

STRENGTHENING CASE STUDY BASED TEACHING IN ENTREPRENEURSHIP EDUCATION IN GERMANY: THEORETICAL REFLECTIONS AND EXPLORATIVE RESEARCH

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ABSTRACT

This article suggests an extended use of the case study methodology in teaching entrepreneurship in Germany. In Germany, the traditional form of formal lectures seems still to be predominant in Entrepreneurship Education. Case studies as a teaching methodology can serve the many dualities of Entrepreneurship Education: heterogeneous vs. homogeneous prior knowledge of participants, participants' divergent interests in entrepreneurship courses, from simply collecting credits to theoretical interest to practical and urgent interest in practical skills for starting a venture. The advantages of case study based teaching methodology in transmitting theoretical knowledge as well as practical skills in entrepreneurship is described, based on the evidence in state of the art entrepreneurship research literature. A small explorative survey on case studies in Entrepreneurship Education is presented. Descriptive results generate insights in students perspective on the usefulness of the case study based teaching methodology in comparison with traditional lectures and provide hints for a more elaborated future empirical study that could employ a proper model on the effectiveness and advantages of case study based learning. The authors conclude in encouraging an increase in the usage of case study based teaching in Entrepreneurship Education especially in Germany.

INTRODUCTION: CASE STUDY BASED TEACHING IN ENTREPRENEURSHIP EDUCATION?

Entrepreneurship teachers face a dilemma: On the one hand, they should teach students what entrepreneurship is about, reflecting on entrepreneurship from an academic perspective by lecturing on helpful and applicable or basic but generalizable theories (transmitting knowledge). On the other hand, they have to focus on practical tools and abilities, which help the particular future entrepreneur to found his business in his specific area (transmitting skills, instruments, heuristics and practicing their useful application). But how should entrepreneurship teachers meet these two-sided challenge?

As we will show in this essay, the usage of case studies in entrepreneurship classes is a very good method to teach entrepreneurship in a dynamic way so that students could get both, a theoretical and a practical mindset of entrepreneurship and of how to found a business – through one method. Cases are mostly used to transmit practical knowledge and skills. In Germany and some other countries or regions of a similar academic style (like central and east Europe, cf. Galtung 1985), it is often neglected that general and generalizable knowledge as well as useful theories can be taught through cases. Especially the usefulness of case studies in reflecting on theories is widely neglected. This article addresses readers who are still critical about the case study method and its benefits for entrepreneurship education. To show why case study-based teaching is one of the best ways to teach entrepreneurship, we proceed as followed:

In the next paragraph we explain why Entrepreneurship Education to some extent is distinct from common courses in business administration. The focus is on the *educational* claim of Entrepreneurship Education and the broad implications that result from this claim. Then the challenge of heterogeneity and homogeneity within and among target groups of Entrepreneurship Education is addressed. The following paragraph discusses the methodologies and didactics of Entrepreneurship Education in general that derive from the aforementioned educational claims as well as from the characteristics of the different target groups. The article then focuses on the case study based teaching methodology in general and its special advantages in Entrepreneurship Education. After

thus discussing the claims as well as challenges of Entrepreneurship Education and how case study based teaching does meet these claims and challenges, the article turns to explorative research. Students in an entrepreneurship course have been asked about their perspectives on case studies compared to traditional lectures and their learning outcomes are assessed, both in terms of comprehending theoretical knowledge and gaining entrepreneurial intention. The theoretical discussion and explorative survey leads to two main claims: *The usage of case study based teaching especially in the German Entrepreneurship Education should increase and more case studies should be written especially for German Entrepreneurship Education.*

ENTREPRENEURSHIP EDUCATION – AND WHY IT IS DISTINCT

In 1985 Peter Drucker mentioned that there is nothing special about teaching entrepreneurship: “The Entrepreneurial mystique? It’s not magic, it’s not mysterious, and it has nothing to do with the genes. It’s a discipline. And, like any discipline, it can be learned” (Drucker 1985). But is there really nothing special about teaching and learning entrepreneurship? Why is there an extra term for imparting knowledge for founding a business called “Entrepreneurship *Education*” while there is nothing like “Organizational Behavior Education”, “Marketing Education” or “Accounting Education”?

Teaching entrepreneurship differs from teaching other classes in functional Business Administration and Economics (Filion 1996) because the distinguishing tasks of entrepreneurs and managers are fundamentally different (Gartner et al. 1992). Entrepreneurship Education does not only transmit knowledge and skills, it addresses the personality of students, aiming at their entrepreneurial intentions and motivations, changing mindsets and giving vitas entirely new directions.

In the academic tradition especially of German universities the term “Bildung” (education) reflects an end in itself. Hence, for many years the most common way of teaching especially in Germany was to conduct lectures in the classical way: The professor is presenting PowerPoint Presentations and giving speeches, based on text books. There is no or few interaction, often with no or only very limited practical

examples, and teaching is very theory based – in particular at traditional universities rather than at universities of applied science with a focus on practice. It is doubted that with such a teaching methodology – that primarily does focus on theoretical knowledge and neither on skills nor at individual development – the aforementioned holistic goals of Entrepreneurship Education could be achieved.

The target – beyond the ideal typical end in itself – of academic education is to prepare students with knowledge for working in the corporate world (Scott et al. 1998) or for academic careers. However, Entrepreneurship Education should be different from such courses designed for preparing for the corporate world. Teaching entrepreneurship is about founding a business – not about working in an existing company. It's about passion, about creating something new with only with very limited resources, about discovering or creating opportunities, innovative venturing, taking Knight'ian uncertainties and managing risks while handling ambiguity. Entrepreneurship Education needs to showcase what it's like to be an entrepreneur and to address the whole personality of each student – not just his or her knowledge. But why is Entrepreneurship Education different from teaching other subjects in the field of Business Administration, even though Entrepreneurship Education often includes many different subareas of the traditional, functional Business Administration curricular? As Kuratko states, Entrepreneurship Education takes a special position: “A core objective of entrepreneurship education is that it differentiates from typical business education. Business entry is fundamentally a different activity than managing a business [...]; entrepreneurial education must address the equivocal nature of business entry [...]. To this end, entrepreneurial education must include skill-building courses in negotiation, leadership, new product development, creative thinking, and exposure to technological innovation [...]” (Kuratko 2005). As per Kuratko, the special position of entrepreneurship results from the necessity of a very broad education of future entrepreneurs, both, theoretical and practical. Entrepreneurship Education integrates areas that are normally left to various ‘silos’ of separate academic departments and disintegrated functions of corporate giants and combines those elements with the special requirements needed in starting and growing a new venture. Filion verifies Kuratko and the special position of Entrepreneurship: “In education generally,

emphasis is placed in knowledge acquisition, whereas in management education it is placed on acquisition of know-how, and in entrepreneurship education, on self-awareness [...]“ (Filion 1996).

Entrepreneurship Education therefor builds on three general assumptions:

1. The first axiom describes the assumption that *it is possible to learn entrepreneurship*, i.e. knowledge critical to entrepreneurs can be acquired and entrepreneurial activities can be trained and learned.
2. Axiom number two states that *entrepreneurial behavior* is not only achievable through personal experience, but also through education.
3. The last axiom combines these first two axioms with the declaration that *entrepreneurship can be taught and learned especially through academic Entrepreneurship Education* at universities (Klandt et al. 2006).

These three basic principles look trivial but are important for the following: Entrepreneurship Education *for* entrepreneurship would be meaningless if one of these axioms would proof wrong.

