

Danish University Colleges

Self-Reflectiveness Among Entrepreneurship Students

Wraae, Birgitte; Tigerstedt, Christa

Publication date:
2017

Document Version
Publisher's PDF, also known as Version of record

[Link to publication](#)

Citation for pulished version (APA):
Wraae, B., & Tigerstedt, C. (2017). *Self-Reflectiveness Among Entrepreneurship Students*. Paper presented at 12th European Conference on Innovation and Entrepreneurship, Paris, France.

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

Download policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Self-Reflectiveness Among Entrepreneurship Students

Birgitte Wraae¹ and Christa Tigerstedt²

¹Technische Universität Berlin, Berlin, Germany/University College Lillebælt, Denmark,

²Åbo Akademi University, Finland

anne.b.rasmussen@campus.tu-berlin.de

christa.tigerstedt@arcada.fi

Abstract: Research has indicated that co-creative educational processes in entrepreneurship education (EE) foster the development of both entrepreneurial skills and skills needed in the studies as well as a broadened perspective among the students in general. We state that to succeed with this the self-reflectiveness is a necessary component. The purpose of this paper is therefore to consider EE and self-reflectiveness from the student perspective. We look at self-reflectiveness in action. More specifically we study how self-assessment through a reflective task using video clips can trigger and activate entrepreneurial thinking and learning about entrepreneurship and intrapreneurship among BA students in Denmark and Finland. The preliminary findings show that video-clips seem to be a successful way to reveal and trigger reflectiveness among the students. Furthermore, the reflections seem to trigger deeper insights as well as learning and reflection upon and about the entrepreneurial mindset and skills related to the entrepreneurship in a somewhat transformational way. The findings are beneficial for developing EE and for gaining insight into how the students think about entrepreneurship, related skills and becoming entrepreneurs. The video-clip as an examination seems also to be beneficial when both learning about and assessing entrepreneurial thinking.

Keywords: entrepreneurship education, entrepreneurial thinking, self-reflectiveness, participatory research, video-clip

1. Introduction

“Entrepreneurship in Education is about inspiring entrepreneurial potential. People need the mindset, skills and knowledge to generate creative ideas, and the entrepreneurial initiative to turn those ideas into action.” (“Entrepreneurship in Education - Education and training - European Commission,” n.d.)

The overall purpose of this paper is to present how self-reflectiveness can act as a useful element in developing entrepreneurial thinking among both business and non-business students. The research question is: *How purposeful is it to work with self-reflectiveness when developing entrepreneurial thinking among students in entrepreneurship education?* This we investigate by studying BA students in Finland and Denmark.

After shortly introducing EE the paper moves on to describe the terminology of self-reflectiveness. The methodology section presents participatory design where students are triggered to reflect on themselves and on their own learning from an entrepreneurial perspective by using video as a method and tool. The findings contribute to gaining insight into how to create and use self-reflectiveness in EE, both in the sense of understanding students and the students’ development. The findings also reveal insights into applying video as a method to evaluate students in EE.

2. Two approaches in entrepreneurship education

EE is often divided into two approaches. The venture focused approach and the more broadly focused approach related to the entrepreneurial mindset development and the skills of an entrepreneur (Harmeling, 2011; Hytti and Heinonen, 2013). The essence of these approaches is whether the purpose of EE is for students to start up a venture or if there is more to it than ‘just’ that. Gibb (2011) argues for the necessity of moving away from the business venture approach and widen the concept, so ‘the entrepreneurial mindset’ appeals to all students.

