ARTICLE

A Learning Design Methodology for Developing Short Learning Programmes in Further and Continuing Education

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Over the past 5 years, teaching staff at the School of Continuing Education, VIA University College, Denmark, has been designing digitally supported teaching within diploma programmes and tailor-made courses in the fields of health, education, social sciences and management. More and more of these programmes and courses are designed as blended learning and are characterised by a short time cycle of design, delivery and completion. Despite a recent addition of learning design expertise to the organisation, there is a predominant tendency in design processes to focus on the technical setup, the content and the participants, and very little on the role of the teachers. The teachers' role is challenged by a number of issues in relation to the growing use of blended and online learning, e.g. the task of facilitating the learning processes of the participants in new ways; a higher degree of exposure as the teacher often becomes the sole point of contact in online environments; communication skills needed to facilitate dialogue and collaboration in an online environment; etc. Furthermore, involvement of teaching staff in co-creation of new learning designs require skills which many lecturers do not have when they enter the design team for the first time, among others skills to articulate their pedagogical principles and technological imagination.

Over time, we in our roles as learning designers in the School of Continuing Education have developed, tested and refined a technique for user involvement in the design work, and teachers now work with our professional learning designer and course producer on redesigning courses or creating new module or courses. In these collaborative design processes, we have identified a number of challenges, which will be dealt with in our paper.

Introduction and Research Question

Vignette: Teachers A and B are going to redesign the module on "Practical methods in Social Science", which they have often taught together. The institution's learning designer has invited them to a workshop, where jointly they will set goals for the development and redesign of the module. The module will be used in an online course with a blended learning approach. Excitedly, the lecturers are discussing new reading material to use in their lectures. Likewise, they are impressed about how well video can act as a channel for communication between teacher and students. As the learning designer asks them to make a storyboard displaying their redesign, the teachers make a written presentation of their own work and the teaching activities from an overall structured approach, while the student's process and work is not included in the description of the design.

The teachers express their frustration with the fact that they are asked to reduce the number of teaching hours spent with the students. It is their belief, that only through activities in the classroom and through face-to-face interaction with students, can they observe perception taking place. The learning designer's presentation of good practice –examples from other digital learning designs are received with some skepticism, as "this is not how I work with my students".

The situation described in the vignette is a condensed example based on the authors' experience from their work as learning designers in a university of applied sciences. The vignette illustrates very well some of the dilemmas facing both the teachers and the learning designers. The teachers' actions in the design process are clearly centred around the role and work of the teacher, and their ideas about the new design are heavily influenced by their existing teaching practice and by the logics of their face-to-face courses. Technology is added to what they already do, rather than used in a process of

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redesign and redefining the activities in the teaching and learning processes.

From the authors' point of view, this is done without much reflection on the potentials of the technology in re-thinking the course structure and learning activities from face-to-face into a digitally mediated form. Not even when re-thinking new ways of learning and digitalisation is on the agenda. We found that some teachers lack the experience and knowledge of educational use of technology to be able to spot its potential in re-designing their course. Furthermore, the vignette also illustrates that as a learning designer it can be difficult to inspire the team of participants and involve them in participatory design, as the methods and techniques available might not be sufficient. Of central interest is, however, how we can accommodate all of these challenges in our roles as learning designers; how can we best facilitate the teachers in their work with re-thinking and re-designing their teaching?

In this paper, the authors present and discuss challenges and potentials related to the application of user involving techniques in learning design in an organizational setting. Research within learning design and integration of technology in teaching shows that there is a need for supporting teachers in the domain of designing for digitally mediated teaching (Buus, 2015; Khalid and Buus, submitted). Based on experience from 5 years' work with furthering the use of blended and online learning in the School of Continuing Education, the authors present a specific learning design method and the challenges it addresses. In the matter of developing digitally mediated teaching, there seems to be a gap in the qualifications of teachers. This may need to be solved through experience rather than through education. Previously, it seemed that the ones who could be involved in the development of blended learning were those teachers who had prior experience and knowledge of technology as well as of content matter and of teaching. In our work with learning design workshops we have aimed at incorporating knowledge about the technological dimension into the process of design and re-design (as well as the content and pedagogical dimensions), in order to include more teachers in this work. However, we still find this to be a challenge when it comes to imagining what the role of the teacher will be in a digitally mediated teaching and learning design. Based on experience with the involvement of lecturers and other staff (like program coordinators) in the process of re-designing teaching and learning activities, a number of issues pertaining to both the professional capacity and the organizational frame is discussed. In this paper, we bring in our professional view on how organisations can improve the opportunities for teaching staff to participate fully as professionals in collaborative design or re-design of digitally mediated teaching. Through a professional unit for learning design and production of e-learning in the School of Continuing Education we are aiming for a situation where the teachers themselves should not necessarily hold expertise in digital production.

Finally, the authors suggest a way forward in addressing both organizational and professional issues.