After witnessing hundreds of classes and courses for future business administrators in Germany (so called “Betriebswirtschaftslehre”, in short BWL) and more than a dozen of entrepreneurship classes, we have identified key differences between the still very traditional educational arrangement of the German BWL and the more progressive Entrepreneurship Education. Table 1 summarizes differences between the functional German BWL and the content of Entrepreneurship Education. As a result of our observations, we found Filion’s findings from 1996 still applicable to the current situation in Germany (see table 1).

Traditional German BWL	Entrepreneurship Education
Endorsement for membership-culture	Endorsement for personal leadership-culture
Concentration on group dynamics and group communication	Concentration on individual enhancements
Developing abstract theories based on (sometimes unrealistic) academic axioms (homo oeconomicus)	Developing applicable theories based on interdisciplinary axioms (homo sapiens)
Strictly following conceptional and other rules (e.g. reporting)	discovering (unwritten) rules of conduct that someone could break for creating opportunities and gaining competitive advantage
Using models, analytical tools, and heuristics in standardized ways and believing in analytical results to justify decisions within the company hierarchy	Critical and dynamic use of models, analytical tools, and heuristics to derive new business ideas, business models, and market niches
Based on the development of self-awareness by focusing on adaptability	Based on the development of self-awareness by focusing on persistency
Achievement of know how focusing on how to manage given resources for a given purpose	Achievement of know how focusing on how to gain resources for a new purpose that needs to be created and enacted, and how to assign markets

Table 1: Differences between traditional German BWL Teaching and Entrepreneurship Education (modified from Filion 1996)

The authors found no generally accepted definition on Entrepreneurship Education. In German literature, you can find a definition, which describes very precisely the content of this special topic:

“Entrepreneurship Education consists of all didactical efforts – principally with ideational content – which sensitize the addressed target group to eventually found a business (rather than working in the corporate world). Entrepreneurship Education aims at providing special knowledge and skills for decision making processes into the field of entrepreneurial acting” (Uebelacker 2005, translated by the authors).

Given this definition, we differentiate between two targets of facilitation: Content-related *learning-targets* and broader *educational objectives*. In the following, we want to discuss which learning-targets Entrepreneurship Education pursues in the context of two educational objectives.

Learning targets:	Effects:
Theoretical basis of values	The economical function of Entrepreneurs is appreciated
Economical creativity	Ability to invent, create and develop innovative and economical promising products, services, and business models
Decision-making ability	Ability to make decision – especially in uncertain situations
Scientific and economical / managerial method skills	Analytical skills through tools for economic, strategic, and managerial analysis, e.g. “Porter’s Five Forces”, “BCG-Matrix”, “SWOT-Analysis”, “Give and Get-Risk and Reward-Matrix” etc. and knowing their limits
Management qualification	Motivation-, communication- and leadership skills for delegating tasks, especially to inform and manage teams

Table 2: Entrepreneurship Education Learning-targets (modified from Ripsas 1998)

The main intention of Entrepreneurship Education in the area of learning targets is to provide potential and future entrepreneurs with knowledge and skills regarding the processes of discovering, creating, evaluating and exploiting opportunities to create future goods and services (Shane & Venkataraman 2000). This intention can be pursued by a set of content-oriented learning targets that are organized by the practical challenges future entrepreneurs may face (following and complementing Ripsas 1998), especially during the dynamic processes of new venture creation (Gartner 1988, Kuratko & Hodgetts 2004) or new business activity (Levie 2007). Table 2 summarizes common learning targets and their desired effects in Entrepreneurship Education.

HETEROGENEITY AND HOMOGENEITY WITHIN AND AMONG TARGET GROUPS OF ENTREPRENEURSHIP EDUCATION

These learning targets can be achieved in different cohesions including differing target groups. Entrepreneurship can be taught in both, an intra-curricular as well as in an extra-curricular framework. Intra-curricular means Entrepreneurship Education happens *in the general curriculum*, for example at Business Schools for *all* MBA students, or at least as a compulsory optional subject. Students earn credits by taking (and passing) entrepreneurship courses. In contrast, extra-curricular Entrepreneurship Education means

studying entrepreneurship outside of the general curriculum, for example in a multidisciplinary framework. For instance students, who study e.g. engineering, are able to choose – outside their general curriculum – some courses on entrepreneurship, but without any rewards for achieving a degree. Within this context, Entrepreneurship Education is open to students from all departments. This extra-curricular approach aims at those students who are motivated to obtain entrepreneurial skills; i.e. students who choose entrepreneurship courses outside their general curriculum have usually a higher, more homogenous motivation due to their willingness or at least open-mindedness towards launching a business. However, extracurricular target groups are often very heterogeneous, as students from various departments with quite distinct background knowledge and divergent (or even conflicting) approaches to learning gather in one program.

Corresponding with the distinction of two target groups (see figure 1) – i.e. target group A (students, who study Entrepreneurship *in* their general curriculum with a heterogeneous interest (see Jones & Matlay (2011) on the challenge of heterogeneity in entrepreneurship education) ranging from plans to start a business to pure academic interest in the theoretical subject but homogeneous knowledge basis, e.g. all students studying business in a bachelor program) and target group B (students, who study Entrepreneurship *outside* their general curriculum due to their – homogeneous – practical interest in launching a venture with a heterogeneous composition of knowledge backgrounds and approaches to learning) – there are two distinguished educational targets respective frameworks. On the one hand, learning goals in Entrepreneurship Education could be explicitly focusing on the practical doing, in terms of an education *for* founding a new business. Here, teaching focuses on the practical sides of Entrepreneurship, either in an intra-curricular, or an extra-curricular context. On the other hand, Entrepreneurship Education could be *about* entrepreneurship, for instance focusing on entrepreneurship theory and research. This teaching is basically located at universities, for instance within schools of economics, whereas the aforementioned perspective of Entrepreneurship Education could be located either at universities, universities of applied sciences, incubators or at initiatives fostering entrepreneurial culture and development via Entrepreneurship Education. Hence two

educational objectives, education *for* or *about* entrepreneurship are identified (Schleinkofer et al. 2009 and Vyakarnam 2005).