Furthermore, there is an ongoing discussion whether entrepreneurship can be taught and learned (Anderson and Jack, 2008; Fayolle and Gailly, 2008; Fiet, 2001a; Fiet, 2001b; Haase and Lautenschläger, 2011; Ruskovaara and Pihkala, 2015). Is entrepreneurship for the so-called ‘born’ entrepreneurs or is it for all? Luckily there appears to be an agreement that, yes, it can indeed be taught, but of course with different outcomes as is the case with all subjects being taught (Fayolle and Gailly, 2008). So, knowing that entrepreneurship is for all adds another layer to the discussion - namely what should be taught when teaching entrepreneurship? (Mueller and Anderson, 2014)

This thus leads to another ongoing debate related to the content of EE revealing four different approaches; 'about', 'for', 'through' and 'embedded' (Pittaway and Edwards, 2012; Robinson and Blenker, 2014). In this study, the focus is on the 'through' approach. The overall point being that the students are learning by doing. The elements in the approach require students to take an active part in their own learning; applying the learned tools to real-life cases in which they make a prototype, approach stakeholders, and reach for the market (Robinson and Shumar, 2014). Using the 'through' approach in entrepreneurship courses includes having activities inside and outside the classroom. Furthermore, it also requires insights from both behaviourism, and also social situated and existential learning if the educator wants to nurture enterprising thinking and practice (Robinson and Shumar, 2014). The 'through' approach is therefore more than the pure theoretical 'about' approach.

Like Hytti and Heinonen (2013), we argue that participating in an entrepreneurship programme can serve as an arena for identity construction. In their study, they identified the two different identity constructions; the heroic and the humane entrepreneurs. The first referring to an entrepreneurial identity, the latter referring to a broader identity including acting as an intrapreneur. We take it a step further and consider how participating in an entrepreneurial course using self-reflectiveness can help students understand their own identity and identity creation.

Research has indicated that co-creative educational processes foster the development of both entrepreneurial skills and study skills needed as well as a broadened perspective among the students in general (Robinson et al., 2016). We again state that to succeed self-reflectiveness is a necessary component.

3. Self-reflective and self-activating learning for triggering the development of entrepreneurial skills

Researchers have been studying how entrepreneurial skills can be developed and taught in education and several findings show that a collaborative context where students are encouraged to experiment and work with real-life tasks or simulations can help. Particularly research has shown that the transversal skills or the general competencies including learning, communication and social competency, development and entrepreneurial competencies were improved or developed when using flexible learning and practical tools. On top of this motivation among students was high in these learning situations (Fabricius and Tigerstedt, 2015; Boguslawski and Kimberley, 2014).

Other perspectives that have been discussed are models or ideas for self-activated learning and self-reflection as being necessary for activating generic skills, such as entrepreneurial thinking, among students. These are models that have been used in EE before and in this particular research. Self-activated learning can be described as a form of learning where the students themselves feel responsible for their learning and actively seek ways of learning and developing with the help of the teacher as a coach (Tigerstedt, 2014) This is closely connected to the principles and ideas for self-directed learning: 1) varying and flexible learning activities 2) teacher as a coach 3) a learning process that emphasizes reflection, responsibility, inspiration, motivation and understanding (Tigerstedt, 2014). Another word to describe this same way of viewing education is self-governed learning which Knowles (1984) defines as a process where the student single-handedly or with someone's help sees the need for learning, sets own learning goals as well as provided the right goals for both learning and evaluation. These in turn can be connected to both reflection and motivation (Garrison, 1997). To stimulate the self-governed learning, one can work in and with realistic and practical learning environments and make sure that the students are given time to reflect together (Silius-Ahonen, Tigerstedt and Wikström-Grotell, 2015). Zimmermann (2002) again talks about this in the form of self-regulated learning where the student initiates and activates their own learning practice. Here self-reflection is seen as a crucial phase (Figure 1). Teaching self-regulated learning processes as such is seen as essential for life-long learning (Zimmerman, 2002).

