Balancing theory and practice in entrepreneurship education by applying the student-generated case study method

The experience of start-up management courses at the Corvinus University of Budapest

The purpose of the paper is to present a method of entrepreneurship education for discussion, sharing experience and ideas with colleagues with an interest in entrepreneurship education. The paper will show the major elements of the student-generated case study method and describe how theoretical knowledge and practical approach are combined. The method is presented in detail, outlining how students go through an iterative learning process with a balanced combination of theory and practice.

Keywords: entrepreneurship education, theory, practice

Acknowledgement
I am grateful for the organizers of the Danube Cup International Conference at Budapest, held on 28. 04 2022, for the opportunity to discuss my experience in teaching entrepreneurship with my colleagues in the region and for inspiring me to write this paper.

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1. Introduction

Theory is a fundamental component of the learning process. Without accumulated, abstract general knowledge learning would be slow, difficult, inefficient. This is especially true for university level education, where properly selected theory is a building stone of teaching. When it comes to entrepreneurship education, practice is equally important, since without experience from real life, abstract notions can be hard to understand. Looking at the lessons learned from the cases of several universities worldwide, finding the right the balance and connection between theory and practice seems to be one of the major challenges in entrepreneurship education. Sharing experiences though may contribute to responding to this important problem. The goal of this paper is to present a method of entrepreneurship education that has been applied at Corvinus University of Budapest and to share the available information on the experiences gained at the university.

2. Literature review

The number of universities that provide any kind of entrepreneurial education can probably be measured in the thousands, therefore it is not possible to give a comprehensive overview of all their practice and experiences. However, a literature review was performed based on sources providing targeted and structured analyses of university level entrepreneurial education and discussing the application and role of theoretical and practical approaches. The primary focus of this review was the role theory plays in entrepreneurship education, and the way students meet actual practice during their studies, and how these two components are connected and balanced. Several books or studies have been published in recent years about various experiences in entrepreneurship education. Volkmann and Audretsch (2017) provide a systematic analysis of the entrepreneurship education at 20 European universities, while Neck and Liu (2021) discuss innovative elements in teaching entrepreneurship based on or related to the Babson College methodology in both developed economies and emerging markets, and Jones, Maas, and Pittaway (2017) focus on recent changes occurring in entrepreneurship education, mainly in Western Europe, as well as Fayolle (2018), who discusses several aspects of entrepreneurship education research.

One way to connect students to operating businesses is for students to work as consultants for real cases, as happens at the IDEA Centre for Promoting Entrepreneurship, University of Southern Denmark (Ebbers and Mikkelsen 2017), thus the students have an opportunity to not only study the businesses but can also actively contribute to solving real management problems.

There are also different experiences about firms and ventures funded and operated by students themselves. The success rate of businesses based on ideas developed by students during their university years is usually low, according to (Bischoff 2017), when discussing the experience of Lund University. This may show that, for most students, launching a real business just after graduating from university might
be too early, suggesting that their exaggerated expectations at this stage may even spoil the learning experience.

Real life venturing however can be a positive experience. At the Tampere University of Applied Sciences students establish real companies during their studies, thus their business ideas are validated in a genuine business environment. Another way of testing students’ skills is developing solutions for actual business challenges in very short time (Gareis 2017).

At the Technical University of Kosice, students elaborate their business ideas, and then select one for implementation as a student start-up company (Bischoff and Grünhagen 2017).

At the University of Ljubljana, students participating in entrepreneurship education make a presentation about a certain topic, and then repeat this, ultimately doing the presentation at least five times and each time reacting to the comments received from their fellow students and thus making improvements to their ideas in an iterative trial-and-error process. The teachers act as moderators to oversee the self-teaching as part of the learning experience. Here, recognizing and addressing management problems is a gradual learning process based on feedback. Stimulating and maintaining students’ motivation is especially important if this kind of approach is applied (Ellermann 2017).