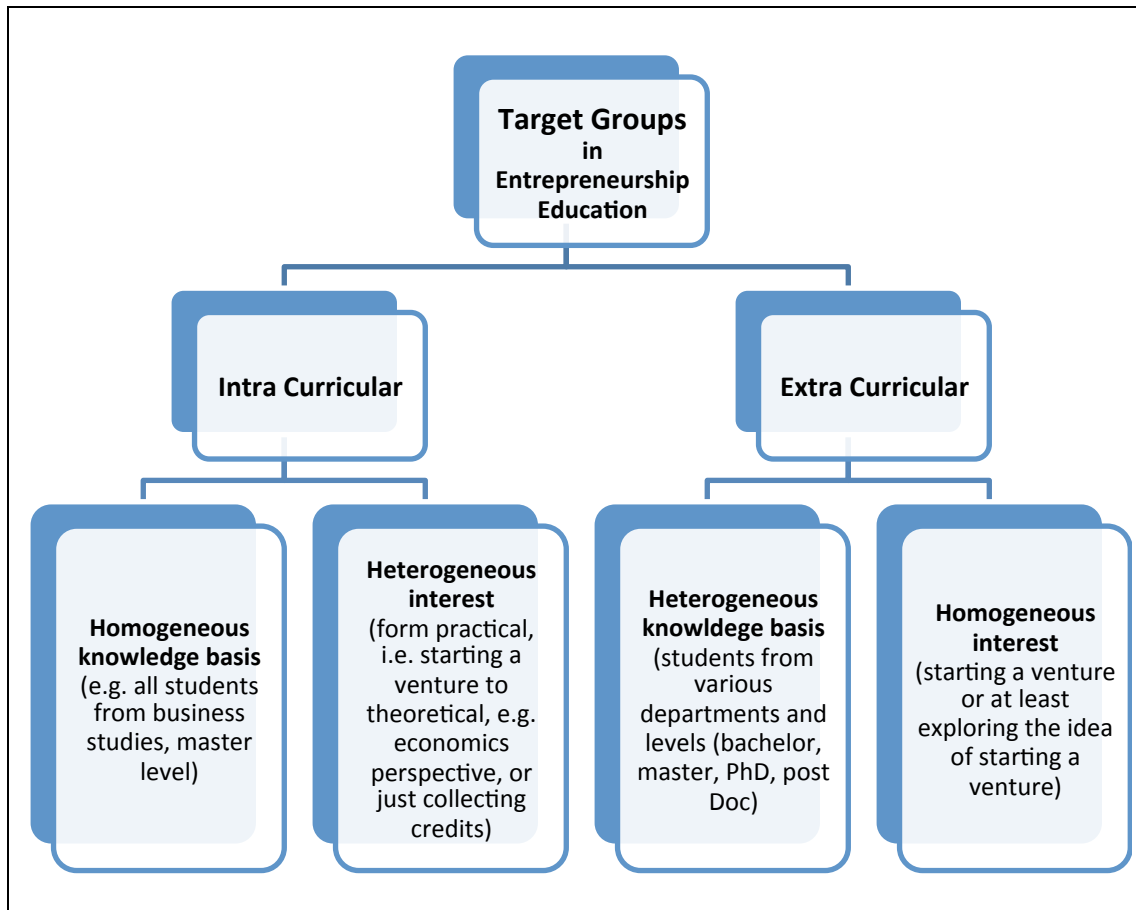


Figure 1: Systematic framework of the homogeneous and heterogeneous composition of target groups of Entrepreneurship Education

Finally, Entrepreneurship Education could combine both learning targets, providing practical knowledge and skills as well as theoretical frameworks. In this case, entrepreneurship courses would educate *for and about* entrepreneurship by combining both educational goals. This would be the most thorough educational goal. Such an education would result in both: theoretical knowledge and reflection as well as practical skills and individual enhancement. This combined educational objective might also be the most appropriate for Entrepreneurship Education at universities. This is because on the one hand solely focusing on Entrepreneurship Education *for* entrepreneurship might not be regarded sufficient and deliberated enough to fit in the academic context and might

harm the standing of entrepreneurship as a field of science. – While on the other hand exclusively focusing on Entrepreneurship Education *about* entrepreneurship might fail to help students in their future entrepreneurial careers and might harm the entrepreneurial motivation of students as well as the entrepreneurial potential of an university. In the following sections of this article we will develop arguments on the use of case study based teaching methodology as a method that simultaneously facilitates learning content for both of these combined educational objectives *for and about* entrepreneurship in the theoretical and practical hemisphere.

Typical Organizational Context	Intra-curricular	<p>Teaching FOR Entrepreneurship:</p> <p>Educating and assisting potential Entrepreneurs. Providing knowledge for the practical needs of founding and growing a business in a particular industry / field of science.</p>	<p>Teaching FOR AND ABOUT Entrepreneurship:</p> <p>Sensitizing and educating students for founding businesses and reflecting on entrepreneurship theory at the same time. Focusing on entrepreneurship in particular industries or fields of science.</p>	<p>Teaching ABOUT Entrepreneurship:</p> <p>Reflecting on entrepreneurship from an academic perspective, e.g. focusing on the economic analyses of entrepreneurship. The educational goal is researching entrepreneurship rather than starting a business.</p>
	Extra-curricular	<p>Teaching FOR Entrepreneurship:</p> <p>Educating and assisting potential Entrepreneurs. Giving general knowledge for the practical parts of founding a business.</p>	<p>Teaching FOR AND ABOUT Entrepreneurship:</p> <p>Sensitizing and educating students for founding businesses and reflecting on entrepreneurship theory at the same time. Open for students from all programs.</p>	<p>Teaching ABOUT Entrepreneurship:</p> <p>Rather rare. Occurs for instance at special events like “Antrittsvorlesung” or “Studium generale” (liberal arts program) at a school of economics</p>
		primary practical oriented	combining practical and theoretical aspects	primary theoretical oriented
Theory / Practice Orientation				

Figure 2: Different perspectives of Entrepreneurship Education

These three educational objectives (*for, about, for and about*) in Entrepreneurship Education are organized by the learning-targets and target groups of entrepreneurship (intra- or extra-curricular) in the following matrix, containing six fields (see figure 2).

In summary, Entrepreneurship Education in its best sense should facilitate both, a practical oriented view on entrepreneurship for future entrepreneurs as well as a theoretical oriented view fulfilling academic demands. Theoretical knowledge is especially important for students who either want to attend to entrepreneurship through a theoretical approach, or for those, who want to become a young academic in the exciting field of Entrepreneurship Research. Additionally, future entrepreneurs can be educated either in an intra-curricular or in an extra-curricular context. For example, if students who study engineering want to start their own business, they usually choose an extra-curricular context to study *for* entrepreneurship, while students at the economics department might opt for an intra-curricular theoretical course *about* entrepreneurship. Different from this classical tow-sided approach we want to draw special attention on combing practical and theoretical education *for and about* entrepreneurship. Such a combination would help practical entrepreneurs to better understand their role and develop their abilities to cope with unforeseen challenges. It would also help future academics in the field of entrepreneurship research to better understand practical entrepreneurship and to close the research / practice gap (see Ritchie and Lam 2006, Freese et al. 2012).

TEACHING METHODOLOGIES IN ENTREPRENEURSHIP EDUCATION

The need for teaching methodologies in Entrepreneurship Education which differ from traditional learning arrangements is rooted in the history of entrepreneurship as a field of science (see e.g. Low 2001, Sassmannshausen 2012, chapter 2). Entrepreneurship Education was aimed at the ‘doing’, i.e. it was supposed to encourage entrepreneurship. One of the initial thoughts, why entrepreneurship should be taught was the opinion that entrepreneurs and business foundations are very important for the development of modern economies (Rosa et al. 1996). One of the first international well known universities who implemented entrepreneurship courses in their curriculum was Harvard Business School in 1947 as an answer of structural problems within the US economy after WW II (Koch 2002). Entrepreneurship was – like today – a socio-political topic: “From a national economics point of view [...] the possibility of a positive welfare effect is significant. In

addition to competitive employment effects, innovation and structural change effects play a decisive role here [...]. As there is an acceleration of social and economic problems which develop in the process of globalization, a competitive context from which new solutions to problems and innovative organizational structures are motivated is today more than ever before a decisive mechanism for the ‘evolutionary success’ of socio-cultural systems” (Scott et al. 1998). In this tradition Entrepreneurship Education should not only transmit theoretical knowledge but should also be taught through practical oriented methodologies so that business foundations are promoted, which foster the evolution and success of socio-cultural systems. Common and newly developed methods in an action oriented Entrepreneurship Education include: case studies, live cases, excursions, role plays, action learning, IT based start-up simulations (see Auchter & Kriz 2012 in this volume) and group work-based start-up simulations (Hrabovsky Bevill & Glasgow 2009), as well as haptic start-up games, courses on design thinking, experimental entrepreneurship projects in classrooms (Sherman et al. 2008) such like learning firms (Braukmann 2001) and other small scale entrepreneurial projects for students, including student initiatives like SIFE, micro student consulting projects (Herriot et al. 2008), and other innovative approaches.