Self-reflection on the other hand can be defined as: the students' ability to observe themselves or others or then to relate and think back on their own experience (Pittaway, Rodriguez-Falcon, Aiyegbayo and King, 2010). In this article, we have used the video-clip reflections as the main data for looking at the reflectiveness in action in EE. Jones (2015) uses the word "self-negotiating action when he discusses the student's ability to pursue their ideas and locate and control their resources required to action their ideas and thoughts for the future. EE should always be able to foster this self-negotiated action among the students, which again can be understood as reflective abilities in action (Jones, 2015). As such the ability to reflect and share ideas for example online seems

effective when wanting to trigger the reflectiveness among students (Rae, Taylor and Roberts, 2006). Kirkwood, Dwyer and Gray (2013) have been studying the reflection of entrepreneurship students (MA) and could see that these reflections revealed valuable output for the students in the form of a greater insight into knowledge and skills, confidence, practical solutions, sense of reality, future ideas, and networking. Kirkwood et al (2013) also noted that the students who had previous experiences tended to go more in depth and they seem to have gained even more from the master programme in entrepreneurship.

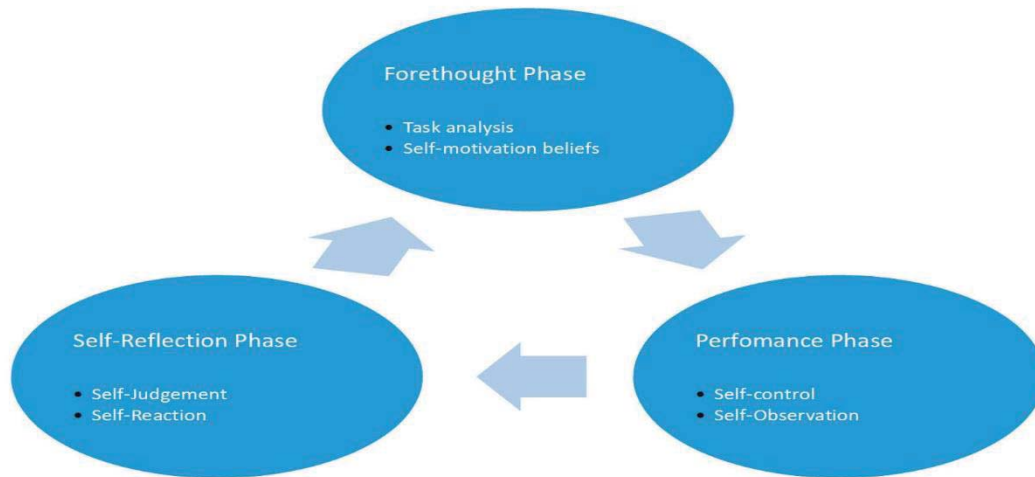


Figure 1: Phases and components of self-regulation (Zimmerman, 2002, p. 67).

In Elo’s (2016) research one can read that the students’ own responsibility for learning, non-traditional classroom teaching and self-activating learning methods are useful in EE and learning of the necessary skills transversal skills. The students’ learning processes needs to be in focus and provide a degree of high involvement for the students. This also supports earlier findings by Fabricius and Tigerstedt (2015) and in Silius-Ahonen, Tigerstedt and Wikström-Grotell (2015) where projects using self-activating tools and methodologies in teaching have been implemented. Fabricius and Tigerstedt (2015) have found that transversal skills or the general competencies including learning, communication and social competency, development and entrepreneurial competencies were improved or developed as a result of working with tools that trigger self-activation and reflection as well as critical thinking among the students. Laird, Seifert, Pascarella and Mayhew (2011) ask for more research and skills related to how to integrate these kinds of learning activities where students can learn through meta-cognitive tasks.

4. Methodology

The purpose of this study was to investigate how self-reflectiveness through a reflective task can trigger and activate entrepreneurial thinking and thus increase knowledge about entrepreneurship and intrapreneurship among undergraduates.

To investigate self-reflectiveness in entrepreneurial learning among students we chose a theoretical framework based on self-governed learning (self-regulated) and self-reflectiveness and how this affect the level and reflectiveness among the students (Figure 2).

