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Corporate Learning 2.0 MOOC:
An open online course on formal and informal learning in organisations

Structured Abstract

Purpose – The paper describes an open online course which was run in 2015 under the title *Corporate Learning 2.0.* The course covered current developments, challenges, and trends in the field of corporate learning which evolve through the implementation of digital media. The course was designed in a way to support the collaborative and open generation of innovative ideas.

The purpose of the study accompanying the course was to find out whether the target groups, mainly employees in companies in the field of corporate learning and human resource development, can be engaged in this type of online course and will exchange ideas openly in an online environment.

Design/Methodology/Approach – The course was designed in a way that each week a new topic was introduced by the presentation of an actual and real challenge or problem in the field of corporate learning by one of the participating companies. Subsequently, the participants collected and exchanged ideas, got a deeper understanding of the problem and by doing so gained new insights into aspects of corporate learning.

The design of the study included online questionnaires to access how participants evaluated the course, how they handled the technical platform which was used for communication processes and how they dealt with the openness of the course design. Additionally, tracking data was analysed as well as numbers of registration, badges, time for the completion of badges for each learning unit and so comparable data.

Originality/Value - The innovative aspect of the course lies in its approach to foster *open innovation processes* in the field of corporate learning, an area where this type of exchange has rarely been established yet (e.g. see Wallin and von Krogh, 2010; Chesbrough, 2006; Dahlander and Gann, 2010; Enkel and Gassmann, 2007).

Practical implications - The course design is a prototype for an open online course in which a *community of practice* (Wenger, 1998) is used to exchange ideas and contribute solutions to real problems and challenges presented by companies. Therefore, the course served as an experiment to find out whether the target groups can be engaged in this kind of open exchange processes and whether it is possible to meet different interests such as personal learning for the individual learners as well as the generation of ideas for the participating companies.

Keywords – informal learning, MOOC, corporate learning, open online course

1.   The Corporate Learning 2.0 MOOC

1.1   Objectives and target groups

With regard to the digitization of enterprise activities, the area of human resource development lags behind other corporate functions. This applies both in regard to the role as a driving force as well as in regard to the implementation of digital technologies. In order to challenge this notion, the *corporate learning alliance* (CLA), a loose network of experts in the field of corporate learning, offered an open online course with the title *Corporate Learning 2.0* in 2015.

The objectives of the course were manifold: First of all, it was the CLA group's interest to address topics concerning the future of corporate learning and current trends and developments in this field which arise under the influence of digital media as well as effects of new approaches in management and organisational cultures. Additional topics of the course were[1]

- the combination of formal and informal learning in human resource development,
- the meaning and implementation of self-regulated and self-organised learning,
- new formats of training programs,
- aspects and challenges of open learning environments,
- social learning, and
- the potential of gamification in corporate learning.

It was one of the main intentions of the CLA group to open the discussion around these topics to a broad spectrum of stakeholders. The course's main target groups consisted of employees in companies in the field of human resource development and staff development programs, but also in information and knowledge management, and included members of organisations of vocational training as well as other interested stakeholders. Also it was intended to address the potential challenges from many different perspectives such as technical, organisational, financial, and legal ones as well as the effects on human resource development and training programs. Running the course in an online format seemed to provide great potential to meet these objectives and to address the different target groups. At the same time, it seemed unclear whether these groups would be willing to engage in an open online discussion at all. Partly, because this might be a new form of online activity for them, partly because they might be reluctant to openly discuss professional issues online. Additionally, it was uncertain whether companies could be found which would be willing to present one of their current challenges in the field of corporate learning openly and online to a broad group of participants. Therefore, in regard to these two aspects, the course was innovative as well as challenging at the same time.

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[1] See Table 1 for the titles of the course units.

Last not least, the CLA group was also interested in exploring a new variation of the so called cMOOC design, a special type of MOOCs (as will be described in the following chapter). As two group members had run several cMOOCs before, the group could build one previous experiences with this online course format and intended to further expedite it. Finally, the group wanted to offer the opportunity to experiment with the format of an open online course to some selected companies which hosted a course unit in the MOOC. These companies also became the chance to receive new ideas and solutions for one of their challenges in the field of corporate learning through an open innovation process.