The main question addressed in this paper is:

· In an organisational learning design methodology, how can one combine the levels of activity: strategic level; tactical level and operational level; in such a way, that teachers' design work is facilitated, regardless of their previous experience?

Over time, experience has given insight into challenges, which need consideration each time new teachers engage in a learning design process. Among the challenges identified are these:

· How to involve teachers in design when they have no or very little experience with on line or blended learning?
· How to establish a professional framework around the design work, which allows all participants to contribute with their particular expertise?
· How to design for learning in short programmes?
· How to support the teaching professionals in adopting the role of online facilitator as part of their professional teaching identity?

Defining an Understanding of Learning Design

Learning design can be defined as the methodology that enables teachers or designers to make more informed decisions in designing learning activities and interventions, which are pedagogically informed and make effective use of appropriate resources and technologies. A key principle of learning design is making the design process more explicit and shareable. Learning design as an area of research and development combines gathering empirical evidence to understand the design process and the development of a range of learning design resources, tools and activities (Conole, 2013; Georgsen and Løvstad, 2014).

Maina et al. (2015) state in their introduction to "*The Art & Science of Learning Design*" (Maina et al., 2015) that learning has the role of changing the conditions of the human in different ways through education. In this field, the teachers are the experts within each of their professional domains. However, teachers often face a lack of knowledge when designing for learning and especially for digitally mediated learning and teaching. Learning design can also be seen as facilitation and "*a description of the teaching-learning process that takes place in a unit of learning*" (Koper, 2006, p. 13), where interaction, joint progress, structure, co-creation, collaboration, and knowledge sharing will be important elements. In Koper's terminology, the "unit of learning" can be a course, a single lecture or a series of learning activities. Taking Koper's approach further and inspired by Conole (2007), we would say that a learning design:

· is comprised of certain learning objectives,
· builds upon a sequential structure or have a certain flow,
· builds on a combination of multiple learning activities,
· and a number of resources and learning supports are related to the design.

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The relations between learning designs and learning activities can be seen in a structure of nested hierarchies, and in this representation a learning design consists of several learning activities (Maina et al., 2015). Learning design as a methodology enables teachers to create or co-create, design or re-design, and most importantly to share effective pedagogically thoughtful designs and practices. In the early stages, research within e-learning had a strong focus on content and structure. In learning design we see a move away from focus on delivering content to students towards a higher degree of awareness of designing for learning activities (Conole, 2007).

One perspective on learning design are the following three ideas from Britain (2004). The first idea a belief that people learn better when they are actively involved in something. The second idea is that using an approach like learning design provides an opportunity for more structured teaching activities based on a learning workflow. This can help more effective learning take place. As a third idea, Britain (2004) states that when using learning designs, there is a possibility to reuse or share the learning designs among teachers. Working with learning designs bring a focus to the learning activities, which – as also stressed by Dohn (2010) – is important. From Britain's (2004) and Dohn's (2010) perspective learning design provides a framework for deep and creative reflection as part of the design process and furthermore on the structure of the activities in the teaching.

Conole (2013), on the other hand, defines learning design as:

> "A methodology for enabling teachers/designers to make more informed decisions on how they go about designing learning activities and interventions, which is pedagogically informed and makes effective use of appropriate resources and technologies. This includes the design of resources and individual learning activities right up to curriculum-level design. A key principle is to help make the design process more explicit and shareable. Learning design as an area of research and development includes both gathering empirical evidence to understand the design process, as well as the development of a range of learning design resources, tools and activities."
> (Conole, 2013, p. 8)

Also Conole (2013) refers to *activities* as especially important. She also makes clear that learning design is about facilitating the process, and the possibility of making learning designs shareable and explicit. From the perspective of Conole (2013), awareness is on the pedagogical aspects, which are to be considered when working with learning design, and the documentation of how the process evolves becomes important, as to be able to modify and adjust along the way.

Learning design is a creative process based on the design of new practices, activities, resources and tools, which will underpin particular learning objectives in a given educational context (Mor and Craft, 2012). Working with learning design should be qualified by 4 aspects: 1) *knowledge within the subject matter*, which teachers bring in, 2) *knowledge based on pedagogical theory*, where both the teacher and the learning designer have a big impact, 3) *a minimum of technological know-how* is important as a teacher, but here the learning designer could supplement and possibly also a professional producer could be invited into the process, and last but not least, is it important with 4) *experience within the field of practice*, which the teacher also brings into the design process. Furthermore, learning design should also generate innovation in these different areas. Participants should benefit from it based on the time they invest in participation, and related to their efforts and aims (Maina et al., 2015; Mor and Craft, 2012).

As we have seen above, there are many different terms and aspects involved in defining learning design (Maina et al., 2015), but taking an overall perspective there seems to be two main approaches identifying learning design; either as a product (Koper, 2006) or a process (Conole, 2013). The general concept of learning design can be said to build on activities, collaboration and workflow, combined with awareness within the four areas specified by Mor and Craft (2012) above.

