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Enhancing students' latent nascent entrepreneurship in basic education

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Introduction

Despite numerous entrepreneurship education (EE) guidelines and efforts, the number of start-ups created by secondary vocational or higher education graduates has not increased significantly. Several practical interventions focusing on EE have been implemented and studied in Europe in recent years (Blenker et al., 2014; Fayolle, 2013; Nabi et al., 2017; Pittaway and Cope, 2007). However, investigations that consider what kind of entrepreneurial learning (EL) happens in the interventions are lacking (Fayolle, 2013; Pittaway and Cope, 2007). A comparative approach is needed to find out the essential missing elements in learning environments, and based on the findings, to enable more students' entrepreneurial intentions to awaken (see Blenker et al., 2014). As found in some previous studies, basic education teachers seem to have low competence in implementing EE in their daily practices (Ruskovaara and Pihkala, 2013; Seikkula-Leino et al., 2013). By comparing three previous studies (Hietanen et al., 2014; Hietanen, 2015; Hietanen and Kesälahti, 2016) of entrepreneurial trials, carried out both in entrepreneurship studies and non-business general education contexts, this study aims to highlight the importance of the entire educational path in an individual's process of becoming a latent nascent entrepreneur (see also Nabi et al., 2017, p. 289). The study uses Brixy and colleagues' (2012) definition of a latent nascent entrepreneur as a person who has started to think about the possibility of becoming self-employed.

Kuratko (2005) addressed a research gap in students' early steps on their entrepreneurial paths, pointing out the students' awakening of their entrepreneurial selves. The findings of Case 2 from the basic education context show that even somewhat young students are able to reflect on their learning process and through comparing their activities with those of small-sized entrepreneurs (SEs) notice their entrepreneurial selves (Hietanen et al., 2014). Nonetheless, it is unclear if the students can recognise their possible latent nascent entrepreneurship (LNE). By deciding to study in the Entrepreneurship Studies Programme (ESP), the students in Case 1 are interpreted to manifest LNE (Hietanen, 2015). After the course, many students manifested intrapreneurship (Antoncic and Hisrich, 2003) or even nascent entrepreneurship (Brixy et al., 2012), means they progressed on their EL paths. The present study aims to find out and model what kind of EE is needed in addition to the didactical and pedagogical solutions in Cases 2 and 3 so that even basic education students will be able to recognise their entrepreneurial selves earlier, followed by their LNE (Hietanen, 2015; Krueger, 2009). First, the study asks what phase of the EL path the students were able to achieve when they participated in the interventions in the Cases 2 and 3. Second, the study considers what kinds of elements in basic education can better enhance students' awareness of their possible LNE.

An entrepreneurial learning path towards LNE

One of the main assumptions in the previous cases and in this study is that entrepreneurship in its different phases can be studied and learned (Baker and Henson, 2010; Draycott and Rae, 2011). One impact of the course in the ESP seemed to be an increased positive attitude towards entrepreneurship (Nabi et al., 2017). Another finding was that during the course, most of the students were able to progress on their EL paths towards nascent entrepreneurship. By emphasising intrapreneurship, some of the students seemed at least to have strengthened their LNE (Hietanen, 2015). Focusing mainly on the lower levels of educational paths, the intervention in Case 2 and most of the interventions in Case 3, have been designed to awaken the participants' entrepreneurial selves (Hietanen et al., 2014; Hietanen and Kesälähti, 2016).

Grilo and Irigoyen (2006) differentiated latent entrepreneurs from actual entrepreneurs. They stated that a latent entrepreneur likely prefers self-employment to employment, whereas an actual entrepreneur has already started a business. Brixy et al. (2012) defined latent nascent entrepreneurs as those who have started to think about self-employment and will perhaps implement their plans within the next three years. Those who have performed some activities to create their business and expect to own a firm are defined as nascent entrepreneurs, while those who have put their start-up into action within the last 3.5 years can be defined as young entrepreneurs (Brixy et al., 2012).

In the present study, the EL path is formulated from the objectives in the basic education curriculum (Finnish National Board of Education [FNBE], 2014) and from the previous researches (Brixy et al., 2012; Grilo and Irigoyen, 2006). The phases are: 1) awakening to notice one's entrepreneurial self, 2) LNE, 3) nascent entrepreneurship; and 4) actual entrepreneurship.

Study design

There seems to be a lack of the studies considering the generalizability of the previous single trials or what kind of EL processes the participants underwent and what kind of EL was achieved in the trials (Blenker et al., 2014; Fayolle, 2013). Additionally, some scholars have criticized the teacher-researcher approach used in several qualitative studies focusing on 'best pedagogical practices', which implements a methodologically narrow approach to EE (Blenker et al., 2014, p. 697). The present qualitative study considers three previous cases presenting 'good practices', which were partly carried out by the same teacher-researcher. Cases 1 and 2 followed a case study approach (Hietanen et al., 2014, Hietanen, 2015), and Case 3 was carried out through action research (Hietanen and Kesälähti, 2016). The corresponding author designed and implemented the interventions in Cases 1 and 2 alone by acting as the responsible educator and researcher in the cases. In Case 3, the corresponding author acted as the project designer and leader but carried out the research with the project assistant, who was the co-author. The participating teachers (in the main text herein referred to as teacher-students) designed and implemented the interventions with the project leader's support. The research questions (RQs) of the present study are as follows:

RQ1: What phase of the EL path were students and teacher-students able to achieve when they participated in the previous interventions?

