

## Danish University Colleges

### What fosters entrepreneurs at university colleges?

Thomassen, Mette Lindahl

*Publication date:*  
2014

*Document Version*  
Pre-print: The original manuscript sent to the publisher. The article has not yet been reviewed or amended.

[Link to publication](#)

*Citation for published version (APA):*  
Thomassen, M. L. (2014). What fosters entrepreneurs at university colleges?. Paper presented at ECSB Entrepreneurship Education Conference, Leeds, Unknown.

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## **Abstract**

### **What fosters entrepreneurs at university colleges?**

By: Mette Lindahl Thomassen, M.Sc. Marketing, Lecturer and Researcher at VIA UC, Horsens  
Chr. M Oestergaards vej 4, 8700 Horsens, Denmark, +45 87 55 42 48, [melt@viauc.dk](mailto:melt@viauc.dk)

#### **Questions we care about (objectives)**

In the wake of the second academic revolution (Etzkowitz, 2003), many important questions have been raised seeking the answer to how higher educational institutions can fulfil their new role in society. Catalysed by governmental regulation, where many higher educational institutions have been imposed to foster entrepreneurs, a need for knowledge in terms of the *Where, What, When, Who and How* of entrepreneurship education (Hindle, 2007) has emerged.

In the light of the context dependency of entrepreneurship education (Hannon P. D., 2006), the first main question of the following paper is to what extent the knowledge generated at the universities can be transferred directly to a university college context?

The second question raised is centered on the “*what*” of entrepreneurship education relating to content: How can educational elements that enable and promote entrepreneurship at university colleges be identified in order to solidify the entrepreneurial education?

If cases where students have become entrepreneurs are studied, as a method to identify entrepreneurship supporting and enabling educational elements, a future research question is raised: “*How do student entrepreneurs at university colleges use their education in their business?*”

This leads to the following sub-questions: What characterises education at university colleges? How can use of education be defined? And how use of education be measured?

#### **Approach**

Based on studies of secondary data, including academic articles and public documents, the following article deductively explores the contextual factors affecting higher education institutions in relation to entrepreneurship education and the issues that arise in this connection. Furthermore, a method to identify existing educational content at university colleges that enables and promote entrepreneurship is sought.

#### **Results**

In terms of the first question raised, the answer is not found, though the answer to *where* and *who* seems transferable, given the nature of the answers provided by Handscombe et al. in their article from 2008 (Handscombe, Rodriguez - Falcon, & Patterson, 2008).

Due to the context dependency of “the right way” of conducting entrepreneurship education (Hannon P. D., 2006), it seems inevitable that each education initially has to be studied individually in order to identify educational elements that enable and promote entrepreneurship.

Under the assumption that entrepreneurial opportunities are individual (Sarasvathy, The Bird in hand principle: Who am I, What do I know, Who do I know, 2008) and entrepreneurship by virtue of its nature is a result of effectuation (Sarasvathy, What makes Entrepreneurs Entrepreneurial, 2001), it seems contradictory to use quantitative research methods to look for causal relations between educational elements and student entrepreneurs, therefore a qualitative approach is suggested.

**Implications:** In order to answer all of the questions raised, further research is needed.

#### **Value/Originality**

The originality of this article lies in the differentiation between education at universities and university colleges and the focus on the latter, raising the question of how much knowledge can be transferred between the two, and in the quest to solidify entrepreneurship education by looking at existing curriculum content that appears to enable and support entrepreneurship.

**Key Words:** Entrepreneurship education, curriculum content, university colleges

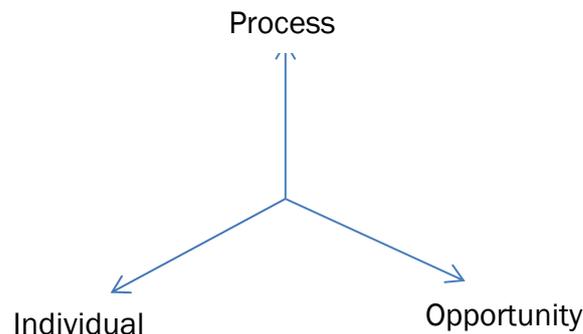
### **Challenges in the wake of ‘the second academic revolution’**

