

The role of entrepreneurship education in Finnish high schools

MSc program in Entrepreneurship

Master's thesis

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2015

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Title of thesis The role of entrepreneurship education in Finnish high schools

Degree Master's Degree

Degree programme Entrepreneurship

Thesis advisor(s) Ewald Kibler

Year of approval 2015

Number of pages 62

Language English

Abstract

Purpose – This thesis aims to explore the role of entrepreneurship education in Finnish high schools from the perspective of high school principals and entrepreneurship education professionals. The key research questions are:

- 1) How do high school principals and entrepreneurship education professionals define entrepreneurship education and understand its (potential) role in Finnish high schools? What are the main commonalities and differences in their perceptions?
- 2) What is the particular role of high school principals in the implementation of entrepreneurship education in Finland? How do high school principals perceive themselves in this potential role, and what are the main standpoints of entrepreneurship education professionals?

Theories and methods – Based on a review of the recent entrepreneurship education literature, the thesis identifies the under-researched role of entrepreneurship education in high schools. Following this, it draws upon in-depth interviews with high school principals and entrepreneurship education experts to examine the nature of discourses around entrepreneurship education in Finland.

Key contributions – This thesis contributes to entrepreneurship education research by providing novel insight into the particular role of principals in the implementation of entrepreneurship education in high schools. The thesis highlights the different understandings and sense-making of the notion 'entrepreneurship education' between high school principals and entrepreneurship education professionals, and emphasizes the needed for further research on how to build a greater awareness of what 'entrepreneurship education' means and how it can be adequately implemented in high schools.

Keywords entrepreneurship education, external entrepreneurship, internal entrepreneurship, high school education, principals, perceptions of entrepreneurship education, entrepreneurship education research

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1. Introduction

1.1 Background

Entrepreneurship education and training is growing rapidly in universities and colleges throughout the world (Katz, 2003; Kuratko, 2005). This trend is fuelled by a recognition that entrepreneurship can play an important (even critical) role in economic growth and employment (Shumpeter, 1934; Shane and Venkataraman, 2000; Kuratko, 2005). However, there is more than one way of perceiving entrepreneurship education. Understanding the concept of entrepreneurship is fundamental for defining entrepreneurship education (Seikkula-Leino, Ruskovaara, Iklavalko, Mattila, Rytkola, 2010). It is particularly important what perceptions about entrepreneurship and subsequently entrepreneurship education exist among individuals involved in creating and implementing it. This means that entrepreneurship education can be both defined as something that teaches students to become entrepreneurial and something that can help teachers learn what methods would be most efficient when teaching entrepreneurship. Furthermore, there are key terms that need to be understood in order to deploy the strategy of promoting entrepreneurship education in high schools.

According to Kyrö (1997), entrepreneurship education deals with three main components: 1) self-oriented, 2) internal and 3) external entrepreneurship. Self-oriented entrepreneurship refers to an individual's self-oriented behaviour. Self-oriented entrepreneurship is the basis for developing internal and external entrepreneurship (Remes 2004: 84). While this thesis is tackling internal and external entrepreneurship, self-oriented entrepreneurship is the base which means that while focusing on internal and external entrepreneurship, self-oriented entrepreneurship is still a part of it.

Internal entrepreneurship deals with entrepreneurial and enterprising behaviour. External entrepreneurship is about doing business (Ristimäki 2003: 6). Even though self-oriented and internal entrepreneurship resemble each other, the difference between them is in the collectivistic sense which emerges in internal entrepreneurship development and which could be developed in organizations (Remes 2001). Internal entrepreneurship is generally associated with the pupils' responsible attitude to (school) work; it was represented as an ideal subjectivity for all and accepted as the natural aim of schooling (Korhonen, Komulainen, Raty, 2012). On the other hand, external entrepreneurship is seen to foster economic skills and to prepare the students for a future as business people or entrepreneurs

(Korhonen, Komulainen, Raty, 2012). External and internal education may also be referred to as entrepreneurial and enterprising education.

Several studies have shown that teachers might need to obtain more knowledge about the conceptual division of entrepreneurship into an entrepreneurial and enterprising part (e.g. Backstrom-Widjeskog, 2010; Leffler 2009), as well as the knowledge about the aims, contents and practices of entrepreneurship education (e.g. Seikkula-Leino, 2007). Despite the differences as regards the aims of entrepreneurship education, it is widely accepted that entrepreneurship is ultimately about learning and therefore it is essential to know how entrepreneurial learning takes place (Minniti & Bygrave, 2001; Rae, 2005). In terms of teachers' ideas regarding implementation of entrepreneurship education in high schools, projects were seen as the leading technique which, despite advantages for pupils can also require more development in order to become a part of a teacher's everyday routine and be integrated into the curriculum.