But the German Entrepreneurship Education is embedded within the traditional higher education and is therefore at least partly not very creative, especially regarding didactics and methods (Braukmann 2001). Even though that progress has been made during recent years, the German Entrepreneurship Education is often still characterized by classical lectures and teaching of factual, theoretical knowledge. An essential lack of this traditional, university based teaching is the disregard of methodological expertise and social competence, two components of the so called “method triad” consisting of specialized knowledge methodological expertise and social competence. These fields of competence are necessary for successfully acting entrepreneurial so that Entrepreneurship Education has to train all three elements together (Braukmann 2001, Schleinkofer et al. 2009) to achieve action oriented decision making and responsibility competence (German concept of “Handlungskompetenz”, see Braukmann 2001).

Classical didactic used in traditional German BWL (Functional Business Administration)	Didactic useful for educating future Entrepreneurs
Teacher-centered learning	Participant centered learning: Dynamic learning facilitated by teachers, students, guest lecturers, practitioners etc.
Learning through written materials: Textbooks, journals, etc.	Learning through exchange of ideas and by communicating, doing, trial and error
Student as passive participant: Learning through listening	Student as active participant: Learning through interaction (e.g. action learning)
Learning through given contents	Learning by discovery in a flexible environment
Learning for solving problems that have appeared in the past (research) and may appear in the future again	Learning for achieving goals and working around problems
Imitation unrequested	Learning through active imitation and improved reproduction
Failure unrequested	Learning through failure; Failure as chance to learn

Table 3: Differences between classical didactic, used in traditional German BWL (functional business administrative) (left) and didactic for Entrepreneurship Education (right)

Entrepreneurship Education at German universities is often mostly about theories of entrepreneurship, taught by Professors which usually (there are exceptions, of course) have a very theoretical background and no personal entrepreneurial experience. Entrepreneurship is taught like every other subject in BWL. But there is a main difference between the entrepreneurial learning process and the learning process of other BWL courses as Klandt and Volkmann (2006) stated: “[...] the entrepreneurial learning process develops in a situation in which the learners see themselves confronted by practical problem situations and in this way receive their learning impulses” (Klandt & Volkmann 2006). Klandt and Volkmann (2006) also provide a comparison of differences between classical German BWL didactic and Entrepreneurship Education didactic as table 3 shows (deviated and adopted from Filion 1996, modified again for this article).

One of the main differences between classical BWL and Entrepreneurship Education is that in BWL students usually learn about solutions for given problems, whereas

entrepreneurship requires to go beyond given solutions. Hence, it is very important to facilitate synergies between theory and practice. A background in entrepreneurship theory can – in combination with the skills necessary for successful application – help future entrepreneurs to develop solutions for yet unknown and unforeseeable problems. Therefore practice oriented learning should still incorporate elements of theoretical reasoning. But which method is good for teaching entrepreneurship by facilitating practical skills, methodological and social competence in combination with a solid but applicable theoretical knowledge? In the following section we will discuss the case study based teaching methodology as a method that allows generating such valuable synergies.

ADVANTAGES OF CASE STUDY BASED TEACHING IN GENERAL

Case study based teaching has its modern origins in the casuistic used in law (though it was already used in military training by the ancient Romans 2,000 years ago). It is mentioned that Harvard Business School was the first university which applied case studies for teaching Entrepreneurship and Business Administration. (Kaiser 1983). One prominent definition for the case study method can be found in Harvard Business School press: “A business case imitates or simulates a real situation. Cases are verbal representations of reality that put the reader in the role of a participant in the situation” (Ellet 2007). Case studies are about persons, firms, industries or economies. They can provide almost full information and context or just some rudimental facts. The only thing all kinds of case studies have in common is the fact that they partly reproduce reality, even if sometimes the settings of the case and all names have been changed to secure the identities of characters or institutions involved.

Another, rather theoretical oriented definition of case studies is the following: “The essence of a case study, the central tendency among all types of case study, is that it tries to illuminate a decision or set of decisions: why they were taken, how they were implemented, and with what result.” (Yin 2003). Case studies are a qualitative empirical research method aiming at reproducing and analyzing situations in a realistic context. Students can analyze case studies with different sources of help and different analytical

tools (Yin 1984). While research cases conclude in the analyses and hence go beyond description, cases for teaching purpose usually leave conducting analyses to students.

Case study analyses conducted by students are not only aiming at finding a solution for the particular case. It's about understanding why a certain action or decision is taken and how it should be carried out with what effect. Thereby case study analysis is more about abstracting and generalizing, how to solve similar problems – similar cases. This is why some cases, like R&R (Jarillo Mossi & Stevenson 1985, Roberts et al. 2007, chapter 1), became classics and offer value for learning even decades after their first publication. In case study analyses, there is usually no “one and only solution”, it is more about gaining experience from applying analytical tools and methods and knowing the processes and consequences. Like in reality, students have to develop their own “solution”, they have to decide on their own, which step they should take next (Euler et al. 2004). Hence case based learning is discussion based, with the lecturer not in the position of giving a speech (formal lecture) but in the position to facilitate and direct a fruitful discussion among students (Christensen 1992). Case based learning can incorporate elements of action learning; for instance case preparation can be carried out in small group works and practical tasks can be dedicated to groups of students in small assignments. Cases often offer the possibility to include discussions on certain styles of or challenges to the leadership and to reflect on or train for negotiations. Role plays in the class room can enhance the learning experiences from such elements.

As we discussed above, case studies have multiple aims and can provide a lot of realistic information for students. The climax of dealing with a given case study often is the decision-making processes: What would you do, if you were “in the shoes” of the entrepreneur? Decision making can occur either reflective (what was done in the case, why and to what consequences?) or active (what would be the solution proposed by students, why, and what consequences would likely occur?). Students have to balance different reasons and different consequences for different decisions, thus training their ability to make sound judgments. The means-end discussion can also touch ethical issues and differences in personal goals (e.g. distinguished from profit maximization). The

active debate or reflective discussion can build a bridge from the application in a particular case to more generalizable knowledge (theory). Besides, case studies aim to give both, a theoretical as well as a practical framework to understand how to – in the case of entrepreneurship – act entrepreneurial. In case-based teaching the lecturer can help students to abstract from the reality of a single case by concluding in general applicable solutions derived from the special solution to the single case. Or – the other way around – can encourage students to use generalized methods and theories on the particular case to find or understand individual solutions. Both ways will provide showcases in how to apply theoretical knowledge – or how to generate it.

From this discussion we can derive general advantages of case study based teaching methodology:

- Describing situations from an decision-maker perspective
- Developing own solutions for concrete problems
- Discussing students' different solution approaches
- Educating arguing and decision making skills
- Educating communication and leadership skills
- Motivating students to make a difference through own solutions
- Identifying several solution alternatives
- Learning through failure
- Educating on gathering information
- Education analytical capabilities
- Educating ability to make sound judgments (Christensen et al. (ed.) 1991).

In conclusion, case-studies are able to facilitate both, practical skills which are important for acting entrepreneurial in combination with a theoretical framework to educate analytical capabilities and the meaningful application of theories. Another important part of using case-studies as a method is that it reproduces reality and therefore cases in entrepreneurship provide students with a taste of the entrepreneurial process. In the following section we will focus on the particular benefits of using case study-based teaching in Entrepreneurship Education.

ADVANTAGES OF CASE STUDIES IN ENTREPRENEURSHIP EDUCATION

In the previous discussion we pointed at the fact that Entrepreneurship Education differs from the traditional learning in BWL, especially in learning-targets and the heterogeneity of target groups. Additionally, didactics used in Entrepreneurship Education should vary from didactics used in traditional BWL. Future entrepreneurs should be trained in decision making capabilities, analytical- and communication skills. Educating potential entrepreneurs in these fields requires methods, which do involve students into discussions. The previous chapter showed that the case study method is able to achieve this. In this chapter we want to deepen the understanding of why using case studies is one of the best methods to teach entrepreneurship and help future entrepreneurs to gain the necessary skills to found their business and become successful.

