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RE-THINKING PEDAGOGY FOR ONLINE LEARNING - EXPERIENCES OF DEVELOPING TEACHERS' DESIGN PRACTICE

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Abstract

This paper discusses design practices for online learning in higher education. The theoretical part frames the concept of learning design whereas the empirical part of the paper describes a case example of a higher education institution developing a systematic approach to technology-mediated teaching and to building online courses and degree programs. Specifically, it addresses the challenges faced in developing teachers' design practices for online courses to promote quality online learning outcomes. Four development stages described illustrate the process of individual, tactic and finally strategic changes in the learning design. The results part sums up the lessons learnt over six years.

Keywords: online course design, design practice, digital pedagogy, online learning.

1 INTRODUCTION

New information technologies and rapid growth of internet have resulted in expectations for technology's ability to provide high quality education for all. This has increased demands for higher education to provide technology-rich courses and online learning programs. Still, in educational institutions, the main bottleneck for development is not the technology but rather the teachers' skills in designing learner centered online courses and in facilitating learning process online. In order to develop these skills systematically, a structure is needed, consisting of principles and practices for course design. At the same time, it is important to allow and encourage the creative side of course construction.

2 METHODOLOGY

Nowadays design thinking has spread wide across different fields of business, industry and culture. It refers to the cognitive, strategic and practical processes by which designers develop concepts, e.g. proposals for new products, services, buildings, machines, etc. through a creative process (Dam & Siang, 2019). In business, service design has become a well-known process to create optimal service experiences in order to shape the way the customers view the organization providing services to them (Stickdorn & Hormess, 18).

This paper centers on the practices of learning design. It is the nature of online learning that the learning path, activities and materials ask to be designed for in advance. The concept of learning design has emerged from instructional design but in learning design, the focus is on learning activity as the central concern of the design process. The goal of learning design is to provide generalized means for describing and sharing learning activities. (Beetham, 9.)

According to the Larnaca Declaration on Learning Design by Dalziel & al., it is based on three conceptual foundations: Learning Design Framework, Learning Design Conceptual Map and Learning Design Practice.

The learning design conceptual map helps the teacher in exploring the relationships among the "moving parts" of how to teach in a particular way at a particular moment (Dalziel & al, 2016). It is a kind of pedagogical script of a course.

The learning design framework is a notational format or visualization for describing teaching and learning activities based on many different pedagogical approaches (Dalziel & al, 2016).

The learning design practice relates to the actions of applying learning design concepts to the day-to-day teaching and learning activities. Teachers arrive at a plan or structure for a learning situation that may be a single task, a course or a curriculum. (Beetham, 8.) This article focuses on this last foundation of learning design.

The learning design practice brings the element of creativity to lecturer's work. This is the part of course/curriculum preparation where the lecturer makes transforms the conceptual map into relevant

course content and tasks. It can be seen as a creative approach to the encounter of students with subject matter and task requirements (Beetham & Sharpe, 8). Like an artist, the lecturer may reflect on his/her experience of the subject and create opportunities upon which students can reflect and further their understanding of the topic studied (Beetham & Sharpe, 177).

2.1 Experiences in developing teachers' design practice at Laurea University of Applied Sciences

The following chapters describe the principal stages of the development of online learning design and practices at Laurea University of Applied Sciences (UAS), Finland.

Laurea UAS offers Bachelor and Master level studies for 8000 students. It employs circa 550 personnel, and operates in the Greater Helsinki Region in six campuses. There are about 350 lecturers at Laurea.

Designing for online learning is naturally shaped by the teaching and learning philosophy of the institution in which it takes place. At Laurea, learning is based on real-life work projects and development assignments. Working life orientation is geared by the Learning by Developing (LbD) pedagogical model. LbD courses have been implemented with companies and students, while technological development has increasingly enabled anytime-anywhere collaboration. LbD is based on authenticity, partnership, experiential learning and research. Laurea's pedagogical model offers one framework for learning design. Also other approaches such as problem-based learning, blended learning, exploratory learning, gamification and flipped learning are applied.

Prior to arriving to the present situation, three development stages of online learning design at Laurea can be identified.

2.1.1 Starting point

At Laurea University of Applied Sciences, a concrete step towards online learning was taken in 2014 when a separate unit (DigiTeam) for developing technology supported teaching was established. DigiTeam consisted of experts in digital pedagogy, digital media production and digital tools. The objective then was to increase the quantity and quality of online learning. At that time, there was a lot of skepticism about the use of technologies in learning and about bringing courses online. Despite the contemporary electronically mediated world of higher education, many educational practitioners see online learning as an alien environment in which they are deskilled (Stephenson, 2001).