The second academic revolution is in progress in large parts of Western Europe. In addition to providing education and research, higher education institutions have been imposed to contribute to the social and economic growth of society. The concept ‘the entrepreneurial university’ has sprung from this development (Etzkowitz, 2003) as an answer to how this new societal role should be filled. It is a concept which researchers and lectures have tried to define for the last ten years in terms of content, including academic content, pedagogy and didactics as well as purpose. Today, universities have rankings, and for several years Babson, for example, has been at the top within entrepreneurship (Chmura, 2011) among higher education institutions. It may seem paradoxical to describe a concept as an answer to a number of societal challenges and praise the leading educational institution within an area, when no real, broadly recognised definition yet exists (Babson). Perhaps this is exactly why it is important to research entrepreneurship and entrepreneurship education? One of the reasons for the absence of an unambiguous definition of the concept of entrepreneurship may well be that entrepreneurship has been studied from many different angles, including psychology, sociology and economics. In 2001, inspired by the poem of John Godfrey Saxe (1816–1887) “The Blind Men and the Elephant”, which is about how six blind men after their first meeting with an elephant all come to partially correct conclusions about the object on the basis of their sense of touch, but all make mistakes in the conclusions they draw from it, Gartner asked the following question: “Is there an elephant in entrepreneurship?” (Gartner, 2001). Ergo one may be limited by one’s own preconceptions and methods of investigation and as a result of this unable to understand the entire field of research.

The metaphor is interesting and probably contains more than a grain of truth considering the absence of an unambiguous definition. Saxe’s poem ends after the men’s first meeting with the elephant and therefore does not take the potential further development into account, which the blind men might have gone through over time. Hypothetically, they might later have formed a more correct understanding of the elephant after several meetings with it or after sharing experience with a seeing person, provided that the new knowledge would be accommodated rather than rejected. The question is whether researchers today, 13 years later, have come closer to fully understanding of the concept as a whole or whether the different educational fields are still blinded by their own preconceptions and bound by given research methods and traditions?

The understanding of what entrepreneurship is covers a wide spectrum, from the traditional perception of the founding of a company to an entrepreneurial mind-set (Kirketerp A. L., 2010) The following article is based on an understanding of entrepreneurship as a self-driven, internally motivated, action-oriented and means-driven process in which the individual on the basis of disharmonies, defined by his/her opportunity nexus, identifies and creates entrepreneurial opportunities and utilises them to create value for others (a fusion of (Sarasvathy, What makes Entrepreneurs Entrepreneurial, 2001) (Shane & Venkataraman, 2000) and (Sarasvathy & Venkataraman, Entrepreneurship as a method: Open Questions for an entrepreneurial future, 2011) and (Spinosa, Flores, & Dreyfus, 1997) ).

Figure 1: Individual – opportunity nexus



Source: Based on (Shane & Venkataraman, 2000 )

The focus of this article is on entrepreneurship with obvious socio-economic value creation in mind in the form of the founding of new businesses or non-profit projects, either with the traditional focus of profit maximisation or with the purpose of creating cultural and/or social value.

### **Meanwhile in Denmark**

The second academic revolution in Denmark has been amplified by negative economic development where a considerable decline in the ability to compete have been seen (Kyed, 2012) manifesting itself in a number of political measures in an attempt to break the negative economic spiral. Several of these measures have had considerable impact on the education sector. As part of its 2011 policy basis, the Government decided that the level of education in Denmark needed to be raised to create a highly educated, competitive knowledge society (Government, 2011) . As an adjunct to the discussion about the purpose of higher education, the Government has another objective, which is that the degree programmes should promote entrepreneurship and innovative skills in the students (Ministry o. r., 2013), which has created a considerable need for knowledge about how this objective can and should be achieved.

It is important to keep in mind that this presents a challenge not just to the universities but to all higher education institutions and therefore also the university colleges. The latter constitute the main contextual focus of the rest of this article.

Traditionally, scientifically documented knowledge production has taken place at the universities, where researchers can offer many thoughts and some answers as to how entrepreneurship can be taught, e.g. “Entrepreneurship teaching, process, reflection and action” (Bager, Blenker, Rasmussen, & Thrane, 2011) with the purpose to promote entrepreneurship and innovative competences. Due to the differences between the degree programmes at universities and those at university colleges (discussed in more detail later in this article) and given the contextual dependence of entrepreneurship teaching (Hannon P. D., 2006), one key question may be to what extent university research can be applied directly in a university college context?