A systemic review of the literature on entrepreneurship education programmes found studies covering 20 universities and revealed that combining both theoretical and practical learning in university entrepreneurship education is clearly the norm, seemingly without exception (Volkman and Audretsch 2017). The actual shares of theory and practice are not always detailed in these studies, although some do, like in the case of the University of Valencia, where it is a 50:50 split (Bohlmann 2017). Understanding the concept of entrepreneurship is a key element in entrepreneurship education at the University of Cambridge for students were aiming to acquire the skills needed to become an entrepreneur (Bischoff 2017a).

However, the balance between these two areas shows a wide range of variety. In some cases, programme evaluations in these studies in the literature detected the need to put more emphasis on one or the other area, like at the University of Coimbra, where students themselves missed the orientation towards the practical application of theoretical knowledge to be gained at university (Halbfas 2017a). The importance of the practical approach is also emphasized by Piva (2017) when evaluating the entrepreneurial education at Polimi, Milan. Entrepreneurial education is closely linked to research on entrepreneurship at Lund University (Bischoff 2017), underlining the importance of a fresh theoretical background for teaching.

The diversity of activities as an important feature in entrepreneurial education is underlined by Zagelmeyer (2017) when analysing the case of EMLYON, a Lyon-based private business school.

Inviting entrepreneurs to participate as teachers is a frequently applied way of involving real, practical cases in entrepreneurial education, as mentioned among others by (Zagelmeyer 2017).

Several universities provide a variety of entrepreneurship courses. Some of them are specific for selected students (Bischoff 2017a), while others cover the whole ed-
ucation portfolio of the institution, like at Huddersfield University (Lilischkis 2017). Taking into consideration the needs of diverse target groups is also a key issue at the Leuphana University of Lüneburg (Halbfas 2017).

The importance of providing specific offers to different target groups is also emphasized by Ellermann (2017a), stating that “different programmes for different target groups” is a key principle at Dublin City University’s Ryan Academy.

Research on entrepreneurship education itself can provide essential feedback for developing teaching methods, but at the same time, the boundary of current knowledge is clearly indicated by the fact that, as Loi (2018) points out, the research results published so far about important issues, like the effectiveness of entrepreneurship education, are seemingly contradictory.

However, authors frequently mention that methods must be in harmony with the education background and the attitudes of students.

Students attending entrepreneurship courses have diverse backgrounds too, many after completing basic technological studies. Sometimes entrepreneurship education is introduced in polytechnic universities in reaction to the needs of students, like at Polimi, Milan (Piva 2017). Alvarez (2021) also points out that there are different types of learners, and this also increases the complexity of the problem. As one of Jones (2019)’s syllogisms states, “...students do not equally value the general needs we select for them” and “...students immediate needs vary considerably”, emphasizing that students are individual learners with unique journeys.

Klapper and Neergaard (2017) stress the importance of flexibility in entrepreneurship education among others, such as letting students identify their own needs and then linking their learning objectives to their dominant needs.

Only a small number of students start a company right after graduating from university (Lilischkis 2017). At the University of Huddersfield, the concept of ‘enterprise’ means “having an idea and making it happen”, and not necessarily in the form of a business. Preparing students for taking part in corporate entrepreneurship might be one of the goals of entrepreneurship education (Grünhagen 2017). Furthermore, entrepreneurship education may only have a low effect on entrepreneurship intention (Villagrasa and Donaldson 2021), whereby if students start an entrepreneurship course without the intention of starting their own business, it is unlikely that their attitude will have changed by the end of their studies.

Discussing how entrepreneurial competences for creative discovery and problem-solving can be developed, and referring to psychologist David Kolb’s work, Alvarez (2021) assumes that experimental learning should follow four stages: (1) abstract conceptualization, (2) active experimentation, (3) concrete experience, and (4) reflective observation. This concept also underlines the importance of theory and abstract thinking in concrete problem-solving. Putting these stages into the context of entrepreneurship education, we may add that a certain level of perception always exists, so when abstract conceptualization starts, there is already some preliminary knowledge in place.