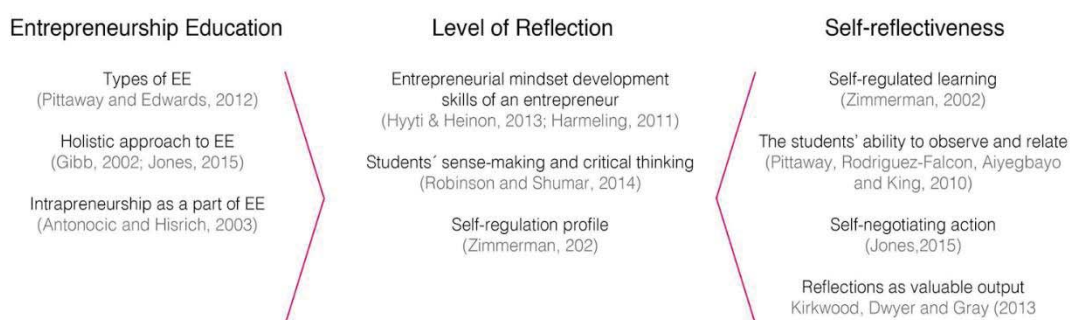


Figure 2: Theoretical framework for describing self-reflectiveness in EE

The empirical investigation we did inductively by looking into student's video-clips or talk about entrepreneurship. The clips were both a method and a tool for learning and assessment in this particular case. The choice was taken for several reasons. Firstly, it offered the possibility to take a holistic approach to the produced data material, hence the possibility to analyse the data visually, narratively or discursively (Harris, 2016). Secondly, both the method and the holistic approach support social constructivism in which education is perceived as a relational process (Gergen, 2015). Also, the video-clips offer an alternative assessment of the students giving the students the power to choose the content. Fourthly and finally, the participatory design opens the possibility of digital storytelling. Each video-clip tells a story produced by the individual student (Gubrium and Harper, 2013). The latter is a clear benefit of using video as a method. On the other hand, using individual video-clips is rather time consuming when having to analyse each story (Gubrium and Harper, 2013). At the same time, this has been a so called participatory research and we the researchers have been part of the processes both as coaching teachers and researchers.

The sample in this study consists of Finnish and Danish students representing two classes during 2015-2016. Both groups are students at universities of applied sciences and are studying for a bachelor degree in various subject areas. The Finnish participants were first year students of Business and Analytics (IT). The Danish participants were second year students of Public Administration. In both universities, the reflectiveness and entrepreneurship as such are considered important. The Finnish students represent what we term as business students as they primarily are educated for jobs in the private sector. In Finland students were part of a course called Arcada 360. The idea was to give the students a holistic and reflective and up to date view on topics related to business. For the Danish students, the entrepreneurship course was an elective unit. The course focuses on innovation in the public sector and how to use entrepreneurial tools either as intrapreneurs or entrepreneurs starting up their own business. We term the Danish students as non-business students studying public administration as they are educated for jobs in the public sector. Furthermore, the students vary in age. The Finnish students are about ten years younger than the average age of thirty-four of the Danish students.

For the video-clip task we asked the students to describe themselves as either entre- or intrapreneurs. The task was given as a part of the exam at the end of the course. In that sense, the video-clip was a mandatory part albeit giving the students creative freedom in relation to the content. At the beginning of the courses students were requested to consent to allowing their video-clips being a part of a research project. Also and especially, as these video-clips contain personal descriptions and information the students were informed about their anonymity both in writing along with the description with the task and verbally when meeting the students in the classroom.

The sample consists of 77 (N=77) video-clips, consisting of 43 Finnish and 34 Danish individual video-clips.

5. Analysis and results

The aim was to answer the following research question: How purposeful is it to work with self-reflectiveness when developing entrepreneurial thinking among students in entrepreneurship education?