RQ2: What elements of the basic education learning environment can improve students' awareness of their possible LNE?

The EE cases that were carried out in various learning environments in Finland from 2007 to 2015 and published as peer-reviewed journal articles from 2014 to 2016 constitute the data for this study. The music lecturer's familiarity with entrepreneurship comes from her family background, as her parents dealt with business. Despite her decision to graduate as a music teacher, her interest in

entrepreneurship led her to investigate EE and EL possibilities first in basic education as guided by the curriculum (FNBE, 2004), and later in other educational contexts as well. The cases, the participants, the focuses and timing are presented in Table 8.1.

Table 8.1 Participants, topics and data collection periods in the EE cases.

Case 1: One course in the Entrepreneurship Studies Programme (ESP) at the open university (Hietanen, 2015)	Case 2: Seventh graders' compulsory music course in basic education (Hietanen et al., 2014)	Case 3: Teachers' continuing education project in general education related to working life and entrepreneurship (Hietanen and Kesälahti, 2016)
Educator's role: Music lecturer as the educator and the corresponding researcher (the only researcher in Case 1).		Educator's role: Music lecturer as the project leader, the expert supporting the continuing education interventions, and the corresponding researcher
Participants: Students (N = 10) in the last ESP course	Participants: One randomly selected class (N = 26) of 13-year-old students	Participants: Teachers (N = 8) in basic and upper secondary education
Research question: What crucial factors in the facilitation process lead students taking ESP from latent nascent entrepreneurship towards intrapreneurship instead of nascent entrepreneurship?	Research question: How can students' entrepreneurial ways of acting in the learning environment of music education be enhanced?	Research questions: 1. How do teachers define learners' work-related and entrepreneurial attributes, skills and activities in the context of Finnish general education? 2. How do teachers implement work-related and entrepreneurial approaches in their non-business learning environments?
Data collection period: 2012	Data collection period: Spring 2007	Data collection period: 2014

In Case 1, almost every student of the examined course in ESP participated in the investigation. The participants in Case 2 were a randomly selected group of seventh graders at the school in which the music lecturer was teaching at that time. The project in Case 3 was introduced as a continuing education project, in which the teachers engaged themselves with both the development project as teacher-students and with the research by promising to produce the data. For the analysis of the previous cases, the present study used the framework based on the general teaching model (for example Anderson, 1995) that was first applied to EE by Fayolle and Gailly (2008, p. 572) and was developed as a generic teaching model in EE (Fayolle, 2013, p. 694). The model is presented in Figure 1.

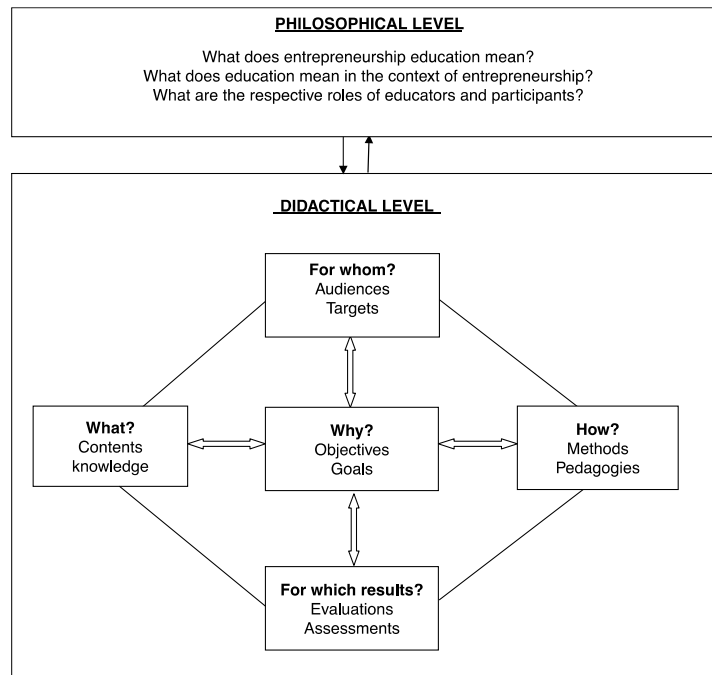


Figure 1. A generic teaching model in entrepreneurship education.

