Designing SPOCs for student engagement – experiences from Management Education

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Abstract. This paper reports the experiences from the implementation of a Small Private Online Course in Management Education which has been designed to support learner engagement and promote digital competency. We describe the instructional design in detail, present some exploratory findings from a mixed-methods course evaluation and reflect on the lessons learned.

Keywords: SPOC, Management Education, student engagement

1 Introduction

Massive Open Online Courses (MOOCs) have become an important factor in the delivery of business education [1]. They are associated with flexible, scalable and measurable knowledge transfer for lifelong learning, both in academia and professional development [2] However, completion rates are unsatisfactory and the questionable instructional quality of MOOCs has been identified as one major reason for this [3]. As modern business education calls for learner activation and the application of models and procedures to practical problems (e.g. case based teaching), adequate online courses must be designed accordingly. Small Private Online Courses (SPOCs) have evolved from traditional MOOC concepts to address this target [4]. SPOCs usually follow the xMOOC model, but only for a limited group of participants. This allows for a better instructor support as well as peer interaction and collaborative problem-solving. The underlying question is: how can SPOCs in management education be designed to promote learner engagement? In this paper, we describe the instructional design (ID) of such a SPOC, present some findings from the exploratory course evaluation and reflect on the lessons learned and further steps to take. By conducting an ongoing iterative process of developing, testing, implementing, evaluating and redesigning the course, we follow a design-based research approach [5].

2 Human Resource Management in the Digital Age

The German Graduate School of Management and Law (GGS) is a private business school offering degree programs for full-time working professionals. The SPOC was integrated in the curriculum of the MBA program at GGS. It was compulsory for GGS students and open for external business students and professionals interested in human resource (HR) management, digitalization and digital learning. Externals had to pay a fee of 149.00$ which kept the number of participants reasonably low.

2.1 Course Objectives

The online course deals with the effects of the digital transformation on the core functions of HR management, thus linking content and format by offering this course as a SPOC. Along with knowledge transfer on digital HR, the course was designed to strengthen the participants' digital skills. They are key qualifications in today's knowledge society. However, aspects such as the development of soft skills are insufficiently addressed in the curriculum of most business schools [6]. To better prepare students for an increasingly digital workplace, this kind of skill development was a crucial learning outcome of the online course.

2.2 Instructional Design

The core idea of the ID (Fig. 1) was to complement knowledge transfer with the facilitation of significant social and constructive learning processes. It was based on the 3C model by Kerres and de Witt [7], who suggest that any learning environment consist of three components: content that is provided to the learner; communication that takes place among learners and between learners and the teaching team; and a constructive component that consist of individual and group learning tasks. In the following each of these components will be discussed in more detail.

CONTENT			COMMUNICATION								CONSTRUCTION				
Theorie	Practical transfer	Self-study	Interaction & learning community			Proactive community management					Formative assessment & feedback				Final assessment
Lecture videos	Business partner / Legal expert	Multi media library	Profiles & port-folios	Chats & discussion forum	Virtual learning teams	Support desk	Consul-tation hour	Announce-ments		Progress tracking	Individ. cases & quizzes	Team assign-ments	Sub-mission galleries	Peer & instructor feedback	Written Paper
Participation certificate															
ECTS-points															

Fig. 1. 'Digital HRM': Instructional Design

Content: The course was structured in five modules that spread over a period of ten weeks with a weekly workload of approximate hours. Each of the modules examined a core function of HR management. Content was delivered on three levels. First, using video lectures, slides and research articles, GGS professors provided theoretical input on the processes, practices, and technological systems that organizations employ when managing HR. Second, to guarantee knowledge transfer from theory to practice, GGS professors interviewed a diverse group of leading HR experts on how they manage the challenges of the digital transformation in their organizations. Third, a content library with additional multi-media resources for continuing self-study was offered.

Communication: To address the social aspects of learning a focus was placed on building a learning community. Learners were encouraged to set up profiles that also displayed their learning portfolio (submissions, posts, endorsements etc). An open discussion forum for exchange was provided and moderated. Most importantly, learners could form small teams and were given virtual team spaces with a set of integrated tools for online communication and collaborative problem-solving. The learning community was supported by a proactive community management and weekly consultation hours with the instructors. The learning progress of teams and individual learners was tracked and prompt support from the teaching assistants offered.

Construction: Each of the modules provided a set of assignments for learners to deepen their knowledge and apply their skills. On the individual level, learner comprehension was tested through short multiple-choice quizzes. Additionally, learners were contributing real-life cases from their working environments to the submission galleries, which were then peer-reviewed and discussed among course participants. On the team level, learners were working on small project-based assignments using several online tools, including chats, video conferencing tools, shared documents, live streaming channels etc. Participants who completed all five modules were issued a certificate of participation. Additionally, learners were given the opportunity to hand in a written paper after the end of the course and received ECTS-points.

2.3 Platform Provider

The course was set up on NovoEd, a platform specialized in social and experiential learning. The platform's user interface centers on the learning process rather than the course content. Participants were provided with an individualized study plan that displayed their learning progress. The start page included a social feed with trending posts and announcements. The most innovative aspect was the provision of virtual team spaces with integrated collaborative tools, submission galleries and means for structured peer feedback. The analytical and communicative dashboard features formed the basis for supportive community management. In brief, the NovoEd platform turned out to be a good fit for the specific ID focusing on learner engagement.