1.2 Design of cMOOCs

The course design was based on the concept of the so called *cMOOCs*. MOOCs in general are described as courses which are genericly open, what means that there is no obvious obstacle to the enrollment into the course other than basic media competencies and the appropriate equipment required to participate (Robes, 2012). But the notion of *open* can also be contributed to the fact that any material used or produced in the course is made openly available to the public during or even after the course. This can also apply to the communication processes and products such as text contributions, videos and audio files which evolve during the course − also by the participants. Despite these concepts of openness, most MOOCs are only accessible after some basic registration but no fee is charged for participation (in some cases fees are charged for a certificate).

For the *Corporate Learning 2.0 MOOC (CL20 MOOC)*, both notions of *openness* applied: While some basic registration was requited, the only prerequisites for participating in the course were access to the internet, competencies to handle some online tools, and the German language.

The second characteristic of MOOCs is their vast number of participants which by now is often referred to the so called *Dunbar number*. In 1992, Dunbar, a British anthropologist measured the typical size of social groups of primates and human communities and suggested, that the processing capacity of our neocortex seem to manage stable interpersonal relationships up to a number of 100 to 200 different people (Dunbar, 1998). This observation was confirmed by more current studies conducted by Gonzales and others in reference to (digital) social networks (Gonzales et al, 2011). When planning and offering a MOOC, most organisers cannot know in advance whether they will reach this number of participants, most open online courses seem to reach this number. Indeed the *CL20 MOOC* managed to do so with around 1.700 registered participants in total. A number that does not represent the number of really active learners.

While most MOOC portals such as *Iversity, Udacity,* and *Coursera* mainly offer so called *xMOOCs*, the *CL20 MOOC* was a so called *cMOOC*. cMOOCs were differentiated by Atkisson

(2011) for example who used the theoretical background of a learning theory as one dimension to described MOOCs (see also Bremer, 2012). The term *cMOOC* comes from one of the very first MOOCs, a course titled *Connectivism & Connective Knowledge,* run by George Siemens and Stephen Downes in 2008. This course became well known as a starting point of further cMOOCs, especially since Siemens had described the principles of *connectivism,* a learning approach they based the course on (Siemens, 2005). For example, these principles imply that learning and knowledge builds upon a diversity of opinions and that learning is a process of connecting specialized *nodes*, a term which in this context is used for sources of information. They also described that the capacity *to know WHERE and HOW to have access to and to receive information* becomes a core skill in the information society. Additionally, Siemens stated that decision-making in itself is an important learning process as well as the ability *to choose WHAT to learn* just as the ability to access the meaning of information and to distinguish important from less important one (Siemens, 2005).

Courses which follow these learning design principles do not implement a given learning path but rather let it up to the participants to decide upon their degree of involvement. They can choose what they want to focus on during the course, how intensively they want to participate, how they want to solve given tasks, on what issues they want to invest more time, etc.. In courses which are designed by a radical constructivist approach, even the course syllabus is let open up to the start and is designed along the course in accordance with the participants.

In case of the *CL20 MOOC,* the organising team followed some of the constructivist design principles such as building the course on the activities of the participants. The group based the course design on experiences collected from previously conducted cMOOCs which were run by some members of the organising team and had been analysed thoroughly[2]. These courses had shown that the key challenge for a successful cMOOC is the encouragement of the participants to get engaged in the discussions and they also had given the group some insights on how to design a course accordingly.

The previously run courses even were based on earlier research done in the field of online communication and discussion processes. Results of those studies had shown that the contribution of experts most often did not foster the exchange between participants or even had the effect to terminate discussions (Hesse and Giovis, 1997; Bremer 1999).

