines, in particular cognitive psychology, computer science and education. It opens up to new opportunities for interdisciplinary research on scripts at the same time making it possible to combine the foundations from different disciplines (Fischer 2007:7; Stahl 2007:327). From educational perspective scripts are used to enhance collaborative and individual learning in both formal and informal settings (Fischer 2007).

Recent research on collaboration scripts revealed that design specific instructions might enhance collaborative learning (Dillenbourg 2002). CSCL scripts comprise series of instructions that are hold in a specific order, defining how the learners should interact and collaborate. Collaboration scripts may be distinguished as being on "micro level" (scripting as a goal) and "macro level" (scripting as a method) (Dillenbourg & Jermann 2007:285).

Dillenbourg et al. (2007) formulated an integrated learning approach to scripting. Collaborative scripts are not restricted to collaborative learning of distributed learners, but imply the integration of online with face-to-face sessions, and collaborative with individual learning and are characterized by flexibility of the instruction (Dillenbourg 2002; Dillenbourg & Jermann 2007:285-286; Hakkinen & Makitalo-Siegl 2007:263). However, integrated learning is distinguished from the notion blended learning by being more structured as an overall process (Dillenbourg & Jermann 2007:286).

The notion scripting is based upon the principle of Zone of Proximal Development (ZPD) formulated by Vygotsky and introduced in this thesis. The main objective is gradually to replace a guided learning process by self-regulation (Fischer 2007:6). However, the challenge of using collaborative scripts is always in a risk for "over-scripting" collaboration by over-controlling the natural interaction and problem solving processes (Dillenbourg 2002; Dillenbourg & Jermann 2007:288).

3.3.3 Groupware and collaborative awareness

Iren Greif and Paul Cashman were the first to introduce the term Computer-Supported Cooperative Work (CSCW) in 1984 at workshop where the role of technology in the work environments was on the agenda (Grudin 1994). CSCW aims at understanding of "how collaborative activities and their coordination can be supported by means of computer systems" (Grudin 1994).

Communication, coordination, collaboration are the core concepts in CSCW (Ellis et al. 1991). These concepts are essential for understanding and enhancing social interaction (Ellis et al. 1991). Dillenbourg (1996) noted that the difference between cooperation and collaboration is subtle in terms of the labour division in a group and argue that in cooperation the task is split and individuals work separately on the sub-tasks (Dillenbourg 1996). On the contrary, collaboration involves a social aspect of learning through "coordinated, synchronous activity" towards the construction of shared understanding of a problem (Dillenbourg 1999:12 referred to Roschelle's and Teasley's (1995). Dillenbourg (1999) argues that the collaboration doesn't always mean learning (Dillenbourg 1999). But in contrast to individual learning, collaborative learning evokes "the interaction among subjects (that) generates extra activities", such as arguments, discussions etc. (ibid.)

Groupware

Groupware is defined as a computer-based system that serves as a medium for both communication and cooperation of people engaged in a common task and provides an *"interface to a shared environment"* (Ellis et al. 1991). The concept of groupware has been adopted in many CSCL studies. But there is a range of differences between CSCW and CSCL groupware. Transformation of the CSCW systems and their adaptation to the educational settings is required in order to facilitate *"collaborative learning, knowledge building,*

knowledge-negotiation, portfolio sharing and knowledge artefacts in active, structured virtual learning places" (Stahl 2002). Groupware can be divided into different types supporting three activities to various extents, which are: collaboration, communication and coordination (Ellis et al. 1991).

Groupware systems are often categorized according to the time/place groupware matrix using the distinction between same time (synchronous) and different times (asynchronous), and between same place (face-to-face) and different places (distributed). Hence, on the one hand difference is between the co-located or geographically distributed collaboration; on the other hand, individuals collaborate either synchronously (same time) or asynchronously (different time). A groupware system to be extensive should support all the functions (Ellis et al.1991).

Grudin and Palen (1995) make a distinction between *discretionary* and *mandatory* use of a system. This has been identified as an important design principle for successful implementation of groupware in workplace settings (Grudin & Palen 1995). Discretionary use appeal to individual users and often characterized by the ease of use, flexibility in adaptation to different contexts and as having more functionality (Grudin & Palen 1995). In contrast, large systems are associated with mandatory use, designed for specific settings and require more adaptation from the users. Social dynamics are said to foster mandate use. Groupware is between these two principles (Grudin & Palen 1995).

Collaborative awareness

Awareness among learners is one of the central concepts when addressing to the question of effectiveness of collaborative learning environments (Gutwin et al. 1995). A special interest has been drawn to the design of real-time distributed learning environments: when geographically allocated users are engaged into the collaborative learning in a shared virtual environment. According to Gutwin (1995), in order to learn effectively together the learners should be aware of what is going on in the shared virtual workspace: understanding others' knowledge and activities (Gutwin et al. 1995).

There can be distinguished four types of awareness. Role of each is important for learners to possess in order to collaborate with the others effectively (Gutwin et al. 1995):

1. *Social awareness* – understanding own and others' roles in the group and how it functions;
2. *Task awareness*- understanding the task's objectives and what it takes to complete it;

3. *Concept awareness*- the gap between what a learner knows and what additional information s/he needs to complete the task;

4. *Workspace awareness*- is up-to-the-minute knowledge about other students' activities and knowledge.

3.4 Summary of the theoretical perspectives

In this chapter I have presented the theoretical perspectives within the theme of the thesis. The field of BL research can be referred to as practice-oriented meaning that there is a lack of methods, models and principles based on theories. For this reason, I have introduced some aspects of other research fields that I believe have had an impact on the method of BL.

I began with introduction of the notion of knowledge society and the impact of new conditions on the workplace learning, and as a result on workplace BL. Then I proceeded to the discussion of technological component of BL that can be seen as either self-paced E-learning (self-regulated learning) or CSCL (collaborative learning). The latter is central to BL as it may serve as driven force for SRL skills of the students (Dettori & Persico 2007). The introduction of these perspectives was elaborated in accordance with knowledge society requirements for flexible and active learning, and development of authentic learning environment by providing appropriate support, i.e. social, pedagogical or technological scaffolding. In this part, I have introduced the ideas within the scope of socio-cultural approach to learning (scaffolding, duality of learning and ZPD) and their impact on the field of technology-enhanced learning. I believe these ideas may contribute to extend the understanding of BL by providing a new theoretical lens to view the design and the analysis of BL courses.

4 The presentation of the case

In this chapter I present the KIFF project and the If case. The research project is carried out in cooperation with If, a Nordic multinational enterprise. The KIFF project is non-funded collaboration between If and InterMedia, University of Oslo.

The general information about the company and the way If looks at leadership training will be presented in this chapter. In particular, I will introduce some of the courses carried out in If. These courses are built up using a blended learning (BL) strategy, i.e. the combination of online learning and face-to-face sessions. The target group for this study is leaders representing different countries, different levels of responsibility, and working across different Business Areas (BAs).

4.1 KIFF project

KIFF stands for "Kunnskapsbaserte If Forsikring" (in Norwegian), corresponding to the English equivalent of "Knowledge-based If". Two students are doing research and writing a master's thesis in this project (Karin Heiene in addition to me), each working within her own field of interest. The project is therefore divided into two sub-projects:

1. A Case Study of Blended Learning in a Nordic Insurance Company: Four Issues for E-learning in the Workplace

2. Long-distance leadership, two aspects of integrating technology support and collaboration strategy for leaders in a finance company.

The sub-projects are related to each other, in that the data is received from the same company and some of the interviews are conducted with the same respondents.

The aim with KIFF is to understand the method blended learning and long-distance leadership in the company and compare the results with other relevant studies in order to see the issues from different perspectives. A theoretical level of analysis will enable us to make new claims about our findings.

The project was established in the beginning of the year 2008 and will last until 01.12.2009.

4.2 The presentation of the company

If was founded in the year 1999, when the Norwegian insurance company Storebrand and the Swedish company Skandia insurance companies merged into If. In the beginning of the year 2002 the property and casualty insurance of Sampo joined the merger. In 2004, Later Sampo acquired the shares previously in the possession of Skandia, Skandia Liv and Storebrand. That means that now If is 100% subsidiary company of Sampo Group.

If is today a Nordic multinational concern operating in Denmark, Finland, Norway and Sweden, Baltic countries, and Russia. The company provide services in the insurance industry both on national and international levels. The latter is primarily concerned with serving customers from the Nordic countries operating abroad. If is organized into three BAs: Private, Commercial, Industrial, and have subsidiary operating in Baltic countries and Russia.

If Private is the biggest BA with about 3,0 million of private customers in the Nordic countries. If offers property and casualty insurance to its private customers within the following sectors: villa and home, motor, accident as well as travel and pets. BA commercial target at small and medium-sized enterprises (SMEs) with up to 500 employees, and the BA Industrial provide services for bigger enterprises. If has offices in England, France, Holland, Germany and Russia that expand the activity in the international level[9].

4.3 Leadership training at If

"In difficult times you really need a strong leadership. That is good, because in very good times we also need strong leadership or else you are back in the bad times again, before you know it" (interview extract; Lysaker, Norway).

If can be characterized as a knowledge-intensive firm because learning and competence development are the two key driving forces for performance in If. Giving the employees freedom to choose among alternatives and at the same time having a precisely defined plan, according to which the competence development is carried out, If"'s strategy is set to help in achieving the desired outcome. An example is the development of a structured system to facilitate the process of learning and competence development that consists of different steps, e.g. job description, performance plan, identification of competence and development needs,

[9] The facts are given in accordance to the information from: www.if.no, www.if.lv 07.01.2009

leader evaluation etc. The aim of this is both to motivate and to regulate.

Leaders competence development has the first priority. The relevant training is provided to all the levels of management structure in If that are organized in accordance to the competences and years of experience into the following levels: specialists and potential leaders, new leaders, experienced leaders and top managers.

4.3.1 Centralized and decentralized organization of training

The process of developing leadership training programs is a joint process that involves different departments; internal workforces and external consultants are engaged in this process. The implementation and development of training is always predetermined by the principle *"need to have"* rather than *"nice to have"* (adopted from the interview extract).

When taking into consideration that If is a multinational concern consisting of different BAs that are presented in different countries, the question of training and competence development becomes a key challenge. After several attempts at developing of common competence policy the If Academy was established in 2007. Behind the establishment of If Academy was the idea of gathering together all the training resources available within If and to allow for their sharing across the BAs. Before the establishment of If Academy this process was rather decentralized and not well structured for swift reuse: the courses developed internally in different BAs were not available across the BAs and the concern for unnecessary duplication of courses was high. It is always the question of cost-efficiency that is of primary concern in If.

Having the responsibility to develop, implement and carry out training for all levels of leadership in If, the Academy serves as a kind of common educational platform available for all countries (both Baltic and Nordic), making all the different courses developed in different departments internally visible for other BAs. Thus, the responsibility to develop courses with specific content is still left to the educational departments in the three BAs.

Although Nordic countries and Baltic countries use the same content, concepts, models and theories for training, the adaptation to the local context is crucial due to the challenges noted above. That's why it is not efficient to have common courses between Baltic countries and

Nordic countries, according to If.

Today, If is gradually moving from off the shelf solutions to customized solutions, the latter emphasizing individualized training and coaching. E.g. the fact that If in Baltic countries do not use English as a common language all the common courses (for Baltic countries and Nordic countries) in If are translated into all If's languages. These changes have occurred recently after the study was done and the practice earlier was to have courses in English.

Hence, the development of courses is both a *centralized* and *decentralized* process. The idea of having information on all the courses available across BAs in one common place shows that the If Academy projects the image of a company they want to become successful.

4.3.2 Leaders' competencies in If

The core leaders' competencies are depicted through a threefold model that is seen as an essential element in improvement of oneself as a leader. The three corners are: leadership, management and business. A variety of courses, programs and seminars are especially targeted and designed to contribute to development of these competencies. In addition, it is important to mention that all mandatory as well as some optional training are divided in accordance to the levels of competence: from 2-5 (see Figure 3), from no competence to more advanced level. These competencies constitute both specific knowledge in accordance with the educational needs and job description, as well as more general knowledge, e.g. language skills, skills in using a computer etc. At the same time the division may be seen as confusing because there are no strict borders between these levels. Leaders with different competence levels and experiences may participate in any course available if needed. The figure 3 presented below adapted from the If Academy Web site and illustrates the difference between levels of experience (from potential leaders to top managers) and competences (2-5) and shows the courses available within these categories. The figure 4 depicts that the more one is moving to a higher level (top managers) the lesser the choice of the courses one will have. Moreover, it is important to note that courses designated for the competence level 5 can't be found in this figure. The reason for this is that this level is so high that learning may be defined as being collaboration-, communication- and network-oriented. These training are usually bought from external firms or based upon informal learning. E-learning as self-paced concept-oriented learning restricts the scope of collaborative learning and is not applicable to

training on this level. Learning is about training practical skills problem solving[10], i.e. there is no need to introduce new concepts or facts.

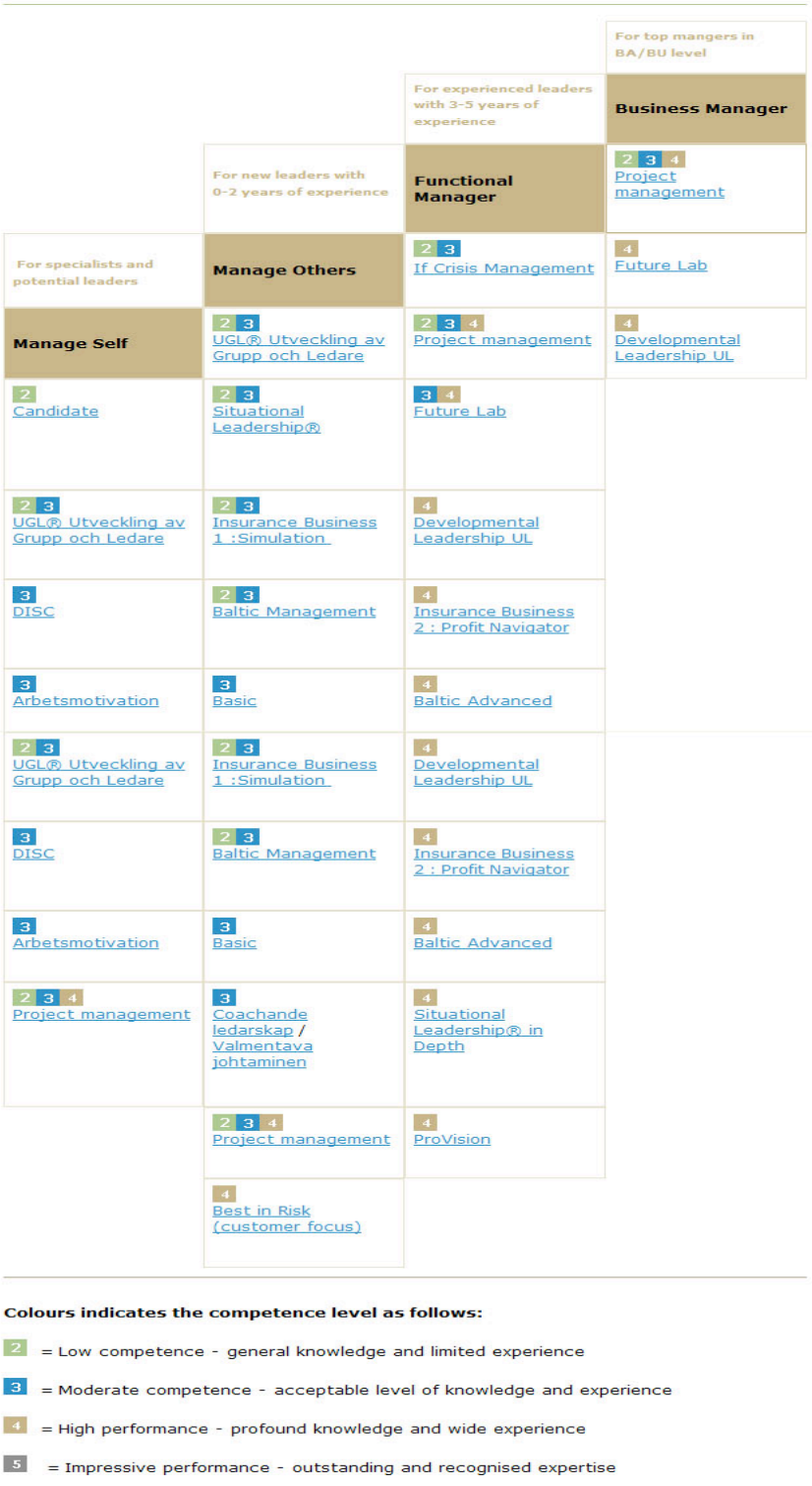

Figure 3 A screenshot from If Academy

[10] See section 3.2.4

4.3.3 BL in leadership training in If

In total about 80% of all the e-learning courses provided by If are developed internally. This includes both leadership training courses as well as courses developed for other target groups. These courses are built by a combination of text components to read and visual elements to interact with, but most of the e-courses (developed internally) are of a very simple type and none of them allow for collaborative learning[11] (e.g. distributed collaboration). There are two types of BL distinguished in this study, concept-oriented (CBL1) and collaboration-oriented (CBL2)[12]. This distinction influences the way two components (online and F2F) may be distributed between collaborative and individual learning. The company has chosen to use the CBL1 for now.

The E-learning courses focus on leadership training, in combination with the more conventional classroom teacher-led method, finding a balance that most desirable and suitable. Hence, with some little exclusion, BL has found its application in all If's leadership training courses, programs and seminars. Therefore, F2F sessions are always supplemented with E-learning part, either before or after, or both before and after as a medium for preparation and follow-up, correspondingly. According to If a following definition of BL can be given:

...((A)) good mix of several methods and BL to be more than only E-learning and traditional course. It is theory, it is practical training, it is reading by yourself, it is talking in groups, you are building networks in groups, and you have E-learning or technical support.

BL is presented in leadership training through different combination of its components and different activities, both online and F2F, formal and informal either mediated or supported by E-learning courses. The figure below illustrates how different methods may be combined in BL courses that are available at If.

It is important to mention that the CSCL part (online collaborative learning) in the figure below is not commonly presented in the leadership training courses in If for now.