As a general conclusion of the literature review, we can see that in entrepreneurial education, students are almost always connected to practice in some way (Bischoff 2017a). There are four broad categories used in university education for ensuring this:
1. Students may be required to develop and elaborate their own business idea (Bischoff 2017a).
2. Entrepreneurs may be invited to participate as external lecturers. The analysis of examples of real business cases at the Leuphana University of Lüneburg show that this is an essential element of their entrepreneurship education, connecting a sound theoretical academic programme with practical experience (Grünhagen 2017a).
3. Students may be connected to real enterprises by acting as advisors, as illustrated by some examples presented earlier.
4. Simulation games may be utilized and serve as a preparation for practical experience, like at the University of Huddersfield.

Combinations of these categories are also applied, like at the Johannes Kepler University Linz, where students work on both developing their own business ideas and on solving practical entrepreneurial management problems.

It is also clear that there is no unified, unique answer to what the optimal proportion of theory and practice in entrepreneurship education is. The best solution depends very much on the background, knowledge, personal goals, and motivation of the students, as well as on the capacity of the institutions in terms of tutors, external lecturers, and their embeddedness into the start-up or entrepreneurial ecosystem.

Several cases presented in the literature review prove that entrepreneurial education is relatively new and is still in an experimental phase, and developing, testing, and adjusting methods is an ongoing job for tutors. Studying the examples and lessons of other universities is of great use to some extent, but every education programme must find the method of training that best suits its capacity and the needs of its students.

3. Overview of the courses where the student-generated case study method is applied

The student-generated case study method (SGCSM) has been applied so far with two subjects at the Corvinus University of Budapest.

One is the subject “Entrepreneurship in the Modern Economy”\(^1\), which is taught in Hungarian and was started as part of the Enterprise Development master’s programme in 2017. From the Autumn semester of 2022, the title of the subject changed to “Start-up Management”. The other subject is “Business Enterprise: Start-ups” which is taught in English for students in the English language BA education programmes, and which started to use this method in 2021. Both subjects consist of two lectures and two seminars per week.

**Entrepreneurship in the Modern Economy/Start-up Management**

The master’s students on these courses must already have a BA degree in business administration or any economy-related programme. However, this does not mean

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\(^1\) The Hungarian title of the subject is Vállalkozások a modern gazdaságban.
that they have a strong background in entrepreneurship or even business management. The students take this course in the third semester of the programme.

<table>
<thead>
<tr>
<th>Semester</th>
<th>Number of students*</th>
<th>Number of seminar groups*</th>
<th>Number of student teams**</th>
<th>Number of students own projects**</th>
</tr>
</thead>
<tbody>
<tr>
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<td>53</td>
<td>2</td>
<td>18</td>
<td>0</td>
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<td>2017/18/2</td>
<td>36</td>
<td>1</td>
<td>12</td>
<td>0</td>
</tr>
<tr>
<td>2018/19/1</td>
<td>41</td>
<td>2</td>
<td>14</td>
<td>3</td>
</tr>
<tr>
<td>2018/19/2</td>
<td>46</td>
<td>2</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>2019/20/1</td>
<td>63</td>
<td>3</td>
<td>21</td>
<td>1</td>
</tr>
<tr>
<td>2019/20/2</td>
<td>39</td>
<td>1</td>
<td>13</td>
<td>3</td>
</tr>
<tr>
<td>2020/21/1</td>
<td>78</td>
<td>3</td>
<td>26</td>
<td>4</td>
</tr>
<tr>
<td>2020/21/2</td>
<td>41</td>
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<td>3</td>
</tr>
<tr>
<td>2021/22/2</td>
<td>9</td>
<td>1</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>2022/23/1</td>
<td>34</td>
<td>1</td>
<td>11</td>
<td>4</td>
</tr>
<tr>
<td>Total 2017–2022</td>
<td>507</td>
<td>21</td>
<td>169</td>
<td>22</td>
</tr>
</tbody>
</table>

Sources: *: education administration system (Neptun); **: education e-support system (Moodle).

