Digital Learning from scratch: Initiating MOOCs within a Business School

Marc Egloffstein[1], Benjamin Ebner[2] and Dirk Ifenthaler[3]

[13] University of Mannheim, Learning, Design and Technology, Germany
[2] Mannheim Business School, Germany
`egloffstein@uni-mannheim.de`

Abstract. This paper reports experiences from the successful implementation of Massive Open Online Courses within an internationally ranked business school. After a brief introduction to the organizational background, the instructional design of the initial MOOC and results from a multi-perspective evaluation are presented. Participants were mostly professional learners studying for personal motives. The modular course design was well received, with learners especially valuing structure and instructional elements for self-directed learning. Institutional stakeholders predominantly named business oriented arguments for implementing MOOCs in business education, and they stressed the importance of collaborative or interactive instructional elements. Design recommendations for business MOOCs include an increased flexibility for self-directed learning and a dedicated community management.

Keywords: MOOCs, Business School, Professional Learning

1   MOOCs in Business and Management Education

Massive Open Online Courses (MOOCs) have had the highest adoption rates among learning technologies in recent years. Until today, MOOCs have become a well-established learning format in academia. Meanwhile, commercial MOOC providers are moving their offerings away from university-like courses toward more business oriented formats. MOOCs have become increasingly common in professional learning and development, gaining acceptance among employers [2] and employees [1].

Research has highlighted various challenges for MOOCs. Course completion, participation, motivation and retention issues have been analyzed in depth [3]. The instructional quality of MOOCs remains a crucial topic [4]. Although generic design frameworks [5] can provide support, further research and development is needed.

With a share of 18.2%, MOOCs from the field of business formed the second largest section among the global MOOC offerings in 2018 [6]. A market overview from June 2018 revealed 481 business MOOCs offered by the top 100 universities from the Times Higher Education ranking. MOOCs have become an important means for the online delivery of business education [8]. Against this background, this paper

reports first-hand experiences from the initiation and implementation of MOOCs within an internationally ranked business school.

2 Initiating business MOOCs – the case of MBSx: VBM

2.1 Project Background

Mannheim Business School (MBS) is a leading provider of management education in Europe associated with the University of Mannheim, Germany. As part of its digital transformation strategy, MBS has carried out a two-year MOOC initiation project from scratch, which involved building up a dedicated team as well as technical resources. Based on external funding, a project coordinator/instructional designer was employed, together with a team of three specialist graduate assistants for video production, course design and support. A complete video studio was set up and equipped. Likewise, an in-house OpenEdX system (MBSx) was implemented by the MBS IT department together with an external service provider. Additional expertise in instructional design and MOOC research was provided by the Learning, Design and Technology group from the University of Mannheim. The whole project was carried out in cooperation with the German Graduate School of Management and Law in Heilbronn. This implied joint steering meetings, aligned project management efforts and a mutual exchange of expertise. The initial MBSx MOOC was launched in spring 2017.

2.2 Course Design and Implementation

The first MBSx MOOC on the overall topic of Value Based Management (VBM) featured a distinctive instructional design. The main focus was on flexible content delivery. Thus, the MOOC promoted self-directed learning with video and text-based materials. While MBSx:VBM was aimed at business professionals and advanced business students, the course was open to all audiences free of charge. There were no formal prerequisites. However, learners were expected to have a solid understanding of basic management concepts like the net present value or SWOT-analysis and a good command of the English language. As a learning outcome, successful participants were able to explain, evaluate and transfer critical aspects of the concept of VBM to business problems. Generally following the xMOOCs-model, the course contents were broken down into six self-contained modules: IT-Management, Corporate Social Responsibility, Organizational Learning, Company Taxation, Marketing and Finance. Hence, six instructors from the faculty approached the overall topic from different angles. Additional content was presented by high-ranking business experts in one or more transfer videos for each module. The official course length was eight weeks. As the MOOC was implemented as a self-paced course, participants had the chance to complete their coursework until a closing date another 8 weeks later. The individual learning progress could be monitored with self-test quizzes and minor case studies. For a free MBSx certificate (honor track), 60% of all assignments had to be completed.

3   Experiences from MBSx: VBM

Within the project, a multi-perspective evaluation has been carried out. The learner perspective is complemented by the institutional perspective derived from significant internal stakeholders.