[11] Since the study was conducted there has been undertaken some changes to improve these practices.
[12] These distinction is introduced in section 2.4

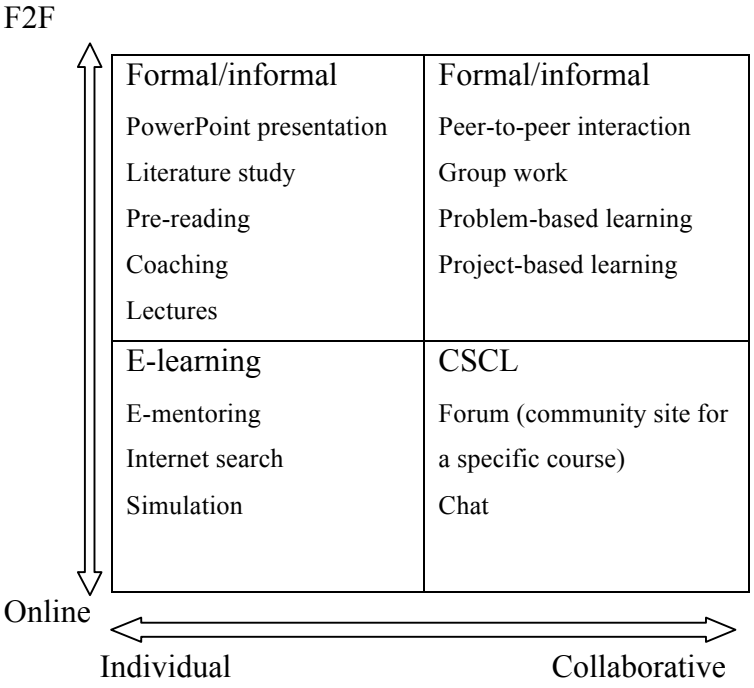

Figure 4 Various combinations of BL in If

Hence, the learning solutions in If are diverse: both E-learning courses and the BL courses are presented in If. The standalone or E-learning as a component of BL usually serves the following roles in If:

- As the medium for preparation before classroom (self-paced concept-oriented E-learning)
- To recall the material between the modules
- As a follow-up
- Theoretical skills training (e.g. facts, theory, models, knowledge about new system or new product characteristics).

4.4 Three examples from the courses

In this part I will provide with some examples of different courses. The courses are Computer as a tool, Baltic Management training program and a pilot program Essential Project Management.

4.4.1 Computer as a tool ("Kurs i generell data")

This course may be referred to as a theoretical skills training course[13]. This particular course

[13] See section 3.2.4

aims at basic skills training in general understanding of using the computer as a tool. I will present several screenshots displaying different functions in this particular course to illustrate on what methods it is built. The course consists of several steps sorted in accordance with different topics: introduction, PC as a tool, Internet, Printer, working with files, using two displays, summary and conclusions. It is built on multimedia learning approach by using videos, theories, guides ("recipes"), simulators, practical training and different tests. It can be said that four multimedia principles are used: multimedia, contiguity, interactivity and modality principles (Mayer 2006).

The first screenshot (figure 5) is intended to give an introduction on how and why use the *Start menu.* This slide comprises of a simple text following by a bullet point that describes the activities within the Start menu. There is a link that brings the user to a simulator (figure 6) that provides with practical training on the use of Start menu.

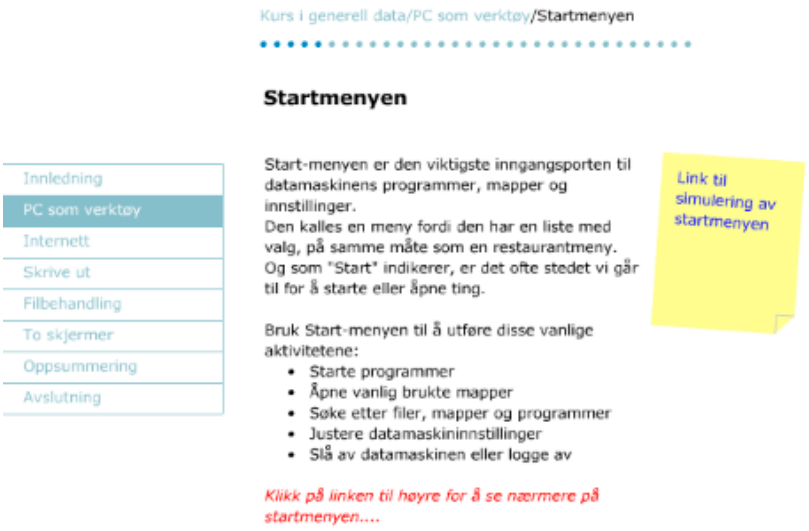

Figure 5 A screenshot from an e-learning course "Kurs i generell data"

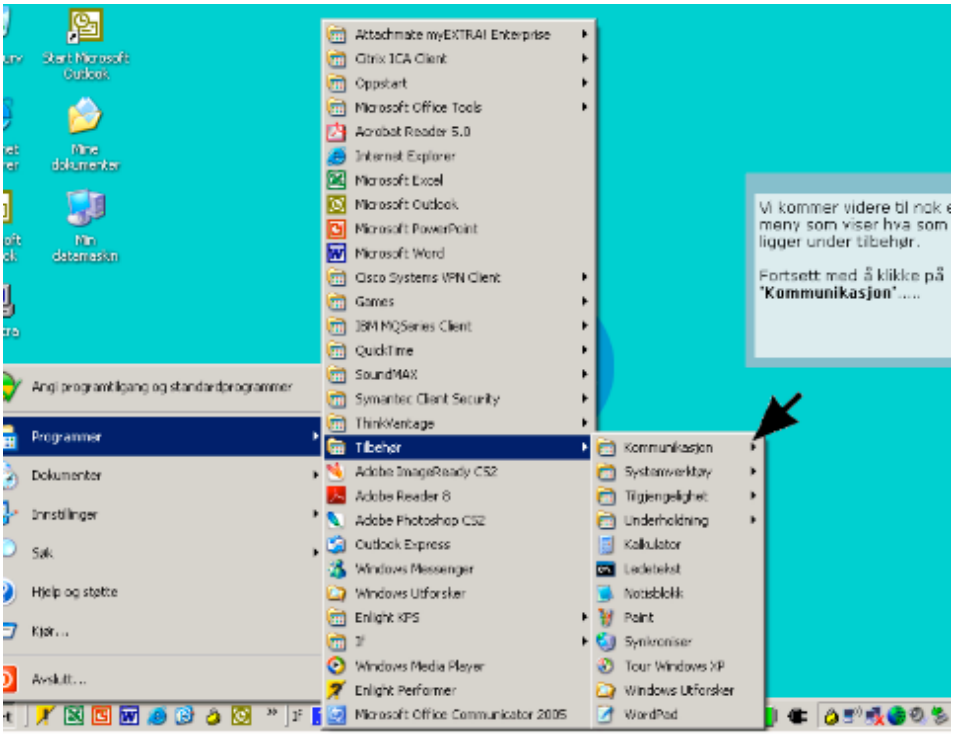

Figure 6 A screenshot from e-learning course "Kurs i generell data", simulation

The figure 6 gives an illustration of how the simulator program is used. A pop-up window that contains a short intro on "what happens if…" appears every time one clicks on the different parts in the Start menu. At the same time giving instructions of what is to be done next.

The next screenshot (figure 7) is taken from the "using two displays" part in the course. It shows the explanation of e.g. how to work on one of the monitors and to read the information on the other etc.

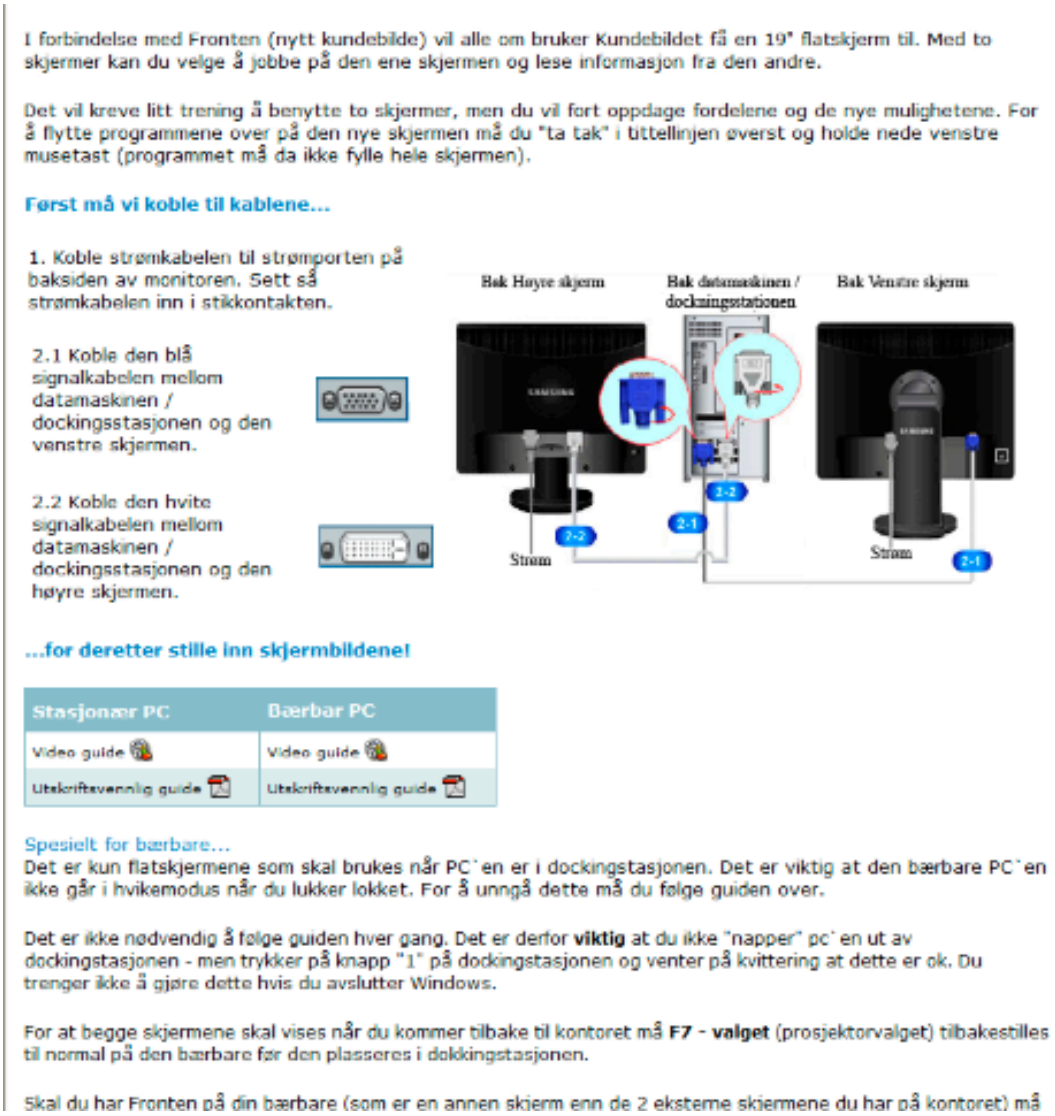

Figure 7 A screenshot form the e-learning course "Kurs i generell data": using two displays

This slide is composed of introduction, "recipes" and practical advices. In order to make the task easy to understand a detailed illustration of the two displays is given. Furthermore, there are two links to external pages in the middle of the screenshot that provide with video guides on both PC and laptop use for the purpose in this task. At one's convenience a printable versions of them are available. Some practical advices are given in the end.

4.4.2 Baltic Management training program

The two parts constitute the Baltic Management training program: Situational Leadership (SL) and Insurance Business Simulation (IBS). As a whole the course lasted for five days. I will give the description for the latter for the reason I was present as a non-participant observer and as a participant in the group work during the Insurance Business Simulation

(step 2) part only.

The target group for this course was the new leaders who wanted to improve their Insurance business understanding. The course lasted for three days and was based upon the use of simulation, studies, teamwork and E-learning as a medium of pre-work. The E-learning was available after the seminar as well. There was developed a community site where all the practical information about the course, the agenda, the place etc. was presented. An opportunity for communication and information sharing was possible through the "forum" function. The participants did not use this function actively.

According to the participants the E-learning component was as very easy to use and based upon the concept-oriented learning (theoretical knowledge). The aim with E-learning in this particular seminar is to present the core concepts (e.g. income statement, balance sheet, cash flow report, key ratios etc.) that are important to get familiar with in order to be able to use the simulation training later on during the seminar. The E-learning course consists of several modules, with minimum theory, with some visual effects and graphics (multimedia principles is applied). Each module is followed by a summary, a quiz (each consists of five multiple-choice questions). A feedback on the course is asked to give when it is completed. There is a possibility to download this course in PDF-format instead of doing it online. But the quiz is available online only.

The two screenshots below (figures 8, 9) provide with explanatory text on the topic studied. This is followed by illustration. There is a menu on the right side of the slides that shows what elements comprise a formula (to calculate the claims incurred in these particular examples). If user runs the mouse over different elements in the box the information in accordance with the topic appears left to the menu.

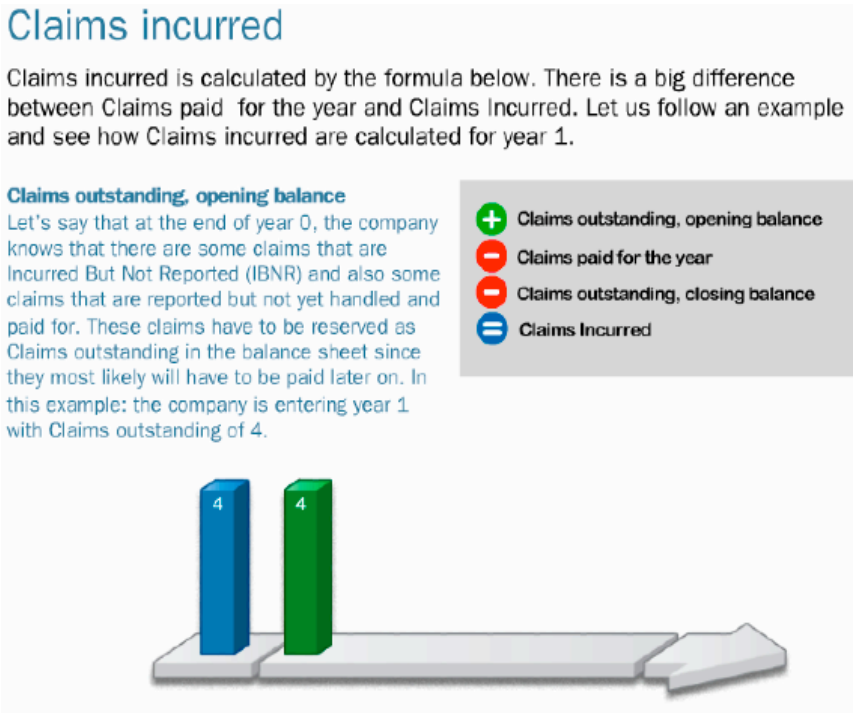

Figure 8 A screenshot of the e-learning component of IBS BL seminar

It is easy to see how the picture is changing if one clicks on another element (in the picture below it is "*claims paid for the year*"). The image displays the changes occurred in the task.

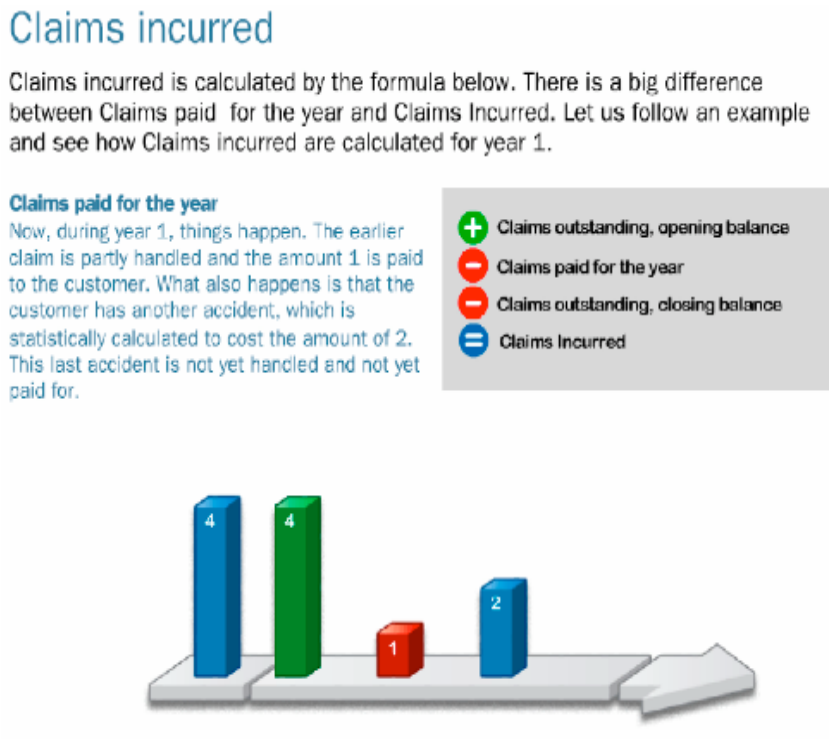

Figure 9 A screenshot of the e-learning component of IBS BL seminar

After each model a short summary on the core issues is given (figure 10):

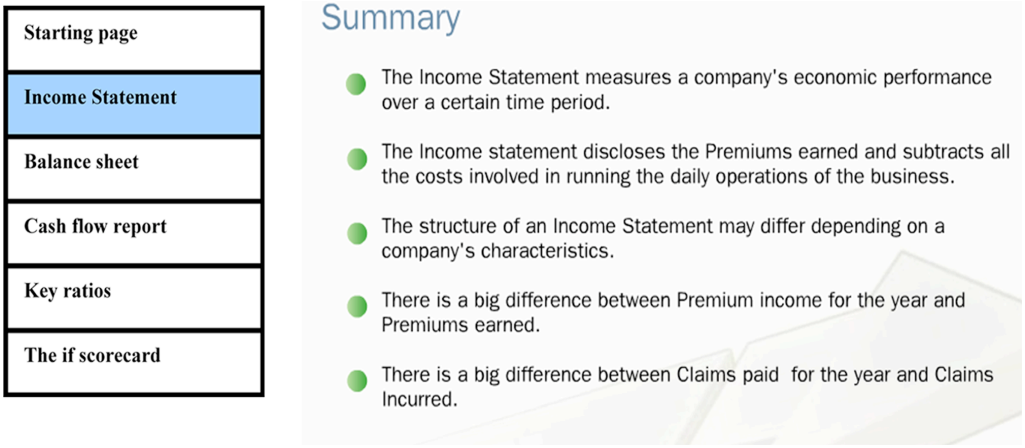

Figure 10 A screenshot of the e-learning component of IBS BL seminar, summary

The next screenshot (figure 11) represents a quiz example that is required to be completed after each topic.