In addition, a lot of overlapping work took place as same subjects were delivered in different campuses and the collaboration between campuses was poor. There existed, however, a small group of early adopter lecturers wanting to explore the limits of technology. According to Jaques & Salmon (2017, 278), a network of practitioners and "breakthrough thinkers" acquire not only the basic skills of designing for online networking participation and intervening for learning but also the capacity to recreate the experience for others within their span of influence (e.g. discipline or campus). DigiTeam started to work with this group, which at a later stage, became the spearhead and had the ability to support and influence others. This made it possible to create a critical mass big enough to draw attention of the majority.

2.1.2 Stage1 (2014 -2015)

In the first stage the development work of online learning focused on two aspects: pedagogical experiments with early adopter lecturers and staff training workshops focused on the use of supportive digital tools. As result, a design process for online learning was created. DigiTeam invited lecturers of same discipline to work together to create together an online course. In these workshops, the lecturer teams built the pedagogical script for their course with the focus on the learning activities and shared learning materials. Right from the beginning of the design process, it was agreed that the resulting course design would be shared by using an open license (CC-license). From there on DigiTeam started to promote this practice inside Laurea.

During the learning design workshops it was rewarding to learn how the lecturers from different campuses teaching the same discipline learnt to know each other and then produced together some courses they would never have been able to produce alone.

2.1.3 Stage 2 (2016-2017)

In 2017 Laurea introduced an online degree program on business administration, followed by several other programs in the coming years (sociology, security management and business information

technology). Alongside with the fast development of technologies for learning and the increase of online degree programs online education became more accepted among the lecturers. With multiple learner groups online, a more structured way of designing and producing online courses was needed, as well as staff training in digital pedagogy. At this stage, DigiTeam introduced the so-called Production Workshops of ½ day to 1 day duration. The workshops have a formula a bit similar to the ABC Learning Design method developed by the University of London with Erasmus+ funding.

The Production Workshop comprises separate sessions for pragmatic issues (scheduling, administrative practices, group sizes, etc.) and course design process. They are organized twice a year for each training program, to prepare the online courses of the coming semester. This way the lecturers come together and can learn about the content and design of their peers' online courses. The course design process focuses on the activities the student engages with to learn new competences. Thus, the learning material is intertwined with the course tasks. Parallel to the new design practice, an online training course on digital pedagogy was launched, directed to lecturers delivering courses online. In order to systematically raise the quality of online courses a quality assessment procedure for online learning was introduced, considering studiability, technical usability, learning assignments and materials, co-working, guidance & feedback and evaluation of learning outcomes of online courses.

However, infrastructure for delivering the online courses didn't comply any more with the modern pedagogical and technological solutions Laurea needed. Thus, Laurea IT department together with DigiTeam launched a bidding process to acquire a learning management system (LMS) that responds to the requirements of 21st century learning.

2.1.4 Stage 3 (2018)

Through the previous stages, it was possible to influence positively to the level of Laurea's online teaching in terms of pedagogical practices. In addition, the usability of online courses improved, thanks to the unified course structure and visual appearance. However, the feedback from the students revealed still big differences on the course quality, especially in terms of guidance and feedback. The students were missing the presence of the lecturer during the course.

Despite of the quality criteria and staff training the lecturers' pedagogical competence and skills in using interactive digital tools still vary a lot. On one hand, there are the so-called Digistars; lecturers known for innovatively designed online courses with excellent feedback from students. They offer interactive online courses with a collective approach to learning. The other extreme reveals the courses that are practically online repositories or technology-rich courses with poor pedagogical thinking. Luckily, the amount of Digistars and "Wanna-be Digistars" is growing as result of the staff training and Production Workshops that nowadays is a standard design practice. These workshops are also a good platform for sharing best practices on online learning within disciplines. Some important issues remained to be resolved: how to spread the good references across the silos of training programs and disciplines as well as campuses? Moreover, how to raise systematically the quality of online learning programs for which there is a growing demand? An incremental change would not be enough.

2.1.5 Stage 4 (2019 – 2020)

Taking advantage of the lessons learnt during the previous stages four actions are being taken in order to improve the quality and quantity of online learning. They are: 1) new organizational structure for coordinating technology supported learning, 2) new LMS, 3) open educational resources available for Laurea staff and 4) digital library of educational content the Laurea for lecturers.

- 1 New organizational structure: in order to bring the online learning to a new level the management of Laurea had to take a stronger stand to adjust the organization to the technological advances. It was high time to bring all online learning programs under one organizational unit. The new structure came into effect in the beginning of 2019 and is currently being implemented.

The Digital Cell of Laurea (dCELL) comprises nowadays experts in digital pedagogy as well as so-called digilecturers representing different disciplines and campuses. Apart from the existing coordinators of online learning, a group of 6 digilecturers were selected from among the lecturers. They spend 50% of their working hours teaching and another 50% contributing to the online course design. This way the digitalization unit is strongly connected to the everyday work of the campuses. Thus, the digilecturers act as double agents; bringing the message from the campuses & disciplines to the dCELL and disseminating dCELL's message to the campuses. Of critical importance is digilecturers' ability to weave messages together, interpret and summarize messages coming from both ends.

