



DIGITAL COMPETENCIES – COLLABORATING, WORKING AND LEARNING ACROSS CAMPUSES

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Introduction

This paper presents Project *Digital Competencies for Collaboration – across Campuses* which is a design-based research project. The project shall illustrate how University College Zealand (UCZ) works with faculty's competencies developing new ways of using technology to empower faculty collaboration across campuses, to create new designs for teaching and to enable new methods of knowledge sharing. Faculty, in the case presented, is located on four different campuses and an increasingly use of technology can connect faculty members as well as link work and learning in new ways. The paper also shows how a design-based approach can improve educational practice.

The project is based on two former organizational initiatives. First, a project called *Learning at UCZ* has founded a strong ground for *Digital Competencies for Collaboration – across Campus*. *Learning at UCZ* lasted from 2010 to 2012 focusing on how to increase the use of technology to enhance students' efficient learning. All programs and many faculty members at UCZ were engaged in different ways. The project was evaluated, documented and disseminated 2013 http://www.scribd.com/fullscreen/130315494?access_key=key-qhg1yh16yyzru96x5hy. Managerially, the project was anchored in the board of directors. In the dissemination four vital conclusions have been drawn about organisational learning, technology and teaching:

- Knowledge must be shared
- Openness is required
- Balancing technology and face-to-face teaching
- Coherent learning activities – focusing a learning-centred approach (2013, p.80)

It has been four important pointers in the overall design of a new project *Digital Competencies for Collaboration – across Campus*, which is a project smaller in scale but closer to a specific Bachelor program and therefore closer to faculty and development of new competencies.

Secondly, the strategic goals at UCZ have been strong hallmarks in the organizational foundation of project *Digital Competencies for Collaboration – across Campus*, because the board of directors at UCZ has formulated six new strategic goals in 2012, and two of the strategic goals are "Digitalization" and "Blended Learning".

So, the board of directors has initiated, managed, documented and disseminated an important organizational project and simultaneously formulated a clear vision for the organizational priorities and initiatives. Therefore, *Learning at UCZ* as well as the strategic goals have been import drivers in the continued development of faculty's competencies in the new project, which is presented in this paper.

Digital Competencies for Collaboration – across Campus lasts for 18 month – from April 2013 to November 2014. In this paper, the focus is on project design, theoretical framework, results achieved after the first 10 months, and the perspectives for the final period of the project.

Leadership in Higher Education

According to Garrison and Vaughan (2008) it is essential that the management provides policy, visions, and principles, and sets goals, direction and allocates resources if the changes in higher education have to be implemented (p.164-165). However, it is also claimed that faculty needs more than visions to change practice because faculty is firm that the most effective and efficient teaching approaches have already been chosen to enhance students' learning (Collis & Moonen, 2001). Hence, for faculty, visions of a better future for society or for the institution are weak incentives for change:

Change for abstract reasons such as the future of the university does not weigh heavily enough to convince them to teach in what they feel will be an 'inappropriate way' for their course and habit (p.61).

Latchem and Hanna (2001) state that innovation in a university setting depends on support, reasonable timelines and learning infrastructures specifically developed for its faculty. The complexity in the task is also emphasized by Laurillard (2001) when she claims that "the most extreme form of work-based professional updating" (p.226) is needed to enable faculty development at a university level. It is however an important task because it is essential that faculty is enabled to be "drivers of new knowledge about teaching and learning, able to critique and challenge the technology that is changing their profession" (Laurillard, 2012, p.7). It can only be realized, according to Laurillard, when faculty collaboratively reflects on, documents and shares their teaching designs. In the following part of the paper, it will be shown how these reflections have had an impact on the project design.

Social Education Program

In this paper, the specific case is based on the faculty of the Social Education Program (SEP) at UCZ. SEP is UCZ's largest program with eighty lecturers, four leaders, one program director, and two thousand four hundred students at four different campuses. More than 50 % of the students within the program live in rural setting, whereas the rest lives in urban settings. So, the students have different expectation to what a learning environment and learning activities should offer.