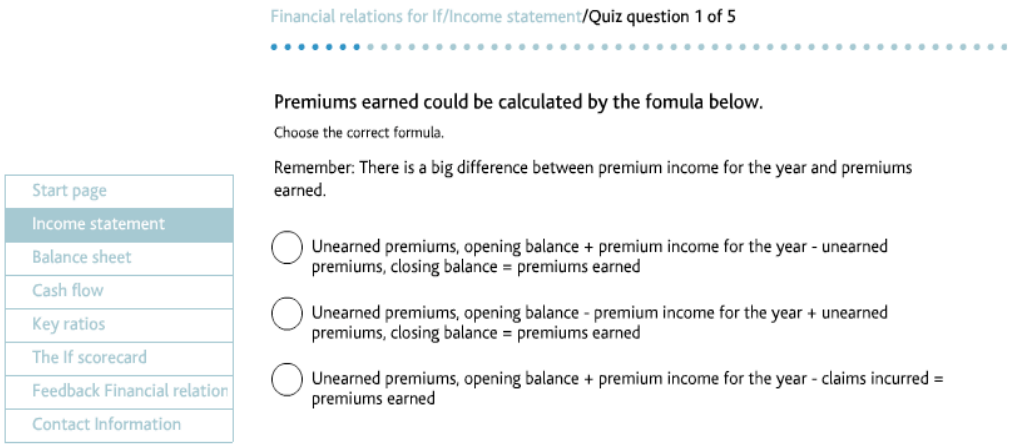

Figure 11 A screenshot of the e-learning component of IBS BL seminar, quiz

The F2F component of the seminar lasted for three days and was based upon the lectures, working in teams and working with simulator program in groups. The simulation was tailor-made for If and used the same terminology and practices from If. The participants were divided into teams (4-5 members) and were acting as a management team on a competitive market. The goal was: *"to be the most effective insurance company over three years"*. The main idea of composing groups was to have participants with different professional backgrounds, from different countries and of different gender. Each group started up with

making their own strategic plans for the three years and after each year feedback on decisions and the consequences were given to each team individually as well as for the whole group.

Being a member of a group I may conclude that there were big differences between the knowledge levels of the participants. On the one hand it became clearly at once who hadn't accomplished the pre-work in E-learning. This factor limited the awareness between the participants and took extra time for those who wasn't familiar with the core concepts and formulas introduced in E-learning. At the same time more knowledgeable peers could assist those with less expertise.

4.4.3 Essential Project Management

Essential Project Management (EPM) training program is a pilot course that is provided by the external consultancy firm, Metier Academy AS and was introduced to If's project managers in 2007. The training program is structured as a full course of study, equivalent to one semester full-time study (30 UNC-University Credit Points) at the bachelor level. Several modules constitute the whole program, but there is a possibility to take different modules individually if needed. Each module is built up on 20-40 hours of self-paced E-learning part that is followed by 1-2 days of physical meetings. A final exam is to be followed after the accomplishment of several modules. The description of the whole program is depicted below:

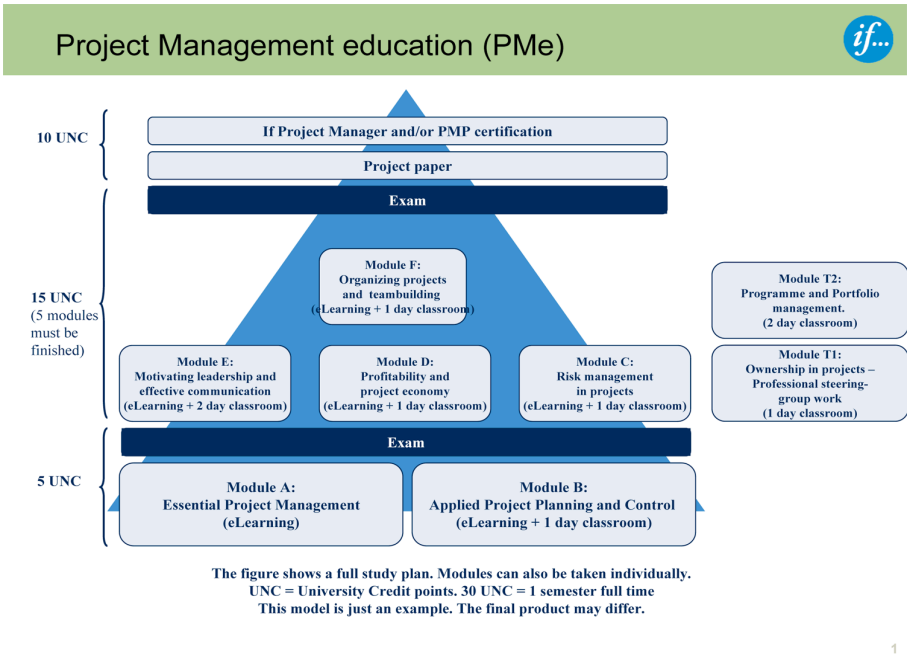

Figure 12 A screenshot of a BL program Project Management education (PMe), Metier Academy AS

The pilot course was built upon the first two modules A and B that led to exam. The exam comprised an online test with time limit of fifty minutes on the material presented in A and B modules. The test was taken in English what seemed to be challenging for some participants who asserted that the time limit was too short to take a final exam in English.

Some of the screenshots are taken from the demo provided by Metier Academy AS, but the principle of setting up the courses is the same as in the particular program.

The E-learning part in this program can be seen as of concept-oriented type (theoretical knowledge) aiming at acquisition of the core concepts, models and theories individually in order to collaboratively adapt the content of these in relation to the If's project management model during the F2F meeting. The courses contain no sound and videos as the developer means this may disrupt the learning process. An opportunity for communication is available both among the participants and with the course coordinator via chat and forum function in the online community, and via e-mail, but not all the participants used this function[14]. Chat function comprises an open discussion that may have no relevance to the learning material, while the themes in the forum function are specific. There is a possibility to join to an already introduced theme/group or to begin a new discussion that is relevant to the learning objectives. Similarly, as in the previous case these functions were not supported externally, e.g. by the instructors. The participants didn't use these functions due to various reasons.

Further a range of screenshots from the E-learning component with a short description on each will be presented. The below screenshot depicts a homepage of a user. In the menu "min opplæring" the activities the learner is enrolled in and the status of the progress are shown. Different features are available in each module: an opportunity for self-study (selvstudium), scheduled studies (planlagt), modules the learner is enrolled in (kursmoduler), chat function (samtaler), and forum (fora). The extra functions as contact and practical information, calendar is also available here.

[14] Today If uses similar program and encourage participants to meet F2F with course peers during the self-paced E-learning to discuss unclear issues before the official F2F component organized by the consultants

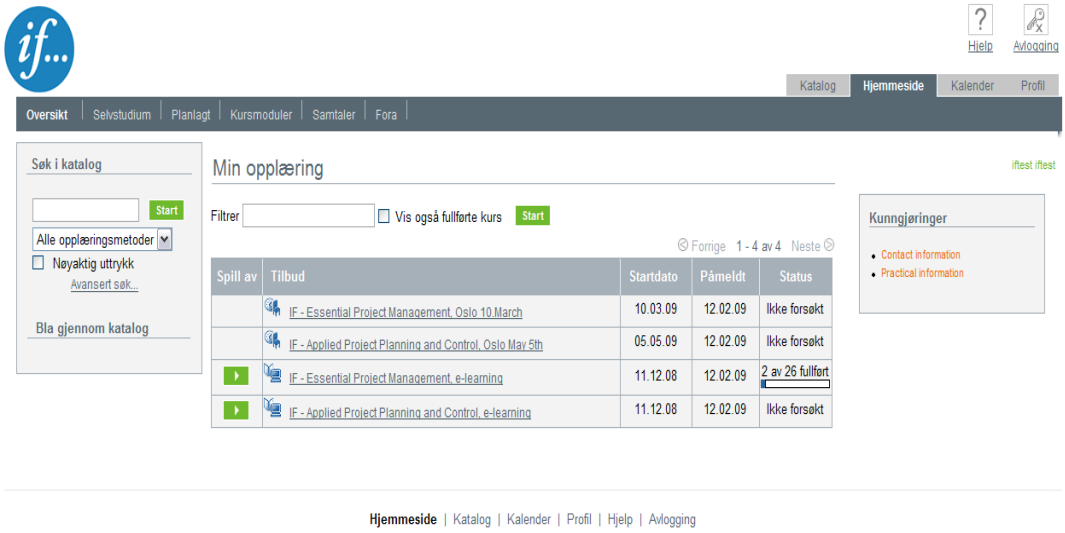

Figure 13 A screenshot of a BL program (EPM), Metier Academy AS

Every module comprises introduction of the topics (innledning), learning objectives (mål), questions (tankevekkere), theory (teori), practical examples (eksempler), pitfalls (fallgruver), checklists (sjekkliste), case study (case), quiz (oppgaver), references (referanser), and evaluation (evaluering).

In the figure 14 a *Theory* part is presented. The theory is introduced in a very simple manner and consists of merely text and some figures. No extra features are added with the exception of a possibility to highlight the important (in accordance with the user) theoretical points (e.g. in yellow in the figure 14) and add comments (e.g. the blue line in the example below). This function was seen as a convenient way of reading a long text.

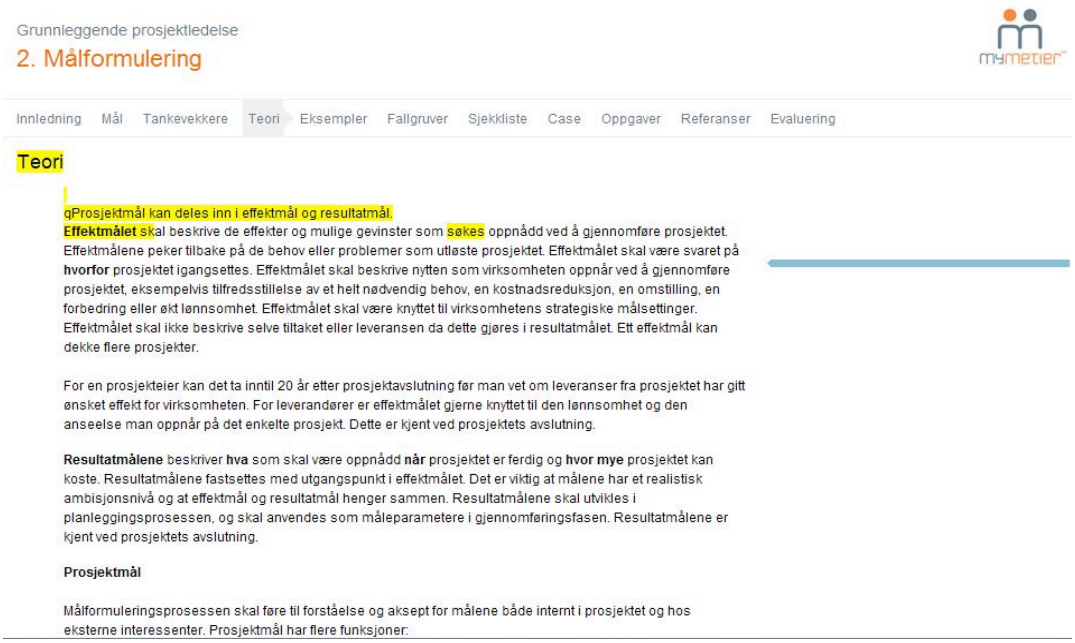

Figure 14 A screenshot of Theory example (EPM), Metier Academy

The next example represents what the *Case* consists of. First a case description is given that is followed by different questions (Figure 15):

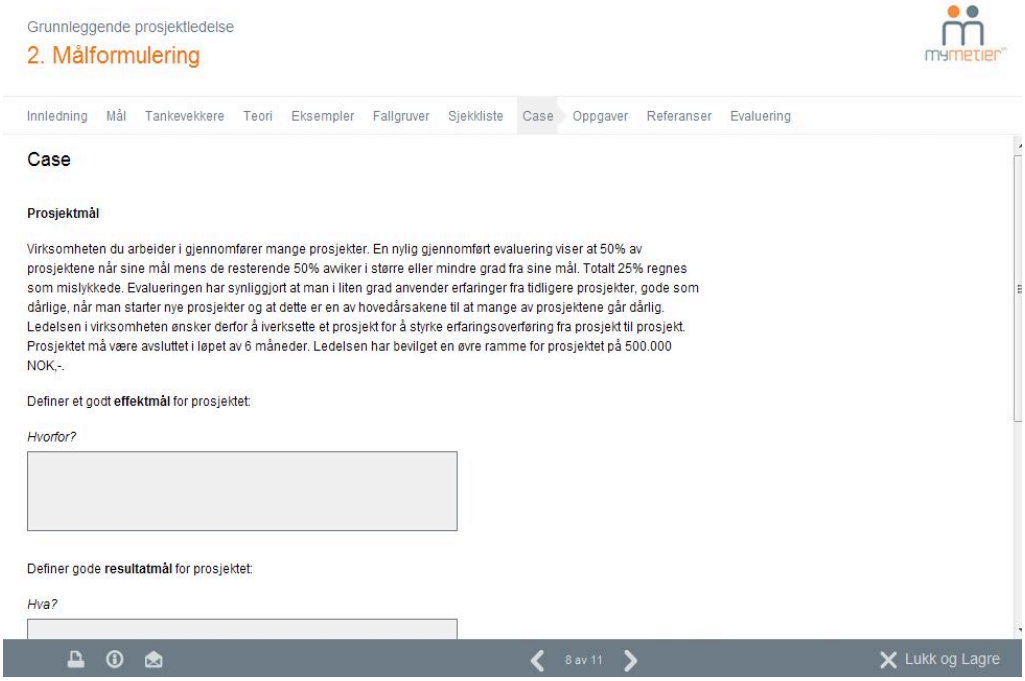

Figure 15 A screenshot of Case example (EPM), Metier Academy AS

After the Case is completed a feedback is given on the answers. The feedback comprises a task solution and practical comments, i.e. the system provides technological scaffolding. The next screenshot (Figure 16) is an example:

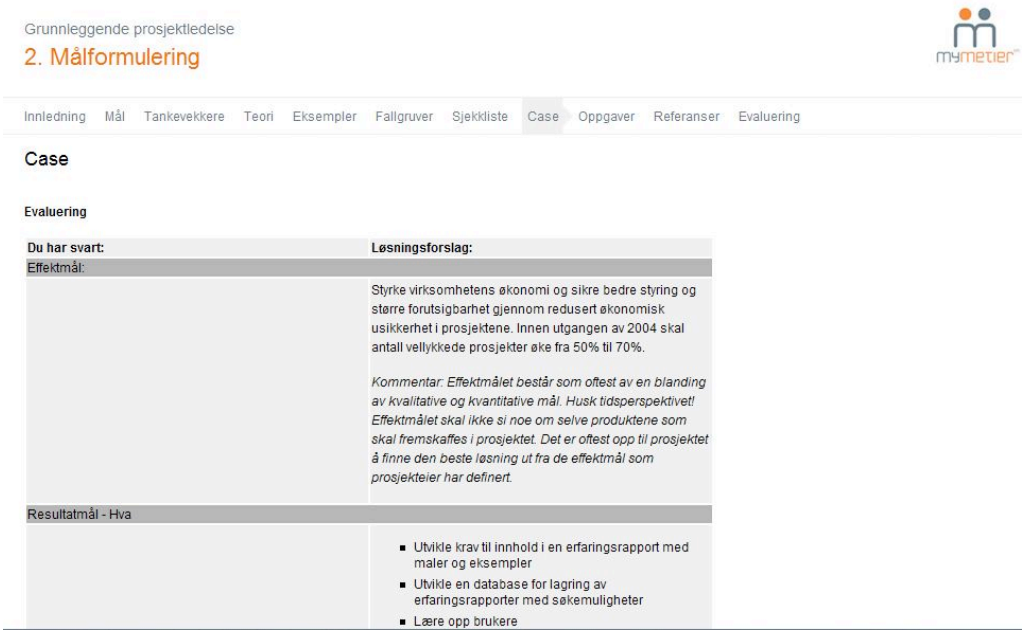

Figure 16 A screenshot of Feedback on Case (EPM), Metier Academy AS

When a module is completed, a quiz is following (see figure 17).

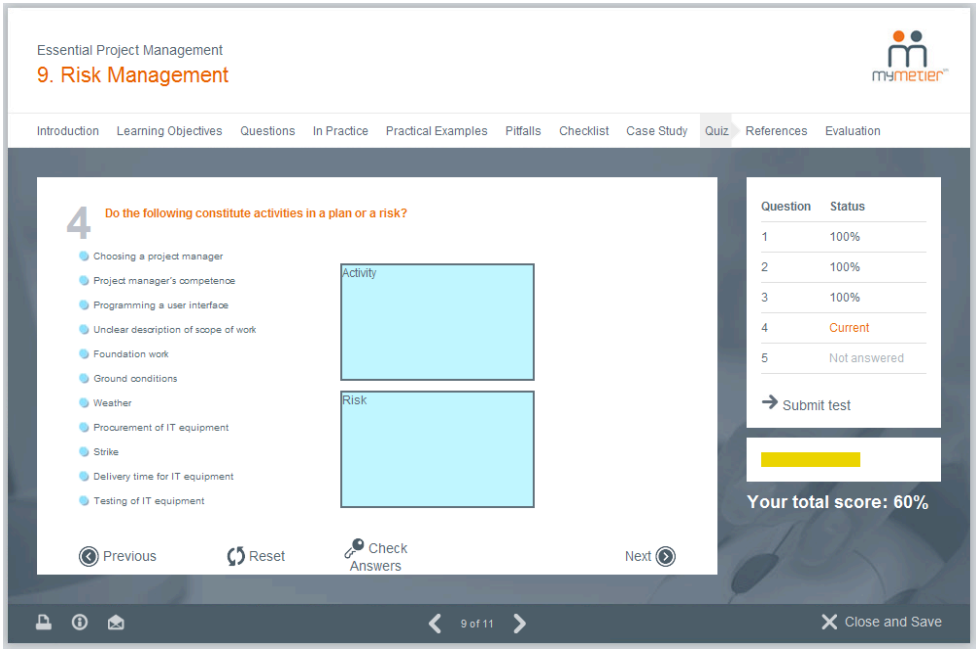

Figure 17 A screenshot of Quiz example (EPM), Metier Academy AS

The quiz consists of several questions of a multiple-choice type. If the participant is not satisfied with the results, there is a possibility to take the same module over again.

5 Methodological considerations

"Knowing what you want to find out leads inexorably to the question of how you will get that information" (Silverman 2005:110 referred to Miles and Huberman 1984:42).

In this part I will describe the process of data collection and its analysis. This section includes the discussion about the choice of the method of inquiry and why this particular method is suitable for the study; the criteria of choosing the respondents; what were the techniques used in achieving a good result; and finally, the procedure of transcription and analysis of the data. In addition, the question on the quality in the research will be discussed.

5.1 Qualitative vs. quantitative

There are two underlying approaches to how research can be done: qualitative method and quantitative method. I have chosen the former, as I consider it as the most appropriate for this particular study.

The differentiation between qualitative and quantitative methods of inquiry is historical and there are still debates around which of the method gives the most valid results. I will not go into details in defining the core differences of the two methods due to the size limitations of the thesis, as this particular problem could become a working title for another thesis. But in order to justify the choice of the method of inquiry I will describe the underlying assumptions of the two approaches sometimes contradicting and sometimes used together. Usually the choice is greatly defined by the research question itself (Silverman 2006:34).

The qualitative method is usually referred to as being more informative and resulting in rich and detailed data, but on few cases. The qualitative method is used to study the person's experience and behaviour in their daily life. In contrast to this, the quantitative approach is usually associated with statistics. The latter gives less in-depth information, but on larger sample.