A well-known discussion within the research field of learning design concerns the terminology 'design for learning' versus 'learning design' Researchers such as Goodyear & Dimitriadis (2013) and Beetham & Sharpe (2007) argue for the 'design for learning' terminology. This is to say that 'design for learning' relates to a process, whereas 'learning design' from their point of view is more in line with a product. The authors stress that "one can design *for* learning, but not design learning", and that the teacher can't determine what is learned (Goodyear and Dimitriadis, 2013).

Goodyear and Dimitriadis (2013) argue like this:

> "There is a gap between a) that which has been designed; and b) the activities in which people engage (through which they learn). This means that one can then try to analyse the relations between (a) and (b). [And]… it is very rare for (a) to determine (b)."
> (Goodyear and Dimitriadis, 2013, p. 2)

From our research and a literature review (Khalid and Buus, submitted) mapping the barriers of ICT integration into teaching practices, it becomes clear that teachers need facilitation by professional learning designers to be able to build a bridge between technology and pedagogical issues, which teachers face in the re-design process (Buus, 2015; Khalid and Buus, submitted). Often teachers need to re-tune their mind-set around their changed role in the new learning design. They need to see and think of themselves as having certain technical skills, as well as pedagogical ones. An interesting aspect, though, is to what degree the technical dimension is important in order to obtain a qualified digitally mediated learning design. What may be an issue, when dealing with learning designs in a blended learning context, is the fact that teachers are often left behind or even dis-empowered in their potential to do re-design and integrate digitally mediated learning activities into their teaching (Maina et al., 2015).

Learning designers are not domain experts within the teachers' field of knowledge, but usually have a pedagogical background combined with knowledge about technologies supporting teaching and learning activities. An important issues in this approach is the dialogue and collaboration between the involved teacher, the learning designer and the course producer, when co-creating digital teaching material and activities. Therefore, there is a need to look into how we can involve teachers in the design work so they can be creative, because they often turn out to have no or limited experience with online or blended learning and how to design digital learning activities. Taking this into consideration, it becomes important to find ways to facilitate – or scaffold – teachers in this process, which can be done in many different ways within the framework of learning design (Maina et al., 2015). **Figure 1** below illustrates the process of scaffolding both the teacher by the learning designer (during the design process) and that of the teacher scaffolding the learner in the students' learning process (Buus, 2015).

In the model as well as in the approach to learning design, teaching and learning activities rather than technology are the key foci. This approach requires a focus on the critical professional knowledge of the teacher, which needs to be put into play when designing the digitally mediated teaching activities (Buus, 2015). Research show that organisations often neglect the importance of scaffolding teachers when they design digitally mediated teaching, and rather often assume that teachers have the required skills and knowledge within the technological domain as well as sufficient time on their hands for the digital production.

When digitally mediated education or courses are designed and developed, the focus is on education and learning, materials, working methods for teaching and learning, IT infrastructure and tools, as well as the different competencies of the participants; those already held and those being gained from participating in the design work. Also, participation in the development process is key to the teachers' motivation, ownership and skills development. In our experience, the competences and key skill identified as needed for teachers is the ability to use their imagination to anticipate the outcome of the learning activity. They need to engage themselves in a design thinking approach, have a clear teaching philosophy, and be deliberate about which learning objectives the learning activities should support.

Collaborative E-Learning Design Method (CoED)