To be able to analyse the data (77 video-clips) and discuss this in relation to previous findings and possibly come up with new insights we have done multiple viewings of the clips. Both researchers have been part of the analysis process and cross-checked each other's observations to avoid researcher bias (Saunders, Lewis, & Thornhill, 2012). After having gone through so called naive listening a coding scheme was developed. We decided on reconstructing the many tales or stories into overall categories to see if the stories had something in common (Gibbs, 2015; Kvale, 2007). In our analysis, we identified up to 20 different categories or themes as they are called here.

In the following the themes related to the students' self-reflectiveness as well as learning are discussed.

Theme: Me as an entrepreneur

The students were asked to think about themselves as an entrepreneur or intrapreneur in the future. On this theme, many of the students could see themselves as one or the other. Due to not wanting to take risks many thought that intrapreneurship would be for them: "Intrapreneurship is a good way to start" as one the (Finnish) students explain. Generally speaking, the majority of the students saw themselves as being entrepreneurial.

Based on experience and current situation the students would also be more or less positive or negative towards becoming entrepreneurs. There seemed to be a tendency that Finnish students who had witnessed a negative entrepreneurial experience by a family member or relative appeared to be more reluctant towards becoming an entrepreneur themselves. For the Danish students however, that did not seem to be the case.

Students with more experience or more clear business ideas seemed to be more positive towards being or seeing themselves as entrepreneurs.

As part of reflecting on themselves as an entrepreneur the students talked about both personal skills and knowledge and more practical skills they saw as crucial from an entre-/intrapreneur. Risk taking and/or being creative, artistic, or innovative were mentioned. Some said that it would be great not to work for someone else because of the freedom you have when you are your own boss. The idea of the so-called lifestyle entrepreneur was frequently appearing in the reflections among all students: "entrepreneurship is a lifestyle. You must have passion for it" as one of the (Finnish) students said.

Theme: Reflective and transformative thoughts

The findings show that participation in the two respective courses creates reflectiveness among the students. The majority of the students talk about how they view themselves and their competencies as a result of the course. Because of the course, the lectures, and the task to reflect upon the same many students expressed a changed opinion about entrepreneurship. Students had increased insights into entrepreneurship and therefore actively have been able to think of themselves as becoming entrepreneurs in the future. One of the (Danish) students explains how it has been a development from not being able to see opportunities and get ideas to almost being too busy to do the video-clip because of having started projects due to participation in the course.

During the courses, in both Denmark and Finland, what seems to have inspired students to learn and reflect was the practical learning environment including both collaborativeness and guest lectures with real entrepreneurs. Practical insight was very much appreciated and the students said it was eye-opening.

Generally, both the Finnish and Danish students have changed their view on entrepreneurship. From being determined not to become entrepreneurs many now view it as a viable career alternative. As a Finnish student says: "go big or go home". Also, there is a tendency especially among the Finnish students to view entrepreneurship as important for society. Another (Danish) student describes how it is impossible to tell whether it will be intra- or entrepreneurship in the future, but that does not signify because it is more important to want to be a part of a change.

Theme: Entrepreneurship in the family

Students tended to bring up reflections about their own family and especially if they had had a close relative who had been or is an entrepreneur. Reflections varied. The opinions about entrepreneurship seemed to be more colourful or strong if the student had experienced entrepreneurship in the close family. Both positive and negative experiences formed the reflection. In general, the Finnish students with family experience of entrepreneurship were more negative and the students said that they were more reluctant towards becoming an entrepreneur since they had seen what negative effects it can bring about. Students indicated the financial risk was one part, but the bigger risk they saw was often the time that the entrepreneurs put into their work was extremely high. The negative effects could be a parent that never had time because of the own company, constant stress, burnout, and/or financial insecurity.

Some of the Danish students mentioned that since entrepreneurship was not a part of growing up the thought about starting up a business never before had occurred their mind. Also, some students directly mentioned how their upbringing in a 'traditional' environment had influenced their view on their own (lacking) competencies related to becoming an entrepreneur. One of the (Danish) students explains how growing up in a house where "children should be seen but not heard" has affected the view on becoming an entrepreneur. A view that had changed because of the course.