Besides the transmission of knowledge and the training of skills and abilities (an advantage addressed later in this paragraph in more detail), case studies in entrepreneurship can change students' attitudes towards entrepreneurship. We therefore will attempt to cover changes in students' attitudes in our explorative research. As Howard Stevenson stated in a speech at Harvard Business School in 2007³, Students experience that:

- Every situation can be improved (by them, the students, or the protagonist of the cases), not only those situations in which problems obviously occurred.
- The men and women in charge, the experts and the experienced in the case may had been wrong, while a student can be right with his or her thoughts and suggestions. Students learn to be confident in their knowledge, skills, insights, and methods, and to be critical with external or internal advice.
- In communication, leadership or group discussion, students learn to make their point, listen to other participants and build upon their contributions to push discussion forward.
- And students learn from many examples that one can do it, no matter what.

³ This section of the article is based on the author's extension of the protocol that one of the authors took during Howard Stevenson's speech.

Teaching cases, according to the same speech by Howard Stevenson in 2007, furthermore offers the opportunity to choose many alternative cases in entrepreneurship, in order to cover the broad variance of the entrepreneurial phenomenon (see Rocha & Birkenshaw 2007 and Sassmannshausen 2012, ch. 2.3, on the phenomenology of entrepreneurship):

1. Entrepreneurship has many protagonists: Male and female, old, young or in their middle ages, ethnic and indigenous, all nationalities, successful and non-successful, ethical and unethical, opportunity or necessity entrepreneurs, social or commercial entrepreneurs etc. A selection of different cases used over one module can reflect these diverse protagonists in the entrepreneurial scene.
2. Entrepreneurship knows many stages (seed, early, growth, bridge, IPO, turn around, late, etc.), company sizes and forms (start-up, spin-off, MBO, MBI, franchising, SME or family business management, intrapreneurship or corporate entrepreneurship etc.). A selection of different cases can reflect these diverse settings along the various stages of an ideal typical phase model⁴ and across different forms of the entrepreneurial act.
3. Entrepreneurship can happen in all industries and branches – even in yet unknown ones. Cases within one module can either provide insides into various industries, enriching students' sensitivity for industry specific codes of conduct, dedicated financial resources etc. or they can focus on a single industry, especially if students display a particular interest in becoming an entrepreneur in a certain industry. Such a setting will be found with homogeneous groups of participants, e.g. in extra-curricular Entrepreneurship Education *for* entrepreneurship within the department of biotechnology.
4. Entrepreneurship has to deal with many tasks, like financing, marketing, legal requirements, exit strategies, internationalisation etc. Each case can include a number of various tasks and a range of cases together can cover all of the important tasks an entrepreneur should be familiar with. Furthermore by using various cases over on

⁴ Many universities organize their entrepreneurship courses by a number of cases that each reflect different phases of the entrepreneurial process, starting with entrepreneurial intentions and opportunity discovery, continuing with cases that focus on topics like business planning, resource acquisition, start-up and initial sales, organizational growth, internationalization and exit.

course, alternatives in carrying out tasks and finding solutions can be addressed, for instance guerrilla marketing vs. a more traditional approach, traditional financing vs. venture capital, organic vs. external growth etc.

There are cases for each of these various aforementioned settings. Even better: good cases will reflect on a broad variance of the mentioned issues. This will help students not to consider issues as isolated tasks that need to be addressed by functional silos, but to develop a holistic approach to solutions that reflect the interdependencies and continuities of entrepreneurial decisions on certain issues.

The content of case studies allows for addressing both knowledge (“know what”) and skills (“know how”) relevant in entrepreneurship (see e.g. Tocher et al. 2012, Brown 2007, Baum & Locke 2004, Lazear 2004, Baron & Markman 2000). The following collocation (see table 4) of knowledge elements and skills displays skills in accordance to knowledge elements. For instance, a person who knows a lot about marketing is not necessarily a good sales person. To cover the full range or at least the most important parts of knowledge elements and skills critical to entrepreneurship, it is usually necessary to discuss several cases over multiple sessions.

<i>Knowledge</i> , relevant in entrepreneurship:	<i>Skills</i> , relevant in Entrepreneurship:
– Risk assessment analytics	– Opportunity recognition
– Market analyses, marketing	– Selling
– Economics	– Reading economic context
– Strategic management	– Execution
– Business planning	– Integration
– Laws and legal aspects	– Discussing and discussion leadership
– Finance, capital market	– Resource mobilisation
– Venture capital process	– Negotiating
– Patents and other intellectual proper	– Creativity
– Bankruptcy law	– Leadership
– Internationalization	– Cultural sensitivity
– Human Resource Management	– People judgement
– Organizational Theory	– Communication and motivation
–	–

Table 4: Knowledge and skills relevant in entrepreneurship

The advantages of case study based teaching in Entrepreneurship Education are broad and include the training of many abilities that are important for the initial start-up decision as

well as for new venture performance (Wong, Lee & Leung 2006). The following bullet points name important advantages of case based teaching in Entrepreneurship Education and relate those advantages to empirical evidence as well as theoretical frameworks provided by state of the art literature in entrepreneurship research:

- *Discussion leadership*

Successful entrepreneurs are often characterized as charismatic women or men, who know how to articulate and express themselves, who know how to lead their team and their firm and who are often very self-confident (e.g. Townsend et al. 2010, Tyszka et al. 2011). The case based classroom discussions and debates within smaller class preparation or assignment groups train the discussion leadership ability.

- *Endorsement for leadership-culture through case studies*

As mentioned above, Entrepreneurship Education should endorse a leadership-culture, not a membership-culture like in the traditional BWL. Case-studies are able to facilitate such a leadership culture by narrating situations and processes from an entrepreneur's perspective that took considerable amount of leadership behavior to overcome a critical situation. This gives students the opportunity to follow such concrete decision-making processes, directly from a decision-maker's perspective. (Klandt & Volkmann 2006, Filion 2006)

- *Concentration on individual enhancements through case studies*

In the center of Entrepreneurship Education stands the entrepreneur as the main actor and the nucleus of entrepreneurial activity and behavior (e.g. Anderson & Warren 2011, Meier Sørensen 2008, Whelan & O'Gorman 2007, already Carland et al. 1988). He or she is the individual who founds the business, who leads the firm and he or she is the person who manages the processes. Therefore, the enhancement of the entrepreneur and his or her self-efficacy is more important (Krueger, Reilly & Carsrud 2000, Zhao, Seibert & Hills 2005, Davidsson 2006, Wong, Lee & Leung 2006, Carsrud & Brännback 2011) than an enhancement of the manager in the traditional BWL, because managers are embedded in functional structures that compensate self-efficacy. Through the usage of case-studies in Entrepreneurship Education, students

are forced to develop own solution approaches for the case's special problems. They don't listen passively, they work actively on own ideas, enhancing their analytical skills and winning fellow students over in the class room discussion.

- *Development of self-confidence focusing on individual insistency and persistence through case studies*

Working on case studies in Entrepreneurship Education is about interacting. First, students have to develop their own solutions; second, they have to discuss which approach is the best for the given situation in the case. Therefore, students have to defend their approaches against the professor and in particular against other students. Hence, not only students' arguing and discussing skills will be educated but also their assertiveness by insistency and persistence – very important skills to be a successful entrepreneur (e.g. Burke et al. 2008, Mullins 2006, Hunter 2005, Baum & Locke 2004).