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[2] Previously run courses by parts of the CLA team were (see the listed literature for more details): *OPCO 2011* (Bremer, 2012; Bremer and Robes, 2012), *OPCO 2012* (Thillosen and Bremer, 2013), the *Web 2.0 course* (Bremer, 2015; Bremer and Weiss, 2013; Bremer and Weiss, 2014) and the course *Wirklichkeiten 2.0* which was organized in conjunction with the state's a radio station and one of its educational broadcasting program.

So consequently, while in xMOOCs learning units often start with the provision of prerecorded video lectures to the participants, in the cMOOCs *OPCO11* and *OPCO12* the input of each course week was placed in the middle and not at the beginning of a learning unit (see figures 1 and 2). Therefore, learning units started with questions and contributions of the participants instead of input by an expert. This design proved to be successful in encouraging the participants to share their own ideas and to develop the topic through their contributions.
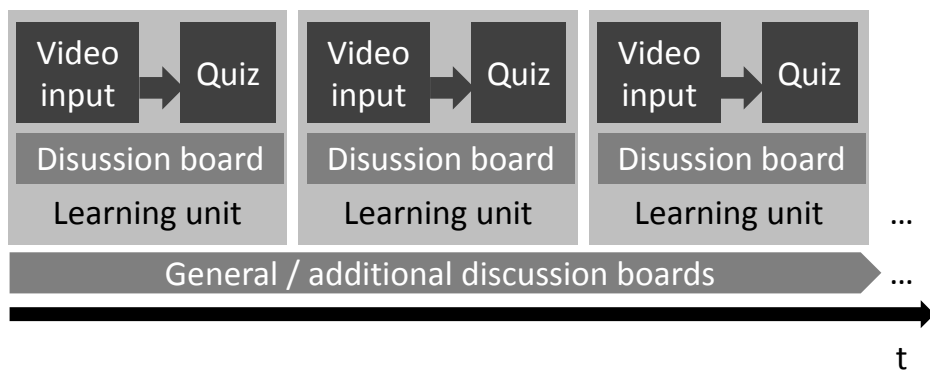

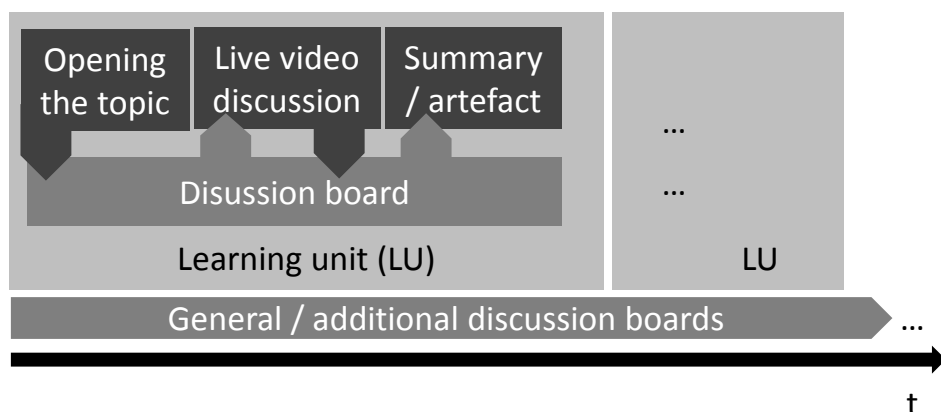Figure 1: Design of a typical xMOOC[3]

Figure 2: Design and structure of a learning unit in some cMOOCs (e.g. *OPCO11*, *OPCO12*, *CL20*)

By this approach the participants' contributions became meaningful for the course and had impact. For example, this was achieved by reacting onto their contributions during the live video conferences with the experts which took place in the middle of the learning units. In these live sessions, not only previously contributed questions and remarks of the participants where discussed but also new contributions could be made by participants based on synchronous communication tools such as chat. Comparing the previously organised cMOOCs *OPCO11* and *OPCO12* with the one

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[3] In most of the here mentioned cMOOCs, one learning unit (or course unit) has a length of one week, in some two weeks. The total length of MOOC were five to fourteen weeks.

titled *Wirklichkeiten 2.0* also showed that more interactive and dialogue oriented live sessions with the experts generated more discussions by the participants following the video conferences than pre-recorded ready-made videos or podcasts provided to the audience.