Overall, the students that had experienced entrepreneurship positively in the close family said that it was somehow in their genes to become entrepreneurs as well. In general, the majority of the Danish student group

had positive family experiences of entrepreneurship. Furthermore, the challenges related to being a child in a family with at least one entrepreneurial parent was related to an awareness of how to overcome those challenges.

Theme: Personal experiences

The students had very little knowledge and experience of entrepreneurship or more or less no previous education related to entrepreneurship. A few had some practical experience or insights from jobs they had or have. Additionally, some reported that they had been closely looking at entrepreneurship in action in the family. Furthermore, they could see different perspectives with their newly gained experiences from the course. Almost all acknowledged that entrepreneurship is more than starting a business hence being able to use entrepreneurial tools and thinking within already existing organizations.

One can also mention that the Danish students in general were both older, had more work experience and therefore they could relate to and reflect more upon previous experiences. Otherwise, there seemed to be no significant difference between the two groups of students.

The above findings leave no doubt that the students have changed their attitude towards entrepreneurship as they have become more positive towards the subject in general regardless of their study subject areas. Most students reflect on themselves in an entrepreneurial perspective with an acknowledgement of the hard work it entails, but at the same time also an openness towards entrepreneurship which they now see as a viable opportunity. The change in mindset is thus partly towards becoming an entrepreneur at some time in life, partly a change related to seeing the use of entrepreneurial tools and thinking in other aspects in life.

6. Discussion and conclusions

The aim of the study was to answer the following research question: How purposeful is it to work with self-reflectiveness when developing entrepreneurial thinking among students in entrepreneurship education?

Overall, we can see that the explorative teaching and research that was the starting point for this article appeared to have proven and strengthened several previous insights as regards entrepreneurship and reflection and especially self-reflection (Figure 2). Since the idea with the student task was self-reflectiveness (as a learning task and assessment) and since the video-clip was about reflecting on entrepreneurship in relation to themselves one can generally say that the task as such has been successful. Reflections or reflectiveness were triggered and also, development of entrepreneurial thinking has been mentioned several times among the participating students. The students showed that this way of assessing their insights resulted in great reflective thinking among the students. They were able to reflect and become aware of themselves as entrepreneurs through the reflective video-clip task. The results show that students valued the skills, knowledge, and practical insights they received through the courses. They were also able to through the course to come up with possible ideas for own businesses in the future or to put words to these thoughts. These are all insights that strengthen previous research (Kirkwood et al, 2014; Jones, 2015; Elo, 2016; Fabricius and Tigerstedt, 2015). Furthermore, the students reflected about how to use entrepreneurial tools and thinking within already existing organizations hence working as intrapreneurs. The innovative process was triggered. The understanding of the life as an entrepreneur seemed to have increased due to practical input and guest lectures by entrepreneurs according to the students.

The findings show that video as a method, a self-activating method per se, seems to be a successful way to not only reveal, but also trigger reflectiveness among the students. Furthermore, the reflections seem to trigger deeper insights as well as learning and reflection upon and about the entrepreneurial mindset and skills related to the same. As such, the claim (Hytti and Heinonen, 2013) that participating in an entrepreneurship programme can serve as an arena for identity construction seems to be confirmed here.

“Self-regulated students focus on how they activate, alter, and sustain specific learning practices in social as well as solitary contexts. In an era when these essential qualities for life-long learning are distressingly absent in many students, teaching self-regulated learning processes is especially relevant” (Zimmerman, 2002, p. 70). The findings are thus beneficial for developing entrepreneurial education and for gaining insight into how the

students think about entrepreneurship, related skills and about becoming an entrepreneur. The video-clip as an examination seems also to be beneficial when both learning about and assessing entrepreneurial thinking.