The main objective of this pilot project was to go to in-depth study on blended learning practices in order to understand challenges in its application in the context of workplace learning.

5.2 Case study

"…The case study method allows investigators to retain the holistic and meaningful characteristics of real-life events-such as individual life cycles, organizational and managerial processes, neighbourhood change, international relations, and the maturation of industries" (Yin 2003:2).

I took part in the pilot project that is conducted in cooperation with a Nordic multinational concern in the insurance business, If and InterMedia. The project is divided into two sub-projects: blended learning and distance leadership.

I first contacted If in November 2007 with a request on possible assistance in Master thesis writing. Officially the project began in January 2008 when another student joined the pilot project and when we, in cooperation with If, decided upon the working titles of our papers. The project will last until 06.2009.

There is a range of methods of doing a research, but a clear difference between them, again, is defined by the research question. The methods are: experiments, surveys, histories, case study, and the analysis of archival information (Yin 2003:1).

I have conducted an embedded single case study to answer the research question. The case study was based upon a single organization but included more than one unit of analysis (e.g. developers vs. users; Nordic countries vs. Baltic countries). The case studies are the most appropriate *"when how or why questions are being posed, when the investigator has little control over events, and when the focus is on a contemporary phenomenon within some real-life context"* (Yin 2003:1). The questions I ask in this study are about the learning situation observed in the natural settings over which I had no influence, neither when I interviewed the participants, nor during the observation of the blended learning courses.

"…The case study as a research strategy comprises an all-encompassing method" (Yin 2003:14); and it is important to follow all the stages of the case-study from beginning until the end, that are design, data collection techniques and methods of data analysis carefully in order to achieve a good result. To be prepared theoretically on the problem before the data collection is the most essential part of the case study planning and analysis. According to Yin *"the purpose of the literature review is"* is not "*to determine the answers about what is known*

on a topic...” but *"to develop sharper and more insightful questions about the topic"* (Yin 2003:9). Before doing the data collection I have studied some central issues on blended learning and learning in organizations. The literature review helped me in both formulating the tentative research questions (these were specified later on) and for making the interview guides.

5.2.1 The data collection techniques

A variety of methods can be used during the data collection. But when we refer to a case study then the documentation, archival records, interviews, direct observation, participant-observation, and physical artefacts will be the prevalent methods (Yin 2003:85). The so-called *triangulation,* the combination of alternative sources during the data collection, results in more comprehensive understanding of the problem. Triangulation comprises the use of different techniques, and may take advantage of both qualitative and quantitative methods by combining them. This method-mix gives a broader range of empirical input, which contributes to enhance systematic generalizability. The purpose of qualitative researches is to provide a deeper and more contextual understanding of data.

Several techniques of data collection have been used in this study: interviews, direct observation, participant-observation and study of the relevant documentation.

5.2.2 Participants

In qualitative research the sampling of respondents is a matter of strategic choices dependent on the object of study, the variation of participants, contextual variables and so on.

If is a multinational concern, which means there are several countries incorporated and each is characterized by specific features: cultural individuality, different practices of working and learning etc. It is impossible to include every member of the organization into the study. In order to get more complete information about the entire organization it is important to select a representative sample from the organization. The target group of this study was leaders as representatives of different BAs, countries and management level. Since the respondents were divided into two sub-groups, the developers and the users, there were other criteria: either the enrolment into the courses development or active participation in different training programs was the core requirement.

A contact person in the company appointed the future participants out, but the participation was totally voluntary. The potential participants were notified about the pilot project via e-mail and were invited to contribute to it by answering some questions during an interview. The fact that participants were chosen internally may weaken the representativeness of the sampling. On the other hand, in the e-mail mentioned above the participants were informed about the project and could decide themselves whether they are the right persons to participate in the sub-project. But it turned out during the interviews that some informants had not participated in the courses quite a long time. At the same time they expressed their viewpoints on what blended learning could comprise and in what way it could make a difference if compare to conventional learning or standalone e-learning.

5.2.3 Interview

Silverman distinguishes four types of interviews: structured, semi-structured, open-ended and focus group (Silverman 2006:110). I have used open-ended interview in my study as I see it as the most appropriate in this case. The open-ended interview is flexible and allows new questions to be brought up during the interview. But still the researcher in an open-ended interview has a framework of themes to be explored. The interviewer is the one who steers the process. According to Kvale the first minutes of the interview are the most important (Kvale 2007:75). The way the interviewer behave him/herself is the determinant of the success or failure. It is very easy to step away from the main point of the interview during the open-ended conversation. But on the other hand this method allows conversation between the respondents and the interviewer in unofficial manner. In such a situation a respondent feels comfortable and secure to answer the questions and feels free to express their own points of view on the phenomenon or situation. "The respondents do not merely reply to the questions prepared beforehand, but convey their own understanding of the reality through the dialogue with the interviewer" (Kvale 2007:25). When I conducted interviews I never began the conversation with the direct questions on the research problem. I have always started with some kind of introduction when I presented all the sides of the project including the aim, practical information about the participation in the project following by some warming-up questions, e.g. *What is your position in If? or How long have you been working here?* etc.

I have conducted a pilot interview to verify the drawbacks in the interview guide. This helped

me to alter some questions that were not sufficiently formulated, e.g. some of the questions acquiring answers *yes* or *no* were reformulated into the ones compelling for more profound answers.

There are several things that are to be taken into account when conducting an interview: the questions should be set in a clear and understandable manner; none of the private and sensitive for the respondent themes should be taken up; the tone the questions are asked shouldn't be too administrative (Larsen 2007). I was trying to avoid these issues, but sometimes it happened when the respondents didn't understand the question properly. Then s/he was asked once again in a more explainable form. These limitations could be caused due to the language misunderstanding, because the interviews were conducted in English.

As Kvale (2007) noted, there are several methods to register an interview: audio recording, video recording, notes and memory (Kvale 2007:101). I have used an audio recorder only, because it was agreed not to use the video recording. Using a recorder gives the interviewer an opportunity to listen carefully what was said, instead of writing down some key thoughts, phrases or just memorize all the key points. To my opinion, the latter is impossible. Audio recording allows a deeper understanding of the problem and gives one an opportunity to be present in the conversation by following the dialogue. I think the two activities done simultaneously give little outcome. In this sense using the audio recorder can be crucial when conducting an interview. Moreover, the tapes give an opportunity for in-depth analysis of what was said. A researcher has an opportunity to listen to the tape over and over again paying attention on the small details as tone of voice, pauses, and etc. But there are some core principles a researcher should keep in mind when using an audio recorder: where to place the tape recorder in order to hear what both the question and the answer given; not to allow the outer sounds to be taped and etc. (Kvale 2007:102). There are those faults on some tapes that I have recorded. It makes no difficulties for me to understand what the question was, but it may seem as a shortcoming for the others.

Although a qualitative research allows in-depth study, there can be some disadvantages with the using of qualitative interview. The most often problem that may influence the validity of the results is the way the informants answer the questions. The informant may try to make a good impression, give an answer that is commonly accepted, and an answer that he/she thinks is the one an interviewer wants to hear (Kleven 2002; Larsen 2007). And the interviewer will

never know whether the answer is "a right" answers or it is a viewpoint of the informant. Asking several indirect questions on the phenomenon, instead of posing the direct ones, may solve this problem (Kleven 2002).

The presence of two interviewers strengthens the results of the research, the reliability, and validity and gives a better outcome when analyzing the data. A reason for this is that two different people perceive the information in quite a different way, due to differences in theoretical background. But on the other hand this difference may result in conflict between the researchers and the conclusion won't be found. Some of the interviews were conducted together with another student involved into the pilot project. We were together at several interviews, but our roles were different: while the first interviewer was asking the questions, another was supposed to take some notes. But this practice gave poor results. I think the reason for this was our engagement into different sub-projects. We had little information about each other's research problems. This was hindering communication and as a result prevented from posing follow-up questions to the respondents about the opposite sub-project.

5.2.4 Observation

As it was noted before I used the combination of different qualitative techniques during the data collection. As a supplement to the interviews I have done an observation study of a seminar.

There are two ways an observation can be done: direct observation and participant observation. I have been both passive and active observer of a seminar organized for the leaders from Baltic countries: Estonia, Latvia, and Lithuania. According to Taylor et al., participant observation is a *"...research that involves social interaction between the researcher and the informants in the milieu of the latter, during which data are systematically and unobtrusively collected"* (Taylor & Bogdan 1984:15). In contrast, in the direct observation (or non-participant observation) the researcher is not engaged into the process. I have already noted the importance of the theory during the whole study process. An observer would always have some general theoretical questions in mind when studying the subject of interest. But I completely agree with the assumption of Taylor et al. that an observer should not be guided by the theory, on the contrary appeal to new and interesting phenomena that come out during the observation (Taylor & Bogdan 1984:17).

It is important to gain the feeling of confidence from those to be observed. Both the researcher and the informants may feel uncomfortable in the beginning of the study. As for the participants, then many people may be sceptical to a stranger sitting there in the corner and taking notes all the time and as a result behave in a different way, what may influence the result. On the other hand it may be challenging for the observer to be in a new setting without any definite role. It is the responsibility of the researcher to remove these boundaries between the researcher and the informants. As for my study, I was introduced to the participants of the seminar at once I arrived. The possibility to communicate with the informants in informal situations, during the pauses, for instance, made it easier for me to carry out the observation study. This observation was the first I have ever conducted. The lack of practical skills could weaken the result.

The seminar lasted for five days, but I had an opportunity to be present for the last three days. This course was relevant to my study as it was set up as a combination of different teaching methods: E-learning, presentation, lectures, role-play and group work where the participants used a simulator. I have become a member of one of the groups and took an active part in the discussions towards solving the given tasks. I had an opportunity to talk to the participants during the tasks as well as in the informal situations. So, I can say I was actively engaged into both learning and social part of the seminar. In addition, I had an opportunity to observe the participants during the lectures and made some notes on the interesting for the study issues. Sometimes it was difficult to understand what was actually important to notice. But as Taylor et al. put it *"everything that occurs in the field is a potentially important source of data"* (Taylor & Bogdan 1984:53). Before going to the seminar I have clarified for myself the aspects to be learned from the observation. This is the reason why I tried to regard all the details that were giving answers to my questions defined beforehand as well as on-going events I considered to be worth noted.

5.2.5 Documentation

Before doing the observation and interviews I have studied some relevant documents that were provided by the contact person in If. As relevant I consider documentation concerning the description of different courses, programs and seminars; the information on what is meant by "competence" and how the process of competence development is organized, and etc.

These documents were very useful to have. Having studied those in advance I could discuss the practices that are familiar for the internal members of the organization only.

5.3 Data analysis

The data gathered by means of interviewing, direct observation, participant-observation and reading relevant written material obtained from the company (e.g. manual of e-learning courses with screenshots of system) was arranged into four categories that are in line with the research questions. But the process of data preparation and analysis was much more complicated.

All the interviews were recorded on the tape that were later on transcribed using the software called HyperTRANSCRIBE. The data preparation comprised the transcription of interviews, but not all the interviews were included because I had to be selective. The criteria were to choose the interviews between which the contradiction in meaning of the respondents could be traced. This process is called *data reduction* that allows focusing on the most representative data (Silverman 2005). Most of the chosen interviews were transcribe word-for-word. The advantage of using detailed transcripts is that it allows for alternative views and interpretation in contrast to fixed extracts (Silverman 2005).

The process of data analysis I have used can be referred to as neither top down nor bottom up but something between these two extremes. This means that I worked back and forth reading the interviews for several times. There is no use to define your own categories in advance (Silverman 2005). Being not captured in a fixed frame of already defined categories helped me to outline emerging categories that I saw as meaningful. These categories represented various themes within the scope of possible research questions. In the end the number of categories was reduced to the four most representative:

1. The contribution of individual and collaborative learning
2. Scaffolding self-regulated learning and collaborative interaction
3. Adapting E-learning in a multinational organization
4. The interdependency of course organization and content

These categories will be presented in the next chapter 6. The fact that triangulation of the methodological techniques was used as a preferred method, helped me to either secure the accuracy in my interpretation or critically evaluate the respondents' viewpoints, e.g. by comparing the interview extract with the relevant written material, i.e. screenshots.

5.4 The criteria for quality in a research

Kvale defines seven stages of interview research: defining the research question, planning, interviewing, transcribing, analyzing, verifying, and reporting (Kvale 2007:47). These stages can be applied to the whole process of data collection. I have taken all the stages into consideration and followed them carefully in order to avoid potential errors and achieve a good result in the study. The criteria for quality in a research are its reliability, validity and generalization. These principles are interrelated with the seven stages of a case study defined by Kvale (2007). The following section is concerned with these aspects of research study.

5.4.1 Reliability

Some of the issues on reliability of this case study have already been discussed in the previous sections. These are concerned with all the stages of a case study: design, data collection techniques and methods of data analysis. *"The general way of approaching the reliability problem is to make as many steps as operational as possible and to conduct research as if someone was always looking over your shoulder"* (Yin 2003:38). To be reliable the case study should be planned and performed with completeness. All stages of a case study should be taken into consideration. Yin refers to the three main ways of achieving reliability in a case study: to use a study protocol and to develop case study database; to follow a chain of evidence; and to use multiple sources of evidence (Yin 2003:34). Only by being constructive and well organized when doing a case study make a later data retrieval possible. I have tried to organize the data and material gathered during the study in a proper way. As Seale puts it *"recording observations in terms that are as concrete as possible, including verbatim accounts of what people say...rather than researchers' reconstruction of the general sense of what a person said"* is important (Seale 1999:148 in Silverman 2005:221). When carrying out the observation I made notes during and wrote a short, but detailed report after the observation. Moreover, I have used the sound recorder during the group work. When I interviewed the informants I always used the sound recorder what makes it easier to transcribe and to capture what was actually said by the informant.

The use of different methods of inquiry is the last aspect that provides a higher reliability of the study according to Yin (2003). As it was noted, several sources of evidence were used during the data collection in this case. According to Silverman triangulation *"attempts to get a true fixed on a situation by combining different ways of looking at it or different findings"* (Silverman 2005:212).

I have conducted the case study in a multinational enterprise that includes Norway, Sweden, Denmark, Finland, Estonia, Latvia and Lithuania. The informants were the representatives of different countries. Moreover, the participants were divided into two sub-categories: users and developers. The data gathered during the research made it possible to study the problem from different viewpoints, what strengthens the reliability. The first drawback here is that there were no representatives from Finland. This fact may influence the reliability of the study. As the viewpoint of representatives from all the countries was important, and the viewpoint of Finland could change the way a phenomenon is understood. On the other hand the combination of different techniques covers these disadvantages and strengthens the reliability of the results.

Another factor that could weaken the reliability was the English language I used during the interviews. It is native language neither for me nor for the participants. This factor could result in some misunderstanding in the questions. Probably the answers could be more profound if given in the native languages. I was trying to avoid this problem by e.g. trying not to use too complicated words.

5.4.2 Validity

The researcher would always step into the research process with his/her own set of values and beliefs. But it is important to stay objective in making any conclusions during the study. The research study shouldn't be restrained by prejudices and the researcher should be aware of his/her own assumptions during the whole research study. Throughout the study I was trying to be critical to all the information coming from different sources and compared it to the existing studies on the research question. I have done two pilot interviews, one with the user of the courses and another with the developer. This allowed me to test how the interview guides worked and whether it provided me with overall information on the questions been

studied. In addition, I have listened to the previous interview before going to the next. This kind of preparation improved the results from the data collection and helped me to be analytical.

Another problem with the validity in a qualitative research is the problem of *"anecdotalism"* defined by Silverman (2005). It asserts that the qualitative researchers tend to use the most representative data and "include a few exemplary instances of the behaviour" in their reports (Silverman 2005:211). The lack of comprehensiveness in the data analysis may reduce the validity of a research study. The solution for this problem is found when *"all cases of data...(are) incorporated in the analysis"* (Silverman 2005:215 referred to Mehan 1979:21). During the analysis I have tried not to exclude any of the data and considered every interview, all the documentation and every note from observation as important.

The advantage of using triangulation of data resources strengthens the validity issue as well. *"A cumulative view of data drawn from different contexts"* allows to compare and to study any shortcoming of the study (Silverman 2005:302). Again, using the different methods of data collection helped me in constructing an objective explanation of the data.

5.4.3 Generalizability

Sometimes it can be difficult to generalize from a sample to a population in a research based on qualitative methods only. Generalizability is usually associated with quantitative research methods and "is normally achieved by statistical sampling procedures" (Silverman 2005:126). This is not appropriate for the qualitative research. However, the generalization in qualitative data is possible and the nature of it is different. Silverman defines the notions of *theoretical sampling*, that is "theoretically defined" and *purposive sampling* that is the most representative case that gives the explanation to the question asked in the study (Silverman 2006:306-307). *"... (T)heoretical sampling is concerned with constructing a sample ...which is meaningful theoretically, because it builds in certain characteristics or criteria, which help to develop and test your theory and explanation"* (Silverman 2005:131referred to Mason 1996:93-94). In this case, the generalization *"of cases to theoretical propositions rather than to populations or universes"* is the aim of qualitative research (Silverman 2005:130 referred to Bryman 1988:90).

The case study wasn't chosen purposively, as usually is chosen because it is the only alternative one has (Silverman 2005:127). But the informants were selected in relevance to the research question and existing theoretical assumptions on the problem studied. It was noted above that a theory plays a crucial role throughout a research study (Yin 1993). The results should be tested against the theory that have been chosen, and if the results support the theoretical assumptions then the problem of generalization can be solved (Yin 2003:37). Taking into consideration the "purposive sampling" and "the theoretical sampling" allowed testing the results from data collection against the theories existing in the studied field. I was interested in getting the answers on how the competence development of the leaders is organized in a MNE through blended learning. The case study was conducted in If, which is a MNE, consisting of several countries, and has a well organized practice in learning and development, as well as in using blended learning method. As it was said before the selection of the informants was defined by certain criteria. The representatives from different countries and from different sub-categories were selected.

5.4.4 Ethics

Kvale distinguishes three main ethical principles concerning the research process: informed consent, confidentiality and consequences (Kvale 1996:112-7). The responsibility of the researcher is to follow up the three principles. From the ethical point of view it is important to give the overall information about the participation in a research: that a person is to be observed or researched; that the participation is absolutely voluntarily and confidential; to indicate all the possible consequences during the study. *"Informed consent entails informing the research subject about the overall purpose of the investigation"*, *"confidentiality in research implies that private data identifying the subjects will not be reported"*, the last one is *"a researcher's responsibility to reflect on the possible consequences"* (Kvale 1996:112-6).

The most important step in beginning of a case study was to send an application form to Norwegian Social Science Data Services (NSD) that is securing the project is within the law for protection of personal privacy. The second step was to sign-up the confidentially undertaking with If. The two documents secure that all the ethical principles are regarded in the research.