Principals and vice-principals are the ones who have more influence and understanding of a school curriculum and education strategy of a particular school. Therefore, this creates a need for research on principals' and vice-principals' connection to entrepreneurship education and whether they have sufficient understanding to integrate entrepreneurship education into the school curriculum. Moreover, principals and vice-principals have the power to influence the educational strategy of a school; as well as have an impact on teachers' professional development as entrepreneurship educators for high school students. These are the main reasons why obtaining knowledge in this area would be important for further research of entrepreneurship education in the context of high school.

1.2 Research Gap, Problem and Research Questions

Some research has been done on the topic of teachers' understanding of entrepreneurship education in a certain context and according to this research it is teachers in particular who have the essential role in the process of transforming the different meanings and aims of entrepreneurship education into teaching practices and learning outcomes which, in the long haul, result in the increase of enterprising as well as entrepreneurial activities in the society (e.g. Seikkula-Leino et al., 2010). The results of previous research on teachers' understanding of entrepreneurship education seem to indicate that a lack of clear conceptual and contextual links between aims and results, that is, in terms of the classroom and real life outside of the classroom, may affect the iterative processes of evaluating

and improving the education (Seikkula-Leino, Ruskovaara, Iklavalko, Mattila, Rytkola, 2010). Moreover, according to Seikku-Leino et. al., 2010, teachers do not seem to be able to generate meaningful reflection in this context. At the same time there is no information about what perceptions of entrepreneurship education exist among school principals and vice-principals who have more say in creating a curriculum and other activities in a particular school. Therefore, this research gap needs to be filled in order to obtain more knowledge of what perceptions exist among key players, i.e. principals and vice-principals, involved in entrepreneurship education, who have the power to make an impact on the further development of entrepreneurship education as a discipline in the context of high schools. Moreover, it would be necessary to find out what perceptions about the role of principals in entrepreneurship education exist among other experts in the field.

The implications of this research gap can lead to the lack of a bigger picture of entrepreneurship education where the focus is not only on teachers or students but also on the main decision makers. The consequences of this research gap are significant, as a vital element in the implementation of entrepreneurship education is being overlooked, since it is principals and vice-principals who are able to add entrepreneurship elements to a curriculum as well as offering entrepreneurial activities suitable for high school students, therefore it is important to know what is the role of principals and vice-principals in entrepreneurship education and how other entrepreneurship education experts perceive the role of principals in the implementation of entrepreneurship education in high schools.

In order to deal with the research gap mentioned above, this thesis is set to address the following objectives. First, review in detail existing literature on entrepreneurship, more specifically on the role of the teacher in entrepreneurship education; the existence of entrepreneurship education in the curriculum and the methods which are most commonly used in high schools to engage and promote entrepreneurship education among students. Secondly, identify principals' role in entrepreneurship education and their understanding of entrepreneurship education through the interviews of various professionals in entrepreneurship education. Thirdly, analyze existing perceptions among interviewees regarding both entrepreneurship education and principals' role in entrepreneurship education. Finally, using a theoretical framework, more specifically the interpretive phenomenological analysis method, analyze the gathered data to identify the current realities of entrepreneurship education in high schools and principals' role and understanding (or lack of it) of entrepreneurship education. Furthermore, it will be discussed what actions could be taken to improve the current situation in terms of the state of entrepreneurship education in high schools, principals' understanding and involvement in entrepreneurship education.

1.3 Limitations

The study was limited by the sample size, particularly in the ability to gain a larger scope of principals participating in the study. In terms of research method, the interpretive phenomenological analysis has been chosen for this thesis. Although smaller sample size is the main limitation of this IPA (interpretive phenomenological analysis) study, Smith et al (2009) considered that reduced participant numbers allows for a richer depth of analysis that might be inhibited with a larger sample.