- 2 Laurea will launch the new LMS during the first quarter of 2020. It offers a delicious opportunity for a pedagogical renewal of all teaching offered at Laurea, and especially of online learning. The courses are not just transferred to the new platform but at the same time re-designed in accordance with the jointly agreed design practices that have been developed in the Production Workshops.

When inserting the courses to the new platform the all the lecturers participate in a learning design workshop. For this, a cascade approach will be applied, permitting the reach of a big amount of lecturers during a short time span. Also, the platform guides the lecturer in building the course by providing step-by-step instructions for producing content, rubrics for evaluation and tools for analytics.

- 3 Openness of educational resources: what started as a practice in online degree programs during the first stage has now been brought to the level of Laurea's strategy: promoting strongly the openness of educational resources via an open license to make the educational material freely available for Laurea lecturers to use, adapt, share, and reuse.
- 4 Learning object repository will be set up within the new LMS to enable lecturers to find, import, and share resources. This digital library contains educational content, from entire online courses to course modules and single tasks. It allows lecturers to import learning resources into their own course. They can blend these resources within a new learning design, or adapt them for a new context. The contents of the digital library will be produced partly by the digilecturers and partly by substance matter experts of Laurea. As for online learning, there will be a collection of courses and course modules that the lecturers can make use of. Not having to design the course from scratch the lecturer can allocate more time and resources to guidance and feedback during the courses they are facilitating.

3 EXPECTED RESULTS AND LESSONS LEARNT

The four stages of development in online learning design practices presented in the methodological part are resumed in the Table 1 below. The fourth stage is now being implemented and the results will start showing once the change in organizational structure has been finalized and the new LMS is in place and functioning.

Table 1. Development stages of online learning practice at Laurea

	<i>Learning design</i>	<i>Level of collaboration</i>
Starting point	Individualistic design	INDIVIDUAL pedagogic experiments
Stage 1	design process created	lecturers' teams
Stage 2	online course production workshops	TACTIC lecturers' teams collaboration within disciplines
Stage 3	standardized design practice quality criteria for online learning	lecturers' teams collaboration between campuses
Stage 4	Digital library of educational content Focus on guidance LMS guiding the course design	STRATEGIC cross-disciplinary and between campuses

Through this experience, we have learnt about the importance of having a systematic approach for designing online courses. And not only that: to embrace digitalization at all levels of organization is a strategic choice and implies the commitment and support of the management. In case of Laurea, it became evident during stages 1-3 that tactical changes introduced are not sufficient and now digitalization is strongly embedded in Laurea's strategy for 2021-1030, as well as in the organizational structure.

The new learning platform offers a great momentum for introducing a new organizational framework for learning design. When transferring the courses to the new platform the lecturer is obliged to build the course with a pedagogical mind-set that takes the online repositories to the graveyard and well as those

courses that lack pedagogical thinking. The more formal approach to course design goes hand in hand with applying the quality criteria of online learning.

An important feature of online course design through the stages 1-4 is collectivity and sharing: in most cases, the lecturers are organized in teams for course production. This contributes to creating synergies and encourages the lecturers to share the learning materials they develop under an open licencing system. This helps to overcome the strong attachment the lecturers they have towards their own ways of producing an online course. Teamwork tends to invite and encourages the creative side of course construction, design as such being a creative process.

All in all, if the development work of stage 4 proves to be successful then there should be a substantial improvement in the quality of online learning, resulting in a positive feedback from the students. The means are: a uniform learning design principles & practices, openness of educational resources, increased guidance and feedback during the online courses, more competent lecturers in terms of digital pedagogy as well as an up-to-date LMS.

4 CONCLUSIONS

As we have seen in the case of Laurea the scope and style of pedagogy change as the technology changes. This change may recall also a learning infrastructure that guides lecturers' thinking through the process of planning and designing motivating learning experiences, stimulating them to innovate. The learning infrastructure should also allow a learning design framework comprising different pedagogical approaches, such as learning by developing, game-based learning, flipped learning, sprints, etc.

However, it is important not to forget the academic freedom of a higher education lecturer. By applying the learning design framework and permanent processes, the approach to course design is becoming more formal. There are many positive sides to this approach but one may ask that are we still allowing and encouraging the creative side of course construction. We need to communicate clearly the benefits of a well structured pedagogical script and unified design practices yet at the same time stimulate the lecturers to innovate, both in their overall approach to design and in their use of digital technologies. After all, it is in the heart of design thinking to apply "systematic principles and methods" and "a creative activity that cannot be fully reduced to standard steps" (Winograd, 1996)

Supportive leadership: Digitalization is not only shaping how teaching and learning takes place nowadays, it has also changed the substances learned, the methodologies and even the physical spaces teachers and students use. Hence, it is of utmost importance that the higher education institution management has a clear vision and that digitalization is embedded in the strategy and not just an element attached to it. It is also necessary to build a framework and permanent processes for supporting teachers' design practices.

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