Source: Fayolle (2013, p. 694)

When describing the cases and the participants, the present study answers the question ‘For whom?’ at the didactical level of the model. The question ‘Why?’ is addressed by sharing the practical and theoretical basis of this chapter and describing the philosophical levels of the cases. When considering the didactical level in the answers to the question ‘For which results?’, answers to the question ‘Why?’ may come as well. Distributing the data and participants in the previous studies partly answers the question about the participants’ and educators’ roles. In addition, the participants’ and educators’ roles are shared by answering the question ‘How?’ Because the purpose of the study is to improve EL processes in basic education, instead the very natural educational emphasis on the contexts, the focus in Cases 2 and 3 is on what exactly entrepreneurship means in the cases and what it should or could mean. Another essential question is how entrepreneurship is taught and learned.

As a starting point, it was noticed that the most of the students in Case 1 progressed on their paths from LNE towards nascent entrepreneurship (Hietanen, 2015). As an impact of the course, they exhibited more positive attitude towards entrepreneurship as well (Nabi et al., 2017). Referring to Case 2, in another basic education context Hietanen and Ruismäki (2016, p. 844) stated,

It is not known how aware the students really were about their entrepreneurial selves after participating in the examined intervention [carried out among eighth graders]. For example, it is difficult to know if risk taking in playing new fills in drums or experimenting with solo playing with the guitar helps students further in taking economical risks in their enterprises.

Generalizing the statement, no-one knows if the students in the Cases 2 and 3 notice their entrepreneurial selves at all after the interventions. Thus, this study considered which elements of the interventions are common and which differ between Case 1 and Cases 2 and 3.

Blenker et al. (2014, p. 710) stated that ‘two pairs of eyes are better than one.’ Because the same lecturer (the corresponding author) had a significant role in the previous cases, it was necessary to involve one expert as a co-author in this comparative study to strengthen the study’s reliability (Blenker et al., 2014). This study began with a data-based content analysis by asking each

case the questions presented in Fayolle's (2013) model and then using the comparative approach (Blenker et al., 2014; Krippendorff, 2004). The model for enabling basic education teachers to design learning environments to better support students to awaken to recognise their possible LNE, is presented as the final part of the study. Then the methodological approach is constructive, because it offers a space for new, even unexpected results (Kasanen et al., 1993).

Entrepreneurialism in the interventions

There is a need to consider the philosophical and didactical assumptions in the EE research field (Fayolle, 2013). As Hägg and Peltonen (2013) point out, the philosophical view refers to ontological, epistemological and axiological issues. The ontological view in EE raises questions about the relationship and interaction between the participants and others in society (Hägg and Peltonen, 2013). In Cases 2 and 3, EE is ontologically understood as an opportunity for individuals to become free to act and able to make decisions according to their own will and needs when they create their own places in society (Hietanen et al., 2014; Hägg and Peltonen, 2013; Kuratko, 2005; Pepin, 2012). Understanding EE as enabling individuals' freedom is based on the nature of EE, including opportunity exploration, exploitation and creation (Politis, 2005; Rae, 2014), diverse learners' rights to study according to their needs (Jones and Iredale, 2010), and seeing individuals' learning as both autonomous (Blenker et al., 2012) and social processes (Gemmell et al., 2012).

The epistemology in Cases 2 and 3 has to be observed from the non-business content (the subjects) and from the EE approach. The students' abilities to learn the subjects were obvious, because the focus in 'What?' was on the non-business subjects and the entrepreneurial approach came through the question 'How to study?'. In EE, learning by doing (Cope and Watts, 2000; Pepin, 2012) is recommended in parallel with experiential learning (Gemmell et al., 2012; Kolb, 1984; Politis, 2005). Through reflection in each phase of the EL processes, students are able to build entrepreneurial knowledge about their experiences (Draycott and Rae, 2011; Neck and Greene, 2011; Pepin, 2012).

The axiological consideration in EE refers to the values related to ontology and epistemology and to the ethical principles observed in the research (Hägg and Peltonen, 2013). In the current study, all the learning environments, except in ESP, were organized within the limits of general, mainly basic education in Finland. One of the main values in Finnish basic education is equality, which emphasises each student's equal right to grow up according to his/her own needs and to participate in each kind of teaching-learning situation (FNBE, 2014).

Analysing Cases 2 and 3 by asking what EE means, it is easy to see the nature of general education and the focus on each student's growth as a human being. Nonetheless, the analysis does not show a direct relationship between the interventions and entrepreneurship as dealing with business. In Case 2, EE means becoming familiarized with the entrepreneurial approach by reflecting on the processes of studying non-business content through an 'entrepreneurial lens' (Welter, 2011). This means that the students were guided to recognise their attributes, attitudes and behaviours that are also important to SEs. In Case 3, the teacher-students were guided to see the pedagogical opportunities to notice EE while organising their learning environments. EE has three main objectives: to learn *about* entrepreneurship, *through* EL processes and *for* entrepreneurship (Gibb, 1993). In the Case 2, the emphasis was on the students' learning *about* entrepreneurship *through* assessing their non-business activities by comparing their attitude and behaviour with those of SEs' in their self-reflection processes. In Case 3, the emphasis aligned with this among the teacher-students. However, the main purpose of the interventions was to present entrepreneurship to general education students as an opportunity to create jobs in the future, which, to some extent, includes the idea of educating the students *for* entrepreneurship. In Case 1, each student's achieved phase on his/her EL path was a collaboratively negotiated but individually formulated outcome in

the reports, presented as self-assessments. In Cases 2 and 3, the main educational task was to guide each student to grow as a human being, as described earlier in the ontological and axiological considerations. The contexts of all the Cases, including the contents and pedagogical solutions, are presented in Table 8.2.