- *Educating students' leadership, motivation and communication skills*

Intimately connected with the development of one's self-confidence are the leading-, motivating- and communicating skills of potential Entrepreneurs. These skills are very important for successfully founding a business (see e.g. Tocher et al. 2012, Carsrud & Brännback 2011, Oosterbeek et al. 2010, Baron & Tang 2009, Frank 2007, Baum & Locke 2004, Lazear 2004, Baron & Markman 2000). Entrepreneurs face multiple challenges with leading and motivating a team, communicating with the team, communicating and negotiating with partners, banks or venture capitalists etc. By using case studies, students can learn in an early stage to communicate with other students, with the professor or for example talk in front of the class. Role plays or inviting venture capitalists to the class for a case based "Dragon Deans Contest" (i.e. the presentation of a venture idea or complete business plan in competition with other teams) can further enrich this learning experience. In our entrepreneurship curriculum at Wuppertal University for instance the founders of WaveScape Technologies GmbH performed a live case with students who had to craft and negotiate the start up's venture capital strategy including arguing for (or against) share price and share

premium. Similar classes are performed at many Universities around the globe. Through taking this last aspect of the method triad – social competence – into consideration, students will be educated in these so called “soft skills” sector, which are actually “hard skills” (directly relevant for the venture’s resources and success) for an entrepreneur.

Additionally to the above mentioned personal skills like communication, discussion and leadership skills, there are some analytical skills, which are very important for being a successful entrepreneur, too. How these skills are able to be educated through the usage of case-studies in Entrepreneurship Education are mentioned in the following.

- *Ability to develop innovative and economical promising products or services*

Case studies always contain stories; often these stories deal with successful entrepreneurs, who often weren’t successful from the beginning but learned to make their way against all odds (Henricks 2007, Cha & Bae 2010, Gilbert & Eyring 2010). Through hard work and the right decisions they become successful at last. Hence, students should be educated with smartness to develop products or services and business models, which have to be economical promising. The ability of innovative opportunity identification and development might be one of the most important functions in being an entrepreneur (e.g. Kirzner 2008, Dimov 2007, Sanz-Velasco 2006, Ardichvili 2003, Koning 2003, Sarasvathy et al. 2003, Shane 2003, Gaglio & Katz 2001, Shane & Venkataraman 2000, Ardichvili & Cardozo 1999, Hills et al. 1997, Kirzner 1997, Schumpeter 1934). Potential entrepreneurs need the cognitive structures necessary to recognize opportunities when they emerge (Carsrud & Brännback 2011, p. 19, Kim & Mauborgne 2000, Gollwitzer & Brandstätter 1997). These ability and cognitive structure can be trained through the usage of case studies. Students learn how and why other entrepreneurs made the right decisions and developed the right products and related business models, which became economical successful. But this is not all. Through case studies and the story “behind the scenes”, students are also able to comprehend which decisions were wrong and through what decisions entrepreneurs failed or at least came of the track for some time. Hence,

students learn through failure and are sensitized to be aware of the fact that mistakes could easily be made, but could also be avoided through reflections on the own 'case'.

- *Ability to make decisions even in risky or insecure situations*

Entrepreneurs, as mentioned above, face multiple challenges. One of the biggest challenges is to make the right decisions, even with incomplete or uncertain information (e.g. McKelvie et al. 2011, Haynie et al. 2010, McMullan & Shepherd 2006, already Knight 1921). Through case studies without much information or with the same information-set the entrepreneur had in that concrete situation, students learn how to deal with insecure situations and incomplete information. They learn how to gain the information they need through detailed and structured information research and how to compensate incomplete information and minimize and manage risks that occur from uncertainty.

- *Ability to apply analytical tools for analyzing firms, markets and industries*

Analyzing competitors, markets, industries economical and financial data or just the own strength and weaknesses is very important for young entrepreneurs (see Brown 2007, Frank 2007). A good teaching case will usually allow the use of multiple analytical processes (like Porter's Five Forces, PESTEL, SWOT, BCG Matrix, and alike). Cases in entrepreneurship often go beyond the wisdom of such common tools in strategic management. For instance in the case of IKEA or Ryan Air the advice based on Porter's Five Forces Analysis would have been not to start the companies, as both markets – furniture retail and the passenger segment of aviation – were seen unattractive with overcapacity and fierce competition among incumbents. By using such cases students can learn about the limits of strategic instruments and the meaning of entrepreneurial spirit. The case "R&R" (Jarillo Mossi & Stevenson 1985, Roberts et al. 2007, chapter 1) and Nantucket Nectars (Biotti et al. 2000) – both published by Harvard Business School – make a good point in that respect, too. Students can learn from such cases why and how entrepreneurs win against all odds (Henricks 2007, Gilbert & Eyring 2010), for instance by applying a new business model, by creating more or distinguished value for customers and by forming a value chain that is

distinct from competitors. Such innovative acts can also be linked to entrepreneurship theory, e.g. Schumpeter's (1934) five types of innovation and the entrepreneur's role in enacting the innovations. The advantage of using case studies for practicing these tools is that in some good cases the aforementioned limitations of such tools in the entrepreneurial context can be highlighted. Especially those limitations that derive from the entrepreneur's "rule breaking behavior" (Knyphausen-Aufsess et al. 2006 focusing on industry specific rules of conduct rather than breaking the law) applied by entrepreneurs in cases like IKEA, Ryan Air, R&R or Nantucket Nectars.

With all these above mentioned aspects, case studies are able to prepare potential entrepreneurs for future challenges. Through different styles of case studies and various didactical arrangements that can be combined with case teaching in synergetic ways, cases are able to facilitate all competencies of the method triad: specialized knowledge, methodological expertise and social competence. Case studies are able to provide a theoretical framework as well as a practical framework and to combine both of these frameworks in case reflections. Thus, students get both, a theoretical based perspective and a practical perspective on what it takes to be an entrepreneur. Thereby, it is possible to create synergies between theory and practice through the usage of case studies in Entrepreneurship Education. For this reason, case studies are of particular value not only for teaching *for* entrepreneurship but also for teaching *about* entrepreneurship, a fact that still is partly neglected in German BWL. This is also important for research, because case studies allow future research assistants and PhD students in the field of entrepreneurship to build realistic mental representations of the entrepreneurial phenomenon and to reflect entrepreneurship theories in the light of entrepreneurial practice, thus bridging the theory-practice gap in entrepreneurship (see Ritchie & Lam 2006, Freese et al. 2012).

CASE BASED ENTREPRENEURSHIP EDUCATION – AN EXPLORATIVE SURVEY AMONG GERMAN STUDENTS

In the previous sections of the paper we discussed the benefits of the case study method for Entrepreneurship Education from a didactical and theoretical perspective in the light of empirical literature. It was also explained that in Germany and some other countries especially in mid- and central Europe, case study based teaching is still rarely used, as traditional lecturing remains predominant. But what is the students' perspective on case study based teaching, and what learning outcomes especially in the area of teaching *for* entrepreneurship are achieved? In January 2012 we conducted a first explorative study among students in one entrepreneurship course. The course was part of an entrepreneurship module for students from the business and economics department (i.e. teaching *for* and *about* entrepreneurship). Other courses in the same entrepreneurship module have been taught using a more classical lecture style. This allows directly comparing both settings in our small survey. The aim of the study was to gain first explorative insights that will later help in the creation of a large scale study that is supposed to follow up. The large scale study will include more questions and variables; however at this point we can only present the results from the small scale explorative research.

The sample size was $n=24$; 12 respondents were male and 10 were female students while 2 students rejected to report on their sex. All questions had been included in the standard evaluation form that is used on a regular basis at the end of each course.