Nationally, SEP is provided as a Bachelor Program in which different disciplines cover all target groups: children 0-5 years, children 6-12; youth, adults, and people with special needs such as people with mental and physical disabilities and social problems. The program has been reformed in 1992 and in 2007. The historical roots of the program can be dated back to the end of the 19th century.

The most significant characteristic of the program is the practicum: All students are engaged in practical work-based activities for more than a year. 74 ECTS-points in the program, which covers 210 ECTS-points, are placed in an institution – a kindergarten, a school, an institution for mentally impaired people, an institution or a project designed for people with social problems. So, learning in practice is a very important part of SEP.

SEP is the largest national program within higher education in Denmark with more than five thousand students enrolled every year – and with twenty-seven campuses all over Denmark. One reason for the large scale of students is that 98% of all Danish children in the age of 3-6 visit kindergarten. In Denmark, the main part of the professionals in kindergarten has completed a BA as Social Educators. So, kindergarten is one of the largest institutions hiring the students from SEP, and the figures more than indicate how SEP has an important social impact on both the social part of Danish society and every child in Denmark.

Faculty Empowerment

In January 2013, the management of SEP at UCZ wanted to initiate a project with focus on development of competencies within faculty. Firstly, the ideas were presented to the Agency for Competence Development in the State Sector (CDSS) <http://www.kompetenceudvikling.dk/node/477>. The objectives of were formulated as the need to:

- increase faculty's digital competence
- enable new ways to collaborate across campuses
- link faculty work and faculty learning

The overall agenda was to enhance the development of a stronger academic environment.

Secondly, the ideas were discussed with the union representatives at SEP. For their part they agreed in the initiative but they also insisted that faculty participation should be open and based on entirely voluntary.

On this basis, the management design a project-description which the representatives actively supported and CDSS provided SEP with a grant of ½ Million Danish Kroner. In March 2013, all 80 teachers were invited to participate in the project. An application form was designed and 33 faculty members applied, and all of the applicants were enrolled in the project. The principles of openness, transparency, and voluntariness were in focus in the initial phase of the project.

The design of the application-form forced faculty to motivate their participation, highlight their professional interests and key competencies in relation to three main disciplines in the program. On this basis, seven project groups were formed. The founding principles of the groups were professional preferences and self-assessment of professional skills and knowledge.

In both the design of the application-form and the formation of the groups, the management chose a competency-based approach instead of a technology-driven approach because it was important to emphasize that the project focuses on building new competencies in a collaborative work-based environment with new technologies as a mean rather than a goal. Furthermore, this approach is also grounded in Stacy's generic theory of complex responsive processes which emphasizes the paradox that "the individual and the group are paradoxically formed by and forming each other at the same time" (p.413).

In the application form, all lecturers were asked to express if they wanted to be part of the steering group. 25% of the applicants voiced the wish – and three lecturers with different profiles were chosen. The lecturers represented three different Campuses, different educational backgrounds, professional interests and teaching disciplines. Besides of the three lecturers the steering group composed of a coordinator, a program leader and the head of the program. So, the project was anchored in all levels of the program and representatives from all four Campuses were engaged in the steering group. Also, in this phase openness and transparency were essential in the project design.

User participation in the design and decision processes has been important for several reasons. Firstly, it can improve the knowledge upon which the digitalized collaboration is built and the digital methods chosen. Secondly, it can enable faculty and leaders to develop realistic expectations and therefore also reduces resistance to changes. Design is about changing structures, artefacts, processes, and practice. Finally, it enhances ownership and thereby workplace democracy which is of highly importance in a Danish academic context if sustainable changes are the objectives. According to Hofstede (2005), who has analysed cultures all over the world, the Danish society is characteristic by a low power distance which means that all members of Danish society expect power to be distributed rather equally and therefore lecturers have the right to ask their managers, leaders and even the Minister to explain certain decisions before they are accepted and implemented.