There were several criteria in selecting the participants of the study. The potential participants

of the study were contacted twice. For the first time they were notified by e-mail when they got a message from my contact person in If. Those persons who agreed to participate in a project got e-mail from me. This time the informants were introduced into the details within the project that were sent in a written form in the attached document, the agreement for participation. This document contained the following information: how and why I got in touch with If; what was the subject of the project; who were involved into the project; and finally, that participation in the project was totally voluntary and it was also possible to drop out at any time, with no influence, during the study and without any particular reason. The same information was given orally before every interview in order to be sure that the information provided in the agreement for participation was sufficient and comprehensible. To assure that the participation is confidential I informed the participants that all the data collected would be codified and no indications on the person would be revealed during the study, and that the data would be deleted after the project was over. The information led to no harmful consequences, neither for participants nor to the group they represented, because the ethical principles are taken into consideration.

6 Empirical analysis

In this chapter I will present my empirical findings. The data consist of about 30 hours of open-ended face-to-face interviews and one-hour interview taken on the phone: five developers (from Denmark, Sweden and Norway); 19 users (from Denmark, Sweden, Latvia, Lithuania and Norway); three consultants (from Sweden and Norway). The three-day observation of a course held in Estonia and my own experience as a participant of a two-days course in Sweden are taken into consideration when analyzing the data.

The structure of this chapter will be as follows: first I introduce the extracts relevant and explaining the category under which they are applied; this is followed by a short description of each extract; and under each category I will give a short summary of all the extracts to summarize the core findings.

All the interviews were held in English and the extracts sited in this chapter are used without any considerable changes in order to avoid misinterpretation of what was said by the respondents.

It is necessary to mention that the respondents were divided into three groups according to their responsibility/role in the training practices at If:

1. Users (this group is represented by the participants in the courses from different countries (Denmark, Latvia, Norway and Sweden);
2. Developers (internal employees at If who play different roles during the process of developing training material are included under this category);
3. External consultants (who are the representatives of the consultancy company who have been delivering courseware solutions to If for a long period of time: both e-learning and blended learning (BL (for short) courses).

The respondents see the issues discussed in this thesis from different angles due to the difference in their roles. Thus, it is essential to make a comment on who is giving the answer before every extract. Three main themes will be discussed in this chapter and they are:

1) *The contribution of individual and collaborative learning*. On the basis of empirical results I will define the roles different components play in a BL course sequence and define some future trends in how to combine individual and collaborative components.

2) *Scaffolding self-regulated learning and collaborative interaction*. In this section I will present the possibilities of various forms of support, provided by different means: peer-to-peer interaction, help from consultants and automated help from system. I will define the advantages and limitations of the cases described in this paper.

3) *Adapting E-learning in a multinational organization*. Some of the challenges of the courseware solutions adaptation to the local user will be elaborated here. Due to the fact that the company operates in different countries, the question of cultural diversity must be taken into consideration.

4) *The interdependency of course organization and content*. In this section I will identify the interrelation between the content and the organization of a BL course. The results from this study identified some factors influencing the course structure.

6.1 The contribution of individual and collaborative learning

Extract 1 is taken from an interview with one of the external consultants during my observation of a course in Parnu, Estonia. The respondent has a long experience in working with standalone E-learning as well as with BL. In this extract the roles of E-learning and F2F sessions are discussed. The interview was taken immediately after the course was completed.

Extract 1: Learning in the classroom can never be replaced with E-learning, because E-learning is E-learning. It is not comparable, you are not networking in E-learning, you are not meeting other people, and you are not discussing other things. The effect from meeting, classroom training is much bigger. I think you should mix them, definitely. I think E-learning is very well for preparation. It works. Sometimes it works very well in terms of follow up for doing something in the middle of the course or something as a reminder.

The respondent underpins, that standalone, concept-oriented E-learning is often not very useful as a learning method because it tends to be tedious and lacks a social dimension. S/he stresses the importance of social interaction in the learning process. E-learning is referred to as being appropriate for individual self-paced learning and for that purpose it is very good, according to the respondent. It may serve as the means to prepare oneself to the classroom learning or as self-assessment after the physical course has been completed. In accordance to the classification given in this study, this type of BL is concept-oriented BL.

Extract 2 is taken from the interview with a user working in If Norway. S/he describes the advantages and disadvantages of the two components of BL and how they should ultimately be integrated into a seamless course, taking advantage of both individual and collaborative learning. The interview was conducted in Lysaker, Norway.

Extract 2: When you have a lot of money maybe the best thing is to have individual learning, but that's impossible and sometimes you lose the idea of working in teams or working in pairs. On the other hand, sometimes after ((a)) course, it is good to ((be)) on your own and to go through and seek information on Internet. It is a good way to be able to think on your own, to do it on your own ((pace)). Blended learning tries to mix the best of ((two worlds)).

The respondent asserts that both individual and collaborative learning are important elements of a learning process. Individual learning is not sufficient to ground learning outcome. Face-to-face sessions are usually suitable for collaborative learning where the participants of a course have an opportunity to discuss issues and learn through social interaction. But after having been to a physical meeting, self-paced learning is crucial to go through the material and comprehend what have been learned on your own pace.

Extract 3 comes from the interview with the developer and the conversation is directed at future opportunities, i.e. taking advantages of the technological possibilities. The developer works in Lysaker, Norway.

Extract 3: ...when people are talking to each other then you have new ((angles)) to see the problem. You could of course have something to speak ((about)) when you have a little room, and I think then is the next step we have to take: we can just have you and the computer, you and the teacher, to have you and the other students in a virtual classroom, so that you could

talk to each other; maybe to have a web camera, so that you could see each other. So, that is the next step, I think, we should take. Now we are having web meetings, we have video ((conferences)) instead of traveling all the time. And it was a big step for us to take and it was very difficult in the beginning. Now it is OK. ((But)) the danger is ((that)) we are ((not)) allowed to go the next step, if there isn't willingness enough in the management group to give support to the people. We need to go that step.

The opportunities of using ICT in the workplace learning settings are increasing and various. The respondent asserts that it will be a serious step to turn from the conventional classroom education to the totally virtual classroom. Nowadays there is little use of online collaborative education (CSCL) allowing collaboration between the facilitator and participants, as well as between the participants of the courses. The respondent believes this is important step forward to incorporate ICT in conventional work practice to augment it, such as meetings (web-meeting, video conferences and etc.). Today, these ways of communicating are widely accepted. The same step (incorporating communication technology into work practice) should also be done with learning.

Summary:
Under this category I tried to understand how individual and collaborative learning are distributed between online and F2F components. Blended learning is a combination of online and F2F learning that integrates individual learning with collaborative leaning. The data analysis revealed that learning might be effective only if it combines both individual and collaborative learning. But their integration in a course depends upon several factors. Thus, the opportunities of self-paced E-learning should be extended by integrating it with collaborative learning, either online or F2F. Due to the fact that the company has adopted the CBL1, self-paced E-learning is seen as an appropriate medium for introduction of concepts and theories. And the advantage of BL is seen in the F2F component that contributes to collaborative interaction and discussions among learners.

Although BL in the company is presented through the CBL1, a need for further development towards more advanced technology use in learning practices is seen as the next step in implementation of BL.

6.2 Scaffolding self-regulated learning and collaborative interaction

The next extract is taken with an external provider who has a long experience of working with E-learning and BL. The interview was conducted in Parnu, Estonia during a Baltic Management training program[15].

Extract 4: I've worked with E-learning for quite ((a few)) years now, so I know that the weakness is in ((self-paced)) E-learning. It is that you get bored quite fast if you haven't created something incredible interesting and that is very expensive. They have to be short; you have to ((capture)) attention all the time from the participants. That's not that easy. In a same way as a teacher you can have the attention, but with E-learning they ((participants of a course)) just shut down the computer and go away. E-learning should be that simple so that you don't need any help, actually. Otherwise, you are doing it too complicated, and we have done that too, earlier of course.

The respondent underpins that concept-oriented E-learning is imperfect as a delivery method and sometimes boring. That's why it should be supplemented by a physical meeting, according to this respondent. When the E-learning is short and focused it is preferred according to this respondent. The respondent also says that E-learning should be self-explanatory and not require extensive help outside do the system. Otherwise E-learning will not be used and be replaced by simpler alternatives.

The interview the next extract comes from was taken in Bergshamra, Sweden. The respondent is a keen user of e-learning courses, but has few experiences from BL courses. The question posed here was about the flexibility of E-learning courses.

Extract 5: I think they (E-learning courses) are stricter. Because I mean in a classroom...when you are sitting in the classroom you never know where the discussion will take you and discussing something that is really related to the learning points, but the discussion can be so much more and you can learn from small histories and things that people were telling you. An E-learning ((course)) is just like reading a book. And then the E-learning that is one advantage with E-learning...then you actually know that people have taken the same course. But as a method it is stricter and it is more narrow then the classroom.

[15] This program was introduced in the section 4.4.2

The respondent talks about the advantages of classroom learning where collaborative learning takes place. S/he underpins the importance of learning from others' experiences. E-learning is depicted as being less flexible in the sense that it doesn't provide sufficient opportunities for communication and collaboration. Therefore, social scaffolding from peer-to-peer interaction is crucial and E-learning should be supplemented with these practices. Otherwise, the learning process will be less rewarding.

Extract 6 is taken from an interview with a user from Sweden who has participated in a pilot course, Essential Project Management that is discussed in the "Case…" section in this thesis. The interview was held in Bergshamra, Sweden.

*Extract **6:** E-learning environments could be more interactive; we could have more interactions with the system. Like you have a database behind where you have actually answered wrong ((to)) the questions and you would ((get)) some ((form)) of feedback: "It is wrong because of…" or "You should have answered like this and that," because when you get some answers wrong and you can't figure out why, "I thought they were right", and you didn't know why. And that is a kind of environment also when you are sitting with an E-learning task. And that is very important because if you get frustrated or irritated because this stupid machine doesn't answer anything. You just feel, "Oh, I don't like this". But if you get ((some)) kind of interaction ((on)) this kind of environment, then it will ((turn out to be better)) for e-classes.*

The user talks about the limitations that E-learning courses have. The main disadvantage of concept-oriented E-learning is that it doesn't provide sufficient technological scaffolding. This makes E-learning unmotivated, boring and even sometimes an irritating way of learning. An immediate feedback from the system could have turned self-paced learning into more interesting and engaging process. Then up-to-minute interaction with the system could become a solution to these problems.

Extract 7 is taken from an interview with a respondent who has recently participated in the Essential Project Management course, described in this thesis. The interview was held in Sweden. The question was about whether the participants had an opportunity for communication and collaboration (or support) and how these functions were used during the

e-learning part of the course.

Extract 7: Yes, we have had. That was one of the issues ((for which)) we had this gathering. Because we had the gathering when we had the A and B module already done. And now I think, "I've seen them (the participants of the course), I've talked to them and it would be so much easier to go into this participation page (online community designed for the course) and start asking questions and have discussions within the class", you would call it. Our suggestion was that maybe you should have a gathering before you start e-leaning because then you'd probably will use the ((means)) to discuss or chat via the computer, (i.e. forum, chat). ((When)) you have seen persons behind the names. We could always send e-mail to the Metier (consultant) and ask the questions. So we have all the ((means)) to communicate. But we didn't do it. I think its because you don't just send an email to (a) strange person. You send specific question, but you don't start a chat between people if you don't know them a little bit ((first)).

The respondent describes the tools for communication and collaboration provided with the course. This particular course the respondent talks about may be referred as CBL1. But the challenge for the participants was in that the self-paced E-learning comprises a considerable part of the whole course (20-40 hours), while the F2F session lasts for one or two days only. The respondent asserts that a need for collaborative interaction will be taken positively. Of course, there are opportunities to contact external consultants (e.g. via e-mail) if there was something unclear in the content of self-paced E-learning course; the system allowed communication between the participants (by means of online community and e-mail). But these functions were hardly used by the participants. The respondent elaborates by the fact the BL course began with the self-paced learning part and this prevented the users to some extent from communication and collaboration online.

<u>*Summary*</u>:
I introduced this category to analyze whether there is a need in support for both self-paced E-learning and collaborative learning (e.g. distributed collaboration).

The company has chosen CBL1 due to several factors mentioned earlier in this thesis. Thus, the online component aims at delivering core facts, concepts and theories, while the F2F session is used to apply this information into practical training through collaboration with

peers and instructor. There is a dilemma whether self-paced E-learning courses should be provided with any kind of support. On the one hand it is assumed that self-paced E-learning as a component of a BL course should be as simple that a leaner wouldn't need any assistance in accomplishing it, except for the automated system support. Others consider self-paced E-learning as being more complicated and sufficient technological or pedagogical scaffolding should be provided. A lack of this function may diminish learning process and motivation to take the course. One may do the E-learning course without thinking on the answers or even not complete it at all. But the objective is not in accomplishing a course because one is obliged to, but in learning from it.

There is usually an opportunity to consult an instructor via e-mail or chat function that most of the communities, designed for a particular course include. But this type of help is usually not synchronous and the solution on the problem doesn't come at once. At the same time the participants due to e.g. the lack of time rarely use these functions. This may be predetermined by the fact that these practices are not forwarded in any possible way. The analysis reveals in order to enhance collaborative interaction (e.g. forum), F2F session should precede online component and serve as introductory course. At the same time it is not enough to leave the participants on their own. An instructor plays a crucial role and should facilitate the collaborative interaction online (if there is such a function). But the analysis shows that this kind of assistance was not available or was not structured enough.

6.3 Adapting e-learning in a multinational organization

Extract 8 is an interview with a user of BL at If. The respondent describes the E-learning component of a BL course he/she has recently taken and talks about the difficulties encountered. This is the first BL course s/he has participated in. The interview was taken in Hvidovre, Denmark.

Extract 8: The only problem with this course is that we are a Nordic company and you can take the course in Norwegian or you can take it in English. That's also fine, but…so we were doing it in English and then I don't know why, but every time when something is done in English they have to use words that are sophisticated in some way and…it makes it difficult to read…you know, what I mean? First, you have to read the line just to get the feeling of the words, and then you read it again to get the meaning. It takes me longer time to read English

than is does to read Danish. I think, that if you have to do it in another language, you ((have)) a special handicap…if you do understand English you are still afraid that you've missed something. That you won't do in your native language.

If is an international organization and the courses are designed to be used across the Business Areas (BAs), independent of country and therefore written in English. Since the interview was conducted some changes had been introduced: nowadays the courses designed internally are translated into all If's languages.

In the particular course this respondent participated, there were two languages available: Norwegian and English. This might not be convenient to all people and even hinder the learning process for some. The respondent believes the problem will become even bigger if the language is complicated and the meaning is difficult to catch. This is also time-consuming, because it may take several rounds to read before one gets the meaning. At the same time it may be frustrating and the learner's motivation to participate might diminish. A problem arises in the adaptation of the courses developed at one location or in two languages to the users own working language.

The next extract is from an interview with one of the developers. The interview is taken in Hvidovre, Denmark. The question that was asked was whether the development of courses is a joint effort between the countries.

Extract 9: Yes, because we are Nordic unit…I think, that we try to build our courses in a Nordic perspective. Taken into consideration the different things…it's very different from Finland to Denmark, for instance. And it is also very different from Finland to Russia, for instance…It will be a tremendous big step to bring management development into Russia as we have it in the Scandinavian countries. It's a completely different way of how they are looking at management and leadership in Russia, than it is in the Scandinavian countries. That's why we have decided that the Baltic countries have their own management training and Russia will have ((its)) own management training. And ((at)) some ((point in)) time we might integrate the Baltic and the Russian way of having management training. And then again, maybe in 5-10 years we can look at it as one package, because there are huge differences in cultures between the different countries: Scandinavian, the ((Baltic states)) and

Russia. Right? So to ((understand)) difference we target only those specific countries ((by)) themselves. So we will never mix ((them)). That's not possible.

If is a multinational concern consisting of several headquarters. Even though the cultural differences of the three regions (Baltic, Nordic, and Russia) are formidable, it is possible to link the Nordic countries with the purpose of delivering common courses and it has been done. The biggest challenge for the present is to have a common set of courses for Nordic and Baltic countries. They have different languages and their own culture; but the most important difference is in the way management is perceived. The involvement of the Baltic countries and eventually Russia into the common courses seems to be impossible at the current point in time due to the foreseen challenges depicted above. This extract illustrates the knowledge sharing and transfer challenges between different countries in a global organization, as in this case between Baltic and Nordic countries.

The next extract depicts the problem of delivering a course in another than the developer's country. The interview was conducted during the course for the Baltic leaders in Estonia with one of the participants. S/he tells about her/his experience of taking an e-learning course that was developed by the Nordic group. S/he also takes up some peculiarities of both Nordic countries and Baltic countries during the conversation and explains how practices of combining working and learning vary between the two regions.

Extract 10: …because ((of the)) differences in market. ((The)) Nordic region ((is a)) stable market, we ((Baltic) are working in rolling market, up-growing market. It is because of the economic situation. We actually don't know how we will live after ten years. Nordic countries know it. And all the things are different: attitude to work, to life etc. They ((Nordic countries)) have time to ((do)) all projects. ((If)) we can launch a product in three months; in Nordic ((countries)) it takes one year and three months. Because they think and consider, and consider and again…but in our market everything is ((changing)) very fast, we need to be first and we need to launch first! ((One of our colleagues)) (from one of the Baltic divisions) worked in Sweden for half a year, he leads a couple of Nordic projects, and his boss said: "It would be serious and tough". But he actually says that he can't remember so relaxed working time. And, I think it describes very ((well)) how the work in Nordic and Baltic ((countries differs)).

Maybe in the beginning when I started it was very interesting what is done in Nordic ((countries)) and how it works and…but because of these market differences we can't copy-paste all things. We tried to show the same advertisement in Baltic ((countries)), ((but it failed)). Because there is other messages ((meaning)) built ((out of the same words)).

The respondent describes some of the attempts for exchanging experiences between Baltic and Nordic countries and how it failed. The main reason for the failure was the differences in market situation in countries in which the company operates. If the Nordic countries are characterized by a stable market, with minor changes over longer time, then in the Baltic countries the stakes are much more higher. In other words, it is a big challenge for If to assume a common design for all courses will work. Language differences are huge from the Nordic region to Baltic States and Russia.

After several attempts at developing of common competence policy the If Academy was established in 2007. Behind the establishment of If Academy was the idea of collecting all the training available within If and to allow for sharing across the BAs. The next interview is taken in one of the Nordic countries with a user of BL. The question asked was about the reason for the establishment of If Academy.

Extract 11: We ((have)) three business units within If. ((They)) are commercial, industrial and private. We arrange the same courses in two different places in the organization. It is not coordinated at a higher level, so I guess the intention is if I develop a certain two-days ((courses)), then this ((courses)) could be taken to the If Academy level. So all ((could be)) consider ((ed)) ((and)) offer ((ed)) there. I can see some benefits of doing that. Also my employees can take part in a course arranged somewhere else in the organization. But it is difficult because they have to be very structured. The intention is not to build up a large organization, but more to take all the courses arranged in different places in the organization and bring them ((together)), publish the courses at some higher level.

