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Teaching Business Models: Approaches and Success Criteria

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Introduction

Teaching business models (BM) and business model innovation (BMI) in universities and business schools has become a common practice. Academia has acknowledged that despite the very normative nature of the concept, business model thinking unites and synergistically binds the very fundamental decisions about a business, i.e., how to create, deliver and capture value. Naturally, programmes in entrepreneurship, strategy and innovation have widely developed and adopted BM and BMI curricula, and educators have invested a great deal of time and effort in designing courses and supportive tools. However, their valuable experiences and insights into what works well in classrooms are difficult to share through the traditional academic channels. To facilitate knowledge exchange, we initiated and organised a series of teaching-related workshops, which then turned into a regular Teaching Forum at the annual Business Model Conference[1] organised by the Business Model Community. We experience that the topic of teaching business models is one that sparks debate and curiosity in the community and attracts great attention at the conference. Teaching business models is by no means an easy task; it requires the establishment of a connection between consumption and production, the physical aspects of producing and delivering a product as well the more subtle dynamics of understanding customer needs and willingness-to-pay (Charles Baden-Fuller in Holm et al., 2019).

The success of the Teaching Forum has also created a need to record and further disseminate the valuable knowledge of teaching BMs and BMI. This is how the idea of a special issue on teaching BMs arose. The

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[1] See http://www.businessmodelconference.com

first call for papers was issued in late 2018 and quickly caught attention of the community. We received well over thirty submissions from educators all over the world who were eager to share their approaches, insights, and tools. Deeply humbled and impressed by the authors' openness as well as the usefulness of their contributions, we decided to split the special issue into two volumes to accommodate bigger number of papers. Ultimately, we selected 19 prospective papers that each present hands-on guidance from educators, for educators. Volume 1 was published in 2019 and included 12 papers.

When working on the second volume, the COVID-19 pandemic rendered many in-class approaches and tools irrelevant for an unknown time. Therefore, the release of Volume 2 was postponed until educators return to classrooms. However, if anything, the COVID-19 pandemic has demonstrated that the discussion of novel and innovative teaching approaches is very much alive. Educators all over the world set out to develop and implement engaging learning methods for teaching students online. Many of the contributions in the special issue address this need; they present digital platforms, elaborate on the principles of hybrid learning strategies or give advice on creating MOOCs (Massive Open Online Courses). While the authors created these approaches in pre-pandemic times, making them accessible to a broader audience now seems to be more relevant than ever. In so far, our aspiration for this special issue remains as it started: It is our hope that this special issue on teaching business models will not only fuel the debate on innovative teaching approaches in contemporary business education, but also be of practical use for young teachers who need inspiration on their first course designs, help experienced teachers to improve their teaching as well as inspire coaches and accelerator units that try to help founders and corporate entrepreneurs to master the art of business modelling (Holm et al., 2019).

With this brief introductory paper, we pursue three main objectives: (i) to provide an overview of the content of the 19 papers included in the entire special issue, (ii) to reflect on commonalities and 'success criteria' becoming apparent across the approaches authors present, and (iii) to present the seven papers included in Volume 2.

The content of the Special Issue on Teaching Business Models

Some of the papers in the special issue present an entire course, others present a specific tool or a course component. Some focus on large audiences, others on teaching executive students or practitioners. What all papers have in common though is that they provide information such as course schedules, exercises, and instructions. Figure 1 provides an index that can guide the reader to relevant papers.

The teaching approaches exhibit several similarities. This leads us to speculate that there are formats and techniques especially relevant in the context of teaching BMs.

Three Ingredients for a Successful Business Model Course

Perusing the 19 approaches presented in the special issue, we observe commonalities in the formats and techniques that educators use to teach business models. So, what makes a successful business modelling course? Based on the papers included in Volume 1 and Volume 2, we have distilled three ingredients for success in BM and BMI teaching.

Experiential Learning

Experiential learning is a very salient feature of the teaching approaches presented in this special issue. Experiential learning refers to learning through reflection on doing (Kolb, 1984). It is often contrasted with academic learning, which relates to more abstract and classroom-based techniques of knowledge transfer. In contrast, experiential learning seeks to engage a learner in a concrete experience. Experiential learning components that the authors in this special issue have included in their teaching range from real-life cases over digital simulations to board games. For instance, Massiera (2021) presents a sophisticated structure that allows to scout and facilitate projects that bring together local entrepreneurs with student groups to work on live challenges. Others discuss historic or fictitious cases in the classroom, and simulations are also frequently used to involve learners in a concrete experience related to business modelling.