Another important limitation refers to the challenges of gaining a broader response from principals due to the novelty of the subject, language and time constraints. Limitations in terms of language are particularly relevant in this situation in relation to the low levels of principals' response due to the challenges to express their thoughts on a complex subject in English as opposed to their native language (Finnish). According to Smith, 2009, the effectiveness of an IPA study should be judged by the light it sheds in a broader context. This might seem difficult to achieve if the sample group is too specific or unique, therefore the sample group for this study was designed to have participants with different connections to education and entrepreneurship education. Due to this approach, the limitations related to reaching out to a particular group, i.e. principals, have little effect on the outcomes of the study, since even a minimum response from principals has shown a clear pattern, especially when combined with other responses.

1.4 Definitions

Entrepreneurship – There is no consensus suggesting a single, comprehensive theory of entrepreneurship (e.g. Shane and Venkataraman, 2000). Among other perspectives, entrepreneurship can refer to the emergence and creation of organisations, which is a combination of definitions put forward by many researchers (Pinchot, 1985; Gartner, 1988); making new combinations and innovations such as new products, production methods, markets and organizational forms (Schumpeter, 1934) and exploring opportunities (e.g. Kirzner, 1973; Shane and Venkataraman, 2000).

External Entrepreneurship – fosters economic skills and prepares students for a future as business people or entrepreneurs (The Finnish Ministry of Education and Culture, 2004, p. 15).

Internal Entrepreneurship – combines flexibility, initiative, creativity and independent action with cooperation skills and strong motivation (The Finnish Ministry of Education and Culture, 2004, p. 15).

Enterprise Education – consists of enterprise capability supported by better financial capability and economic and business understanding (Ofsted, 2004; Teachernet, 2008).

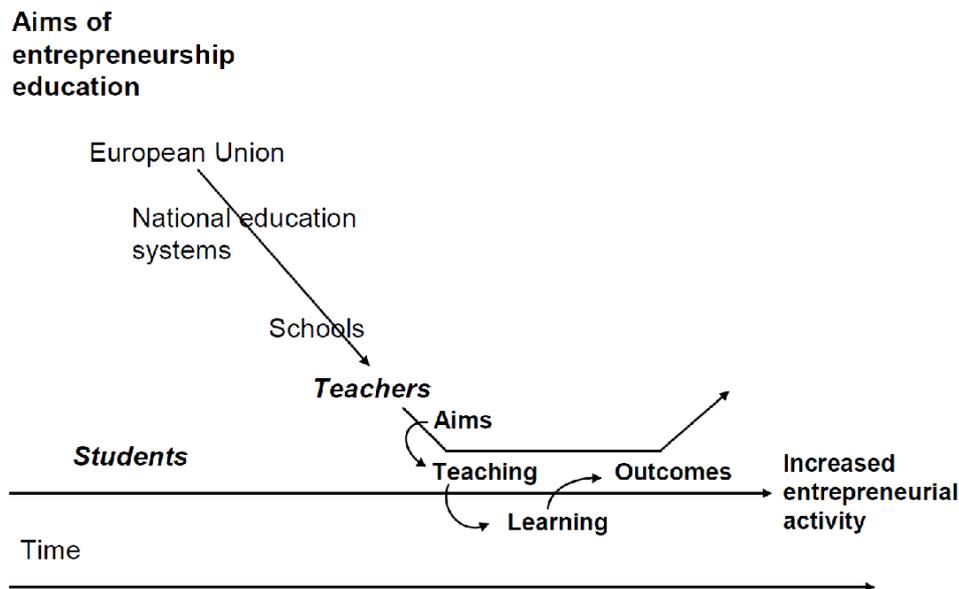
Enterprise education is another term that is used for internal entrepreneurship, but generally describes the same idea.

2 Literature review

This literature review aims to identify the current state of research in entrepreneurship education through addressing previous research focusing on students, teachers, internal and external education, and the role of entrepreneurship education on both classroom level and the broader educational level. As a part of this literature review, current trends of entrepreneurship education from the perspectives of EU policies will be also taken into account.

The strategy of the European Union highlights the importance of the development of entrepreneurial culture by fostering the right mindset, entrepreneurship skills and awareness of career opportunities (Commission of the European Communities 2006). However, according to Ikävalko, Ruskovaara and Seikkula-Leino, 2008, there is a long distance from the international and national policy making level to the future realization of outcome of entrepreneurship. A journey consisting two different processes: first, from the goal setting in education system, starting from the EU strategies and national curriculum, to the altered daily teaching work of all teachers, and secondly, from the teaching to the altered behaviour of the students in the years to come (Ikävalko, Ruskovaara and Seikkula-Leino, 2008). The processes described by Ikävalko et.al. in their work “Rediscovering teacher’s role in entrepreneurship education” are shown in picture below.