Interviewer: Was If Academy developed to include both Nordic and Baltic countries?

Extract 12: I guess the intention is to have both Nordic and Baltic countries. Otherwise it would be strange to let the Baltic countries out of the scope. We also want to connect Baltic countries even more and transfer knowledge ((between)) Nordic and Baltic ((regions)). You

can't do both…either it is decentralized or you centralize it, but in-between will never be a success, because it is a lot of energy leakage in arguing who is responsible and such.

The respondent talks about the If Academy. The purpose of its establishment is to collect all the specific courses developed in different BAs as well as to take part in development of common courses within If. Before that all the three BAs had their own HR departments. The process was decentralized and the worry was that there would be duplicate courses developed in the different BAs. At the same time not all the courses were available across the BAs. This can be seen as a high cost investment into the training. The respondent asserts that it was a good intention to establish a common competence policy, including both Nordic countries and Baltic States. At the same time, the process must be structured in order to succeed in accordance to respondent. What the respondent means by this is that the process of courses development should be either centralized or it should be decentralized. Mixing them may result in failure.

<u>*Summary*</u>:

I have studied constrains of courses implementation with global perspective to the local context. Adapting the courses with global perspectives to local context turned out to be challenging. Among the factors restraining the practices of having common courses in different countries may be: cultural diversity, working environment, language.

Earlier the company opted for common designs and not specialized (language and culture) courses. The practice of having English as a common language has failed and now all the courses are translated into all the company's languages. The analysis reveals that main problem may occur due to differences in language level. Courses in non-native language may hinder learning by being unmotivated and time-consuming if complicated language is used. Working environment is crucial factor as well, either it'll be stable or unstable.

Having a goal to become a single company If uses the same content (i.e. models, core concepts and theories) in all the common courses but the way they are adapted in F2F sessions may vary significantly due to the factors mentioned above in this section. When a course is built in a Nordic prospective it may be not applicable for the training in the Baltic States. The analysis reveals that one should take into consideration the local context identities, language, culture, work environments when designing e-learning courses.

6.4 The interdependency of course organization and content

Extract 13 is taken from an interview with one of the external consultants who has been working with If for a long time delivering E-learning and BL solutions. The interview was conducted in English in Estonia during a course that I sat in, mainly as an observer and partly as a participant. The question I asked was about what the percentage distribution of the BL components (E-learning and F2F).

Extract 13: Maybe 20 % of E-learning...it depends on what you should deliver, actually. If it is knowledge about a new insurance product it's excellent to have on the server and you force the people that they should know how it works: just go in and learn how it works. When we talk about leadership or something that you really have to train then it is more f2f and classroom training with some preparation, I think.

The content and the type of skills are the core determinants of the percentage distribution of the components in BL. Either it is theoretical knowledge (theoretical skills training, individual) or practical knowledge (practical skills training) knowledge that require collaborative interaction between the participants. The respondent means that in order to train theoretical skills (e.g. information about a new insurance product: how it works, how it can be employed; facts, theories and models etc.), then a course will commonly be based upon self-paced E-learning. The second part will be appropriate to use for F2F meeting if needed. Usually this type of courses aims at on-demand training and is based upon E-learning only. But when it comes to practical skills training then the e-learning part would comprise the smallest part of a BL course and should be concept-oriented (theoretical skills training). This means that it should be used to introduce core concepts needed in order to achieve concept awareness between the participants. The latter serves as a basis for integrating collaborative learning. F2F part would constitute the largest part of a course and would aim at collaborative learning.

The respondent of the next extract is a developer. He/she works in Lysaker, Norway. The question was about the most frequently used methods in training in If.

Extract 14: *We have one unit who are working almost only with developing and delivering of e-learning courses. Especially in Business Area Private, because they have a huge product spectre and you need to have education in all of our products and you have to have it at the*

same time and with many people, thousands of people working in a customer centre, for instance. And for those E-learning is crucial, as a method, because they can't go away from their working places and go to traditional courses. When it comes to leadership programs in all of our programs and in all of our seminars or corporate we have E-learning as a part of the whole program: either before or after, or both before and after. And that I think has changed the way leaders have looked upon E-learning. When they are doing it in a simple way, we have made these courses very easy, now everyone can manage it… It is more to have the mental training before you are having the physical meeting.

On one hand the respondent means that there can be drawn a division based upon the differences in the immediateness (on-demand training) of education: whether there is an instant need in knowledge that is to be taken into practice at once, or it is leadership training on a higher level (e.g. communication or practical skills training).

On the other, the difference is content-based. If in customer centres there is a constant need to learn new concepts (e.g. learn about new products), then concept-based E-learning is crucial for the employees working there. As they have no opportunity to go away from their workplaces to participate in a F2F course. When we talk about leadership training, then self-paced E-learning can't fill the role of F2F meeting and may serve only as a supplement for the F2F course.

The next extract is taken from the interview with user. S/he is leader experienced leader working within IT-department and talks about the way s/he prefers to learn. The interview was conducted at Lysaker, Norway.

Extract 15: Best way of learning is actually "learning by doing" or by discussing and having talks about different topics. My need for new knowledge as such has to do with the possibilities to technical solutions and how to transfer the business processes. I don't think there exist courses ((self-paced e-learning courses)) for doing that. Let's say managers' discussions or employee-manager discussion. Most of all it's about talking and find solutions. We learn a lot just by doing our daily work, actually. The learning when it comes to courses ((E-learning courses)) and this kind of things it's useful, but it is very specific. I mean it is a kind of a foundation for additional learning in the job.

The respondent of the extract above asserts that the best way of learning from his/her point of view is learning by doing integrated with discussions and workshops (i.e. informal learning). He/she means that it is difficult to build content for E-learning courses for this kind of skills (i.e. problem solving). When it comes to E-learning then it is good to use as a supplement to the on-the-job training in order to learn some basic concepts connected to the problems emerging in the daily work. Then, the combination of informal learning with E-learning that serves as a supplement is the method he/she sees as the most advantageous for training of practical skills.

Extract 16 is taken from an interview with a top manager working in If. S/he talks about her/his experience in learning suitable for competence development for the leaders of top level.

Extract 16: E-learning is something that we ((use)) for training for employees, but not leaders. Leaders prefer more courses, go away and have your personal trainer or whatever. On my level I have quite competent people: they are well educated; we have training programs in If for managers ((that)) they've ((top managers)) been through. Leaders on this level have a discussion.

The respondent asserts that people learn differently within the organization and the method depends upon the level of competence as well as the level in the management structure in organization: the higher the level of expertise the less e-courses or other formal training is either available or suitable. Collaboration and communication between leaders on the same level is the most appropriate method for competence development, e.g. learning from the experiences of others. Thus, learning and competence development of top managers comprises the collaboration with other leaders of the same level, communication and discussion of important issues. This may occur both through formal education as well as informal.

The next extract is taken from the interview with a user. S/he is a top manager. S/he describes his/her learning preferences.

Extract 17: Usually my competence development is about attending seminars and building networks with people with similar position in the Nordics, that is my key learning. Usually

seminars are attended with peers from different companies and the Nordics, where we listen to certain experiences. There are external speakers there and we also have a lot of networking where ((we)) discuss certain topics. I would try to find some E-learning course…(if)…it ((would)) be related to what I do in my daily job. Learning-by-doing combined with some training to support and help me through that process.

The respondent underpins the importance of learning by doing that is supported by other kinds of training, e.g. E-learning courses. But job-relatedness of the content is the main reason why s/he would take part in an e-course. The seminars s/he talks about are less formalized, structured and are mainly student-led. Then theoretical skills are less important on this level of management and the main effort is made on training of practical skills through collaborative interaction with others.

<u>*Summary*</u>:
The objective with this category was to understand whether there are any differences in organizing BL courses for different content.

The target group for this study was leaders representing different levels in a management structure. Although there is no template for BL model, the analysis reveals that there may be outlined a dependency between the organization of learning (either self-paced E-learning) or collaborative (occurred in F2F only in this study) and the content. To follow this difference three core types of skills were introduced earlier in the thesis. The importance of different skills varies in terms of the competence and experience levels of leaders. In this study they are defined as:

1. Theoretical skills, e.g. Office package, language study, concepts, facts and models
2. Communication skills, e.g. personal skills, communication skills etc.
3. Practical skills, e.g. problem solving skills through applying the concepts, facts, models into practical solutions

While communication skills are the core elements of competences of leaders on all levels, the importance of theoretical and practical skills vary considerably (this is in line with Katz's three-skills approach). The analysis reveals that self-paced E-learning is crucial as a method for theoretical skills transfer. Due to the high level of expertise theoretical skills are not

central on the top management level, while new leaders need a solid basis in theoretical skills in order to succeed. At the same time it is not used as a training medium for the top managers, who see training of practical skills through collaborative interaction as the most productive. Due to the fact that the company chose CBL1, these practices occur in F2F sessions, delimiting the possibilities of online communication and interaction.

The model below depicts how the significance in different types of skills varies between the management levels influencing the way learning occurs, either through collaborative interaction or self-paced learning (individual).

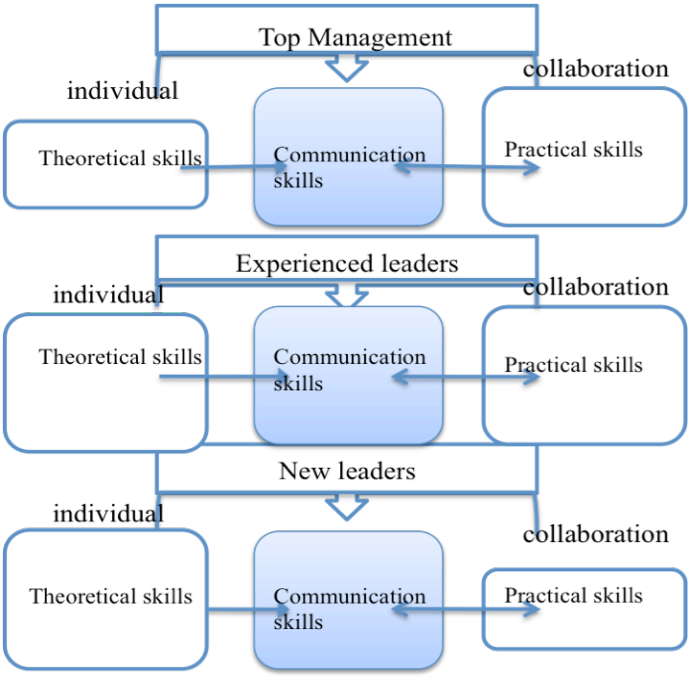

Figure 18 A model depicts the variations of skills significance in accordance with levels in a management structure

I understand this in the following way: training for these types of skills (communication or practical) may be both based upon collaborative learning but the course sequence and structure may vary. If the training of communication skills is based upon structured and teacher-led collaborative learning and CBL1 is the BL method used on this level, then the courses with the objective to train practical skills are designed in a way providing with less control from the teacher (consultant) and are mostly student-led, CBL 2. Practical skills training lead to new concepts, practices, methods etc. that are developed collaboratively either online (online community, forum) or F2F (classroom learning).

To sum up the core findings I will present the main conclusions in accordance to the categories the data was analyzed:

1. The contribution of individual and collaborative learning
    - Self-paced E-learning is an appropriate method for preparation, self-assessment and follow-up (individual learning)
    - Self-paced E-learning is an appropriate method to introduce theoretical knowledge, while collaborative learning is used for their practical application
    - Self-paced E-learning should be supplemented by collaborative learning either online or F2F
    - Standalone E-learning should be related to daily work tasks (on-demand learning)

2. Scaffolding for self-regulated learning and collaborative interaction
    - Self-paced E-learning should be short and precise so that a learner won't need help
    - E-learning environments should provide with automized help from the system (technological scaffolding)
    - In order to enhance collaborative interaction in collaboration-oriented BL, F2F session should precede online components and serve as introductory course
    - Pedagogical scaffolding should be provided to enhance collaborative interaction online (scripting)

3. Adapting E-learning in a multinational organization
    - Courses in non-native language may hinder learning by being unmotivated, time-consuming if complicated language is used
    - One should take into consideration the local context identities, language, culture, work environments when designing E-learning courses
    - While the content of self-paced E-learning may be the same (e.g. common models, core concepts and theories), the way they are adapted in F2F may vary

4. The interdependency of course organization and content
    - The distribution of BL components between individual and collaborative learning may depend upon the types of skills to be trained

Other findings:

- BL is flexible in terms of learning styles
- E-learning is flexible in time and pace, but stricter in terms of communication and collaborative interaction.

7 General discussions and conclusions

This thesis studies the degree of "completeness" of blended learning components in integrating individual learning and collaborative learning as well as the factors influencing these combinations.

The empirical findings were analyzed through four different categories: the contribution of individual and collaborative learning; scaffolding; adaptation to the local context; and the organization of the courses. The results from the data analysis support the assumption that the combination of individual and collaborative learning is crucial for the learning process to be successful. At the same time, the fast pace of technological change is not utilized in practice to the extent it allows. Although BL was coined to replace conventional way of using ICT in learning (i.e. self-paced) E-learning, it not yet reached its full potential as a method. The analysis of data reveals that CBL1 (defined as a conventional BL in this thesis) prevails in the practice of the company. This can be traced back to several factors that will be discussed at a theoretical level in this section.

I will present an overall view on the empirical findings through theoretical perspectives introduced in this thesis by discussing the two main research questions defined for this study. I will apply the aspects of socio-cultural approach to learning that have a big impact on the studies of Instructional Design (ID), CSCL and CSCW. I will elaborate on the implications of the BL design that combines self-paced (individual) and collaborative interaction and reveal some limitations of the two types of BL in this field of study. Besides, I will turn to other theoretical perspectives introduced in this thesis that will allow me to discuss the shortcomings of the two types of BL that I have called CBL1 and CBL2. Furthermore, I will elaborate on the factors that may influence the combination of BL components.

7.1 The integration of collaborative interaction and self-paced learning in blended learning

The principles of Vygotsky have helped me to narrow down the scope of multiple forms of blended learning to one, that is collaboration-oriented blended learning (CBL2). The literature review on BL revealed that both individual (self-paced) learning and collaborative interaction are essential elements of learning in the context of requirements of the knowledge society (see section 3.1.1) (Collis 2006; Dettori & Persico 2007; Rossett 2003).

Standalone self-paced E-learning is not sufficient as a learning method (Bersin 2004; Dahl & Rolfsen 2005; Graham 2006). The data analysis reveals that E-learning gives low outcome if other forms of leaning don't supplement it. This was supported by the respondents saying that standalone self-paced E-learning was not complete as a method of learning for them if it wasn't extended by support for communication and collaborative interaction. These findings are in line with other studies (Collis et al. 2005; Dahl & Rolfsen 2005). As a result BL was introduced to extend E-learning by adding a collaborative component (Stewart 2002; Singh 2006). BL models have undergone considerable changes especially with the increased use of technology in learning (see section 3.2.3 in this thesis). The literature review shows that collaboration may be brought into the picture in one of two ways, either online (CSCL) or F2F (e.g. simulation training like role play) (Dettori & Persico 2007; Hanson & Clem 2006). The latter was demonstrated through the Baltic Management training program (see section 4.4.2 in this thesis).

On the contrary, the data analysis reveals that technological affordance was not utilized in practice and BL learning may be seen from its traditional interpretation from which it is depicted as a mixture of self-paced online learning and conventional F2F (Allan 2007; Stewart 2002), or CBL1 as defined in this thesis. The data analysis reveals that while the purpose of online component continues to be content-oriented self-paced learning delivering, the preferable contribution of F2F component is in its social aspect allowing collaborative interaction and dialogue between the participants and the teacher. The latter is seen as the most important part in a BL course while E-learning component serves as a supplement from the viewpoint of respondents in this study. The purpose of the latter is to provide concept awareness between learners (see section 6.1). On the contrary, other studies claim there is no need in F2F session as it serves for socialization reasons only, and have less value from pedagogical point of view (Offerman & Tassava 2006). Others report that collaborative interaction may occur by means of other forms for learning through combination of formal, informal and learning that is mediated by technology (Collis 2006). This type of BL may be illustrated through the Essential Project Management training program introduced in section 4.4.3 in this thesis. Although this program is set up as a formal course, informal interactions both online and F2F is possible.

There is an assumption that learning is possible in unstructured and unguided environments that is seen as inappropriate for development of higher-order skills (Clark & Feldon, 2005; Clark 2006; Ludvigsen &Mørch 2007). The respondents in this study assert that online learning environments may be perceived as being isolated. BL may contribute to the development of authentic learning environment by providing *"engaging and supportive settings"* (Oliver et al. 2006). The result from the study shows that to develop BL environments, appropriate scaffolding should be provided: either to enhance and direct self-paced learning (Collis 2006; Dettori & Persico 2007; Mayer 2006; Oliver 2006) or to guide collaborative interaction (distributed collaboration) (Collis 2006; Dillenbourg 2002; Oliver 2006; Kirkley & Kirkley 2006). The data analysis reveals that scaffolding is not limited to the human-human interaction (pedagogical scaffolding). On the contrary, support in the courses presented in this study[16] was provided either by means of social interaction (Hakkinen 2002; McLoughlin 2002; Stahl et al. 2005) or technological support (Ludvigsen & Mørch 2007) unless not without them challenging.

An illustrative example of technological scaffolding was presented through the "Kurs i generell data" where several MML principles were applied (Mayer 2006; Mayer & Moreno in press). Another example can be provided through the Essential Project Management training program where the balance between theory, practice and reflection on one's own knowledge is emphasized (Svensson et al. 2004). After a self-paced Theory part is accomplished, a Case is asked to be resolved that is followed by evaluation. The latter comprises an automised feedback from system where possible solutions and practical advice is given on the learner's answer.

Social scaffolding was provided through the opportunities for collaborative interaction and communication in a course community site. The current study reveals that among the factors preventing or constraining the use of these functions by the participants may be e.g. technological affordance (Bersin 2004) or lack of awareness between learners (Gutwin et al. 1995). The forthcoming is illustrated by the fact the company do not take advantage of CSCL tools, while the latter is illustrated by the following extract: *"I think you don't just send an email to a strange person. You send specific question, but you don't start a chat between people if you don't know them a little bit first"* (see section 6.2 extract 7).

[16] See section 4.4

The extent to which scaffolding should be provided depends upon various factors (Clark & Mayer 2003; Clark & Feldon 2005). The study reveals that CBL1 course design do not need to include any extensive help, except for the technological scaffolding, e.g. MML (Mayer 2006). This is supported by the example of Baltic Management training program and Essential Project Management. The MML principles were used to the various extent in all the courses presented in this thesis. But for instance, signalling and voice principles were not used as the consultants saw them as hindering the learning process (e.g. Essential Project Management). The reason for not providing extensive support may lie with the differences in objectives of the courses: either to inform or to merely transfer concepts, theories and models, i.e. theoretical knowledge training (Svensson et al. 2004) or to perform (Clark & Mayer 2003). The latter may be seen as construction of new practices through practical knowledge training (Svensson et al. 2004) and can be classified as CBL2. The forthcoming was illustrated through the E-learning component in Baltic Management training program and is seen as CBL1. Due to the fact that the company decided to use CBL1, the study on CBL2 is restricted and can't be provided by any examples. The exception is the courses and seminars the respondents (see section 6.4) were talking about during the interviews. But these are reduced to conventional collaborative learning in F2F without applying a CSCL component.