Despite research and government prioritisation of entrepreneurship, 2013 was a new low for Denmark in terms of the number of newly started businesses in the country (Ostenfeldt & Sandberg, 2014). In addition, the average lifespan and general growth potential of newly started companies are far from impressive, which reveals an ongoing need for development and perhaps an even greater need for implementation of knowledge about how educational institutions can create more and perhaps better qualified innovative entrepreneurs.

The following section takes a closer look at some key questions that have been raised in literature in relation to the way entrepreneurship is taught at higher education institutions.

### **Key questions in relation to the way entrepreneurship is taught at higher education institutions**

In his article “Teaching entrepreneurship at university: from the wrong building to the right philosophy” (Hindle, 2007), Kevin Hindle raises and discusses a number of key questions in relation to how entrepreneurship is taught.

- *Where* should entrepreneurship be taught?
- *What* should be taught?
- *When* should students be taught entrepreneurship?
- *Who* should be taught entrepreneurship?
- *How* should entrepreneurship be taught?

In his article, Hindle downplays the importance of *where* entrepreneurship is taught and concludes that before focusing on *what* is taught and *when* it is taught in the degree programme, it is important to focus on *who* can/should teach entrepreneurship and *how* it must/should to be done.

Heinonen and Hytti allege that in order to meet the challenge which the second academic revolution presents, universities have to focus on a further development of pedagogy, *how*, and the curriculum, *what* (Heinonen & Hytti, 2010). In terms of *how* entrepreneurship must/should be taught, Poul Hannon divides entrepreneurship teaching into three categories: teaching *about*, *for* and *through* entrepreneurship (Hannon P., 2005). In addition, Hannon argues that in relation to entrepreneurship teaching, ‘the right way’ is largely context-dependent (Hannon P.D., 2006). Robert Handscombe et al. argue that to be most effective entrepreneurship teaching must be integrated into the established degree programmes and subjects, *where*, and be taught by teachers at the faculty, *who*, and not just exist as an individual unit in its own right **Error! Reference source not found.** The question of *when* is partly answered by the recommendation of Handscombe et al. to integrate entrepreneurship teaching in the existing subjects at the faculties, meaning that *when* is throughout the entire degree programme. However, for the direct entrepreneurship education which falls under Poul Hannon’s *through* category (Hannon P., 2005), experience from the ‘d-school’ (University, 2014) shows that it should take place once the students have solid knowledge of their core subject (Nedergaard, 2008), i.e. at a time when the knowledge of the core subject can be applied and has become part of the student’s ‘Bird in Hand’ (Sarasvathy, The Bird in hand principle: Who am I, What do I know, Who do I know, 2008) **Error! Reference source not found.**

Presuming that entrepreneurship teaching should be integrated into existing degree programmes (*where*), be carried out by teachers at the faculty (*who*) who teach *for* entrepreneurship (Hannon P., 2005) throughout the entire degree programme, and the teaching *through* entrepreneurship should take place once the students have solid knowledge of the core subject (*when*), on the condition that the above-mentioned conclusions can be applied in a professional context, it appears meaningful to look at Kevin Hindle’s *what* should be taught and *how*. In the following, this article will focus on *what* to limit its scope. It is not a question of deselecting what is not relevant, quite the contrary; there is presumably be a high degree of synergy between *what* and *how* in relation to the effect of the entrepreneurship teaching, which is also pointed out by Handscombe et al. in their article (Handscombe, Rodriguez - Falcon, & Patterson, 2008)

In continuation of Hindle’s comments and the findings of Heinon, Hytti and Handscombe et al, the question arise which of the existing components in university college degree programmes enable and promote entrepreneurship? Implicitly asking *what* is currently taught that foster entrepreneurs at university colleges? It is consequently logical to ask which other components promoting

entrepreneurship have the potential to supplement the existing content with a view to educating innovative and entrepreneurial graduates, but this question falls outside the scope of this article.

### **What kind of existing educational components enable and promote entrepreneurship in a university college context?**

A method that could be used to shed light on which of the current components at the university college programmes enable and promote entrepreneurship is to study the cases where students have become entrepreneurs during their studies. The purpose of this would be to identify which of the courses taught at the university college the students have used in connection with the founding and operation of their businesses. This leads to the main research question:

*How do students who are entrepreneurs use their university college education in their businesses?*

This requires the following definitions:

1: What characterise university college education?

2: How can 'use of education' be defined?

3: How can 'use of education' be measured?

This article concludes with suggestions for definitions of the above-mentioned questions 1–3 and this, in turn, makes it possible to answer the research question.