3.1   Learner perspective

In the first course run, N=683 (69% male, 31% female) learners participated in MBSx:VBM. Among them, 144 people earned a certificate (completion rate 21%). The median age was 34 years. Almost all the participants had an academic background. Participants came from 61 different countries, with a majority from Germany (ca. 65%).

The learner oriented evaluation focused on contextual and motivational variables. Table 1 shows elements of the online surveys applied. Two research questions (RQ1 and RQ2) were approached.

Table 1. Elements of the Learner evaluation

Survey Area	Items	n	Sample Item
Participant characteristics	4	$149 \leq n \leq 155$	Please indicate your learning objective. What do you intend to achieve in MBSx: VBM?" – single choice
Initial motives	9	148	„Participating in this course is relevant for my personal development." – six-point Likert scale
Course Design Evaluation	14	73	„Course objectives and learning goals were clearly stated."– six-point Likert scale

RQ1: Who is participating in the MOOC, and what are learners' initial motives?
With regard to their professional status, 78 % of the respondents could be classified as professional learners. (70 % employed, 8 % working freelance, 16 % students, 5 % not employed / retired). 82 % of the participants had intended to learn in MBSx: VBM during leisure time (9 % during work time, 9 % on other occasions). 92 % of the participants wanted to complete the course and earn a free certificate (4 % intended to complete the course without a certificate, 4 % just wanted to browse the contents). Figure 1 gives an overview on participants' initial motives.
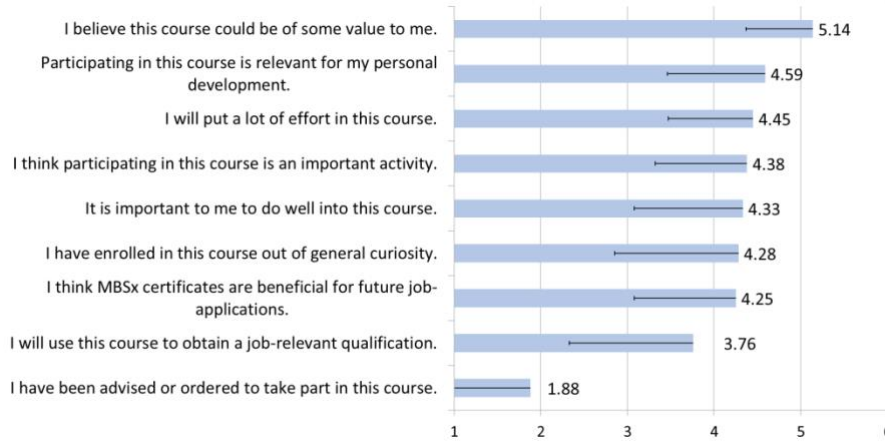
Fig. 1. Initial learner motives (item means; 1 – strongly disagree, 6 – strongly agree).

RQ2: How do learners perceive the course design and its instructional elements?
Additionally, participants were requested to rate the instructional elements of the MOOC. Figure 2 shows the highest four and lowest four ratings.
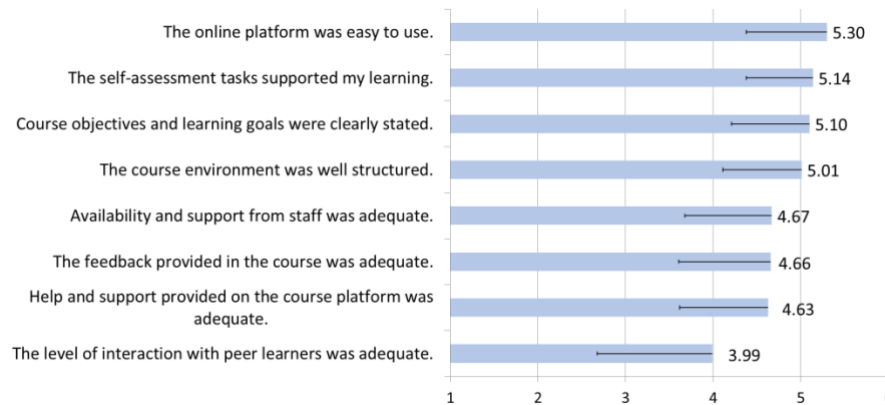

Fig. 2. Learners' evaluation of course elements (item means; 1 – strongly disagree, 6 – strongly agree).