Another problem that is in line with the extent to which support should be provided can be illustrated by the distinction between mandatory and discretionary use design principles (Grudin & Palen 1995). The fact that not all the participants complete the E-learning part (e.g. Baltic Management training program) before going to the F2F session may diminish the learning process and the very idea of BL may be weakened. Then, there is a problem of how to assure the accomplishment of self-paced E-learning. There can be distinguished multiple ways: by applying the possibilities for networking (e.g. social scaffolding), software support (e.g. technological scaffolding); by making the system easy to use and adapt to different contexts; and to encourage to use the system or even to mandate it by the management (Grudin & Palen 1995). Various possibilities for scaffolding and some of the problems that one may encounter with the implementation of those into practice were discussed above.

Following the difference between CBL1 and CBL2 I may assume that the forthcoming is used for discretionary use, i.e. individual learning, while the latter may be seen as a larger system requiring mandatory use design principle (Grudin & Palen 1995). CBL2 is seen in this thesis

as an alternative extending BL in scope by putting collaborative learning at first place, i.e. collaborative interaction support and peer pressure may force mandated use (Grudin & Palen 1995). These assumptions can't be supported by the data due to the fact the company didn't benefit the use of CSCL tools. But BL may be compared to the dual nature of groupware design that lies between the two principles, discretionary and mandate use and may become an open area for further research (Grudin & Palen 1995).

The incompleteness of CBL1 pointed out in this thesis may be traced in the previous studies on BL as well. Previous study shows that F2F sessions, when supplemented by self-paced E-learning contribute to development of the "cognitive sphere" (CBL1), while CSCL component (CBL2) may foster self-regulated learning (i.e. E-learning) by adding to it a social aspect (Dettori & Persico 2007). The latter is within the scope of the idea on the duality of knowledge and may reveal the shortcomings of CBL1 that still seems to have individual learning enhancement as an objective. E.g. the Baltic Management training program, where E-learning was used for self-paced pre-work and F2F sessions were set up as structured, teacher-led and planned learning, i.e. conventional classroom learning, may illustrate this.

I may assume that CBL2 could extend the opportunities for learning and can be seen as a solution for the limitations of CBL1. This is partly supported by the respondent saying there is a need to take advantage of CSCL tool to make BL to a more interactive method (see section 6.1 extract 3). But this implies new confrontations and a need to rethink the BL methodologies to adapt it to the requirements of modern society (Kirkley &Kirkley 2006). Then, alike other attempts to enhance learning outcome, the design and implementation of CBL2 into practice may become challenging and its potential should be studied furthermore. It has been shown in this study that the ideas within the socio-cultural perspective on learning can serve as a design principle and analytic lens for further research on BL.

7.2 Cultural diversity and types of knowledge

The company is global enterprise and is facing the dilemma that there is a discrepancy between the requirements of common E-learning courses and its implementation at multiple local sites. Cultural identities of learners (Child & Rodrigues 2005; Alvesson 2004) and the ambiguity of knowledge (Alvensson 2004) between the departments, countries and levels in

management structure may be seen as critical points for design and adaptation of courses to the local context.

The explanation may lie in that the company operates in different countries characterized by different working environments, either stable or unstable. The way leadership is perceived is different and is influenced by the working environment and cultural diversity (see extract 9 in section 6.3). The fact that some of the attempts for experience exchange failed due to the differences in market situations support these assumptions (see extract 10 in section 6.3). Thus, the possibility to have common courses is challenging due to the factors mentioned above and the factors as cultural diversity; language and local context should be taken into consideration when designing a course (Netteland 2008; Collis 2006; Jagannathan 2006).

"The content of E-learning should be adapted to the local context and needs" (Netteland 2008). Although, the importance of adaptation of the courses to the local context is crucial the study reveals that the content of the concept-oriented E-learning may remain common for different countries while its adaptation during the F2F session is crucial. But on the other hand, almost all the E-learning courses are translated into all If's languages. Despite these new undertakings to decrease the borderline between countries in terms of learning (If Academy establishment), the practices are still challenging.

As it was already said the company have adopted CBL1 as a preferable BL type. The reason for not using more advanced technology-based learning in the company has to do with system imperfection, cost-efficiency and a design principle that can be described as "need to have", rather than "nice to have" and serves as the basis for the courses development in If. The latter underpins the avoidance of having "fancy" courses, because the main aim is not to have training courses, but to "close the gap", it is on the outcome they provide-on the learning. Then, learning has to be tightly integrated with performance support (Dahl & Solheim 2005; Mørch et al. 2007). The assumption is that *"best way of learning is actually learning by doing"* and E-learning should serve as a supplement to daily work (see extract 15 in section 6.4) support this assumption.

The study reveals that the concept "close the gap" may be referred to from different standpoints that may influence the way individual and collaborative learning are integrated into a BL course. On the one hand it is concerned with the degree of immediateness for

learning, i.e. on-demand learning (Bersin 2004; Oliver 2006; Rossett 2003; Singh 2006). Dissimilar the "gap" may be seen as a difference between competence level and job description that usually is not a prerequisite for learning at workplace and courses are developed in long-term perspective (Bersin 2004; Rossett 2003). The study reveals that the on-demand learning is usually based on theoretical knowledge delivery by means of self-paced E-learning that may be either supplemented by the F2F session or integrated into daily work (Collis 2006). This assumption may be supported by the respondent saying that there is a difference between methods for theoretical and practical knowledge delivering (see extract 13 in section 6.4), i.e. the learning objective (Bersin 2004; Kim 2007). Moreover, this is supported by the fact that there are some differences in how BL components may be integrated due to the variations in significance of types of skills with regard to different levels in management structure (see section 6.4 4), i.e. target group (Bersin 2004).

7.3 Conclusions and directions for further work

The objective of this thesis was to understand how blended learning courses are set up through combination of self-paced E-learning and collaborative learning.

The two main research questions this thesis approaches are: 1) How blended learning is used to integrate collaborative interaction and self-paced learning to enhance learning outcome? 2) How factors like cultural diversity and the type of knowledge are taken into account when blended learning components are integrated?

The research questions were answered through combination of theoretical perspectives introduced in this thesis; data from the interviews and observation; and examples from the courses presented in section 4.4 in this thesis. The data were divided into meaningful categories in accordance with research questions. Through the pre-screening of data a distinction between the two different types of blended learning was defined: CBL1 and CBL2.

The first question was answered by applying the ideas from socio-cultural approach to learning on the blended learning methods, i.e. interdependency of social and individual learning and scaffolding. This helped me to identify some constrains of CBL1 that are supported by other studies as well. The problem with CBL1 may be seen in its underestimated

look at collaborative learning, while CBL2 may be said to take advantage of the latter. Still, no single answer which type of blended learning one should favour has emerged during the data analysis. The reason for this may be that the study was limited to the research on CBL1 while other studies indicate that blended learning solutions will become more complex and require more profound methods. This implicates that there is a need for further research on CBL2 and this thesis suggests that the idea of interdependency of social interaction and individual learning can serve as a design principal and analytic lens for blended learning. These ideas were adopted in other studies that approach the problem of how to enhance individual learning through collaborative interaction, e.g. CSCL and CSCW.

The second question is concerned with different factors that should be taken into account when designing blended learning courses, i.e. cultural diversity and types of knowledge. Although there were defined different complications of having common courses in a context of cultural diversity a solution to these problems was not found. I see this aspect of blended learning as requiring further research.

On the other hand, there was clearly defined a distinction between theoretical and practical knowledge training methods. The skills approach to leadership has helped me to point out the significance in different types of knowledge in accordance to level in a management structure. These differences were shown as having implications on the combination and objectives of blended learning courses.

Limitations of the study and directions for further work

The choice of methods and the extent to which I got opportunity to study the practical use of blended learning in the company was good. The limitations of this study could be seen in that not all the countries comprising the company were represented in the study. This could have broadened the scope of how blended learning is utilized in practice. Another problem could be seen in studying the notion of blended leaning as a formal type of learning. Other types of blended learning were not studied to the extent they should be.

The fact that there was a lack of extensive use of collaborative tools has diminished this study to the level of one of the blended learning types, i.e. CBL1. At the same time it will be interesting to proceed on studying of how CBL2 could be utilized in practice to make it possible to compare it with the former. This could be seen from a broader perspective. So, the

directions for further work on blended learning may lie in extending CBL1 to the level of CBL2 and in challenging the conventional methods for learning. It could be interesting to see how authentic learning environment is designed from the perspectives on CBL2.

A conference proceedings based upon this thesis was submitted for the International Conference on E-learning in the Workplace (ICELW) 2009:

Kudrik, Y., Mørch, A. I., & Lahn, L. C. (2009). A Case Study of Blended Learning in A Nordic Insurance Company: Three Issues for E-learning. *The International Conference on E-learning in the Workplace.* New York.

References

Allan, B. (2007). *Blended learning. Tools for teaching and training.* London: Facet.

Alvesson, M. (in press). *Identity regulation as organizational control: producing the appropriate individual.*

Alvesson, M. (2004). *Knowledge work and knowledge-intensive firms.* Oxford: Oxford University Press.

Anderson, L. e. (2001). *A taxonomy for learning, teaching, and assesing: a revision of Bloom's Taxonomy of educational objectives.* New York: Longman.

Baldwin-Evans, K. (2006). Key steps to implementing a successful blended learning strategy. *Industrial and Commercial Training , 38* (3), 156-163.

Bereiter, C. (2002). *Education and mind in the knowledge age.* London: Lawrence Erlbaum .

Bersin, J. (2004). *The blended learning book. Best practices, proven methodologies, and lessons learned.* San Francisco: Pfeiffer.

Billett, S. (2004). Workplace participatory practices. Conceptualising workplaces as learning environments. *The journal of workplace learning , 16* (6), 312-324.

Bonk, C., & Graham, C. (2006). *The handbook of blended learning: Global perspectives, local designs.* San Francisco: Pfeiffer.

Brewerton, P., & Millward, L. (2001). *Organizational research methods: a guide for students and researchers.* London: Sage.

Child, J., & Rodrigues, S. (2005). Social identity and organizational learning. In M. Easterby-Smith, & M. Lyles (Eds.), *Handbook of organizational learning and knowledge management.* Oxford: Blackwell.

Clark, R. (2006). Five critical issues for web-based instructional design research and practice. In H. O'Neil, & P. R.S. (Eds.), *Web-based learning: theory, research, and practice.* New Jersey: Lawrence Erlbaum.

Clark, R., & Feldon, D. (2005). Five common but questionable principles of multimedia learning. In R. Mayer (Ed.), *The Cambridge handbook of multimedia learning.* Cambridge: University Press.

Clark, R., & Mayer, R. (2003). *E-learning and science of instruction: proven guidelines for consumers and designers of multimedia learning.* San Francisco: Pfeiffer.

Collis, B. (2006). Putting blended learning to work. In C. Bonk, & C. Graham (Eds.), *The handbook of blended learning: Global perspectives, local designs.* San Francisco: Pfeiffer.

Collis, B., Margaryan, A., & Amory, M. (2005). Multiple perspectives on blended learning design. *Journal of learning design , 1* (1), 12-21.

Crowther, J. (Ed.). (1995). *Oxford advanced leaner's dictionary.* Oxford: Oxford University Press.

Dahl, K., & Rolfsen, R. K. (2005). E-læring i et untviklingsperspektiv. In A. Mørch, & I. Solheim (Eds.), *Integrert e-læring i bedriften.* Oslo: Unipub.

Dettori, G., & Persico, D. (2007). Supporting Self-Regulated Learning in a Blended Learning. In J. Fong, & F. L. Wang (Ed.), *Blended learning. Workshop on Blended Learning 2007*, (pp. 174-185). Edinburgh.

Dettori, G., Persico, D., & Giannetti, T. (2005). *CMC environments supporting self-regulated learning.* Retrieved January 27, 2009, from TeLearn, an international Open Archieve in Technology Enhanced Learning: http://en.scientificcommons.org/dettori_giuliana

DeViney, N., & Lewis, N. J. (2006). On-demand learning: How work-embbeded learning is expanding enterprise performance. In C. J. Bonk, & C. R. Graham (Eds.), *The handbook of blended learning: Global perspectives, local designs.* San Francisco: Pfeiffer.

Dillebourg, P. (2002). Over-scripting CSCL: The risks of blending collaborative learning with instructional design. In P. Kirschner (Ed.), *Three worlds of CSCL. Can we support CSCL.* Heerlen: Open Universiteit Nederland.

Dillenbourg, P. e. (1996). The evolution of research on collaborative learning. In E. Spada, & P. Reiman (Eds.), *Learning in humans and machine: Towards an interdisciplinary learning science.* Oxford: Elsevier.

Dillenbourg, P. (1999). What do you mean by "collaborative learning"? In P. Dillenbourg (Ed.), *Collaborative learning: Cognitive and computational approaches.* Oxford: Elsevier.

Dillenbourg, P., & Jermann, P. (2007). Desinging integrative scripts. In F. e. Fischer (Ed.), *Scripting computer-supported collaborative learning. Cognitive, computational and educational perspectives.* New York: Springer.

Ellis, C., Gibbs, S., & Rein, G. (1991). Groupware-some issues and experiences. *Communications of the ACM , 34* (1), 38-58.

Fischer, F. (2007). Perspectives on collaboration scripts. In F. e. Fischer (Ed.), *Scripting computer-supported collaborative learning. Cognitive, computational and educational perspectives.* New York: Springer.

Gjelsvik, M. (2007). *Innovasjonsledelse: ledelse av innovasjon og internt entreprenørskap.* Bergen: Fagbokforlaget.

Gottchalk, P. (2004). *Informasjonsteknologi i kunnskapsledelse.* Oslo: Universitetsforlaget.

Graham, C. (2006). Blended learning systems: Definition, current trends, and future directions. In C. Bonk, & C. Graham (Eds.), *The handbook of blended learning: Global perspectives, local designs.* San Francisco: Pfeiffer.

Gruber, H., & Palonen, T. (2007). *Learning in the workplace: new developments.* Helsinki: Finish Educational Research Association.

Grudin, J. (1994). Computer-supported cooperative work: history and focus. *Computer , 27* (5).

Grudin, J., & Palen, L. (1995). Why Groupware Succeeds: Discretion or Mandate? In H. Marmolin, Y. Sundblad, & K. Schmidt (Ed.), *The Fourth European Conference on Computer-Supported Cooperative Work.* Stockholm.

Gutwin, C., Stark, G., & Greenberg, S. (1995). Support for workspace awareness in educational groupware. *Conference on computer supported collaborative leanring*, (pp. 147-156).

Hakkinen, P. (2002). Challenges fro design of computer-supported learning environments. *British journal of educational technology , 33* (4).

Hakkinen, P., & Makitalo-Siegl, K. (2007). Educational perspectives on scripting CSCL. In F. Fischer (Ed.), *Scripting computer-supported collaborative learning. Cognitive, computational and educational perspectives.* New York: Springer.

Hakkinen, P., Arvaja, M., & Makitalo, K. (2003). Prerequisites for CSCL: Research approaches, methodological challengesand pedagogical development. In K. Littleton, D. Faulkner, & D. Miell (Eds.), *Learning to collaborate and collaborating to learn.* Nova Science.

Hanson, K., & Clem, F. (2006). To blend or not to blend: A look at community development via blended learning strategies. In C. Bonk, & C. Graham (Eds.), *The handbook of blended learning: Global perspectives, local designs.* San Francisco: Pfeiffer.

Illeris, K. (2008). *Learning, work and competence development.* in press.

Jagannathan, S. (2006). Bledned e-learning in the context of international development Global perspectives, local designs of e-courses. In C. Bonk, & C. Graham (Eds.), *The handbook of blended learning: Global perspectives, local designs.* San Francisco: Pfeiffer.

Jonassen, D. e. (2005). The collaboration principle im multimedia learning. In R. Mayer (Ed.), *The Cambridge handbook of multimedia learning.* Canbridge: Cambridge University Press.

Karlsdottir, R. (2007). *Læring, kommunikasjon og ledelse i organisasjoner.* Trondheim: Tapir akademisk.

Kim, W. (2007). Towards a Definition and Methodology for Blended Learning. In J. Fong, & F. L. Wang (Ed.), *Blended learning, Workshop on Blended Learning* (pp. 1-8). Edinburgh: Pearson.

King, A. (2007). Scripting collaborative learning processes: a cognitive perspective. In F. e. Fischer (Ed.), *Scripting computer-supported collaborative learning. Cognitive, computational and educational perspectives.* New York: Springer.

Kirkley, J. R., & Kirkley, S. E. (2006). Expanding the Boundaries of Blended Learning: Transforming Learning with Mixed and Virtual Reality Technologies. In C. Bonk, & C. Graham (Eds.), *The Handbook of Blended Learning: Global Perspectives, Local Designs* (pp. 533-549). San Francisco: Pfeiffer.

Kleven, T. A., Tveit, K., & Hjardemaal, F. (2002). In F. Hjardemaal (Ed.), *Innføring i pedagogisk forskningsmetode: en hjelp til kritisk tolkning og vurdering.* Oslo: Unipub.
Kvale, S. (2007). *Doing interviews.* London: Sage.

Kvale, S. (1996). *Interviews: An introduction to qualitative research interviewing.* California: Sage.

Lahn, L. C. (2005). Læring i arbeid: Et sosiokulturelt perspektiv. In A. Mørch, & I. Solheim (Eds.), *Integrert e-læring i bedriften: pedagogikk, teknologi, organisasjon.* Oslo: Unipub.

Larsen, A.-K. (2007). *En enklere metode: veiledning i samfunnsvitenskapelig forskningmetode.* Bergen: Fagbokforlaget.

Lasher, N. (2008). "A list" instructional design. *Industrial and Commercial Training , 40* (7), 381-386.

Law, N. (2005). Assesing Learning Outcome in CSCL settings. In T. Koschman, D. D. Suthers, & C. Tak-Wai (Eds.), *Computer Supported Collaborative Learning 2005: The next 10 Years!* Mahwah: Lawrence Erlbaum Associates.

Ludvigsen, S., & Mørch, A. (2007). Computer-supported collaborative learning: Pedagogical and technological scaffolding. In *Int'l Encyclopedia of Education's: Learning and cognition.* Elsevier.

Mørch, A. I., Dolonen, J. I., & Nævdal, J. E. (2006). An Evolutionary approach to Prototyping Pedagogical Agents: From Simulation to Integrated System. *Journal of Network and computer applications , 29* (2-3), 177-199.

Mørch, A., & Solheim, I. (Eds.). (2005). *Integrert e-læring i bedriften: pedagogikk, teknologi, organisasjon.* Oslo: Unipub AS og forfatteren.