Table 8.2 Contents and pedagogies in the cases.

Dimensions of EE	Analysis questions	Cases		
		Case 1: One course in the Entrepreneurship studies programme at the open university	Case 2: Seventh graders' compulsory music course in basic education	Case 3: Teachers' continuing education project in general education
Didactical level	What? Contents Knowledge	Last course in the ESP to strengthen one's entrepreneurial way of acting and assess the meaning of entrepreneurship in one's area of expertise.	The main content is music as a subject. The EE content is interpreted from the small-sized entrepreneurs' attributes and behaviours based on previous research.	The main contents are some subjects in basic and upper secondary education. The content of EE was defined by the teacher-students. The guiding lecturer confirmed the EE approach by discussing the definitions in previous research. EE was not discussed with the teachers-students' own students.
	How? Methods Pedagogies	Web-based common discussions. Students working in their jobs or studying non-business content were guided to <ul style="list-style-type: none"> • assess their ways of working • formulate one topic to develop • design and implement an intervention to develop the topic from an entrepreneurial approach • reflect the intervention • use the entrepreneurship knowledge they achieved during the ESP and the 12 concepts of SEs' attributes and behaviours [1]. 	The students were guided to <ul style="list-style-type: none"> • make decisions about which instruments, which phases, with whom, and when to study • reflect on their music studying using the 12 concepts of SEs' attributes and behaviour [1]. 	The project was organised by <ul style="list-style-type: none"> - guiding the teachers' • common seminars • one to two interventions • reflection diaries - the lecturer's visits to schools - e-mails, phone calls, and Facebook conversations between the teachers and the lecturer.

To assess what the participants were able to learn about entrepreneurship in these interventions, the objectives of EE in each case must first be recognized. In Case 1, before the examined course, the students had taken common courses (about 50 credits) in the ESP. The purpose of the entire ESP was to enable the students to start a firm (Hietanen, 2015). The objective of the examined course was to research one's own work to develop one's entrepreneurial behaviour by strengthening the entrepreneurial way of acting and assessing the meaning of entrepreneurship in one's area of expertise (Hietanen, 2015, p. 968). In addition to the knowledge the students had gained during the previous ESP courses, the lecturer offered 12 concepts that reflected the attributes, skills and behaviours of SEs [1] as theoretical tools for reflection. The impact of the previous studies was obvious because many students highlighted their intrapreneurship (Antoncic and Hisrich, 2003) even though the lecturer did not mention the concept. In the current investigation, intrapreneurship is interpreted to manifest students' stronger LNE.

In Cases 2 and 3, the wider context around the interventions was general education, in which 'For which results?' focusing on EE referred to educating the students to become aware of their possibilities to earn a living in the future (FNBE, 2004, 2014, 2015). In general education, entrepreneurship should be presented as one possibility among others. In Case 2, the students got to know what kinds of attributes and behaviours are essential when acting as an SE, but only

according to the theoretical definition based on the concepts given by the music lecturer [1]. Pedagogically EE was implemented when the lecturer was supporting the students' self-assessments of their acting in their music studies (Hietanen et al., 2014). In each case, as the students applied the entrepreneurial activities learned in one situation to other situations, the transformation process seemed to be an essential part of the EL process (Jones et al., 2012; Politis, 2005). In addition, experimenting between various opportunities (Kolb, 1984) and reflection skills (Neck and Greene, 2011; Pepin, 2012; Schön, 1987) were essential in the examined EE cases.

In Case 3, the teacher-students increased their awareness of an individual's entrepreneurial self based on their previous knowledge about entrepreneurship, which the lecturer confirmed discussing the teacher-students' definitions of entrepreneurship and working life together with some previous research and conferences (Hietanen and Kesälahti, 2017). What is remarkable is that due to the emphasis on the equal ethics and values of general education, the teacher-students decided not to mention entrepreneurship because it is only one form of working life. Thus, despite practising an entrepreneurial attitude and behaviour during the interventions (Hietanen and Kesälahti, 2015, 2016, pp. 48–53), the teacher-students' own students did not become aware of how their lessons were related to entrepreneurship. However, in each case, the students (in Case 3, both the teacher-students and their students) were able to discover and create opportunities (Politis, 2005), make decisions (Jones, 2006) and practise their reflection skills (Neck and Greene, 2011; Pepin, 2012).