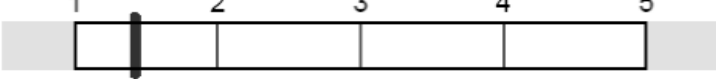
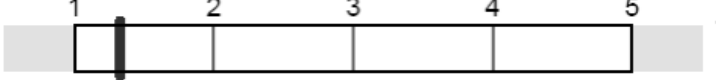
<i>Part 1: Overall evaluation of the case study-based course and general comparisons</i>	
1.1 Overall, in comparison to my other courses, I evaluate the case study based entrepreneurship course...	<p>excellent good average below average poor</p> <p>+ 1 2 3 4 5 -</p> 
1.2 The presentation of the learning content by case studies was...	<p>excellent good average below average poor</p> <p>+ 1 2 3 4 5 -</p> 
1.3 In comparison with more traditional lectures I feel that a case study-based course is better suited for transmitting learning content of practical relevance:	
Yes, I agree	<input checked="" type="checkbox"/> 87.5%
No, I don't agree	<input type="checkbox"/> 4.2%
I don't know / no opinion	<input type="checkbox"/> 4.2%

Table 5: Results from an explorative survey on case study based methodology in Entrepreneurship Education (part 1)

The results indicate that students enjoy case study-based courses very much, in absolute as well as in relative terms (see part 1 of the survey, table 5). The results furthermore show that the case study methodology might be better suited to achieve a better overall learning effect and to achieve a better understanding of entrepreneurship than traditional lectures (see part 2, table 6). Results also demonstrate that case studies can help to better comprehend entrepreneurship theories, so case study-based learning is not solely suited for praxis oriented learning and skill development but also suited to provide a better understanding of theoretical knowledge too (see question 2.2).

Part 2: Comparison of the case study-based course in entrepreneurship with entrepreneurship courses in the same module that utilize a more traditional lecture style

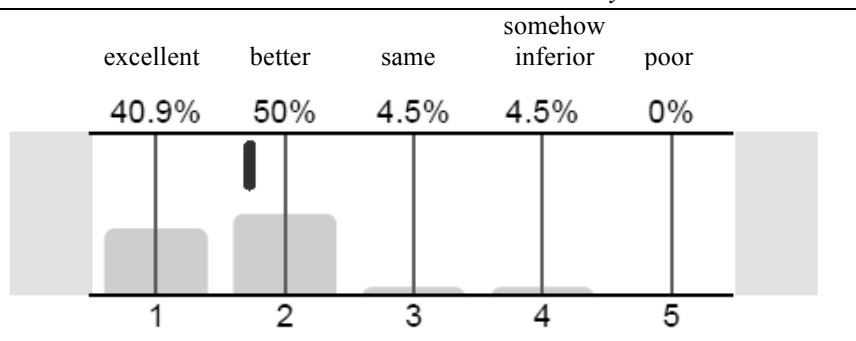
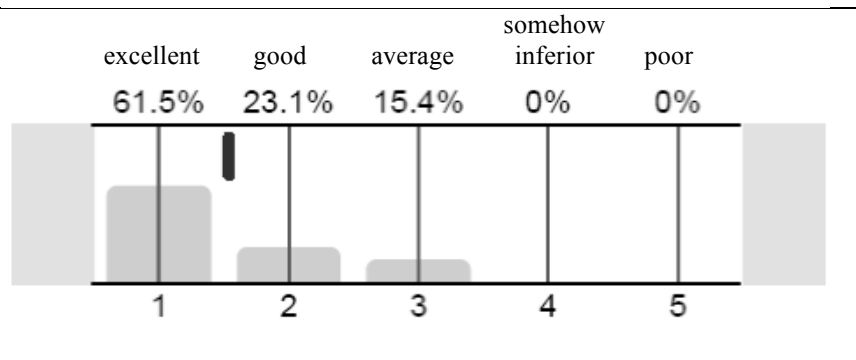
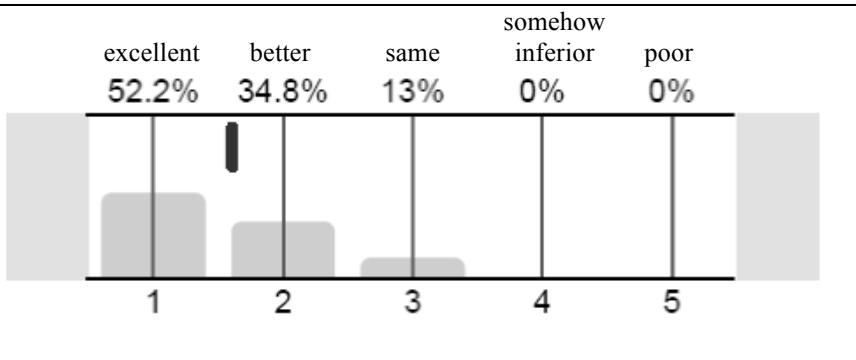
<p>2.1 Compared with the more traditional lecture-based courses in the same module the overall learning effect of the case study-based course to me was...</p>	 <table border="1"> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>excellent</td> <td>40.9%</td> </tr> <tr> <td>better</td> <td>50%</td> </tr> <tr> <td>same</td> <td>4.5%</td> </tr> <tr> <td>somehow inferior</td> <td>4.5%</td> </tr> <tr> <td>poor</td> <td>0%</td> </tr> </tbody> </table>	Response	Percentage	excellent	40.9%	better	50%	same	4.5%	somehow inferior	4.5%	poor	0%
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somehow inferior	4.5%												
poor	0%												
<p>2.2 The case study-based course has helped me to comprehend theories that had been a learning matter during the lectures on entrepreneurship in other courses of the same module in a way.</p>	 <table border="1"> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>excellent</td> <td>61.5%</td> </tr> <tr> <td>good</td> <td>23.1%</td> </tr> <tr> <td>average</td> <td>15.4%</td> </tr> <tr> <td>somehow inferior</td> <td>0%</td> </tr> <tr> <td>poor</td> <td>0%</td> </tr> </tbody> </table>	Response	Percentage	excellent	61.5%	good	23.1%	average	15.4%	somehow inferior	0%	poor	0%
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<p>2.3 Compared with the more traditional lecture based courses in the same module the case study-based course has helped me in a way to gain a better understanding of entrepreneurship</p>	 <table border="1"> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>excellent</td> <td>52.2%</td> </tr> <tr> <td>better</td> <td>34.8%</td> </tr> <tr> <td>same</td> <td>13%</td> </tr> <tr> <td>somehow inferior</td> <td>0%</td> </tr> <tr> <td>poor</td> <td>0%</td> </tr> </tbody> </table>	Response	Percentage	excellent	52.2%	better	34.8%	same	13%	somehow inferior	0%	poor	0%
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Table 6: Results from an explorative survey on case study based methodology in Entrepreneurship Education (part 1)

Part 3: Learning outcome in regard to entrepreneurial motivation and intention

	strongly increased	increased	didn't change much	decreased	strongly decreased
3.1 Independently from any given concrete interest in starting a new venture, my self-confidence in my ability to successfully start a new venture has...	48%	39%	13%	0%	0%
3.2 Independently from any given concrete interest in starting a new venture my general interest in entrepreneurship has...	65%	26%	9%	0%	0%
3.3 After visiting the case study based course, my personal interest in starting a new venture has...	52%	24%	24%	0%	0%

Table 7: Results from an explorative survey on case study based methodology in Entrepreneurship Education (part 3)

In the previous chapter we have extracted several personal characteristics (like self-confidence, self-efficacy and persistence), skills (like communication) and abilities (like decision making under uncertainty and the critical and meaningful use of analytical

heuristics). Part 3 of our survey aims at assessing the impact of case study based learning on facilitating these characteristics, skills and abilities. Despite the fact that our short explorative survey did not go into much detail the results still clearly show that students gained self-confidence in their ability to successfully start a new venture (part 3, table 7).