1.3 Design and curriculum of the Corporate Learning 2.0 MOOC

As mentioned in the abstract, one major innovative aspect of the *CL20 MOOC* lied in its approach to foster an *open innovation process* in order to collect new ideas and solutions for those companies which were willing to share a current problem, obstacle or challenge in the field of corporate learning openly with the course community. While this type of approach usually is applied for finding new ideas and getting feedback from consumers in the area of product design and often is managed by the company itself (see Wallin and von Krogh, 2010; Chesbrough, 2006; Dahlander and Gann, 2010; Enkel and Gassmann, 2007) it was a new approach to apply this within a *community of practice* (Wenger, 1998) in the field of corporate learning.

For the *CL20 MOOC* eight different companies were invited to participate as *hosts*. Each company shared its challenge or topic in a slightly different way − a variation that on one hand added to the richness of the course design, but on the other eventually also to its complexity. The topics were developed in close coordination with the CLA group in order to ensure that topics did not double and to develop a balanced course curriculum.

Table 1: Course topics and companies

Week	Topic	Company
1	Next Education	DB Training
2	Making digital learning more attractive	Swisscom
3	Self-regulated learning in leadership development	ÖAMTC
4	Social learning after formal learning	Festo
5	Open versus closed learning	Miele
6	Informal learning in international sales	SICK AG
7	Gamification	SA
8	adidas Learning Campus – Past & Future	Adidas

The hosting companies were not only invited to present the challenge they wanted to have discussed in the course, but also could design 'their week' according to their own ideas. Each team member of the CLA accompanied one or more companies and functioned as a link between the individual company and the CLA team. So on one hand, it was intended to find some common ground such as some repeating patterns in each week's design on which participants could rely on

(e.g. at least one live session was held on a fixed day each week). On the other hand, adaptions were encouraged in order to collect as much experience with the course the design as possible since it was one intention of the CLA group to offer the participating companies a playground to experiment with the course design and to gather experiences with this type of online courses and with open online courses in general. Also it was in the interest of the CLA group to develop various variations of the basic course concept.

As a starting point, the course design which had proven to be successful in previously run cMOOCs (see figure 2) was adopted and developed even further: In this MOOC, each unit started by the presentation of the challenge or problem of the company which functioned as the *host*. This input could be done by a live video session in a virtual classroom tool, by a previously recorded video, by giving participants access to an online platform or simply by presenting the challenging issue in a text contribution or as a question in the forum. After this input, the participants discussed the issue, collected solutions and shared their ideas. These discussions were enhanced by new impulses from the moderating team (one member of the CLA group and one or more members of the hosting company) and additionally, summaries were provided in the middle and at the end of each unit in order to give an overview and to allow new course members to catch up with the course.

As intended, the companies came up with quite different ideas on how to design a course week and how to involve and activate the participants. Since the participants could obtain badges for each week, it was one task for the company to define some kind of activity which completion would be rewarded by a badge. Participants who collected six out of eight badges received a *master badge* and a certificate, an approach by which formal and informal learning processes were combined (an issue which became discussed intensively by the participants during the course).

2. Course evaluation and results

2.1 Objectives of the course evaluation

The major intention of the study which was conducted along the course was to receive more information on how the chosen format is an appropriate setting for the target group(s) and for the achievement of the intended objectives. Due to the novelty of the course design, it was also in the interest of the CLA group to find out whether the mainly addressed target group could be engaged in an open online dialogue at all, whether the target groups in general are interested in participating in an open online course and specifically whether they can be addressed with such a course format as a cMOOC.

Accordingly, there was much interest in retrieving information on who was participating. Additionally, the study focussed on how the learners' participated and whether they had met the

goals, they had given themselves at the beginning of the course. Another intention was to find out whether the badge system had any motivational effect on the participants and what motivated them to contribute and share ideas online.