Gamification - the introduction of game elements into a non-game situation – is a commonly used

OVERVIEW OF PAPERS' CONTENT
Special Issue Teaching Business Models

	VOLUME	BM DESIGN	BM EVALUATION	IN-CLASS	ONLINE	COURSE SCHEDULE	LEARNING OBJECTIVES	EXERCISES & ASSIGNMENTS	SUPPORTIVE TOOLS	EXAM & GRADING
Bitetti	1	✓		✓	✓	✓	✓	✓		✓
De Reuver et al.	1	✓	✓		✓	✓				
Henike & Hölzle	1	✓		✓		✓	✓	✓		
Jonker & Faber	1	✓		✓	✓	✓				✓
Lehmann & Bidmon	2		✓	✓			✓	✓	✓	
Maffei & Boffa	2	✓	✓	✓		✓	✓	✓		
Margolina & Bohnsack	1	✓	✓	✓	✓	✓	✓	✓	✓	✓
Massiera	2	✓	✓	✓	✓	✓	✓	✓		✓
Mosig et al.	2	✓		✓		✓		✓	✓	
Müller et al.	1	✓		✓	✓	✓		✓		
Rumble	1	✓		✓			✓	✓	✓	
Sort & Brondum	2	✓		✓		✓		✓	✓	
Sort & Holst	1		✓	✓	✓	✓		✓	✓	
Stenkjær et al.	2	✓		✓		✓		✓		
Spaniol et al.	1	✓	✓	✓		✓	✓	✓		
Stadtländer et al.	2	✓		✓		✓	✓	✓		
Szopinski	1	✓	✓	✓	✓	✓	✓	✓		
Thomsen et al.	1	✓		✓			✓	✓	✓	
Yrjölä	1	✓		✓		✓	✓	✓	✓	

DIGITAL PLATFORMS
Margolina & Bohnsack
Massiera
Sort & Holst
Stadtländer et al.
Szopinski

VIDEOS & MOOCs
De Reuver et al.
Jonker & Faber
Margolina & Bohnsack
Müller et al.

USE OF LIVE CASES
Jonker & Faber
Massiera
Rohrbeck et al.
Thomsen et al.

GAMIFIED APPROACHES
Lehmann & Bidmon
Mosig et al.
Rumble
Sort & Holst
Thomsen et al.

MBAs & PRACTITIONERS
De Reuver et al.
Mosig et al.
Müller et al.
Rohrbeck et al.

LARGE AUDIENCES
De Reuver et al.
Jonker & Faber
Massiera
Szopinski

*categorization indicates relative importance paper pays to aspect compared to others

Figure 1.

technique by the authors in this special issue to facilitate experiential learning. For instance, Rumble (2019) presents the 'start-up jungle' as a sand table approach that requires learners to make decisions and think through various scenarios while modelling their way through the business landscape. Thomsen et al. (2019) let students work with booster cards, Mosig et al. (2021) use LEGO Serious Play, and Stenkjær et al. (2019) dedicate their entire paper to the use of digital gamification in the context of business modelling.

Moreover, authors find creative ways to foster reflection in learners. Reflection is also a crucial part of the experiential learning process, and like experiential learning itself, it can be facilitated or independent (Kolb, 1984; Veine et al., 2020). Bitetti (2019) has students write a course blog and learning diary to reflect on their experiences. Other authors make the reflection on different frameworks and modelling languages an integral part of their course design (e.g., Henike & Hölzle, 2019; Stadtländer et al., 2021) and thereby tackle the challenging question how to teach about the cognitive processes involved in business modelling.

Social Learning

Social learning refers to people learning in a social context (Bandura, 1977), and social learning theory states that acquisition of social competence happens exclusively or primarily in a social group. 18 out of 19 papers included in the special issue have group work as a central design principle of their course or teaching approach. Even authors presenting a MOOC that has generated over 70,000 participants (De Reuver et al., 2019) integrate forum discussions and peer reviews in the online interaction between participants. A frequent form of collaboration is the assignment of learners to smaller groups, such as entrepreneurial student teams, which work together on the creation and/or implementation of a business model (e.g., Spaniol et al., 2019; Margolina & Bohnsack, 2019; Lehmann & Bidmon, 2021). At times, the format of collaboration is intensive such as in hackathons or bootcamps (Jonker & Faber, 2019).

What is striking is that, even in large courses, educators find ways to introduce elements of collaboration and interaction between learners, often via the new possibilities offered by digital technologies. For instance, Szopinski (2019) explains the integration of video-based peer-feedback and its grading for the use in large classroom settings (200+ students). Furthermore,

multiple authors present formats and techniques to involve practitioners, either permanently or at certain points, in their courses so that students can observe the reception of their ideas and extract knowledge (e.g., Jonker & Faber, 2019; Massiera, 2021; Sort & Brøndum, 2021; Stenkjær et al., 2021). Importantly, many authors also provide valuable tips and tricks on the challenges of facilitating and grading elements of peer feedback (Sort & Holst, 2019; Szopinski, 2019) or performance evaluations by practitioners and case companies (e.g., Massiera, 2021).