Mørch, A., Hansen Åsand, H.-R., & Ludvigsen, S. (2007). The Organization Of End User Development in an Accounting Company. In S. Clarke (Ed.), *End User Computing Challenges and Technologies: Emerging Tools and Applications* (pp. 102-123). Hershey: Information Science Reference.

Mørch, A., Moen, A., Hauge, T. E., & Ludvigsen, S. (2008). From knowledge management to technology-enhanced workplace learning: issues and examples. *The international conference on e-learning in the workplace.* New York.

Masie, E. (2006). The blended learning imperative. In C. Bonk, & C. Graham (Eds.), *The handbook of blended learning: Global perspectives, local designs.* San Francisco: Pfeiffer.

Mayer, R. (2005). Introduction to multimedia learning. In R. Mayer (Ed.), *The Cambridge handbook of multimedia learning.* Cambridge: University Press.

Mayer, R. (2006). Ten research-based principles of multimedia leanring. In H. O'Neil, & R. Perez (Eds.), *Web-based learning: theory, research, and practice.* New Jersey: Lawrence Erlbaum.

Mayer, R., & Moreno, R. (in press). *A cognitive theory of multimedia learning: implications for design principles.*

McCuddy, M. e. (2007). *The challenges of educating people to lead in a challenging world.* Dordrecht: Springer.

McLoughlin, C. (2002). Learner support in distance and networked learning environemnts: Ten dimensions for successful design. *Distance Education , 23* (2), 149-162.

Merill, D. (2002). First principles of instruction. *Educational technology research and development , 50* (3), 43-59.

Netteland, G. (2008). *E-learning for a change in a large organization-identifying problems and opportunities in the implementation of e-learning.* Bergen: University of Bergen.

Nordhaug, O. (1993). *Human capital i organizations: competence, training, and learning.* Oslo: Scandinavian University Press.

Northouse, P. (2007). *Leadership. Theory and practice* (4th Edition ed.). London: SAGE.

Offerman, M., & Tassava, C. (2006). A different perspective on blended learning: assertingthe efficacy of online learning at Capella University. In C. J. Bonk, & C. R. Graham (Eds.), *The handbook of blended leanring: global perspectives, local designs* (pp. 235-244). San Francisco: Pfeiffer.

Oliver, R., Herrington, J., & Reeves, T. C. (2006). Creating authentic learning environments through blended learning approaches. In C. J. Bonk, & C. R. Graham (Eds.), *The handbook of blended learning: Global perspectives, local designs.* San Francisco: Pfeiffer.

Ormrod, J. E. (2004). *Human learning* (4th Edition ed.). New Jersey: Upper Saddle River.

Qvortrup, L. (2007). *Knowledge, education and learning. E-learning in the knowledge society.* Fredriksberg: Samfundslitteratur Press.

Rossett, A. e. (2003). *Strategies for building blended learning*. Retrieved January 15, 2009, from http://www.astd.org/LC/2033/0703_rossett.htm

Rylander, A., & Peppard, J. (in press). *What really is a knowledge-intensive firm?*

Säljö, R. (2002). Læring, kunnskap og sosiokulturell utvikling: mennesket og dets redskaper. In I. Bråten (Ed.), *Læring i sosialt, kognitivt og sosialt-kognitivt perspektiv* (S. Moen, Trans., pp. 31-57). Gjøvik: Cappelen Akademisk Forlag.

Scardamalia, M., & Bereiter, C. (2003). Knowledge building. In *Encyclopedia of education* (2nd Edition ed.). New York: Macmillan Reference.

Silverman, D. (2005). *Doing qualitative research* (2nd Edition ed.). London: Sage.

Silverman, D. (2006). *Interpreting qualitative data.* London: Sage.

Singh, H. (2006). Blending learning and work: Real-time work flow learning. In C. Bonk, & C. Graham (Eds.), *The handbook of blended learning: Global perspectives, local desings.* San Francisco: Pfeiffer.

Smith, P., & Ragan, T. (2005). *Instructional design* (3rd Edition ed.). New York: John Wiley & Sons.

Solheim, I. (2005). Innledning. In A. Mørch, & I. Solheim (Eds.), *Integrert e-læring i bedriften: pedagogikk, teknologi, organisasjon.* Oslo: Unipub.

Stahl, G. (2002). Groupware goes to school. *8th International Workshop on Groupware.*

Stahl, G. (2007). Scripting group cognition. In F. e. Fischer (Ed.), *Scripting computer-supported collaborative learning. Cognitive, computational and educational pespectives.* New York: Springer.

Stahl, G., Koschmann, T., & Suthers, D. (2005). Computer-supported collaborative learning. In K. Sawyer (Ed.), *The Cambridge handbook of the learning sciences.* Cambridge: Cambridge University Press.

Stehr, N. (1994). *Knowledge socities.* London: Sage.

Stewart, J. (2002). A blended e-learning approach to intercultural training. *Industrial and commercial training , 34* (7), 269-271.

Svensson, L., Ellstrom, P.-E., & Åberg, C. (2004). Integrating formal and informal learning at work. *The journal of workplace learning , 16* (8), 479-491.

Sweller, J. (2005). The redundancy principle in multimedia learning. In R. Mayer (Ed.), *The Cambridge handbook of multimedia learning.* Cambridge: Cambridge University Press.

Taylor, S., & Bogdan, R. (1984). *Introduction to qualitative research methods: the research for meanings* (2nd Edition ed.). New York: Willey.

Trasler, J. (2002). Effective learning depends on the blend. *Industrial and Commercial Training , 34* (5), 191-193.

Tynjala, P., & Hakkinen, P. (2005). E-learning at work: theoretical underpinnings and pedagogical challenges. *The journal of workplace learning , 17* (5/6), 318-336.

Voci, E., & Young, K. (2001). Blended learning working in leadership development programme. *Industrial and Commercial Training , 33* (5), 157-160.

Wegerif, R. (2002). *Thinking skills, technology and learning*. Retrieved April 9, 2009, from http://www.futurelab.org.uk/resources/publications-reports-articles/literature-reviews/Literature-Review394

Wenger, M., & Ferguson, C. (2006). A learning ecology model for blended learning. In C. Bonk, & C. Graham (Eds.), *The handbook of blended learning: Global perspectives, local designs.* San Francisco: Pfeiffer.

Wille, G. (2003). *Kompetanseledelse: samvirket mellom menneske, organisasjon og teknologi.* Trondheim: Tapir akademisk.

Yin, R. (1993). *Applications of case study reserach.* California: Sage.

Yin, R. (2003). *Case study research. Design and methods* (3rd Edition ed., Vol. 5). London: Sage.

Attachment 1: Information about the data collection

Information about collection of data for the Master thesis on blended learning and agreement for participation in the project

We are, Yulia Kudrik and [redacted] master students at University in Oslo. In order to get assistance in Master thesis writing we have contacted If Skadeforsikring at Lysaker. Our contact persons at If are [redacted] Our assignment will be based on the data we collect in cooperation with If. We have signed a confidentiality undertaking with If that allows us to use confidential information for the purpose of fulfilling the assignment.

Our research project is divided into two sub-projects where each of us concentrates on own field of interest. But we will have joint work when it comes to data collection and analyses of the research work. The research project will be split into two that are: blended learning (Yulia Kudrik) and long-distance leadership [redacted]

The official title for the sub-project is: "The development of the leadership competencies through blended learning: advantages, challenges and possibilities".

The purpose of the sub-project on blended learning is to study a comparatively new teaching method: blended learning and its outcomes in the development of the leadership competencies at If. This project will contribute with a theory-based analysis of an important (trendsetting) phenomenon, which will be studied thorough. This analysis can be used as a starting point for further developing and the practical introduction of "blended learning".

There will be hold a number of interviews with both course developers and those who participate in competency development programs. Participation is totally voluntary and it is also possible to drop out at any time, with no influence, during the study and without any particular reason. All written information collected will be unidentified during the study and deleted afterwards.

The project is reported to *NSD, Personvernombudet for forskning (http://www.nsd.uib.no/personvern/index.cfm)*, which is securing that the project, is within the law about protection of personal privacy.

If you have any further questions or comments, do not hesitate to contact me

Yulia Kudrik, yulia.kudrik@gmail.com, eller phone +47 91595809

Regards,

Yulia Kudrik

I have read the information enclosed and I'm willing to participate in the project.

[redacted]

Place and date

[redacted]

Signature

Attachment 2: Interview guide for users

Interview guide for users

1. **Introduction**

- Presentation of myself and of my project
- The aim with the interview
- Agreement for participation
- Permission to use sound recorder

2. **Could you introduce yourself?**

- How long have you been working in If?
- What is your occupation?
- Have you had other positions?
- What are you responsible for?

3. **Learning and development environment at If?**

- How does your organization talk about learning and development?
- How is it described?
- Do you have a motto for this?
- How is it promoted?
- What opportunities for real learning exist?
- Should training be a part of employees' performance plan?
- What do you know about the If Academy?
- "Performance Management", what does it comprise?
- Leader evaluation?
- What is important to be a good leader? Triangle?

4. **Courses**

Is competence development important for you?
What does leader evaluation at If mean?
What does it mean to be a good leader for you personally and for If?
Reiser du på seminar til utlandet?

- Do you participate in the courses or programs delivered by If?
- What kind of courses?
- Why do you take courses?
- Where do you find information about the courses?
- How do you sign up for a course?
- Is it of your own responsibility to find and choose a course?
- What are the criteria for choosing a right course?
- What are the methods the courses are delivered to the learners?
- Do you pay much attention on the delivery methods? Or is it the content that matters?

5. **E-learning and blended learning**

- How would you describe your learning style? Do you prefer to learn in collaboration with others, individual learning, online learning, problem-solving learning etc.
- Have you ever taken e-learning/online courses?
- How would you describe an e-learning course?
- Do you regularly use online courses/e-learning courses? Or is it face-to-face learning methods that are more acceptable at If?
- Do you feel comfortable with e-learning programs?
- What are the difficulties encountered when using e-learning?
- What are the advantages of e-learning?
- Do you get any help or support when needed?
- Have you ever heard of the notion "blended learning" or "hybrid learning"? (if not, I shall describe it).
- How do you understand this notion?
- Have you ever participated in a blended learning course?
- Do you think a combination of different delivery methods gives more flexibility to a teaching process?
- Does this method make learning more accessible? Engaging? Time-reduced?
- (If, yes)What features of blended learning make learning more accessible? Engaging? Flexible? Time-reduced?
- If you compare blended learning with traditional teaching methods, what would be the advantages/disadvantages?
- Does blended learning allow people to learn and work together across traditional boundaries of professions, organizations, geography or time?

6. Technologies

- What are the underlying technologies usually used in the face-to-face learning situations?
- What are the most frequently online learning and communication systems in the courses?

7. Motivation

- Do you consider motivation as a significant element of a learning process?
- What would encourage you to take a course?
- Can the way a course has been presented motivate people to take it?
- What are the criteria you take into consideration when choosing one?
- Do you get a certificate after a course has been accomplished? Can it be motivating?
- What do you think of a learning environment (both physical and virtual)? How could the learning environment influence a learning process?
- What factors could arouse motivation?
-

8. Evaluation

- How are the courses evaluated?

9. Could you tell me about one of the courses (those who participate in the Project Management education program will be asked to describe the one; those who don't will be asked to describe one of the courses).

- Have you taken any courses recently?
- How did you get the information about the course?
- What make you think that this course is of importance for you to take?
- How was the information about the course distributed? Was the information sufficient?
- What is/was the content of the course?
- What are/were the aims and the learning outcomes of the course?
- How is/was the course constructed? What are/were the methods of delivery used?
- What is/was your experience of balance between different teaching methods? E.g. Presentations + group work + practical training.
- Could you describe the content of each of the components?
- Is/was the content of the course organized into manageable chunks?
- Is/was there any opportunity for practicing the material have been studied?
- Was the content relevant to the purpose of the course?
- Is/was there any opportunity to communicate/collaborate with the other participants of the course?
- What were the technologies involved in the activity?
- Are/Were they easy to use?
- Have you had any challenges using them?
- Did you get help when needed?
- To what extent would you describe the instructor's work? What was good? Was there something you didn't like?
- What are the requirements that a tutor/instructor should meet?
- Can the way an instructor delivers the content be inspiring/arouse interest to the theme?
- What was challenging with the course?
- What should be improved?
- Was the course useful for your work?

Attachment 3: Interview guide for developers

Interview guide for developers/designers

8. **Introduction**

- Presentation of myself and of my project
- The aim with the interview
- Agreement for participation
- Permission to use sound recorder

9. **Could you introduce yourself? (Business success through people)**

- What is your position at If?
- How long have you been working at If?
- Have you had other positions?
- What are you responsible for?

10. **Learning and development environment at If?**

- *How does your organization talk about learning and development? How it is described and promoted?*
- *Are learning and competence development important elements at If?*
- What opportunities for real learning exist?
- *Could you tell more about the If Performance Management? When it was first implemented? What was the purpose of the P.M?*
- *What was the idea behind the If Academy establishment?*
- *What does it mean for If to be a good leader?*
- Leadership competencies are organized into a triangle that consists of: leadership, business and management skills. *Are there any courses designed to develop those skills?*
- *Are you responsible for developing courses for both leaders and employees?*
- *What are the most common purposes of the courses designed for competence development of leaders?*
- *If is an international organization. Is the process of the courses development a joint work?*

11. **How to create the right environment for learning?**

- If has a long tradition when it comes to learning and competency development. How could you define the right environment for learning?
- How could the right learning environment motivate people to learn? What factors could arouse motivation to a learning process?
- How do people prefer to learn in your company? What are the most acceptable learning methods?
- *How is the process of course designing/development organized? Is design and content of a course predetermined by the needs for a specific competency among the personnel?*

- Do you design a course for a specific group of employees or do you first design a course and than decide upon the participants?
- When identifying the core learning needs do you pay attention on the individual/group learning? Why? Is it the question of the learning culture at If?
- *Are there any differences between designing courses for an individual and for a group of people? What is to be taken into consideration?*
- Participants of a course will have varying degrees of educational background, experience, personality types, motivations, style of learning etc. Do you take these into consideration?

12. The practice of using different teaching methods at If?

- *What is the most usual teaching methods/material delivery methods (e-learning, face-to-face) used when designing programs/courses?*
- E-learning? What does e-learning mean? How would you describe this notion?
- Do the employees regularly use online courses/e-learning courses? Or is it face-to-face learning methods that are more acceptable at If?
- Does If have a strong culture in using e-learning?
- Do people feel comfortable with e-learning programs?
- What are the difficulties encountered when using e-learning?
- What are the advantages of e-learning?
- Do they get any help whenever needed? What kind of help?
- Your position is…. Do you work with the course design/development?

13. Blended learning: face-to-face and e-learning?

- Have you heard the notion of "blended learning" or "hybrid learning"?
- What do you call it? A blended learning "model", "mix", "course" or "integration"?
- What do you see as the main idea of this teaching method?
- Do you think there are any differences between traditional teaching methods and blended learning?
- What could blended learning mean to your organization when it comes to competence development?
- For how long have you been using blended learning methods as the teaching methods?
- What underlying pedagogical approach(es) do you use when designing a blended learning program?
- What are the measurements of a successful implementation of blended learning in your organization? (content, management, learner support, culture, IT).
- If you compare blended learning with traditional teaching methods, what would be the advantages/disadvantages?

14. The design of blended learning courses?

- *Is designing of a blended learning course more challenging if compare to traditional learning?*

- What to start with when designing a blended learning course?
- What are the questions to be answered before designing a blended learning course? What are the questions that come first?
- What departments are engaged? How to manage the roles and responsibilities when creating a course? Who and when needs to be involved into the process of designing a blended learning course? What role do they play in the process of designing? How to make it to an overall process?
- Do you design/develop blended learning courses in-house or do you mostly use external providers?
- What is important to take into consideration when designing a course internally/ when using external providers? What practice do you have?
- What are the components of blended learning (both online and offline)?
- What are the criteria (business strategy, program type, audience, budget, resources, technology infrastructure available) one should take into consideration when designing blended learning? Is the choice of the components defined by the criteria?
- The main idea of blended learning is to combine different approaches of teaching methods into one that is the most suitable for a specific setting of learning. What does the mix depend upon? (the purpose of the course/content/target group). What is important to take into consideration to create a seamless learning process? How to organize it logically?
- What is the percentage of distribution between the main components? What does it depend upon?
- What do employees wait from such courses? How to meet the expectations of the learners? Are there any surveys/evaluations/feedbacks conducted before the course is about to be introduced?
- Do you think the costs control is an essential question when implementing blended learning? What is to be done to control the costs? Is it a low cost investment? If so/not, why?
- Should blended learning support both immediate learning needs and the long-term needs? What does it depend upon? (content/aim of the course).
- What are the challenges you encounter when organizing blended learning courses?
- Do you develop the content for the courses internally or do you use external providers?
- What is the role of the tutor/instructor? What are the requirements that a tutor/instructor should meet?
- Do the learners have access to an e-learning support such as online coach support, peer support teams, tutors, face-to-face sessions, e-mail and message systems, phone, online discussion groups etc.
- If is an international organization. How to overcome culture and language differences when designing a course? Are there any differences? Are the courses designed internally? In Norway the courses are designed at the Norwegian department? Etc. Does it enable people to learn and work together across time, place and traditions?
- If you compare the process of designing a blended learning program with the one that is based on traditional teaching methods, which of these will be more challenging?
- Does blended learning represent a real opportunity to respond more effective to individual or group demands?

15. Technologies

- What are the underlying technologies used in online learning in your company?
- Which medium is the most potential in delivering material in a face-to-face learning situation?
- What does the choice of the medium depend upon?
- Could you name some of the technologies that contribute to individual/group learning?

16. Flexibility

- Make this method learning more accessible? Engaging? Flexible? Time-reduced?
- (If, yes)What features of blended learning make learning more accessible? Engaging? Flexible? Time-reduced?
- If you compare blended learning with traditional teaching methods when it comes to flexibility, what would be the advantages/disadvantages?

17. Motivation?

- Do you consider motivation as a significant element of a learning process?
- How do people choose the course they would like to participate in?
- How do you decide whether this or that course could be of interest/importance for the employee?
- How the courses are introduced to the employees?
- How to convince people to participate in a course?
- Do you think the learners pay much attention on the teaching methods of or is it the content of the course that matters?
- How to persuade people to take time for training?
- Should training be a part of employees' performance plan?
- Do you grant people with certificates or bonus?

18. Evaluation?

- How is the effectiveness of the delivery evaluated?
- What approaches to assessment do you use?
- What are the criteria of a successfully accomplished blended learning course both for developers and learners?
- What are the criteria of successful integration of F2F and e-learning?

19. How blended learning is integrated with the work? Practice at If.

12.1 Project Training Management Program

12.2 UGL (the goal, method of delivery, target group, outcomes, can it be called a blended learning course?)

12.3 Insurance business simulation