Finally, it lied in the interest of the CLA to assess which improvements could be made to increase the acceptance and effects of the course design and how it could be adapted in order to satisfy the needs of different target groups. Part of this objective was the evaluation of the appropriateness of the technical platform (a German MOOC portal called *mooin*) to run cMOOCs since normally this is used for the implementation of xMOOCs. Therefore, it was part of the study to find out how the participants evaluated the offered tools as being useful to support the communication processes within the course appropriately and whether this rating correlated with their previously acquired media competencies.

2.2 *Design and methodology of the course evaluation*

The course evaluation consisted of different methods and combined two online questionnaires and data from user tracking in the technical platform. The online questionnaires were placed in the middle (Q1) and at the end (Q2) of the course and collected data for items such as[4] (list is not complete):

Marketing

- How did you learn about the *CL20 MOOC*? (Q1)

Previous experiences with online courses and media competencies

- Did you participate in a MOOC before? (Q1)
- Which online tools did you use before? (Q1)

Motivation/interest

- Why do / did you participate in the *CL20 MOOC*? (Q1/Q2)
- How do you plan to participate? / How did you participate? (Q1/Q2)

Participation

- Which tools did you use to participate? (Q2)
- How important have the different tools been for your participation? (Q2)
- How much time did you invest to participate in the course? (Q2)
- Where (at what places) did you participate in the *CL20 MOOC*? (Q2)
- How important have the badges been for your participation? (Q2)

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[4] See the label Q1 and Q2 for the notion in which questionnaire the item was asked.

Learning outcome

- With which outcome do you judge your participation as being successful? (Q1)
- What did you learn? (Q2)
- Are you satisfied with your learning outcome? (Q2)

Transfer

- Did you get ideas from the *CL20 MOOC* which you can transfer into practise? (Q2)
- Could you already transfer any ideas into practise? (Q2)

Overall satisfaction with the course and course evaluation

- What was most important for you in the *CL20 MOOC*? (Q2)
- How do you evaluate the *CL20 MOOC* in general? (Q2)
- How do you evaluate the tutoring in the *CL20 MOOC*? (Q2)
- How do you evaluate the technical platform of the *CL20 MOOC*? (Q2)
- What did you like/dislike about the *CL20 MOOC*? (Q2)
- What would you change? (Q2)

Additionally, demographic data were collected in the questionnaires and tracking data was obtained from the platform such as numbers of registrations, views of videos, number of contributions, number of completed badges, and further similar data.

2.3   *Selected results of the course evaluation*

As mentioned before, an important criterion for the success of the *CL20 MOOC* was addressing the target groups. The evaluation revealed the following professional backgrounds for the participants who filled out the questionnaire and by this strongly indicates that the target groups aimed at were reached:

- Around 46% of the participants were employed in commercial enterprises, 20% freelancers/self-employed and around 19% worked in a public educational institution such as universities (n=108). About one third even had a leadership position.
- 51% of the participants worked in the field of corporate learning and human resource development, 33% of which with central and 18% with decentral responsibilities (Q2, n=109)

Asked about their **main interest for participating in the course** the participants ranked highest 'the topic of the course' (Q1, 99% of 108 answers) followed by 'interest in the format of the cMOOC (66%). 57% took part with the idea that this could help their professional development.

In comparison, looking at which course elements and what kind of contributions met most the interest of the participants in a retrospect (Q2), the answers '*deal with interesting question and*

topics' and '*getting to know actual cases from companies*' ranked highest (both 89% of 110 answers in Q2). The possibility to '*share and exchange resources*' and '*discuss topics with others in a community*' both ranked second (63% and 68%, n=110 in Q2) (see figure 3). Surprisingly, the opportunity to '*obtain input from experts*' ranked far lower (52%) which either supports the idea, that for this type of exchange, cMOOCs are an appropriate format or rather the notion that the course managed to attract just the right group of participants for which the course format matched with their interests.