Discussion

With regard to the first research question focusing on the phases of the EL path, which students and teacher-students were able to achieve in previous interventions, this study found differences between the Cases. Because the students in Case 1 had decided to participate in the ESP, they are defined as latent nascent entrepreneurs (Brixy et al., 2012). After the examined course, some students manifested organisational intrapreneurship (Antoncic and Hisrich, 2003), and some showed nascent entrepreneurship by revealing their plans for start-ups in the near future. This indicates that they had progressed on their entrepreneurial paths. The students in Case 2 and the teacher-students in Case 3 manifested their entrepreneurialism by assessing their activities in teaching-learning situations after the theoretical definitions of SEs' activities. In Case 2, the lecturer gave the definitions, and in Case 3, the teachers negotiated the definitions based on their previous knowledge. In Case 3, similar to their teachers (the teacher-students), the students also manifested some entrepreneurial attributes and behaviour, but the students did not recognize their entrepreneurialism. Nevertheless, in Cases 2 and 3, neither the teacher-students nor their students were in touch with entrepreneurship as dealing with business. Thus, the students in Cases 2 and 3 did not achieve sufficient knowledge about entrepreneurship to be able to recognise their possible LNE. However, in Case 2 the students and in Case 3 the teacher-students were awakening to notice their entrepreneurial selves.

The same music lecturer was responsible for the EE content in each case and focused on guiding the students' EL process to awaken or strengthen their entrepreneurial selves as individuals, but did not factor in the economic part of entrepreneurship. Hence, the pedagogical solutions to 'How?' were somewhat similar in every case. Compared with the other cases, the main difference in the Case 1 was the students' wider and deeper knowledge of entrepreneurship after completing about 50 credits from the previous courses in the ESP, including training on starting and managing a firm. Since the students in Case 2 learned only the 12 theoretical attributes and behaviour of SEs and the teacher-students in Case 3 had only theoretical definitions, their EL processes are believed to have stayed weak.

As pointed out in previous investigations of entrepreneurial intentions among business students and the number of start-ups they created after graduating, EE programmes seem to be most

effective when students take EE courses in previous studies (Joensuu-Salo et al., 2015) or take a moderate number of EE courses in their current studies (Støren, 2014). It seems that the more students know about entrepreneurship, the more likely they are to start a firm in the future. Using the questions in Fayolle's (2013, p. 694) generic teaching model in EE, this study identified the crucial points that should be developed to enable students to become aware of their LNE even in basic education. Based on previous findings, Finnish basic education teachers' and students' source of knowledge about entrepreneurship is somewhat weak and divided (Ruskovaara and Pihkala, 2013; Seikkula-Leino et al., 2013). Connections to real entrepreneurship, the social construction of knowledge, and competence in entrepreneurship seem to be essential elements in understanding the phenomenon of entrepreneurship (Jones and Matlay, 2011; Gemmell et al., 2012; Pittaway and Cope, 2007; Ruskovaara and Pihkala, 2013). Thus, there seems to be a need to develop collaborative practices between enterprises and comprehensive schools (see also Sommarström et al., 2017).

Conclusion

When modelling EE learning environments in basic education to better respond to political recommendations, at the philosophical level, it is important to notice the learning environments' ontological and axiological areas, but focus the development processes particularly on the epistemology of EE. As recommended in the Finnish national curriculum, regardless of the subject, every teacher should emphasize entrepreneurialism as part of the students' increasing transversal competence (FNBE, 2014). However, Ruskovaara and Pihkala (2013) and Seikkula-Leino et al. (2013) stated that the biggest challenge in developing EE in basic education seem to be teachers' low competence in EE. Thus, in the schools in the studied cases, it is easy to understand why there were no interventions for EE other than the examined ones. For example in Case 2, the guidance counsellor had mentioned entrepreneurship as one way to earn a living, but this study does not consider these short presentations as EE. Figure 8.2 shows the EE situation in the comprehensive school (grades 7 to 9, about 450 students and about 25 teachers), where the music education intervention (Case 2) was carried out. The big circle represents the whole school, and S1–S5 represent some other subjects in the curricula aside from music.