Furthermore, this work contributes to a recent published systematic literature review in which reflectiveness in EE was proved lacking (Laird et al, 2011; Nabi et al., 2016).

The conclusion here is that it is purposeful to continue working with self-reflectiveness in EE and especially when desiring to see transformation, skills development, and reflective insights to appear among the participants. Suggestions for further research would be to continue to study video-clips as a method and how to use it related to self-reflectiveness in students in EE. Video-clips appear to work well in triggering reflectiveness which again is useful for making students actively think about entrepreneurship and themselves. Also, the idea of self-assessment as an evaluation form through video-clip methodology could be of interest. We suggest that this could be tested and used in other kinds of EE contexts as well.

References

- Anderson, A.R., Jack, S.L., 2008. Role typologies for enterprising education: the professional artisan? *J. Small Bus. Enterp. Dev.* 15, 259–273.
- Antonic, B., & Hisrich, R. D. (2003). Clarifying the intrapreneurship concept. *Journal of Small Business and Enterprise Development*, 10(1), 7–24.
- Boguslawski, M. & Kimberley, N., 2014. Bridging the Skills Gap – Competency Development and Entrepreneurship Coaching with 'Xing', *Journal of Finnish Universities of Applied Sciences*, No 2.
- Elo, J., 2016. Företagsamhet i skola och utbildning. Lärares tankar om att nå målen i temaområdet Deltagande, Demokrati och entreprenörskap. Doctoral thesis. Vaasa: Åbo Akademi University.
- Entrepreneurship in Education - Education and training - European Commission [WWW Document], n.d. Educ. Train. URL http://ec.europa.eu/education/policy/strategic-framework/entrepreneurship_en (accessed 4.18.17).
- Fabricius, S & Tigerstedt, C., 2015. Using self-activating and reflective methods in business and tourism education – examples of how to work with Xing and De Bono Thinking Hats to trigger transversal skills. ICERI2015 proceedings, pp. 5903-5910.
- Fayolle, A., Gailly, B., 2008. From craft to science: Teaching models and learning processes in entrepreneurship education. *J. Eur. Ind. Train.* 32, 569–593.
- Fiet, J.O., 2001a. The pedagogical side of entrepreneurship theory. *J. Bus. Ventur.* 16, 101–117.
- Fiet, J.O., 2001b. The theoretical side of teaching entrepreneurship. *J. Bus. Ventur.* 16, 1–24.
- Garrison, D.R., 1997. Self-directed learning.: Toward a comprehensive model. *Adult Education Quarterly*, 48 (1), pp. 18-33.
- Gergen, K.J., 2015. *An Invitation to Social Construction*, 3 edition. Sage Publications Ltd, Los Angeles, CA.
- Gibb, A., 2011. Concepts into practice: meeting the challenge of development of entrepreneurship educators around an innovative paradigm: The case of the International Entrepreneurship Educators' Programme (IEEP). *Int. J. Entrep. Behav. Res.* 17, 146–165.
- Gibbs, G.R., 2015. *Analysing Qualitative Data*, Sixth. ed, Qualitative Research Kit. SAGE Publications Ltd.
- Gubrium, A.C., Harper, K., 2013. *Participatory Visual and Digital Methods, Developing Qualitative Inquiry*. Routledge, New York.
- Haase, H., Lautenschläger, A., 2011. The "Teachability Dilemma" of entrepreneurship. *Int. Entrep. Manag. J.* 7, 145–162.
- Harmeling, S.S., 2011. Re-storying an entrepreneurial identity: education, experience and self-narrative. *Educ. Train.* 53, 741–749.
- Harris, A.M., 2016. *Video as Method. Understanding Qualitative Research*, Understanding Qualitative Research. Oxford University Press, New York.
- Hytti, U., Heinonen, J., 2013. Heroic and humane entrepreneurs: identity work in entrepreneurship education. *Educ. Train.* 55, 886–898.
- Jones, C., 2015. *31 Emerging Laws of Entrepreneurship Education: Vol. 1*, Kindle edition. ed. Amazon Digital Services LLC.
- Kirkwood, J., Dwyer, K., Gray, B., 2014. Students' reflections on the value of an entrepreneurship education. *Int. J. Manag. Educ.* 12, 307–316.
- Knowles, M. S., 1984. *Andragogy in Action. Applying Principles of Modern Learning*. London: Jossey-Bass.
- Kvale, S., 2007. *Doing Interviews*, First. ed, Qualitative Research Kit. SAGE Publications Ltd.
- Laird, Seifert, Pascarella & Mayhew, 2011. *Deeply Affecting First Year Students' Thinking: The Effects of Deep Approaches to Learning on Three Outcomes*. Paper presented at the Annual Meeting of the Association for the Study of Higher Education, Charlotte, NC, November 2011.
- Mueller, S., Anderson, A.R., 2014. Understanding the entrepreneurial learning process and its impact on students' personal development: A European perspective. *Int. J. Manag. Educ.* 12, 500–511.
- Nabi, G., Liñán, F., Krueger, N., Fayolle, A., Walmsley, A., 2016. The impact of entrepreneurship education in higher education: A systematic review and research agenda. *Acad. Manag. Learn. Educ.* amle.2015.0026. doi:10.5465/amle.2015.0026