Guided Learning

Guided learning is a term we use to refer to the strong facilitation and intense interaction between educator and student. Strong facilitation was a final commonality we observed across the approaches included in the special issue. In their learnings and reflections, authors unanimously agree that teaching students about business models, especially in experiential formats, requires frequent exchange and sparring between lecturers and students. For instance, et al. (2021) describe how they involve multiple lecturers in their course to enable an intense sparring of the students in small groups. Spaniol et al. (2019) explain the benefits of having individual feedback moments between student group and lecturer in addition to peer feedback. Many authors present smart ways to transfer academic learning to the self-study of learners to free-up time in class for sparring and discussion (e.g., Bitetti, 2019; Margolina & Bohnsack, 2019). This, however, does not mean that strong facilitation and guidance solely relate to student-teacher interaction. The games and digital learning formats presented in this special issue are highly scripted, meaning they provide learners with clear instructions for how to play (Thomsen et al., 2019; Rumble, 2019), perform calculations (Lehmann & Bidmon, 2021), or have digital guides help learners to model a business model step-by-step on an online platform (Margolina & Bohnsack, 2019).

Papers in Volume 2

The seven papers included in Volume 2 present a range of innovative teaching formats. Like the papers included in Volume 1, they go beyond the traditional lecture format and provide creative techniques to incorporate blended or gamified elements. Moreover, several of these papers target specific audiences such as learners particularly interested in business modelling in sustainability-related or engineering contexts.

In the paper "*Teaching Business Models through Student Consulting Projects*", Philippe Massiera presents an educational programme that connects 200 to 250 bachelor students with local entrepreneurs for a period of five weeks. Over this timeframe, students help these entrepreneurs to validate their business model. The paper provides in-depth insights into the organisation of the consulting process including information on selecting the entrepreneurial projects, preparing students to enter the companies or the coordination of the student-practitioner-teacher interaction over the course of projects.

In their paper "*On the Back of a Beer Coaster – Simple Estimates for Costs and Revenues in Business Modelling*", Christian Lehmann and Christina Bidmon present a simple method to get students at any level in touch with the financial aspects to modelling a business. The 'Business Coaster' they offer is a playful, non-threatening way that allows learners to perform simple estimates for the costs and revenues of a business model. The authors provide a sample calculation and practical tips as well as rules-of-thumb that instructors can use to support learners when working with the Coaster.

In the article '*Experiences from a Decade: A Universal Approach to Business Model Teaching*', Jesper C. Sort and Kristian Brøndum present their universal five-step approach to developing business model competencies. The approach is based on the teaching principles of case-based teaching, learning-by-doing and problem-based learning. It provides the participants with the ability to apply the tools/theories/frameworks theoretically as well as practically. The authors assure that the approach has proven successful in a variety of settings across disciplines and can be used as a general guide to teaching BMs in an engaging way (Sort & Brøndum, 2021).

In the paper from "*Invention to Innovation: teaching business models to manufacturing researchers*", Antonio Maffei and Eleonora Boffa present an interesting structure to teach doctoral students enrolled in production engineering programmes about business models and equip them with business modelling competencies. They do not only provide lots of practical information

on the learning goals, course structure and readings in their course, but they also reflect on the unique needs of this rather production- than consumption-oriented audience. Thereby, they provide valuable insights how to educate future business leaders and academics who know how transform invention into innovation.

In their article *'Developing impactful entrepreneurial teaching using a business model framework'*,Kenneth Stenkjær, Kristian Brøndum, Jesper C. Sort and Morten Lund present their insights from a course on new venture creation. The course is designed to support students in the process of searching for a repeatable and scalable business model and its careful market validation. The authors observe that the course strengthens students' entrepreneurial competencies. However, they also point at some limitations in applying the Business Model Canvas (Osterwalder & Pigneur, 2010) and Lean Start-up methodology (Blank, 2013) in contexts that require a high degree of creativity. Therefore, the course was enhanced with creativity training to stimulate the flow of ideas and develop students' creative competencies (Stenkjær, Brøndum, Sort & Lund, 2021).

In the paper "*Teaching Sustainable Business Models - A Modeling-Driven Approach*", Maren Stadtländer, Thorsten Schoormann and Ralf Knackstedt describe how they use experimentation with different modelling languages to make learners reflect on the suitability of these languages in the context of sustainability. Using problem-based group assignments, they make students experience where customizations and adjustments are needed when trying to model a business that does not only understand 'value' in economic terms. Moreover, the course they describe offers interesting insights into the repertoire of frameworks and languages available to instructors who teach business modelling.

Finally, Tim Mosig, Wafa Said Mosleh and Claudia Lehmann present a business model course for executives in the context of smart cities. The course they describe in their paper '*Designing Smart Cities: A Participatory Approach to Business Model Teaching'* relies on the Scandinavian participatory design approach (Sanders & Stappers, 2008). As part of the learning process, course participants complete six different stages, and the article describes the details of those six stages. The authors explain how the participatory design approach makes participants engage in the given tasks playfully, and how it encouraged the exchange of different perspectives and supported learning as a social activity (Mosig, Mosleh & Lehmann, 2021).

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