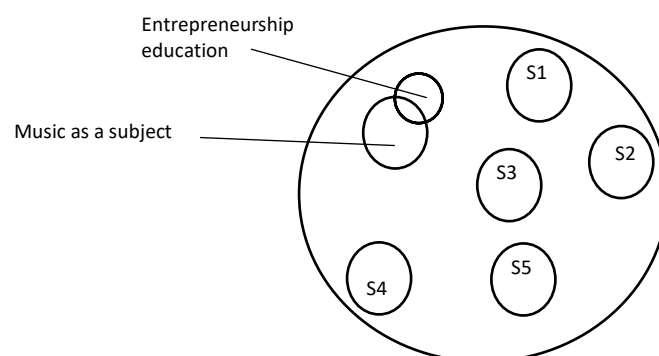


Figure 2. EE implementation in the school: Case 2

One potential way to strengthen teachers' and students' competence in EE is increase the connections between nearby entrepreneurs and the teachers and students (Jones and Matlay, 2011; Pittaway and Cope, 2007; Ruskovaara and Pihkala, 2013; Seikkula-Leino et al., 2013; Sommarström et al., 2017). Using the possibilities of technology, there could be, for example, short video interviews in which SEs share their attitudes towards new things, how they act in new

situations, and interact with their network. Because even young students are able to reflect on their learning process through an entrepreneurial lens (Hietanen et al., 2014; Hietanen and Ruismäki, 2016), students and teachers could reflect these stories by comparing their own attitudes and practices during their studies with those of the SEs, as done theoretically in the examined cases.

The strength of negotiation between the teachers as participating teacher-students in the continuing education process in Case 3 led the authors to propose that more teachers in the institution should implement EE and support each other in a group. Peltonen (2015) and Hietanen and Kesälahti (2016) found positive experiences in the teachers' collaborative workshops; some have been applied in the teachers' daily practices in their workplaces. Nabi et al. (2017) reminded us that in the higher education context, entrepreneurship is strongly negotiated with the society and EE should benefit learning in real-life situations. Applying the previous findings, Figure 8.3 presents a model of strengthened EE and possibilities for more regular interaction between the different actors. The biggest circle represents the school, and the smaller circles outside (E1 – E3) represent the SEs nearby. The small circles inside the biggest one (S1, S2, S4, S5) represent school subjects, and the circle in the middle is EE.

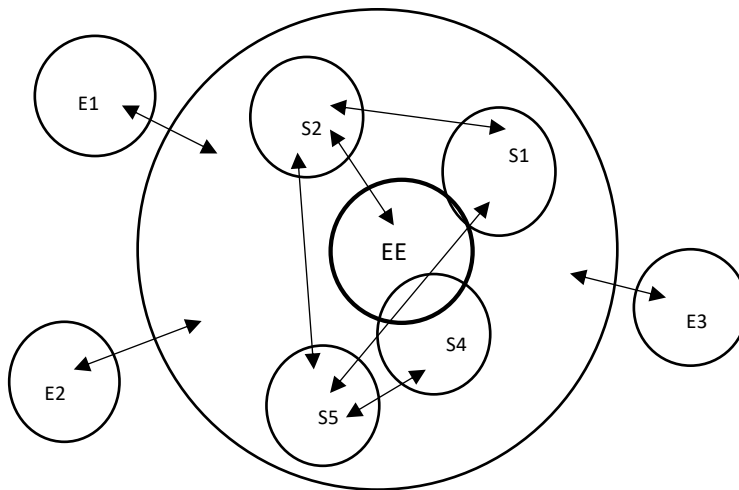


Figure 3. Model of an entrepreneurial comprehensive school

When EE is widely implemented in the interaction between the entrepreneurs and the actors in school, EE can become part of each school subject and the entire school culture, as recommended in the curriculum (FNBE, 2014) and in other political guidelines. This ideal situation is depicted in Figure 8.4: EE is in the middle, surrounded by the school subjects and a part of each of them, and supported by entrepreneurs. The main idea in the figure is that the more the subjects cover EE and interact with others, the more the students are able to notice their possible LNE. The model presented in Figure 8.4 is an answer to research question number 2.

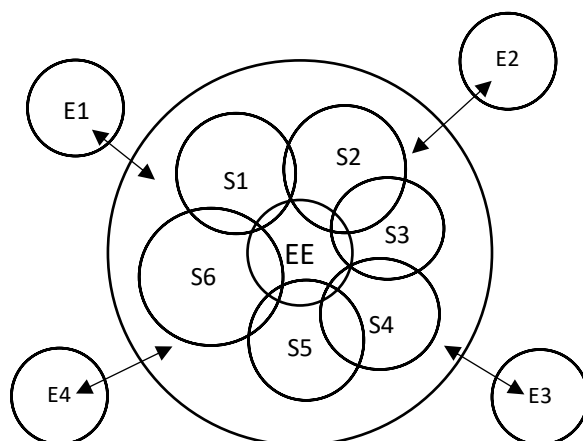


Figure 8.4. Model of an ideal entrepreneurial comprehensive school

One of the limitations of the study is that in the current study, the data collected in the previous interventions are not very informative. However, the expert outsider brought a new view to the study, as did Fayolle's (2013) framework. Questions about the contexts could be added to the framework, at least when considering more non-business education, where the teachers' competence as entrepreneurship educators is not self-evident. Additionally, the framework should take greater notice of the interaction between the surrounding society and the educational institution. In all, the findings show the need to consider EE interventions carefully, especially using various approaches focusing on the philosophical and didactical levels of the EE learning environments as well.