In the capapcity as learning designers, the authors of this paper have been responsible for supporting teaching staff in developing on line and blended learning. For this purpose, we have used a methodological learning desing approach called the Collaborative e-Leaning Design method (CoED) (Georgsen and Nyvang, 2007; Ryberg et al., 2015). Different variations of the original method have evolved, but basically the CoED method provides a set of guidelines for conducting collaborative design workshops aimed at producing digital learning designs in the format of whole courses, one or more modules, or other educational activities. Based on an iterative and learning oriented approach to designing for learning, the method allows for different levels of detail in terms of the resulting design. The method also draws on Wenger's social theory of learning (Wenger, 1998) with its focus on social practices and development. Taking Wenger's (1998) approach to social learning, one of the core processes in learning is negotiation of meaning, where negotiation is defined as a process of participation and reification. When looking from this perspective, design for learning in an organizational setting or in a team of designers brings out communicative participation and ways to develop tangible outcomes. An
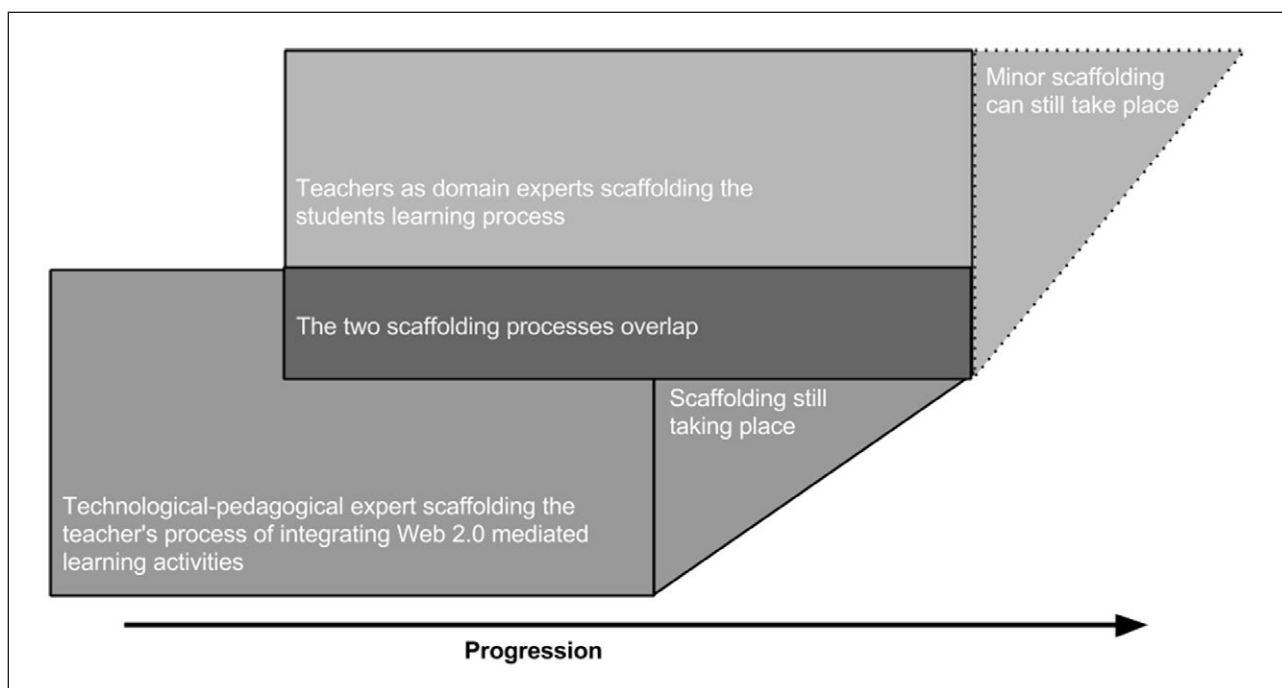

Figure 1: Illustrating a scaffolding model (Buus, 2015).

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important part of the CoED method is the negotiation and collaboration on establishing a shared pedagogical vision among the participants, and being able to discuss different values and to make a shared representation of these in a very flexible, yet structured manner.

Teaching staff from the School of Continuing Education often develop learning designs for ordinary program modules within a short time frame. The time-span for the activities can be very diverse, as it can be a specially designed course with a 1-week duration or it might be a 12 weeks course. This type of short programmes need a focused and well-described content, which is often seen to challenge the teachers in the development process. In this regard the authors have been conducting workshops inspired by the CoED method with emphasis on team based design work. The workshop methodology consists of four phases, illustrated in an example below:

- Phase 1: Idea and development of the design (vision) – what is the basic idea/what should be designed?
- Phase 2: Description of activities in the form of roles, working methods, arenas, learning goals (who, what, where, why?)
- Phase 3: Production of materials and design of learning platform
- Phase 4: Implementation of design (including test and adjustment)

A common challenge is to engage participants from different target groups, and to facilitate their engagement in dialogue and negotiation to get a broader variety of perspectives on the learning design process. More specifically, to engage participants in fruitful design work including integration of technology in their teaching and learning approach, many times proved difficult due to the lack of relevant experience of the participants. It became a particular aim to find ways to overcome this issue. Before going further into the lessons learned, we will present the case and the organisational framework in the following section.

Blended Learning in Further Education

Back in 2013, in the School of Continuing Education, a project on was initiated on the strategic level aiming to increase the occurrence of blended learning and online education in the educational portfolio. Although a number of employees previously had been included in similar initiatives, there was a lack of significant success stories in the field of online and blended learning. As part of the strategy, an ambition was formulated that the school should play a stronger role in the market for technology-supported diploma and academic courses, a position which so far was held predominantly with traditional face-to-face courses and programs.

In 2013, the development begun in the school of a method for design and construction of blended learning in. The goal was to meet the needs for adjusting existing programs and modules to incorporate a greater degree of online and blended learning, while simultaneously adapting this to the particular demands of continuing education with rapid development, a large number of short term courses, tailored products for parts of the market, etc. At the same time, the ambition was to develop a way of working which combines design and production of new learning designs with professional development for the teaching staff. The efforts were supported from the end of 2013 with the appointment of a project employee, whose task was to assist the teachers in design and production of digital materials, adjustment of the learning management system, etc. Through the years of 2013 and 2014, experience was gained through development of a number of modules and digital teaching and learning materials, and this experience points to a number of organizational opportunities and challenges, which will dealt with in this paper. After 2014, there has been further investment made in this way of working, and up until today, the school still aims to invest in capacity building within this area (Georgsen and Løvstad, 2014).