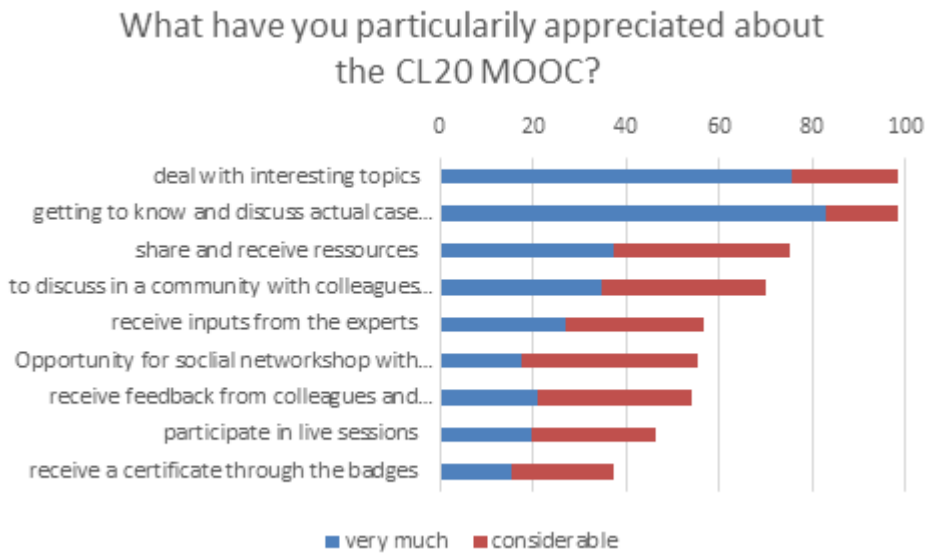## What have you particularily appreciated about the CL20 MOOC?

Figure 3: What participants appreciated in the *CL20 MOOC* (Q2, in percent, n=110)

Interestingly, the objective to receive a badge rated quite low in this overview (only 34% of 110, see figure 3) while on the other hand the postings for the badges turned out to be the main way of contributing to the course (see figure 4).[5] In this case, the question is whether the contributions for the badge drew some attention from contributions in the group discussions – a fact that was even discussed by the participants at some point.[6] On the other hand, it can be assumed, that the badges activated learners who otherwise would not have participated at all or less or that they stimulated learners to contribute to topics or in phases where they otherwise would have stayed passive. For the future it is intended to check whether badges can be given for regular activities in the course and which effect this has on the involvement.

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[5] Unfortunately, due to technical requirements, the contributions for the badge which were postings in a forum were collected in parallel forums to the ones where the regular discussions were taking place. This gave it some form of "formal" setting..

[6] This was also observed as an effect of badges when the cMOOCs *OPCO11* and *OPCO12* were comparing (Bremer and Weiss 2013).