3   Course Evaluation

The course ran from October to December 2016. Data was collected and analyzed until Jan 2017. For the explorative evaluation, a mixed method design was set up. Invitations were sent out to all course participants of which 30 (7 m, 20 f, 3 N/A) completed a post-course survey with multiple-choice questions that focused on two areas. (1) How do students perceive the instructional design? (2) How do students rate their learning experience? Additionally, semi-structured focus group interviews on learning engagement were conducted. Three groups with four members each (90min) reflected on their learning peaks and the corresponding instructional elements.

3.1   Quantitative Results

The overall rating of the course was very positive. Most of the participants indicated that they would recommend taking this course (M 6.26, SD 0.96). Concerning Instructional Design, results are as follows (Tab. 1):

Table 1. Survey results on Instructional Design

Item	M	SD	Min	Max
Course well structured	6.39	0.72	5	7
Study material up-to-date and relevant	6.26	0.82	4	7
Realistic assignments	6.03	0.84	4	7
Balance between research and practice	5.68	1.11	3	7
Virtual teamwork enhancing learning	5.23	1.63	1	7
Peer interaction helpful	5.19	1.54	2	7

Results indicate that the course was perceived as well structured, providing a good balance between theory and practice and a clear link to real-world problems. Peer interaction and teamwork were seen in a more differentiated but nevertheless clearly positive way. With regard to learning, quantitative results are as follows (Tab. 2):

Table 2. Survey results on learning

Item	M	SD	Min	Max
Usefulness for professional life	5.77	1.23	3	7
Learning goals achieved	5.48	0.96	3	7
Increased collaboration skills	4.81	1.70	1	7

Again, the usefulness of contents for professional life was emphasized. Regarding collaboration skills there were considerable individual differences on this topic.

3.2   Qualitative Results

The analyses of qualitative data revealed a range of success factors for learner engagement of which the following three were the most salient ones.

The integration of HR experts: From the transcripts one can assume that the blend of theory-based lecture videos, interviews with HR experts and multi-media content libraries was highly valued by the course participants. The interviews stimulated knowledge transfer to real-life business contexts. HR experts, who were representatives from leading organizations, were perceived as an exclusive asset, raising the value of the course and thus the learners' commitment to participate. Overall, we can conclude that integrating HR experts into the curriculum had some clear advantages with regard to knowledge transfer, interdisciplinarity and up-to-dateness of the content. However, the production of interviews is quite resource-intensive. The selection of partners and the coordination of the media production takes up time and budget.

Learning and working in teams: Participants clearly experienced working in groups as a motivational factor. The exchanges over content, the application of ideas to the real working contexts of other group members and positive feedback from peers supported the learning experience and helped to keep everyone on track. At the same time the commitment to group work reduced the flexibility and brought with it organizational and technical challenges. Groups that distributed roles and responsibilities (e.g. team lead, technical support, expert on HR etc.) managed these challenges effectively. Letting teams form their own groups increased group cohesion and course engagement from the beginning of the course. However, proactive support from the community managers especially in the initial phase were necessary and time consuming. Teams were tracked and rearranged in case of dropouts and instructions on how to work in virtual teams was provided.

Real-life cases and project-based assignments: Assignments contributed to the learning experience through their practical and real-life references and the opportunity to share insights with peers. All focus group participants highlighted the hands-on approach of the tasks and the usability of skills for their workplace. They agreed that project-based learning, presenting results in submission galleries and peer-reviewing enhanced their engagement in the course, though not without facing several challenges. While for some the platform use was rather intuitive, others were initially struggling with the platform's features and not making full use of study plan and working tools. Again, the community management took a crucial role in providing individual support, encouragement and instructions. The progress of learners was tracked; soft deadlines and late submission permits issued in a timely manner. Most importantly, all submission were at least briefly commented on and overall summaries on team assignments and references to relevant work by peers provided.

4   Lessons Learned and Further Steps to Take

- Key success factors for engagement that should be further elaborated were: Interviews with HR experts, collaborative group work and project-based assessments.
- Learning activities should continually be tracked, prompt support offered and feedback provided. A community management plan is essential.
- Learners should be offered an initial set of playful team building activities and lessons on how to interact in virtual teams. Self-formation should be fostered.
- Invitations to engage in teamwork, peer reviews and forum discussions must continually be expressed and must be linked to concrete learning tasks.
- Digital skills should not be expected, but fostered; otherwise the learning experience can become frustrating. Initial activities must be included into the design (e.g. tutorials, guided platform tours, training sessions, peer-to-peer assistance)
- The course should provide a storyline to better align content and assignments (e.g. tasks could be designed to generate solutions for current challenges of the specific business partners' companies. Ideally, business partners would offer feedback).
- The course should be framed by a kick-off and wrap-up module to create group dynamics in the beginning and celebrate success in the end. In between it should address a range of learning preferences, offer a degree of flexibility (e.g. soft deadlines) and provide several learning paths (e.g. audit, participation and ECTS track).
- The course evaluation should be complemented by additional non-responsive measures for more thorough insights [8].

Finally, we can conclude that the course design already fostered active learning and student engagement to a high degree. This could only be achieved with elaborate ID features that came along with a high course facilitation effort. From the evaluation of the learner's and the instructor's experience we drew findings for further course development. It will focus on pedagogical interventions for collaborative learning.

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