The approach taken in this project aimed at developing a customised design, meaning trying to meet as many as possible of the specific needs and requirements of the users in the design solution. In the organisation which the School of Continuing Education is part of, the usual approach towards IT supported teaching and learning is a standard solution designed to fit the needs of the vast majority of the bachelor programmes in the university college. The same learning management system (LMS) is in use in all programs. The design of this system has been adjusted by and is generally supported by the central IT-unit, and all students and teaching staff have a personal account and email account connected to this system. The LMS is mainly used for distribution of information, teaching schedules and materials, for assignments, and for communication between teachers and students. In all of the study programmes the system has the same design, functionality and user interface, and as such can be labelled a 'standard system' in the organisation. This is a common situation in many educational institutions, and has the advantages of stability, professional support/help desk, and good integration with other standard tools in the institution. In the field of further and continuing education, however, the conditions are different in a number of ways from those in bachelor or master programs. The most significant differences are:

- The extent and duration of the course or program. In short courses it is important that the use of IT does not take up unnecessary time or requires too much attention
- The need for user-oriented design is bigger in further education, as the groups of participants, the contents, the ways of teaching and studying often vary greatly across different courses
- The need for user-orientation means that the organization should hold capacity to design and support a variety of solutions/designs for learning support
- Participants in further education and workplace learning usually connect and communicate with the lecturers they meet, rather than with the organization itself. This means that teaching staff, in addition

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to being professional teaching and content experts, also need to have sufficient IT-proficiency to assist learners with the most urgent IT-problems they may encounter

Thus, use of online and blended learning in further education and workplace learning put demands on the organisation to produce adjustments of existing designs and in some cases to develop new designs, often in short time. In order to maintain the position of the teaching staff as pedagogic and content experts, it is also important to focus on ways of integrating the pedagogical knowledge of the teachers into the design work. In this project, a user-oriented methodology for learning design was tested.

Based on the efforts experienced and despite the participants' interest, goodwill and experience with pedagogical IT tools, it is still a difficult and comprehensive task to design, develop and offer blended learning. The challenges are both individual and organizational; they concern resources and competencies; and there is a clear correlation between some of the challenges experienced by the teachers and the organizational and managerial priorities the area is experienced to have. Experience has shown that increased use of online and blended learning as well as generally increased IT use in existing educational practices requires a clear strategic priority and capacity building in the organization.

Data Collection During the Project

This paper is based on data collected during the last 4–5 years in projects dealing with digital learning designs. Different projects, similar to the one described in section 4, have been initiated in this period of time. Our data is collected in and after design workshops, they are observation data from closely followed design processes, and finally there are a number of both individual and group based interviews. Furthermore, in Spring 2014, a study was conducted into the use of the institutional LMS as a kind of base line evidence.

During this period of time (2013–2016), approximately 25 design processes have been completed, and design workshops have been organised with teachers, coordinators and learning designers as participants. The project had the main purpose of re-design existing course modules from face to face-teaching to learning designs with more digital materials and more on line and blended teaching and learning-activities. Some design processes focused on the development of blended learning and re-design of selected lectures and learning activities into an online format. The design of new modules, which are purely online or blended from the outset, has taken place to a certain degree only.

The aim of the study of LMS-use was to establish a picture of the ways lecturers utilised the functionality offered in the LMS. For that purpose, around 90 course sites in the LMS platform were evaluated. 70 of these were randomly selected to represent the typical use of LMS, and 20 were chosen to represent more advanced use (based on a selection of lecturers known to be more innovative and advanced that average). The evaluation showed that although the group of more advanced lecturers did use a wider variety of digital materials and tools which were not integrated into the LMS, there were some common traits across the entire population in the study: Only a limited number of functions in the LMS were commonly used, most commonly the LMS was used for distribution of materials, information from lecturer to students, and handling of assignments from students. It seems an plausible conclusion that the template for course websites was highly directive for lecturers' use, and as such also a limitation on their imagination (except for a few innovative front runners).

To conclude the data collection after the first phase of the project (after app. 1 year's work) a round of interviews were conducted with the participants in the workshops. The main findings from these interviews support the above conclusion that the input received for designs has great impact, and that stimulating the technological imagination of the workshop participants is no trivial task. In the following, we present some of the findings from the group of interviews conducted.

First and foremost, participants describe their experience with the workshops with of degree of ambivalence. Most have found it enriching to participate, and also necessary for their ability to take steps to further develop the educational programs they are involved in. At the same time, most teachers have experienced the design workshops to be longer than necessary. The teachers thus describe that they do not (think they) have the time to enter into what they call a long-term design process – at the same time they express that it has been inspiring to participate and that after the process they include more digital aspects into their teaching.

Furthermore, some teachers also made statements about the importance of students entering a 'controlled' teaching and learning environment, which show us that teachers need to be in control, and letting go of the control can be an issue to them. The question of control has different aspects, however. For example, some prefer to do things themselves e.g. produce digital learning object and materials, although they did not currently have the skills to it. Also the fear of handing over control to students was an issue, as some teachers feel they cannot keep in touch with what the students learn.