Note

1. The following 12 entrepreneurial concepts of SEs' attributes and behaviours applied from Gibb's (2005) ones are used as tools: problem-solving skills, creativity, dealing with changes, tolerating uncertainty, risk taking, initiative, self-confidence, responsibility, cooperation skills, learning through mistakes, commitment, and perseverance.

References

- Anderson, L. W. (1995), *International Encyclopaedia of Teaching and Teacher Education* (2nd ed.), Oxford, UK: Pergamon Press.
- Antonic, B. and R. D. Hisrich (2003), 'Clarifying the intrapreneurship concept', *Journal of Small Business and Enterprise Development*, **10** (1), 7–24.
- Baker, G. and D. Henson (2010), 'Promoting employability skills development in a research-intensive university', *Education + Training*, **52** (1), 62–75.
- Bjornali, E. and L. A. Støren (2012), 'Examining competence factors that encourage innovative behaviour by European higher education graduate professionals', *Journal of Small Business and Enterprise Development*, **19** (3), 402–23.
- Blenker, P., S. T. Elmholdt, S. H. Frederiksen, S. Korsgaard and K. Wagner (2014), 'Methods in entrepreneurship education research: a review and integrative framework', *Education + Training*, **56** (8/9), 697–715.
- Blenker, P., S. H. Frederiksen, S. Korsgaard, S. Moller, H. Neergaard and C. Thrane (2012), 'Entrepreneurship as everyday practice: towards a personalized pedagogy of enterprise education', *Industry & Higher Education*, **26** (6), 417–30.
- Brixy, U., R. Sternberg and H. Stüber (2012), 'The selectiveness of the entrepreneurial process', *Journal of Small Business Management*, **50** (1), 105–31.

- Cope, J. and G. Watts (2000), 'Learning by doing: an exploration of experience, critical incidents and reflection in entrepreneurial learning', *International Journal of Entrepreneurial Behaviour & Research*, **6** (3), 104–20.
- Draycott, M. and D. Rae (2011), 'Enterprise education in schools and the role of competency frameworks', *International Journal of Entrepreneurial Behaviour and Research*, **17** (2), 127–45.
- Fayolle, A. (2013), 'Personal views on the future of entrepreneurship education', *Entrepreneurship & Regional Development*, **25** (7–8), 692–701.
- Fayolle, A. and B. Gailly (2008), 'From craft to science: teaching models and learning processes in entrepreneurship education', *Journal of European Industrial Training*, **32** (7), 569–93.
- Finnish National Board of Education (2004), *National Core Curriculum for Basic Education 2004*, accessed 19 April 2017 at http://www.oph.fi/download/47675_POPS_net_new_2.pdf.
- Finnish National Board of Education (2014), *Perusopetuksen opetussuunnitelman perusteet 2014* [National Core Curriculum for Basic Education 2014], accessed 16 February 2016 at <http://www.oph.fi/ops2016/perusteet>.
- Finnish National Board of Education (2015), *Lukion opetussuunnitelman perusteet 2015* [National Core Curriculum for Upper Secondary Schools 2015], accessed 25 May 2017 at <https://eperusteet.opintopolku.fi/#/fi/lukio/1372910/tiedot>.
- Gemmell, R. M., R. J. Boland and D. A. Kolb (2012), 'The socio-cognitive dynamics of entrepreneurial ideation', *Entrepreneurship Theory and Practice*, **36** (5), 1053–73.
- Gibb, A. (1993), 'The enterprise culture and education: understanding enterprise education and its links with small business, entrepreneurship and wider educational goals', *International Small Business Journal*, **14** (3), 13–29.
- Gibb, A. (2005), 'The future of entrepreneurship education – determining the basis for coherent policy and practice?' in P. Kyrö and C. Carrier (eds.), *The Dynamics of Learning Entrepreneurship in a Cross-Cultural University Context*, Hämeenlinna, Finland: Research Centre for Vocational and Professional Education, pp. 44–67.
- Grilo, I. and J.-M. Irigoyen (2006), 'Entrepreneurship in the EU: to wish and not to be', *Small Business Economics*, **26**, 305–18.
- Hietanen, L. (2015), 'Facilitating employees' and students' process towards nascent entrepreneurship', *Education + Training*, **57** (8/9), 964–976.
- Hietanen, L. S. Uusiautti and K. Määttä (2014), 'Enhancing entrepreneurship in learners—An implementation and evaluation of entrepreneurship education through music education', *Problems of Education in the 21st Century*, **59**, 34–48.
- Hietanen, L. and E. Kesälahti (2015), 'Where should I begin? How could I develop?' Handbook for training work life and entrepreneurship skills in comprehensive and general upper secondary schools. Accessed 24 November 2017 at <http://urn.fi/URN:ISBN:978-952-484-828-2>.
- Hietanen, L. and E. Kesälahti (2016), 'Teachers in general education defining and enabling work-related and entrepreneurial activities', *Yrittäjyyskasvatuksen aikakauskirja/Periodical of Entrepreneurship Education*, 37–60.
- Hietanen, L. and H. Ruismäki (2016), 'Awakening students' entrepreneurial selves: Case music in basic education', *Education + Training*, **58** (7/8), 832–848.
- Hägg, O. and K. Peltonen (2013), 'Towards a conceptual understanding of entrepreneurial pedagogy', *Periodical of Entrepreneurship Education*, **1**, 21–44.
- Joensuu-Salo, S., E. Varamäki and A. Viljamaa (2015), 'Beyond intentions – what makes a student start a firm?' *Education + Training*, **57** (8/9), 853–73.
- Jones, B. and N. Iredale (2010), 'Viewpoint: enterprise education as pedagogy', *Education + Training*, **52** (1), 7–19.