Picture 1: Teacher executing the aims of entrepreneurship education.



2.1 Entrepreneurship education: students

Entrepreneurship and entrepreneurial behavior are considered to be essential competences and constructs of individuals' competitiveness in the future (Lämminpää and Kuopusjärvi, 2005). Most European countries have a policy commitment towards promoting learning about entrepreneurship, but, as yet, it has not become a widespread subject in the European educational system (European Commission, 2006). Finland, however, has turned out to be an early adopter and reformer: entrepreneurship education is now taken into consideration throughout the school system, from primary schools to universities (Korhonen, Komulainen, Rätty, 2012). Moreover, the Finnish Ministry of education and Culture (2004) presents entrepreneurship as the right mindset and a route to employment for every citizen.

Nevertheless, despite the claims that entrepreneurship can play an important (even critical) role in economic growth and employment (Shumpeter, 1934; Shane and Venkataraman, 2000; Kuratko, 2005) and assertions that entrepreneurship education can play a vital role in developing more and/or more able entrepreneurs (e.g., Gorman et al., 1997; Katz, 2007; Pittaway and Cope, 2007), it has been noted by several scholars (e.g., Weaver et al., 2006; Peterman and Kennedy, 2003), there is little

consistent evidence to support these claims. Furthermore, some studies raise doubts regarding the efficacy of entrepreneurship education for either economic or individual outcomes (Martinez et al., 2010; Oosterbeek et al., 2010; Pittaway and Cope, 2007; van Praag and Versloot, 2007).

According to Peterman and Kennedy (2003) even with a wide variety of entrepreneurship programs on offer in the market place, while positive results may be found from a study of one program it could not be assumed that all programs would have similar results due to variation in content, pedagogy and learning styles. However, Ruskovaara, Pihkala, Rytölä & Seikkula-Leino, 2011, argues that entrepreneurship education should support the students' feeling of their internal locus of control. As a learning outcome, the students would also try more persistently to achieve their goals, to be creative, to discover existing opportunities and in general to cope with the complicated society. Also, according to Gibb (2006) and Frank (2007), entrepreneurship education involves the development of attitudes, behaviors, skills and attributes applied individually and/or collectively to help individuals and organizations of all kinds to create, cope with and enjoy change and innovation.

The education of entrepreneurship can augment entrepreneurial attitudes and competencies (Henry, et.al. 2005; Gibb, 2006a; Pfeiffer, et.al. 2008), and the improving social attitudes towards entrepreneurship are evident among young people, perceiving entrepreneurship as a viable career option (Chigunta, 2002). Furthermore, the importance of fostering entrepreneurial drive among young people derives from their contribution to valuable products and services to their local communities in particular, and society in general (Chigunta, 2002). Their start-ups increase market competition, thereby support customers, increase innovation and flexibility, developing new ideas and solutions. Innovative economic opportunities and trends appear and technological changes open new job opportunities in the labor market (Chigunta, 2002).

At the same time, entrepreneurship education for younger students has been suggested to relate more to learning the spirit and ways of doing and seeing than about business activity. The aim is that students could take more responsibility for themselves and their learning (Gibb 2006; Remes 2001, 2004).

2.2 Entrepreneurship education: teachers

While the learning outcomes of entrepreneurship education have been under careful research, the viewpoint of teaching has been seemingly underdeveloped (Ruskovaara, Pihkala, Rytkölä & Seikkula-Leino, 2011). Nevertheless, there are several recent studies on entrepreneurship education from teachers' perspectives available. For example, Korhonen, Komulainen, and Rätty (2012) are exploring whether the teachers deploy the discourse of internal and external entrepreneurship in their meaning making of entrepreneurship education, and in what ways. According to this study (Korhonen, Komulainen, and Rätty, 2012), teachers construed the meaning of entrepreneurship education in comprehensive school through two different discourses: the discourse of internal entrepreneurship and the discourse of external entrepreneurship.

At the same time, according to Seikku-Leino, Ruskovaara, Iklavalko, Mattila, and Rytkola, 2010, despite the basic guidelines in the national strategies covering entrepreneurship education and the national core curricula, internal and external entrepreneurship seem to lack balance in terms of the aims, practices and results of teaching. Moreover, it also seems that instruction given by teachers is still rather insignificant, and entrepreneurship education is not a visible part of everyday activities in school. Furthermore, Seikku-Leino et al., 2010 points out that the teachers implied that the terms and concepts were familiar to them, but it is obvious that there was no specific theoretical basis or definition backing up their statements. Finally, in describing the aims of entrepreneurship education, teachers used an abundance of favorable adjectives that applied to their pupils, but excluded themselves from the objective-setting. Also, according to Seikkula-Leino (2006, 2007) and Fiet (2000a, 2000b), teachers have at times had difficulties in identifying contents and means by which to respond to challenges posed by entrepreneurship education.