In interviews, the participants express difficulty with gaining from the collaborative element in the method. Several participants emphasize that they themselves know what they want, they are experienced teachers, etc., and thus they diminish the relevance of e.g. discussing their teaching philosophy. At the same time, several participants state that the workshops have given inspiration to their own development through discussions with colleagues and by seeing what others have done, so this again shows there is an ambivalence in what is gained from the learning design workshops.

In the discussion of the prerequisites for the participating teachers to increase their use of IT in education, it is pointed out from all sides that the need for support and, in general, functioning technological solutions is great. Based on out early experience, it seems that the teachers desire to deliver quality education and their need to be in charge results in a cautious approach to innovation of

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teaching with ICT. That quality in teaching is challenged by the use of ICT is reported both as an experience and as a point of view. To ensure quality, participants describe several different strategies: Use as little ICT as possible; be absolutely sure that the technology is stable and support is available when needed; only use IT solutions and tools you can be in charge of yourself.

It is perceived as important for the ownership of the participants that each workshop will result in some concrete products, whether these are finished teaching materials or documentation of steps in the process like posters with story boards or similar things. Templates or tools for presenting ideas and documenting decisions are thus important both to enhance the experience of ownership and to make it possible to communicate more about the specific designs. Finally, we found that participants in the workshop were strongly inspired by what was presented to them. This was especially true where participants did not have a project planned before reaching the first workshop and when the participants have limited experience with pedagogical IT applications.

In the first workshop, the learning designers used video for inspiration and from the interviews it appears that the inspirational video-based material had great impact on what ideas the participants themselves were able to formulate in their designs.

Following this first phase, another round of design activities was conducted with 9 participants and 6 different design projects. Most of these were one-person projects, meaning that the main collaboration was between one individual lecturers and the learning designer. As in the first phase, lecturers were supported in both the design process and with the production of teaching materials, etc.

The first two phases of the project were characterized by a bottom up-approach, where the interests and ideas of the participating lecturers set the ambitions. This was followed by a call for projects, which needed approval from managers as well as close collaboration with the learning designer in the department. This call fostered projects which were characterised by individual support and facilitation of each of the projects. In total around 60 participants have participated in design workshops and projects. Throughout the entire period, the department has supported this initiative with resources, both development time for the lecturers, facilitation from a learning designer, and professional support for the production of digital materials. Despite a number of staff replacements, there has been a constant focus on facilitation of teachers in their design work. However, it seems that the organisational capacity has still not found the appropriate level. In the following section we will discuss this further.

What Have We Learned and How to Proceed?

From the experiences described in this paper, different challenges have been identified in relation to involving teachers in learning design processes: Limited IT-knowledge and experience; lack of technological imagination, lack of confidence when trying out new designs; and the need for a clear organizational framing of the design work are some of the more dominant ones.

To analyze an understand our findings, we have used a model describing levels of organizational development towards handling development of e-learning (Christensen et al., 2014). The model describes an organizational didactic framework, naming three levels of importance: A strategic, a tactical and an operational level. The model illustrates how the three levels are interconnected and shape the conditions for pedagogical development of learning designs with blended and online learning.

The framework has three purposes:

· To describe the resources which need to be prioritized in order to realize a strategy within the area of blended learning;
· To clarify the link between the priorities in the organization;
· To describe the framework that the organization and its management need to make for development take place.

The model is described by the authors in two variations; a hierarchical and a dynamic version (see **Figure 2** below).
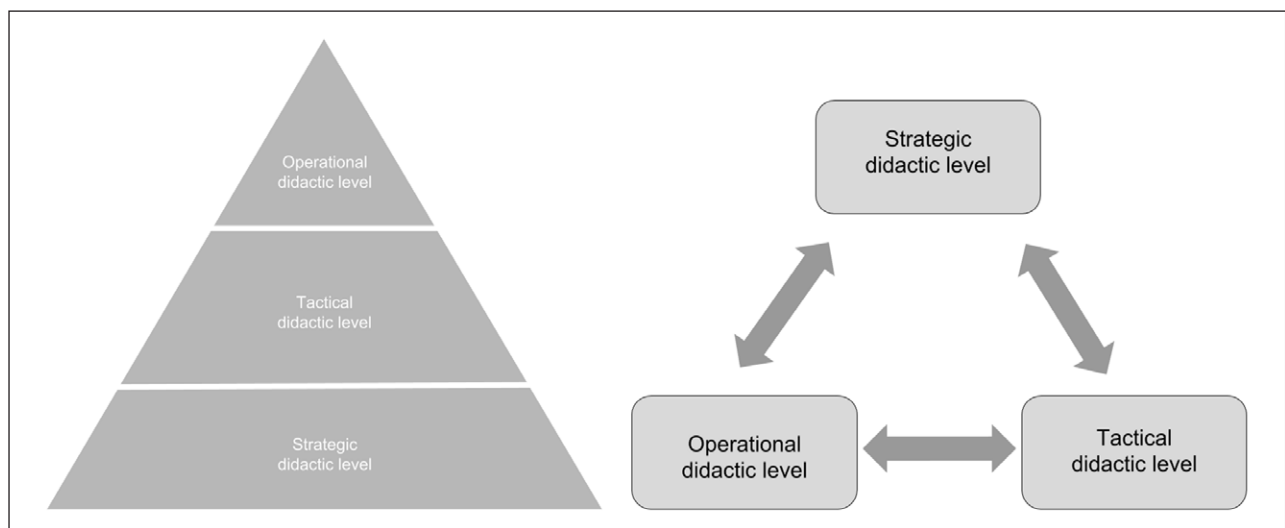