### **What characterise a university college degree in Denmark?**

The ratification of the Bologna declaration in 1999 started the Bologna process (EHEA, 1999). One of the aims of this process was: "*The development of easy-to-read and comparable degree programmes and certificates*" (Ministry of research, 2013). In 2001 graduates from certain higher education programmes in Denmark were given the title of Professional Bachelors, in order to enable comparisons of degree programmes across EU, but what does this title actually stand for? In May 2000, the Danish Act on medium-length higher education courses (Ministry of E., Original lov: Lov om mellemlange videregående uddannelser, 2000) was adopted, and a number of common denominators for the professional bachelor degree programmes were set out in the Executive Order on Professional Bachelor Degree Programmes, in pursuance of Section 7(3) of Act no. 481 of 31 May 2000 on medium-length higher education courses.

The Executive Order in question contains eleven sections of which Sections 1, 2 and 5 are discussed below, as they are considered to be most relevant for defining what characterises a professional bachelor degree programme.

Sections 1 and 2 define the scope of the education. It is essential that the degree programme is based on a profession, i.e. the students acquire the basis for exercising a profession and operating independently within the professional area(s) targeted by the degree programme. In addition, the programme monitors and contributes to the development of the profession and the part of society in which it operates. The degree programme is also research affiliated, thus creating an expectation that the educational institutes aid in the collection, analysis and communication of data and research results that are relevant for the individual business activity.

Section 5 identifies ten criteria that typically characterise the professional bachelor degree programme. They are listed below in the order in which they occur in the Executive Order.

1) *Identity and objectives*. The degree programme combines theoretical and practical elements with a practical professional aim. The programme contains key, fundamental components/subjects that constitute the identity (core academic content) of the degree programme as well as other subject areas that may be regarded as electives or specialisation.

2) *Access*. The college admits students in accordance with the rules for the individual degree programme as set out in the Executive Order on admission, enrolment and leave of absence, etc. at higher education institutions (the Executive Order on Admission).

- 3) *Duration*. The degree programme is an independent education in its own right with a scope corresponding to between three (180 ECTS credits) and four years of full-time equivalent (240 ECTS credits), including the internship, which is equivalent to at least 30 ECTS credits. One student full-time equivalent is the amount of work carried out by one full-time student over a year and equivalent to 60 ECTS credits (European Credit Transfer System).
- 4) *Structure and planning*. The degree programme is a combination of theory and practice involving an exchange of values and knowledge between the degree programme and the profession, ensuring that key trends in the profession are covered by the knowledge taught in the degree programme. The education is planned so as to make increasing demands on the students' knowledge, skills and independence.
- 5) *Internship*. The internship plays a key role in ensuring the relevance and applicability of the course to the real world. The internship is planned on the basis of the practice of the individual profession and its need for skills to ensure that the internship in combination with the other components of the degree programme help the students develop professional competence. The internship is to be designed so that progression towards independent execution is achieved.
- 6) *Bachelor's project*. The degree programme includes a Bachelor's project, which is a major independent assignment of a scope corresponding to at least 10 ECTS credits. The project is designed to give the student special insight into a defined subject/area/problem, which is of key importance to the profession. The Bachelor's project is assessed at an oral examination. A combined grade is awarded for the written Bachelor's project and the oral presentation at the exam. The exam is individual.
- 7) *Forms of teaching*. When planning the education, including the internship, the programme uses teaching and work methods that develop the student's independence and ability to co-operate and reflect. IT is used in the teaching as a tool, method of pedagogy and means of communication.
- 8) *Teacher qualifications*. The combined skills level of the teaching staff in the degree programme must be higher than the level required for graduation. In addition to teaching skills, the level of qualifications includes documented theoretical, academic and/or professional skills.
- 9) *A focus on profession and development*. The teaching draws on practical experience and knowledge about key trends in the profession and methods to further develop the subject and carry out development work and a high standard of work in general.
- 10) *Association with research*. (1) The teaching draws on results of national and international research work, trials and development work from areas relevant for the profession and suitable as examples that can contribute to the development and application of new professional knowledge. (2) The individual Executive Order on Education determines the total skills set which the student must achieve, as well as the aim of the education and how this aim is achieved. In addition, the individual Executive Order on Education may stipulate specific rules about the criteria mentioned under (1).
- (Ministry o. E., Bek. nr 113 af 19-02-2001 bekendtgørelse om uddannelsen til professionsbachelor, 2001)

The feature that best characterises the professional bachelor degree programme and therefore distinguishes it from other higher education programmes is the fact that it targets a specific profession, i.e. that the student is trained to assume a very specific role as a teacher, kindergarten teacher, nurse, physiotherapist, or similar, (although some of the technical and commercial degree programmes have a somewhat broader scope) as well as the key role the internship plays in the degree programme. The professional bachelor degree programme is thus a combination of theoretical learning, as we know it from the universities, and a form of practical apprenticeship

known from vocational educations aiming at giving the students a basis for exercising the profession and functioning independently within the professional area(s) which they are studying.