Table 1. Basic data on the Entrepreneurship in the Modern Economy/Start-up Management course

Overall, 507 students have taken the course since it started in 2017 and 169 student team have been formed. The student teams have presented 114 cases, out of which 22 were an own project of one of the team members. In 33 cases, the student teams selected projects that had already been presented earlier by other teams.

Business Enterprise: Start-ups

Bachelor of Arts (BA) students at Corvinus University of Budapest taking any business or economic programme taught in English can also take this course as an elective subject. Statistics on the home country of the students taking the course are not available, but most of them come from European and Asian countries. Having yet no university degree, they have a lower level of background knowledge in management than the master’s level students.

Overall, 132 students took this subject in four semesters for six seminars, forming 67 student teams and presenting 62 cases, out of which 5 were an own business
story of one of the team members. There were only 5 cases presented by more than one team.

<table>
<thead>
<tr>
<th>Semester</th>
<th>Number of students*</th>
<th>Number of seminar groups*</th>
<th>Number of student teams**</th>
<th>Number of students own projects**</th>
</tr>
</thead>
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<td>2022/23/1</td>
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<td>1</td>
</tr>
<tr>
<td>Total 2020–2023</td>
<td>132</td>
<td>6</td>
<td>67</td>
<td>5</td>
</tr>
</tbody>
</table>

Sources: *: education administration system (Neptun); **: education e-support system (Moodle).

Table 2. Basic data on the Business Enterprise: Start-ups course

4. Description of the Student-generated Case Study Method

Case studies in education mostly play an illustrative role and may be useful tools for showing real cases to students. Looking at one single case, however, has disadvantages as well, since it is difficult to tell the difference between the case-specific and general lessons. Studying 8–12 cases in a class gives the opportunity for the students to see several interpretations of the notions and their interrelations. The students-generated case study method has two advantages compared to the traditional approach. First it brings real developing stories into the classroom that feel closer and more real to the students than prewritten cases. Second, the involvement of students is higher since they can identify the problems and propose and discuss solutions. On the risk side, we must mention that the cases presented by the students are usually less elaborate and may not provide a final unique answer to a problem, but the advantages mentioned above may compensate for the imperfections.

There is a great variety of methods used in entrepreneurship education and as we saw earlier, it is of utmost importance that the method used in a course is in line with the background, motivation, and personal goals of the students. At the first class of a course, we briefly interview the students about their career goals and tier their expectations about the course as well as about their experience in running, operating, and managing a business. While there are usually students who may have entrepreneurship ambitions in the short run, they are always the minority of the group, representing only 5%–10% in the master’s programme and 2%–3% in the BA programmes. The most frequently mentioned expectation (by 80%–90% of the students) is to learn, and understand more about venturing, and specifically about start-ups. Students’ career ambitions include starting their own business or running it more successfully, but there are other ones slightly or significantly different as well. For instance, they may be successors in a family business or preparing for a top management role. Some of
them may have entrepreneurial ambitions, but not right away, i.e., not earlier than five years after leaving university. A leading management role in corporate entrepreneurship is also an attractive option for some students. A large share of the students hopes to find jobs at in advisory roles in services firms where businesses are clients, so better understanding their management problems may prove to be useful. There are several job opportunities in the entrepreneurial or the start-up ecosystem as well. Even public administration is a possible job choice for the students.

Our experience at the Corvinus University of Budapest confirms the research results of Villagrasa and Donaldson (2021), who found that entrepreneurship education has a low effect on entrepreneurship intention. This is especially so if students take only a single course rather than a longer programme. One of the ways students may be encouraged to seriously consider a career in entrepreneurship is if they are asked to come up with a business idea and develop it into an elaborate concept during the course. This approach, however, may be counterproductive, since students without entrepreneurship ambitions often feel uncomfortable in the role of a businessperson, even if it is only simulated. This may result in a disappointing evaluation, as seen in the students’ anonymous evaluation system results in terms of both their scores and written comments on subjects based on requiring the presentation of own business ideas.