Figure 2: The hierarchic and the dynamic version of the model (Christensen et al., 2014).

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The hierarchical model is the starting point when deciding on the establishment of new education concepts, and describes a linear series of decisions, while the dynamic model becomes relevant when an educational model or concept has become a new practice. The study conducted by Christensen et al., show that when it comes to development and provision of learning activities, it is not possible to succeed with an e-learning program without quality assurance of the tactical level. This includes providing ongoing and adequate support on the tactical level primarily in terms of resource allocation, reliable technologies, technology support and a supportive day-to-day management. Therefore, the hierarchical approach is crucial in establishing new practices.

A key point of the hierarchical model is that the strategic level must be the basis for the other levels, and these relate to this one. Once a new teaching practice has been established, knowledge and experience about and in support of this practice will be produced at all three levels. The three levels will then all be part of a relational and dynamic relationship that is reflected in the dynamic model. The dynamic model illustrates how mutual influence between the three levels will be achieved over time. An important point is that, although decisions on both the strategic and tactical levels are prerequisites for the capacity to develop and implement new learning practices at the operational level, an impact of the new learning designs needs to be demonstrated. Depending on the strategic goals, the impact may show itself on as educational, audience-related, economical, etc. If this does not succeed over time, strategic and tactical support will be declining.

The hierarchical and relational dimensions show interdependence between management involvement and innovation developed through and in the teaching practices. Since new ways of teaching and learning are constantly developed, an educational institution should provide space for experiments which can be assessed before making a major strategic effort. When formulating and implementing an organizational learning design methodology, it is furthermore important to ensure:

· that efforts are directed towards known and communicated goals
· that resource allocation is ongoing for the effort
· that the effort becomes sustainable, understood as beneficial in terms of the formulated goals
· that the organization continuously develops both its practice and its ambition level in line with the increasing amount of experience and knowledge

The time to shift the understanding of the organization from a hierarchical to a dynamic one (as illustrated in the two versions of the model) is identified through the answers to key questions at each different level in the model (see **Figure 3** below).
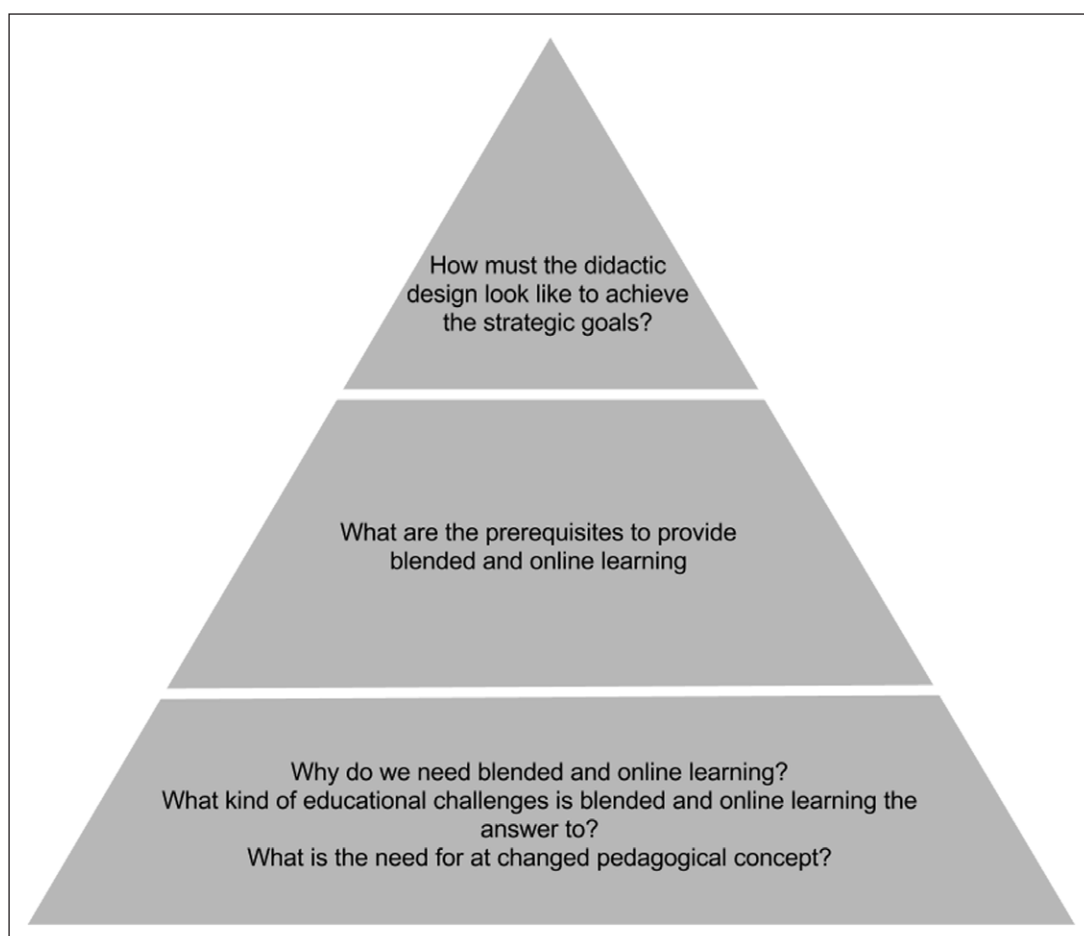