Nevertheless, the development of entrepreneurial mindsets is becoming embedded in policy across Europe (European commission, 2011). According to European Commission, 2011, the essential role that education plays in the development of such mindsets, and in particular the central role that teachers play in this process. It requires nothing less than a sea change in the approach to education, emphasising active learning and the provision of new experiences for students outside of the classroom (European commission, 2011). For many education systems this represents a fundamental shift away from traditional approaches (European commission, 2011). This means that teachers need to be equipped with the right skills, knowledge and attitudes to be able to provide their students with the new curricula, pedagogies and learning environments that they will need if they are to acquire

entrepreneurial competencies (European commission, 2011). These changes will require significant changes in the way teachers themselves are educated.

According to research carried out by the European Commission, 2010, core skills and values linked to entrepreneurship education are seldom a priority in initial teacher education programs. Furthermore, creativity is not fully embedded into these programs and there are significant variations between Member States and approximately 90% of teachers say that they would like to receive some further training on creativity (Cachia, R. & Ferrari, A., 2010). Moreover, teachers also feel that educational and school cultures do not fully support them in fostering creative and innovative approaches to learning; this requires time to explore new approaches and a culture that encourages experimentation and allows for failure - in short, an environment that itself embodies the characteristics of entrepreneurialism (Cachia, R. & Ferrari, A., 2010).

In response to proposals made by the European Commission, the Education Council in November 2007 for the first time adopted Conclusions that set a European agenda for improving the quality of teaching and teacher education (European Commission, 2011). Ministers recognised that the quality of teaching is the single most important within-school factor affecting student attainment (European Commission, 2011). The importance of the teaching profession was again highlighted at an Informal Ministerial Meeting in Gothenburg in September 2009 under the Swedish Presidency of the EU and this was followed by the adoption of new Council Conclusions (The Council Of The European Union, 2009) in which Member States committed themselves to improving the professional development of teachers and school leaders.

These Conclusions (The Council Of The European Union, 2009), taken together, provide a comprehensive set of EU priorities for improving teacher education. They include improving teacher competences by making sure that teachers possess the necessary pedagogical skills to teach their own subjects and the transversal key competences, including in heterogeneous classes and making the best use of ICT; improving the quality of Initial Teacher Education (ITE) which should provide a Higher Education qualification and should balance research-based studies and teaching practice; ensuring the quality of teacher educators (teacher trainers) who should have solid practical teaching experience, good teaching competences and be of a high academic standard; and promoting professional values and attitudes in the teaching profession (in which teachers adopt a culture of reflective practice, undertake autonomous learning, engage with research, and collaborate extensively with colleagues).

2.3 Entrepreneurship education: principals

Research about the role of principals for developing an entrepreneurial attitude in learning and teaching in schools, are in many ways an unexplored area. (Hörnqvist, Leffler, 2013). Nevertheless, it is obvious that the principals are the individuals who can make an impact on entrepreneurship education on a larger scale. The principals are the pivots around which all major and important school activities revolve. This means that, the managerial qualities that principals bring to their work have far-reaching impact on how the overall enterprise of the school is done (Ezeani, 2012).

For a principal to aspire for effectiveness he or she must use indices of entrepreneurship management, while carrying out his/her administrative task (Akinola, 2005). These include building trust, visionary leadership, and communication, seeking self-improvement, making good decisions, being a role model, being a risk taker and being innovative (Miller, 2005; Little and Foss, 2008; Lin, 2009). In essence, an entrepreneur (principal) is an innovator, or developer who recognizes and seizes opportunities, converts those opportunities into workable/marketable ideas, adds value through time, effort, money or skills, and assumes the risk of the competitive market place to implement these ideas (Erhuru,2007).

According to curricula, entrepreneurship education should be present in the everyday education delivered in Finnish schools, and not only in the classroom but also happenings outside school and it should have a role in school climate and culture. The curricula define entrepreneurship education both as content and method of teaching and learning (Ruskovaara, Pihkala, Rytkölä & Seikkula-Leino, 2011). Nevertheless, entrepreneurship education requires a shift in pedagogy (Seikkula-Leino, 2011).