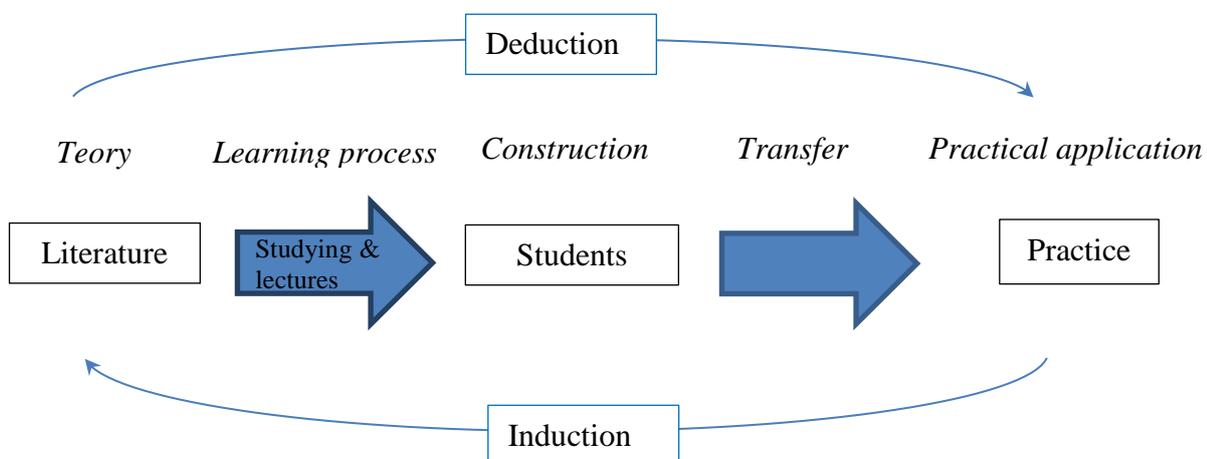
In her article, Bente Sivertsen argues that there are considerable differences between the degree programmes despite the common denomination of Professional Bachelor, not just in content but also in form (Sivertsen, 2005). As a result, it appears makes sense to study the professional bachelor degree programmes individually to identify the elements in the individual programmes that enable and promote entrepreneurship and subsequently try to identify any generic elements/groups of elements that appear to enable and promote entrepreneurship in a broader sense.

### How can 'use of education' be defined?

Based on the above-mentioned definition of a professional bachelor degree programme as a collection of theoretical and practical elements that enable the graduates to perform specific professional roles, the following section will look at what the use of an education covers in a professional context.

Figure 2 is a simplified illustration of the development process that takes place between theory and practice. In view of the area covered by the professional bachelor degree programmes, cf. Sections 1 and 2 (Ministry o. E., Bek. nr 113 af 19-02-2001 bekendtgørelse om uddannelsen til professionsbachelor, 2001), the theoretical foundation and practice are subject to an ongoing development process in the form of induction and deduction between the two areas.

Figure 2: *Between theory and practice*



Source: Own production

For the individual student, the learning process will depend on the student's own ability and efforts in terms of independent studies, but perhaps even more on the lectures who to varying degrees can determine the content of the subject and the choice of literature, of course within the given framework for the profession and the subject, and on the choice of didactic methods used to convey the theory. Both during and after the knowledge communication, the individual student will independently process and construct what they learn. Constructivism is rooted in the theories of Jean Piaget and Jerome Bruner. According to Piaget, the learning process requires active participation. Cognitive processes are triggered by adaptation requirements, and learning may take the form of assimilation or accommodation. Bruner posit that perception is contextual and

characterised by being expectant and accommodating. Therefore, the meaning formed by the individual student in a teaching context will depend on his/her preconceptions.