In-House and External Consultancy

The grant of ½ Million Danish Kroner was earmarked external experts facilitating new processes developing faculty's competencies. At the same time, the project was designed so that in-house units have tasks supporting the development of new competencies within SEP. Especially two units, Research and Innovation and Technology-Support were involved in the project with human and technological resources supporting the project groups when they ask for support and supporting the entire project. In the initial design phase, the units have supported the steering group with ideas as well as analysis. Whereas, the project-groups have been supported with concrete training, access to tools, ideas, and a knowledge-base.

In relation to the external support, three consulting firms were asked to submit bids based on the project-description. Two of the three firms were asked to present their proposal to the steering group. Spark (<http://www.sparkcph.dk>) presented the most dynamic and innovative project- and facilitation plan with emphasis on visualization, training and collaboration. Spark was chosen as project facilitators because the steering group expected them to bring new ways of thinking and acting to faculty as well as to the steering group.

Face-to-Face-Activities

In 2013, two workshops and two conferences have been important face-to-face milestones in the project.

In the first workshop, it was firstly important to define a shared goal for each project group. Secondly, each project group shared knowledge about each member's technology profile. So, every group created an overview of the technology competencies. All overviews were shared face-to-face, photo documented and shared on the web based platform. In this way, faculty has shared their initial technology competencies across the project groups. First, it means that faculty sees their own competency profile clearly. Secondly, it gives the group access to knowledge about each other – and it opens up for new professional relations due to interest, strong competences or need for new competences. Finally, it also leads to strengthen the knowledge base of the steering group; having access to concrete visual documentation of existing competencies of the groups means that each faculty member as well as the steering group has a shared basis on which the need for new competencies within the groups and across the groups can be identified.

In the first workshop, faculty was introduced to a new learning platform: Podio, which offers a web-based platform for organizing communication, content and data in different workspaces. On the same day it was introduced all participants succeeded in uploading materials produced during the first part of the workshop. So, the platform showed to be as flexible and easy to use, as Spark has claimed. Within the steering group as well as in the group of faculty there was an initial resistance because UCZ already uses Fronter, which also is a web based LMS. Spark convinced the steering group – and the use of Podio on the first day convinced the main part of faculty. . So, it has proven to be a good decision to experiment with a platform familiar to the social media Facebook, which is easy to use and to customize with apps when it is needed – it has definitely resulted in new experience and competencies within faculty and management.

Until now, Podio has been used to share content – such as research overviews, articles, videos produced by the consultants, videos produced by faculty, project plans and minutes from the group meetings and the steering group. Podio is also used as the platform for asynchronous communication in the project groups and across all groups, consultants and steering group. Web based tools such as Google Docs and Doodle have been used for co-creation and group invitations.

In the second workshop, the project groups worked their project plans and goal with support from the external facilitators. Furthermore, three sub-workshops were conducted focusing on 1) design principles 2) social media 3) video documentation with presentations and support from both in-house and external consultants.

Between the workshops, the program director has visited two of the campuses to discuss the project, its design and outputs with faculty on location – in this way all groups have been represented in a dialogue with focus on the project and its processes as well as the challenge to share knowledge and experience with faculty members who are not part of the project.

It has also been on the agenda a several video meetings in the group of leaders, so that all leaders have been informed about the initiatives and processes in the project. On one hand, they have had the opportunity to comment on how the project impacts their part of faculty. On the other hand, they also have had the chance to influence the project and its processes.

In November 2013, all faculty members participated in a conference designed and conducted by Research and Innovation with focus on *Subjects and Professionalism within SEP*. Participants from *Digital Competencies for Collaboration – across Campus* were engaged as presenters as well as audience. In different workshops, knowledge and experience of digital projects carried out in collaboration with students, professionals, and researchers were presented and discussed. All projects have been published in a paper-back version as well as in a digital format http://ucsj.dk/fileadmin/user_upload/FU/Publikationer/Fag_og_faglighed_i_bevaegelse.pdf. 40% of the presenters also participate in *Digital Competencies for Collaboration – across Campus*. Although there has been an overlap between people in the two projects and the head of program explicit has required the researchers and the involved participants from faculty to focus on connecting the two projects, it has been a challenge to link them together and share mutual goals. It is an overall challenge to link different projects together even though participants, many objectives and activities are shared. In *Digital Competencies for Collaboration – across Campus* the steering group has from the beginning decided to work with this specific challenge. We have not succeed yet, but we still find it important to optimize processes and systematically connect participants and new knowledge so that projects not are seen and experienced as isolated islands but more as beads, on the same string. Here, digitalization adds new opportunities which we will integrate in n furtherance of designing the project.