Also, the main subject of the course is the development project, as opposed to a firm’s operation as an organization. The questions covered include what the main stages of a development project are and what the management problems to be solved are. A development project might be something that needs to be implemented in a newly established venture, or a new or modified activity of an existing company, including projects in large organizations (intrapreneurship).

Small groups of students (2–3 persons) are asked to find either a development project themselves or bring in their own business idea or existing project for analysis. They receive general guidelines for the selection, but they must find the firm themselves. Their choice is discussed with the teacher and if necessary modified. The group size of the seminars is limited to 20–30 students to allow sufficient time for discussions of the cases.

It is highly preferred that students bring in their own business idea and team up with one or two other students to present it for discussion. In this case, the idea might be in an early stage. The main goal of the project is to understand the problems to be solved to achieve the success of the project and taking the opportunity to start or continue its validation.

If students opt for analysing an existing project, it must be at an intermediate stage of development, i.e. students are not encouraged to choose projects in a very early stage or fully established companies. It is not required that the firm or the project should be successful. Ventures struggling with problems are excellent subjects for analysis. In the first round, the students introduce the venture or the project.

An essential element of the method is the two-round presentation schedule. In the first round, students present the major characteristics of the project. The goal at this stage is to gain an understanding of the firm or the project and to identify the decisive management problems with the class and the teacher. There are designated modulators in the class for each presentation to initiate discussions and questions.
Students are not supposed to be able to answer all the questions during the presentation at this stage, as unanswered questions will be discussed in the second round.

By the beginning of the second round of presentations, the students will have listened to the theoretical lectures by the teacher and have required an understanding of the basic notions of entrepreneurship and the development stages in setting up a new business or a development process. Guidelines are provided to the students for the second round of presentations, and the students are required to address all the points, including:

- Description of the value proposition of the firm and whether they have already developed the minimum viable product.
- Detailed analysis of the business model from the point of view of the buyer type, pricing, its place in the value chain, and if it is direct or indirect service.
- Who are the founders, and how are the management functions assigned?
- Identifying the development stage the project currently is in, and discussing the previous stages.
- Has there been investment or any other type of external founding? If yes, discussing their functions and results.
- The basic financial indicators of the firm and their interpretation.
- Market environment of the future product, including competitors and relation to the ecosystem.
- Is there a network effect? If yes, is this a geographically limited network?
- Can we observe a validated learning process, or any kind of pivoting?

Students can use a variety of sources to answer the questions, most of which is available via the internet, including the websites of the firms and other forms of communication, like interviews with the founders and executives published by the press, or personally made by the students, and financial reports available from public sources. Start-ups usually are keen to gain publicity and are often willing to release information about their activity, thus making the research relatively easy. On the other hand, information coming from the firm itself cannot always be unbiased and students are encouraged to critically analyse it in their presentations.

Students are expected to provide their opinion on the open management problems of the firm and offer possible solutions, and finally answer the question of whether they would invest in the project as angel investors or venture capitalists, as well as providing a convincing argument to support their decision. Their choice and argumentation are discussed by the seminar group.

An important element of the method is that students are not expected to aim to sell the idea or the company; the goal is to provide objective analysis of the management problems so they can deliver the product to the market.

Problem recognition plays a central role in the course. During the first round of presentations, identifying the relevant problems of the company is a discovery process and is done by the students, moderated by the teacher. Asking questions and commenting on presentations is stimulated by assigning requested contributors to each presentation again.

By the beginning of the first-round presentation, the students are aware that they are in a double role. Outside presenting the case to the teacher for evaluation, what
they bring in the class is part of the teaching material, i.e., they must present the case studies to their fellow students too.