3.2   Institutional perspective

To map the institutional perspective on the MOOC initiation, narrative interviews with institutional stakeholders have been conducted. N=11 stakeholders involved in the project (4 professors, 2 research/teaching assistants, 4 project team members, 1 instructional designer) reported on their experiences and on their views on digital teaching and learning. After recording and transcription, a qualitative content analysis (frequency analysis) has been carried out. A coding frame was developed from a research perspective (5 main categories: Organizational parameters, Roles & Actors, Rationale, Instructional Design, Project specifics) and further elaborated out of the

material (37 subcategories). All in all, 638 codings were assigned. The evaluation focused on the motivation for implementing MOOCs and on stakeholders' views on course design, tackling two further research questions (RQ3 and RQ4).

RQ3: What is the motivation for business MOOC from the institutional stakeholders' perspective? Here, the codings in the category 'Motivation' were analyzed. Figure 3 shows the percentages.
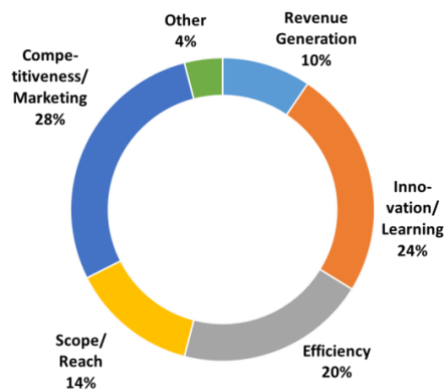

Fig. 3. Institutional stakeholders' motivation (74 codings)

RQ4: What instructional elements are considered important from the institutional stakeholders' perspective? Here, the codings in the category 'Online instruction – methods' were analyzed. Figure 4 shows the percentages.
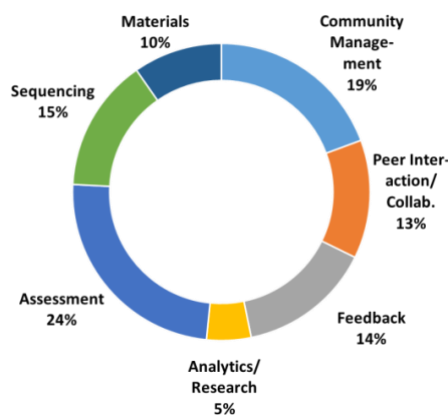

Fig. 4. Institutional stakeholders' views on instructional design (61 codings)

4 Discussion

This paper reported the experiences from the initial MOOC implementation within a business school. In sum, the MBSx:VBM project achieved the following goals:

- Set the stage for digital teaching and learning in the field of business and management at the University of Mannheim (resources & infrastructure)
- Gain first-hand experiences in MOOC development (processes & best practices)
- Achieve faculty involvement and commitment for digital teaching and learning (internal effects)
- Extend the reputation of MBS and the University of Mannheim (external effects)

The implementation was accompanied by a multi-perspective evaluation, enabling a broad view on the project. From the learner perspective, it became evident that

- unlike in academic MOOCs, participants were mostly professional learners who intended to use the MOOC in their free time. Personal development motives outweighed job related motives. However, there were notable discrepancies between the intention to earn a certificate and the actual course performance.
- the course design and its instructional elements were fairly well-received. Self-assessments and materials were considered most important for supporting learning. Collaborative/interactive instructional elements lagged behind. Professional learners seemed to appreciate the self-paced xMOOC-format.

From the institutional perspective,

- business oriented arguments seemed to dominate the rationale behind the MOOC implementation from the stakeholders' point of view. Improving the quality of teaching was not a leading motive here.
- stakeholders stressed the importance of collaborative/interactive instructional elements. However, this was not reflected in the course design.

Design recommendations for future business MOOCs include

- to maintain the flexibility to suit the needs of professional learners: Above all, business MOOCs should be considered as self-directed learning environments.
- to build offerings that go beyond the concept of an academic online course: ‚Mini MOOCs' [7] seem to be suitable offerings for business topics.
- to integrate interaction without compromising scalability and flexibility by ‚community management' and scalable online tutoring.

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