Finally, head of program and one of the external consultants gave each a presentation at a conference for the entire faculty in December 2013. In this way, the most important processes and results have been shared with all 80 lecturers and all leaders at the same place and at the same time. So, during the first 6 month there have been different presentations, dialogues, feed-back and feed-forward-activities conducted face-to-face for the entire faculty, for all project-groups, for some project-groups and for faculty from two of the campuses. It has been a strategic choice to use a variation of presentation and dialogue formats because it also has an impact on the empowerment of faculty and the foundation for the steering group.

On-line training

As an important part of the initial phase of the project, all project-groups have been systematically trained to use Adobe Connect for efficient meetings. Faculty at UCZ has had access to Adobe Connect for some years, many have been participants in sessions in Adobe Connect, and some have used it for meetings and teaching. However, the training in the project has already had an effect on faculty. Spark has delivered a very professional concept for on-line-training of on-line groups. In two hour sessions project-groups has been trained in the most important parts of how to design and conduct a virtual meeting. In seven qualitative interviews with representatives from each project-group, faculty has highlighted importance of participation in concrete training and reflections upon the experiences. For faculty it is important that these kinds of exercises are designed and conducted by an expert. A web based evaluation supports the qualitative results. The evaluation shows that more than 90% of faculty have developed knowledge as well as skills to use digital solutions to create efficient meetings.

The Project Groups and their Plans

All groups have defined projects with focus on using technology in their work. Some project groups want to design web pages for their students, other groups work with video documentation, digital portfolio and social web tools. The overall agenda in all groups is however, how faculty collaborates and learns in new ways with the use of digital tool. Nevertheless, it is a challenge for faculty to focus on their own competencies instead of solutions for their students.

The steering groups as well as the external consultants have worked systematically with different forms for time-outs and feedback to ensure that the student-oriented actions do not take all the time and all the resources. On one hand, it is important to disconnect some processes and actions to ensure that the focus stays on the development of faculty competencies. On the other hand, authentic and realistic projects are important drivers in faculty's work and development. Here they find motivation and engagement whereas their own skills and ability to collaborate and network across campuses intuitively have a lower priority.

A Design-Based Approach

A design-based approach has set the direction for the project design and evaluation. It provides a framework which makes critical multimodal evaluation, user-participation and researcher-involvement important parts of the educational research. Design-based research can be defined as "a systematic but flexible methodology aimed to improve educational analysis (Wang & Hannafin, 2005, p.6-7). In this case, the approach has been a guideline in the first period of the project. Right now, the project moves into a re-design based on the evaluations and analysis conducted until now. Some of the new initiatives decided in the steering group are:

- Enhancing the virtual collaboration across the project-groups
- Integrating researchers into the work in the project-groups – face-to-face as well as virtual
- Linking the project more directly to other projects in SEP
- Enhancing the steering groups competencies to design and conduct efficient meetings in Adobe Connect

The steering group expects these changes to add further means to enhance the overall agenda of developing new competencies and collaboration across campuses. It is an important point of attention that the researcher in a design-based research due to the involvement is biased. Furthermore, in this case the researcher is biased in another way because head of program also has the role as the researcher. Ethical considerations and leadership blindness are part of the reflections of the researcher. Writing this paper is however one way to address these reflections. A presentation of the initial phase of the project gives faculty access to analysis and reflections of the researcher and therefore the paper provides opportunity to raise critical voices and other perspectives which also can improve the educational practice within SEP.

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