Figure 3: The central questions to ask at the three levels (Christensen et al., 2014).

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In the case we have presented here, the organisation seems to be making progress in capacity towards supporting teachers at the operational level. Considering the experience gained from the strategic effort done so far, we argue that the organization School of Continuing Education is in the process of deciding on new educational concepts. These concepts are not yet an established practice. Therefore, the hierarchical model still will be the most sustainable approach for understanding the organizational change in Continuing education, while a dynamic organisation is not yet achieved in this area.

At the tactical level, the organisation has now established a unit for Learning Design, which is becoming a center of knowledge and a contact point for staff involved in developing new ways of digitally supported teaching and learning. The learning designer and producer in this unit is gaining influence on the continuing effort in the department, and may become a key step in establishing one or more professional learning communities (PLC). PLCs may, in the point of view of the authors, be a way of strengthening the operational level as well as a way to combine the three levels.

In professional learning communities and practice-oriented professional development, knowledge, networks and experience in its own is not sufficient in building a learning culture.

One crucial issue is the interaction of these elements. Such interaction is both dependent on and contributing to a reflexive practice. A reflexive practice can be regarded as an interaction between different forms of reflection: partly the immediate reflection that accompanies the action, and the subsequent reflection on the action (reflection-in-action and reflection-on-action, (Schön, 1983). Hargreaves & Fullan (2012) use the term 'reflection-about-action', which refers to reflecting on the terms and conditions which contribute to practice and furthermore to what may be changed in the framework to support the desired practice.

In the current case with a community of teachers, a PLC should support the experimental approach taken to development of one's own teaching practice, both individually and collaboratively. In the broader community of the organization, it is necessary to make this a naturally occurring way of working, and to support it with e.g. earmarked working hour, logistics, knowledge and other resources. This is also an important point in the work of Christensen et al., 2014. Hargreaves & Fullan (2012) emphasize that there are no quick solutions. On the contrary, it is a long move and cultural change to change the organizational culture.

Since the beginning of the 1990s, the concept of professional learning communities (PLC) has had a double-sided story in e.g. American school development, where PLCs have been organized in many different forms both internally in schools and between schools, districts, states. Often the assessment of such communities is far more positive among managers and decision-makers than among the teachers, and they have been criticized of stiffening in technical, dazzling maneuvers, for example with a close focus on tests. So there is a dilemma in this, as professional collaboration necessarily needs to be set up, promoted and challenged (by managers, teachers or others), while at the same time, professional autonomy among teachers is crucial to the quality and effect of the collaboration. Hargreaves & Fullan (2012) speak about a difficult balance between 'pushing' and 'attracting'; thus making it attractive and inspiring, but also normatively expected, to participate in the professional collaboration – rather than enforcing it through bureaucratic procedures with expectations of uncritical implementation (Hargreaves and Fullan, 2012, p. 131). If professional excellence is the goal, methods should not be 'implemented' but needs to be tested, examined, interpreted, adapted and changed by the teachers themselves in a social learning context. Again, this is about the balance between freedom and responsibility – between the obligation to relate to 'best practice' and the autonomy to develop 'next practice' (Hargreaves and Fullan, 2012, p. 50), but also about the strategic, tactical and operational dynamic relations (Christensen et al., 2014).

Conclusions
In this paper, we have drawn attention to the importance of combining the levels of activity and decision-making in a learning design methodology in a way which will facilitate the teachers' design work as well as make an effort in developing an organisational framework for the design work and collaborative experiments. We point to the concepts of professional learning communities (PLC) and communities of practice (COP), where professional learning designers and producers collaborate and facilitate the design processes in joint collaboration with the PLCs or COPs. Such a cultural change will have to take into consideration key questions at both the strategic, tactical and operational level in the organisation to achieve a dynamic organisation characterized by a learning culture.

Competing Interests
The authors have no competing interests to declare.

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