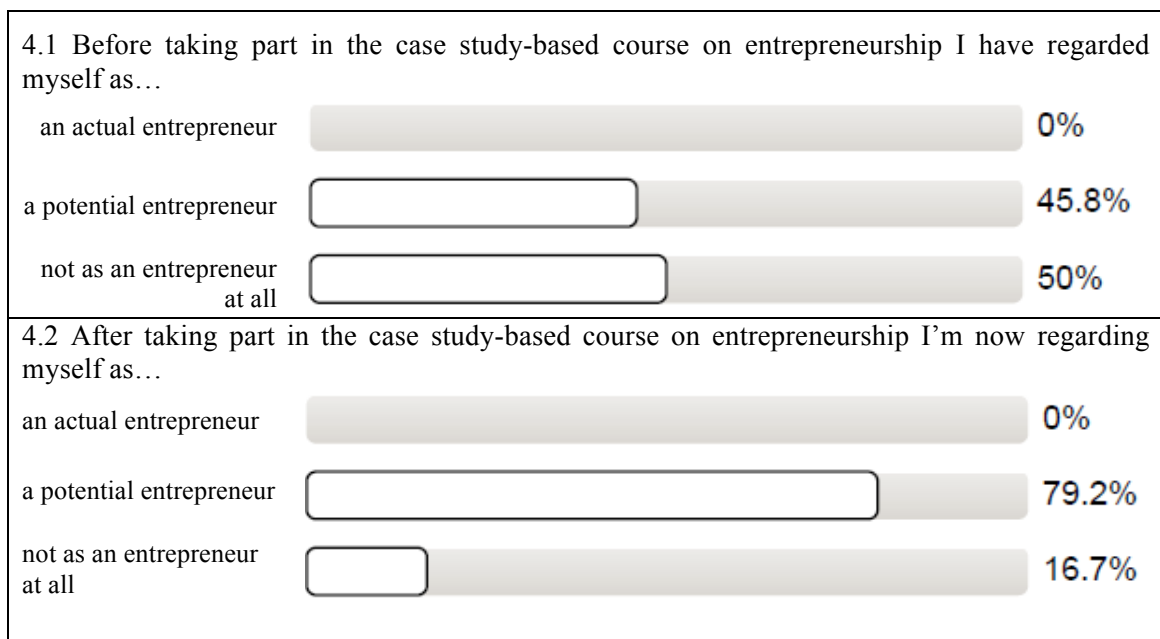


Table 8: Results from an explorative survey on case study based methodology in Entrepreneurship Education (part 4)

Table 8 (part 4 of survey) finally shows how strongly the students' interest in starting a venture increased, documented by an astonishing shift in self-perception from 'non-entrepreneur' to 'potential entrepreneur'.

Limitations of the explorative study: Besides the given limitations of explorative studies in general (e.g. small sample size, no representativeness beyond the sample, no legitimate generalizations etc.) five major drawbacks have to be addressed:

1. The study only examines a limited number of variables relevant to the learning context and learning outcomes of case study based entrepreneurship education. It makes statements mostly based on Likert scales, summarized from the individual judgments of participants. If any effect is indicated by the results from the

accumulated Likert scale judgments, it still remains difficult to assess the strength of any effect.

2. Even though respondents were asked to compare a case study-based course with courses that employ a more traditional lecture style, there is still a lack of control group; hence, there is no empirical evidence provided that would support any statement that case study based teaching methodology is “better” or “superior” in entrepreneurship education to the traditional forms of classical lectures. Still, the explorative study reveals that such empirical proof might be expected to exist in a proper study.
3. The survey was conducted right after the course, so no long term effects are monitored. However, starting a venture is a career choice that often is made only years after graduation. So even though in entrepreneurship education the long term effect might be very important, it is not monitored by the survey.
4. No questions except one have directly addressed the proposed learning synergies bridging entrepreneurship theory and practice. So the evidence for this argument is positive by the result of that one question but rather limited because no other questions were included to control and ensure this result. Especially it was not controlled whether the case study methodology helped to better comprehend entrepreneurship theories just by illustrating the theory – or by deepening the understanding of the theoretical construct and how (or why) the theory could be usefully applied in practice.
5. The different courses in the module have been taught by different lecturers, any differences in the above reported comparative evaluations of the distinguished didactical arrangements (traditional lecture vs. case study methodology) could therefore be caused by the individual teaching style of the lecturers and professors and the individual perceptions and preferences of students for one teacher or the other. The influence of the individual lecturers remains uncontrolled. Controlling for this influence is yet another challenge for the intended large scale study.

Given these results and limitations, our goal is to advance our empirical research in favor of eliminating these limitations. With this article we have contributed to the theoretical

basis for empirical examination of the case study methodology in Entrepreneurship Education. In the future we would like to elaborate on the thoughts presented in this article by constructing a model based on such a theoretical framework. We aim at separately as well as comparatively testing the model with empirical data for the two target groups (intra- and extra-curricular), as well as for the three learning goals (courses targeting on teaching *for*, teaching *about*, or teaching *for and about* entrepreneurship). Such tests should also report on the strength of correlations, identifying the most important elements of case study-based teaching. Therefore it would be important to isolate variables, but it might also be the fact that all variables ‘work in symphony’, so that single elements of case based teaching aren’t as effective as the sum of several or all elements when taken together. Furthermore, with such an approach in research it would be interesting to see the influence of the heterogeneity / homogeneity of knowledge bases or interests of students (see figure 1) on the effectiveness of the case study methodology.

CONCLUSION AND IMPLICATIONS

The intention of the present article was to show why the method of case study-based teaching is well suited especially for Entrepreneurship Education. The usage of case-studies in Entrepreneurship Education can facilitate both, a theoretical as well as a practical oriented framework of how to found a business and of what it’s like to be an entrepreneur. Through the medium of case studies all particular target groups of Entrepreneurship Education are able to achieve the knowledge they need to successfully start a venture or to continue an open or even more academic career path. As already mentioned above, the case study method is able to educate future entrepreneurs through creating an important synergy between theory and practice. Case study-based didactics are able to facilitate all three competences of the method triad and skills of great importance for entrepreneurs.

After introducing a classification of target groups in Entrepreneurship Education we have shown that case studies are valuable for all groups addressed, no matter how heterogeneous they are. We have stressed out that case studies do not only transmit

practical knowledge but can also be used for advancing theoretical reasoning. We have related the advantages and proposed outcomes of case study-based teaching methodology to the entrepreneurship research literature, providing evidence based arguments for the use of case studies especially in Entrepreneurship Education. Finally, we have shown descriptive results from a first small sample study. Students in our survey favored case study-based teaching over more traditional lecturing, an approach still common in Germany. Students felt encouraged for entrepreneurship after taking part in a case study-based course; they stated higher interest in entrepreneurship as well as higher level of self-confidence for entrepreneurship and a much better comprehension of entrepreneurship theory (see Carsrud & Brännback 2011 on entrepreneurial motivation). We have pointed at the limitations of our small empirical study. Despite the fact that more research is needed we would like to ask for an increasing usage of case study-based teaching in Entrepreneurship Education especially in Germany. We would also like to encourage the creation of more case studies specialized for the requirements of Entrepreneurship Education in Germany, as there is still a lack of *good*⁵ entrepreneurship teaching cases based on German start-ups and other phenomena in entrepreneurship.⁶

ENDNOTES

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