- Jones, B. and N. Iredale (2014), 'Enterprise and entrepreneurship education: towards a comparative analysis', *Journal of Enterprising Communities: People and Places in the Global Economy*, **8** (1), 34–50.
- Jones, C. (2006), 'Enterprise education: revisiting whitehead to satisfy Gibbs', *Education + Training*, **48** (5), 356–67.
- Jones, C. and H. Matlay (2011), 'Understanding the heterogeneity of entrepreneurship education: going beyond Gartner', *Education + Training*, **53** (8/9), 692–703.
- Jones, C., H. Matlay and A. Maritz (2012), 'Enterprise education: for all, or just some?' *Education + Training*, **54** (8/9), 813–24.
- Kasanen, E., K. Lukka and A. Siitonen (1993), 'The constructive approach in management accounting research', *Journal of Management Accounting Research*, **5**, 243–64.
- Kolb, D. A. (1984), *Experiential Learning*, New York, NY: Prentice Hall.
- Krippendorff, K. (2004), *Content Analysis: An Introduction to Its Methodology*, Thousand Oaks, CA: Sage.
- Krueger, N. F., Jr. (2009), 'The microfoundations of entrepreneurial learning and ... education: the experiential essence of entrepreneurial cognition', in G. West, E. J. Gatewood and K. G. Shaver (eds.), *Handbook of University-Wide Entrepreneurship Education*, Cheltenham, UK and Northampton, MA: Edward Elgar Publishing, pp. 35–59.
- Kuratko, D. F. (2005), 'The emergence of entrepreneurship education: development, trends, and challenges', *Entrepreneurship Theory and Practice*, **29** (5), 577–97.
- Nabi, G., F. Liñán, A. Fayolle, N. Krueger and A. Walmsley (2017), 'The impact of entrepreneurship education in higher education: a systematic review and research agenda', *Academy of Management Learning and Education*, **16** (2), 277–299.
- Neck, H. M. and P. G. Greene (2011), 'Entrepreneurship education: known worlds and new frontiers', *Journal of Small Business Management*, **49** (1), 55–70.
- Peltonen, K. (2015), 'How can teachers' entrepreneurial competences be developed? A collaborative learning perspective', *Education + Training*, **57** (5), 492–511.
- Pepin, M. (2012), 'Enterprise education: a Deweyan perspective', *Education + Training*, **54** (8/9), 801–812.
- Pittaway, L. and J. Cope (2007), 'Entrepreneurship education: a systematic review of the evidence', *International Small Business Journal*, **25** (5), 479–510.
- Politis, D. (2005), 'The process of entrepreneurial learning: a conceptual framework', *Entrepreneurship Theory and Practice*, **29** (4), 399–424.
- Rae, D. (2014), *Opportunity-Centred Entrepreneurship* (2nd ed.), New York, NY: Palgrave Macmillan.
- Ruskovaara, E. and T. Pihkala (2013), 'Teachers implementing entrepreneurship education: classroom practices', *Education + Training*, **55** (2), 204–16.
- Schön, D. (1987), *Educating the Reflective Practitioner*, London, UK: Jossey-Bass.
- Seikkula-Leino, J., E. Ruskovaara, M. Ikävalko, J. Kolhinen and T. Rytkölä (2013), 'Teachers' reflections on entrepreneurship education: their understanding and practices', in A. Fayolle, P. Kyrö, T. Mets and U. Venesaar (eds.), *Conceptual Richness and Methodological Diversity in Entrepreneurship Research*, Cheltenham, UK and Northampton, MA, USA: Edward Elgar Publishing, pp. 146–71.
- Sommarström, K., E. Ruskovaara, and T. Pihkala (2017), 'Company visits as an opportunity for entrepreneurial learning', *Journal for International Business and Entrepreneurship Development*, **10** (3), 298–315.
- Støren, L. A. (2014), 'Entrepreneurship in higher education: impacts on graduates' entrepreneurial intentions, activity and learning outcome', *Education + Training*, **56** (8/9), 795–813.
- Welter, F. (2011), 'Contextualizing entrepreneurship – conceptual challenges and ways forward', *Entrepreneurship Theory and Practice*, **35** (1), 165–84.