Birgitte Wraae and Christa Tigerstedt

- Pittaway, L., Rodriguez-Falcon, E., Aiyegbayo, O., & King, A., 2010. The role of entrepreneurship clubs and societies in entrepreneurial learning. *International Small Business Journal*, 29(1), pp. 37-57.
- Pittaway, L., Edwards, C., 2012. Assessment: examining practice in entrepreneurship education. *Educ. Train.* 54, 778–800.
- Rae, J., Taylor, G. & Roberts C., 2006. Collaborative learning: A connected community for learning and knowledge management. *Journal of Educational Administration*, vol 3, no 3, pp. 225-233.
- Robinson, S., Blenker, P., 2014. Tensions between rhetoric and practice in entrepreneurship education; an ethnography from Danish higher education. *Eur. J. High. Educ.* 4, 80–93.
- Robinson, S., Neergaard, H., Tanggaard, L., Krueger, N., 2016. New horizons in entrepreneurship: from teacher-led to student-centered learning. *Educ. Train.* 58, 661–683.
- Robinson, S., Shumar, W., 2014. Ethnographic evaluation of entrepreneurship education in higher education; A methodological conceptualization. *Int. J. Manag. Educ.* 12, 422–432.
- Ruskovaara, E., Pihkala, T., 2015. Entrepreneurship Education in Schools: Empirical Evidence on the Teacher’s Role. *J. Educ. Res.* 108, 236–249.
- Saunders, M. N. K., Lewis, P., & Thornhill, A. (2012). *Research Methods for Business Students* (6 edition). Harlow, England; New York: Financial Times/ Prentice Hall.
- Silius-Ahonen, E. Tigerstedt, C. & Wikström-Grotell, C. (2015). Kollektivt lärande och självstyrda lärprocesser, pp. 125-149, in T. Hansson, *Pedagogik för högskolelärare*, Möklinta: Gidlunds förlag.
- Tigerstedt C. (ed), 2014. Aktivt lärande och effektiva studieprocesser. Studieprocesser slutrapport. Helsingfors: Arcada.
- Tigerstedt, C., Forss, M. & Hernberg, M., 2016. Separately together, that’s how we learn –Online learning in Making Sense of Leadership. In N. Hyde-Clarke & C. Wikström-Grotell (eds), *Learning: Practices, lessons learned and the way forward*. Arcada Publication, pp 98-108. Helsinki: Arcada.
- Zimmerman, B. J. (2002). Becoming a self-regulated learner: An overview. *Theory into Practice*, 41(2), 64–70.