Transfer takes place in the transition between what is learnt and the use of this knowledge. Transfer is derived from Latin, and in a teaching and learning context, transfer means that something you have learnt in one situation is transferred and used in another situation. In the transfer and use of knowledge, there will obviously be some degree of adaptation, depending on the differences between the situations (Aarkrog, 2010). In addition, the meeting between what has been learnt and the use of the knowledge in practice may lead to three forms of application/use of education:

1: Action guidelines; knowledge consists of procedures or rules for the performance of acts in practice.

2: A framework of understanding; knowledge is used to understand, interpret and assess situations in practice.

3: Development of academic identity; knowledge and skills strengthen the student's academic identity.

(Aarkrog, 2010)**Error! Reference source not found.**

The two first-mentioned applications appear most relevant for this article.

Based on the above-mentioned sketch of the process from theoretical foundation to practical application, the use of education is in this article defined as a transfer, i.e. the students' use of what they have learnt in the degree programme, either as action guidelines or a framework of understanding in the 'new' situation, which in this context is the practice that takes place in the context of their company.

### **3: How can 'use of education' be measured?**

As mentioned earlier, given the diversity of the professional bachelor degree programmes in both form and content, it appears relevant to study the programmes one by one to identify the components in the individual programmes that enable and promote entrepreneurship.

Under the assumption that entrepreneurial opportunities are individual and that entrepreneurship in its nature is a result of effectuation, it seems contradictory to use quantitative research methods to look for causal relations, in an effectuation process, between educational elements and student entrepreneurs. Because of the nature of the individual and context dependent effectuation process, a *ceteris paribus* situation, which is the basis for quantitative research, will probably never exist and if it does finding all relevant independent variables would require an in-depth understanding of the entrepreneurship process which in any event seems to call for a qualitative method of research. It therefore seems relevant that the collection of data and the data analysis should be based on a qualitative method in which a deeper insight into the individual cases is sought to understand which components in the professional bachelor degree programme have helped the individual student become an entrepreneur and then look for similarities between the different cases that may form the basis of a general conclusion.

For this purpose, the collection of data may take place in the form of episodic interviews (Flick, 2006, p. 181–186), centred around the student's founding and operation of the company and the educational components which the student experiences and has experienced as being relevant in these situations in order in this way to identify entrepreneurship-promoting components in the individual degree programmes. Narratives from students with similar educational backgrounds can then be compared in a search for common traits.

Subsequently, one can try to draw parallels between the identified components across the degree programmes to identify any generic subject-related components that promote and facilitate entrepreneurship. It is expected that this will require a classification of the components which might look as follows:

- 1: Core subject elements (Section 5, 1st criterion) which the students have acquired through theoretical studies
- 2: Electives/specialisations (the mentioned Section 5, 1st criterion) which the students have acquired through theoretical studies
- 3: Skills or competences which the students have acquired in practice
- 4: Extra-curricular activities offered as part of the education

The components can also be classified according to Poul Hannon's 'about, for, through' division of entrepreneurship teaching (Hannon P., 2005).

- 1: Teaching about entrepreneurship
- 2: Teaching for entrepreneurship
- 3: Teaching through entrepreneurship

In such a setup, part of the data processing will consist in identifying the most meaningful categories, if necessary supplemented by a grouping of components that contribute to action recommendations, a framework of understanding or both.

In addition, the interviews may serve the purpose of providing in-depth answers to Hindle's question about 'where', 'what', 'when', 'who' and 'how' in relation to entrepreneurship teaching. Some of these questions can be studied and supported by using a data triangulation (Flick, 2006, p. 24–25) in which secondary data such as academic regulations, for example, can help clarify where, what and how, and where primary data such as interviews with the teacher/practitioner can clarify the how. The company's subject area and the student's educational background can also be compared to look at whether they appear to correlate based on the understanding that the use of a professional bachelor degree is linked to the practice of work functions within the profession. It may therefore be possible to clarify whether there is an apparent correlation between the student's professional bachelor degree programme and the industry in which they start a business, which could potentially contribute to an assessment of the extent to which the students use their degree programme in the company, compared with the narratives of the students themselves.