In conjunction with this topic, it is worthwhile to look at how the participants planned to participate. In Q1 the **planned participation** nearly divided into thirds: 33% wanted to be active in all weeks, 35% planned to be engaged only in weeks which were interesting for them, and 29% just wanted to watch and were not sure whether they will be active differently at all (Q1, n=108). This is interesting because at the end of the course only 42 out of 1.700 registered participants completed the master badge. At the same time many participants posted that a formal certificate neither had real value for them nor was it an important incentive.
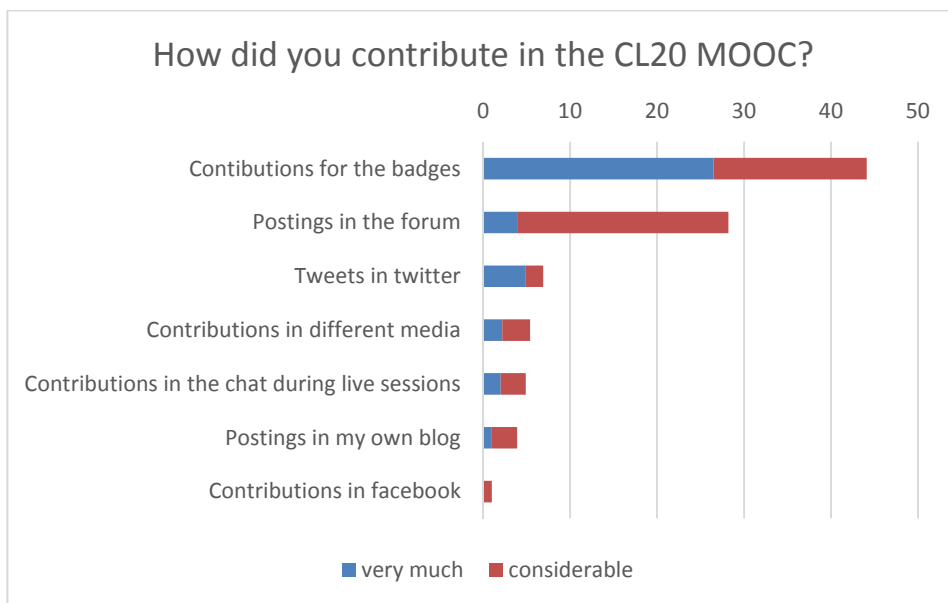

Figure 4: Form of contribution of the participants in the *CL20 MOOC* (Q2, in percent, n=110)

Since the active engagement in such a course as the *CL20 MOOC* demands a certain degree of **media competencies** from its participants, this was one item in Q1. It turned out that those competencies were pretty high at least by those who took part in the evaluation: 86% had used video conference tools before and 88% were involved in social networks (Q1, n=108). On the other hand, their way of using these tools was mainly passive: Although 59% (n=108) had already actively posted in a social network, in all other tool such as weblogs (31%) and Twitter (31%) the rates were quite lower (these three being the ones with the highest rates). Interestingly, the age of the participants did not correlate with their practical experience with social media. But in general this means, that even if participants have competencies to handle the required tools to participate in a MOOC, this does not means that they are used to share ideas openly in the 'digital public space'.

When asked about their overall satisfaction with the course, most participants answered that they are overall satisfied and would recommend the course to others (96%) (Q2, n=110). They stated they learned a lot through the course, that they are satisfied with their personal learning outcome (83%)

and gained a deeper understanding of corporate learning (82%). But when looking at the practical transfer it seems to be difficult to directly create practical implications. This might be due to slower organisational processes which become necessary. Nevertheless, the participants gained a wide variety of ideas and insights. Some which were mentioned in the final questionnaire:

- Stronger focus on workplace learning
- More focus on enablement of learning and less on directed learning
- Enabling of self-directed, social and community based learning
- Clarify own and individual responsibility for learning
- Usage of new digital learning environments, technologies and formats
- Application of gamification elements
- Implementation of a corporate MOOC platform
- Usage of more video content
- Changes in the design of learning content
- Participation of employees in the evaluation and development of learning content

The extent to which the learning transfer has really taken place will be investigated in current follow-up activities and also the extent to which the companies which served a hosts could learn from the ideas they received in the course and whether they implemented some of them.

3.   Summary

While online learning often is seen as an isolated experience, in contrast the *CL20 MOOC* provided a whole variety of social and informal learning opportunities like self-directed learning, interaction, feedback from facilitators and peers as well as the opportunity to learn from other participants. It also offered the opportunity to make meaningful contributions to real problems which were offered by companies in an open innovation process. Therefore, the format of the *CL20 MOOC* can serve as a prototype for a combination of individual learning and gaining innovative impulses for companies by which they can improve their processes. It also works as a change management approach for the transition of individuals, teams, and organizations. Open innovation, crowdsourcing and co-creation could be realized in a virtual solution-finding process by providing corporate challenges as cases to a learning community or in this case even a community of practice. Further evaluation of the course will assess how the transfer from insights and ideas gained in the course took place within the hosting companies as well as for the learners in some time interval to the end of the course.

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