Theory presented during the lectures is intended to provide an analytical framework for understanding the projects. The cases presented by the students are used by the teacher as examples to illustrate the theoretical notions and concepts presented in the lectures.

The method described above addresses the following challenges, problems, and issues:

- Students of the education programmes where the method is applied come from different backgrounds, in many cases not necessarily having a strong business education foundation. Some of them have a stronger technological orientation, often in informatics or agriculture.
- Students have a wide variety of career ambitions, from starting their own business, to taking a management position in start-ups, to getting a job in the ecosystem, and consequently, they have different personal learning goals.
- Flexibility in selecting a suitable case for studying the management problems and the development processes of projects that fit with the students’ backgrounds and personal learning goals.
- Whichever way students opt for, they have an opportunity to put theory into practice and to connect with real firms and development projects. They do not have to rely on prewritten cases of businesses that they never actually see.
- Capability to recognize the significant and decisive problems of a business. It is useless to teach ways and techniques for problem solution if the students cannot identify the problems to be solved.
- Involvement and communication. Students must get involved in discussions to communicate about the issues they see during the presentations. They must recognize the important problems of a case having watched the short presentations of the other students.
- Experience of iteration. Students understand that identifying and solving problems might and often is a long process. Reconsidering problems and redefining the way they approached an issue might be an important capability.

Challenges for the teachers. Applying the SGCSM implies challenges for the teachers too. Since the cases discussed during the course are work in progress, there are no proven answers to the questions that are raised and discussed with the students. This open case approach cannot provide final, watertight solutions; therefore, the opinion of the teacher can be and fortunately sometimes is subject to discussion. Teachers must be able to take part in the discussion without the rock-solid foundation of undeniable knowledge. They even must be able to accept the situation when some students may disagree with them. Accordingly, the goal of the teaching is not to find the right and final answer to the questions discussed, but to understand the possible solutions and measure the consequences.

Another challenge to deal with is that there is no direct validation of the results of the students’ analysis and recommendations, and this is the case with the business ideas too, since usually one semester is not enough for getting relevant feedback
from the market. So, evaluation can only be based on the quality of work and not on the direct results.

Evaluating the subject itself and the method applied is a complex problem as it could be done based on the short, medium, or long run. The current available information is based on the evaluation of the students done at end of the semesters and submitted to the corresponding system in Corvinus University of Budapest. The students can score different aspects of the learning experience as well as the teachers; furthermore, they can make comments on the subject as well, anonymously if desired. This information may not be fully functional, but so far, the students have consequently evaluated the subject above the average in terms of both the whole university and the faculty. They also mention their positive experience of getting concrete practical knowledge on start-ups.

5. Conclusion

Considering the specialties of entrepreneurship education at universities, it is important to find the appropriate teaching methods and doing so entails experimentation. Sharing the experiences of tutors may contribute to stimulating the development of the students.

The method developed and applied at the Corvinus University of Budapest used two ways of connecting students to practical experience: they either find and analyse an existing start-up project or they present their own start-up idea. This mixed approach gives opportunities for both students working on their future or existing start-up and students with hardly any practical experience in entrepreneurship to work on concrete, relevant real management problems.

Such an education method based on two-round, iterative problem identification and solution proposition has the potential to connect and balance theory and practice in entrepreneurship education, even with a diverse group of students. Students enjoy (and sometimes suffer from) a higher level of autonomy during the course, but they may get a better learning experience from this.

The currently available information on the 11 + 4 semesters of the two subjects described in this paper that applied this method does not contradict the assumption that practical experience can be integrated into entrepreneurship education at universities. Further research about the impact of the subjects applying SGCSM may provide additional useful information.

The method described in this paper might be recommended under following the circumstances:

- Entrepreneurial education is integrated in the programmes of the university at either the BA or master's level.
- Most students have no significant experience in entrepreneurship, but there are students who do.
- The tutors are also willing to learn and follow the latest developments in the start-up ecosystem.
References