## **Conclusion**

A number of external factors have contributed to redefining the role of higher education institutions in society. Educational institutions in Denmark are now expected to educate innovative and entrepreneurial graduates, which creates a need for knowledge about how such expectations can be met. A number of questions about *where, what, when, who and how* arise in connection with entrepreneurship teaching. The answers may partly be found in the existing knowledge foundation developed at the universities, but given the context dependency of 'the right way' to teach entrepreneurship, some of the answers for the professional bachelor degree programmes must be found in new empirical studies. A starting point could be to seek to identify existing components in the professional bachelor degree programmes which promote and facilitate entrepreneurship. Given the diversity of the degree programmes, it appears meaningful to analyse the degree programmes individually and later draw parallels, if possible. One way in which the components that promote and facilitate entrepreneurship might be identified would be to study the cases in which students have become entrepreneurs while studying, in order to identify the subjects they have studied or use in their company. Given the dependency on the individual and the means-driven nature of an entrepreneurial process, the qualitative investigation method appears ideal.

### **Questions for further consideration**

A number of questions have been raised throughout this article,:

Are we all blinded by our preconceptions and by our research methodology, preventing us from understanding the field of entrepreneurship?

Can knowledge be transferred directly between universities and university colleges?

How can educational elements that enable and promote entrepreneurship at university colleges be identified in order to solidify the entrepreneurial education?

Is it possible to find the answers by studying cases of student entrepreneurs, given the individual and context dependency of entrepreneurship?

If so leading the formulation of the research question “How do student entrepreneurs at university colleges use their education in their business?”.

This leads to the following sub-questions: What characterises education at university colleges? How can ‘use of education’ be defined? How can ‘use of education’ be measured?

A framework for generating the answers to the research question has been offered, but is this the best way to find the answers to the questions asked?

## Bibliography

- Arbnor, I., & Bjerke, B. (2009). *Methodology for creating business knowledge, 3rd. edition*. London: Sage Publications Ltd.
- Area, T. E. (19. June 1999). *ehea*info. Hentede 20. December 2013 fra The Bologna Declaration of 19 June 1999: <http://www.ehea.info/article-details.aspx?ArticleId=5>
- Babson. (u.d.). *entrepreneurship is*. Hentede 7. January 20014 fra Babson: <http://define.babson.edu/>
- Bager, L. T., Blenker, P., Rasmussen, P., & Thrane, C. (2011). *Entreprenørskabsundervisning-proces, refleksion og handling*. Aarhus: Aarhus Universitet.
- Chmura, M. (15. marts 2011). *Babson MBA Ranked #1 For Entrepreneurship – 18th Consecutive Year – By U.S. News & World Report*. Hentede 7. Januar 2014 fra Babson: <http://www.babson.edu/news-events/babson-news/pages/110315-babson-mba-ranked-1-for-entrepreneurship.aspx>
- Darré, M., & Larsen, S. F. (8. December 2010). *Dansk Erhverv*. Hentede 4. December 2013 fra Demografien udfordrer fremtidens ledelse: <http://www.danskerhverv.dk/Nyheder/Documents/Demografien-udfordrer-fremtidens-ledelse.pdf>
- Etzkowitz, H. (2003). Research groups as "quasi-firms":the invention of the entrepreneurial university. *Research Policy*, 109-121.
- Flick, U. (2006). *an introduction to qualitative research*. London: Sage publications Ltd.
- Gartner, W. G. (2001). Is there an elephant in entrepreneurship? Blind assumptions in theory development. *Entrepreneurship in theory and practice*, 27-39.
- Government, P. (2011). *Et Danmark der står sammen, regeringsgrundlaget okt 2011*. Hentede 2013 fra [http://www.stm.dk/publikationer/Et\\_Danmark\\_der\\_staar\\_sammen\\_11/Regeringsgrundlag\\_okt\\_2011.pdf](http://www.stm.dk/publikationer/Et_Danmark_der_staar_sammen_11/Regeringsgrundlag_okt_2011.pdf)
- Handsombe, R., Rodriguez - Falcon, E., & Patterson, E. (2008). Embedding enterprise in science and engineering departments. *Education+Training*, 615-625.
- Hannon, P. (2005). Philosophies of enterprise and entrepreneurship education and challenges for higher education in the UK. *The International Journal of Entrepreneurship and Innovation*, s. 105-114.
- Hannon, P. D. (2006). Teaching pigeons to dance: sense and meaning in entrepreneurship education. *Education plus training*, 296-308.
- Heinonen, J., & Hytti, U. (2010). Back to basics: the role of teaching in developing the entrepreneurial university. *The International Journal of Entrepreneurship and Innovation*, 283-292.
- Hermann, W. A. (u.d.). *Scientific, International, Entrepreneurial*. Hentede 06. 01 2013 fra Technische Universität München: <http://www.tum.de/en/about-tum/our-university/the-president-welcomes-you/>
- Hindle, K. (2007). Teaching entrepreneurship at university: from the wrong building to the right philosophy. *Handbook of research in entrepreneurship education*, 104-126.
- Kirketerp, A. L. (2010). *Fortagsomhed som element i undervisningen kræver nye læringsmål og eksamens former*. Syddansk Universitetsforlag .
- Kirketerp, A. L. (2010). *Pædagogik og didaktik i entreprenørskabsundervisningen på videregående uddannelser i et foretagsomheds perspektiv*. IDEA Syddansk Universitet.
- Kyed, M. (9. september 2012). *CEPOS*. Hentede 4. December 2013 fra Dansk konkurrenceevne svækket overfor 8 ud af de 10 vigtigste eksportlande:

- <http://www.cepos.dk/publikationer/analyser-notater/analysesingle/artikel/danmarks-konkurrenceevne-er-svaekket-over-for-8-af-de-10-vigtigste-eksportlande/>
- Ministry of research, i. a. (9. October 2013). *Bologna Processen*. Hentede 20. December 2013 fra fivu.k: <http://fivu.dk/uddannelse-og-institutioner/internationalisering/internationalt-samarbejde-om-uddannelse/bologna-processen/>
- Ministry, o. E. (5. maj 2000). *Original lov: Lov om mellemlange videregående uddannelser*. Hentede 20. december 2013 fra retsinformation.dk - LOV nr 481 af 31/05/2000: <http://w0.dk/~chlor/www.retsinformation.dk/lov/l23433.html>
- Ministry, o. E. (2001). *Bek. nr 113 af 19-02-2001 bekendtgørelse om uddannelsen til professionsbachelor*.
- Ministry, o. r. (01. februar 2013). *kommissorium for innovationsstrategien*. Hentet fra Ministeriet for forskning, innovation og videregående uddannelser: <http://fivu.dk/aktuelt/temaer/innovationsstrategi/arbejdet-med-danmarks-innovationsstrategi/kommissorium>
- Nedergaard, S. (2008). Stanford University: Tværfaglighed i hjertet af Silicon Valley. I *Entrepreneurship & Tværfaglighed* (s. 68-74). IDEA København og Øresund Entrepreneurship Academy 2008.
- Ostenfeldt, R., & Sandberg, b. (2014). *2013 Nyt lavpunkt i antal af nystrtede virksomheder*. Hentede 13. 01 2014 fra Experian: <http://www.experian.dk/presse/p-nyetablering-q1-2013.html>
- Sarasvathy, S. D. (21. June 2001). What makes Entrepreneurs Entrepreneurial. *Harvard Business Review*.
- Sarasvathy, S. D. (2001). What makes entrepreneurs entrepreneurial? *Harvard Business review*.
- Sarasvathy, S. D. (21. 10 2008). *The Bird in hand principle: Who am I , What do I know, Who do I know*. Hentede 06. 11 2013 fra Social Science Research Network: [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1278404](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1278404)
- Sarasvathy, S. D. (21. oktober 2008). *The Bird in hand principle: Who am I , What do I know, Who do I know*.
- Sarasvathy, S. D., & Venkataraman, S. (17. januar 2011). Entrepreneurship as a method: Open Questions for an entrepreneurial future. *Entrepreneurship and Practice*, s. 113-135.
- Shane, S., & Venkataraman, S. (vol 25 2000 ). The Promise of entrepreneurship as a field of research . *The academy of management review* .
- Sivertsen, B. (27. januar 2005). *Hvad er en professionsbachelor?* Hentede 20. december 2013 fra udd.uvm.dk: <http://udd.uvm.dk/200501/udd200501-04.htm?menuid=4515>
- Spinosa, C., Flores, F., & Dreyfus, H. L. (1997). *Disclosing new worlds - entrepreneurship, democratic action and the cultivation of solidarity*. Massachusetts: MIT press.
- Spinosa, C., Flores, F., & Dreyfus, H. L. (1997). *Disclosing new worlds, Entrepreneurship, democratic Action and the cultivation of solidarity*. Massachusetts: MIT.
- Undervisningsministeriet, & Vestager, M. (19. februar 2001). *Bekendtgørelsen om uddannelsen til professionsbachelor*.
- University, S. (2014). *D School*. Hentede 10. January 2014 fra Institute og design st Stanford: <http://dschool.stanford.edu/>
- Aarkrog, V. (2010). *Fra teori til Praksis - Undervisning med fokus på transfer*. København: Munksgaard.