In traditional classrooms, each act of teaching focuses on a particular segment of the curriculum; each learning situation is controlled in such a way that students do not feel insecure while they learn (e.g. Gibb 2005). Furthermore, Gibb (2005) suggests, the pedagogy of entrepreneurship education is focused on students' activity in learning; the learning situations are flexible, interactive, and based on multidimensional knowledge-development. What is needed is a range of activities that encourage students' interactive learning and reflections: co-operative learning, problem-based learning, group and peer work, project work, team work, learning by doing, pedagogical drama, and learning diaries (Seikkula-Leino, 2011). Principals and vice-principals have the power to implement those activities.

In leading schools towards an entrepreneurial attitude, the transformation of ideas into practical activities might be the most provocative part, though it can be a big culture-breaking challenge in schools. (Hörnqvist, Leffler, 2013) A challenge for principals is to have and firmly establish a clear direction and focus on possibilities within all regulations with attention on students' utilizing their full potential for learning by which means to motivate and coach teachers to supervise students within the boundaries set by national steering documents, without limit their creativity. (Hörnqvist, Leffler, 2013)

Another challenge for principals is then to be sufficiently acquainted with what is going on in classrooms to know how to support and motivate teachers to invest energy in this learning process (Hersey et al., 2001). Finally, a big challenge is to build a network with businesses and workplaces to open up new arenas for learning. (Hörnqvist, Leffler, 2013).

2.4 Entrepreneurship education: internal vs. external; classroom vs. society & life

According to Kyrö (1997), entrepreneurship education deals with three main components: 1) self-oriented, 2) internal and 3) external entrepreneurship. Self-oriented entrepreneurship is the basis for developing internal and external entrepreneurship (Remes 2004, p. 84). Internal entrepreneurship deals with entrepreneurial and enterprising behavior. External entrepreneurship is about doing business (Ristimäki 2003, p. 6). On the other hand, entrepreneurship in an educational context can be understood in two ways (Erkkilä, 2000): entrepreneurship education, or a narrow understanding i.e. education in starting and running business, and enterprise education, or a broad understanding, with focus on abilities that characterize entrepreneurs such as an energetic, creative, cooperative and innovative person who looks for opportunities and is not afraid of taking risks (Johannisson & Madsén, 1997). In essence entrepreneurship education refers to external entrepreneurship and enterprising entrepreneurship refers to the internal one. This thesis will consider both ways of entrepreneurship education.

2.4.1 Internal entrepreneurship education or enterprise education

The primary focus of enterprise education is on an active learning enterprise education pedagogy; knowledge needed to function effectively as a citizen, consumer, employee or self-employed person in a flexible market economy; the development of personal skills, behaviors and attributes for use in a variety of contexts; the person as an enterprising individual - in the community, at home, in the workplace or as an entrepreneur; the use of entrepreneurship skills, behaviors and attributes throughout the life course; and how a business, particularly a small business, works (Jones and Iredale, 2010).

According to European Commission, 2011, entrepreneurship in this sense refers to an individual's ability to turn ideas into action, it includes creativity, innovation, showing initiative and risk-taking, as well as the ability to plan and manage projects in order to achieve objectives. This supports everyone in day-to-day life at home and in society, makes employees more aware of the context of their work and better able to seize opportunities, and provides a foundation for entrepreneurs establishing a social or commercial activity (Official Journal of the European Union, 2006). Furthermore, according to European Commission, 2011, as well as contributing to European competitiveness, entrepreneurship education also helps to ensure a number of positive social benefits.

In 2004, the Finnish Ministry of Education (FME) started an action plan with the aim to promote, on the one hand, a general enterprising attitude and a new basic mentality for every citizen – ‘an outlook of internal entrepreneurship combining flexibility, initiative, creativity and independent action with cooperation skills and strong motivation’ (FME 2004, p. 15). In light of a new 21st century economy, the emphasis on knowledge, service, and information creates space for more new firms to emerge, but also pressures existing companies to hire employees with higher level skills in order to compete successfully. The core set of 21st century skills includes capabilities in analytical problem solving, innovation and creativity, self-direction and initiative, flexibility and adaptability, critical thinking, and communication and collaboration skills (Autor, Levy, & Murnane, 2007; Boyd & Vozikis, 1994; Cavanagh et al., 2006; Goldin & Katz, 2008; Pink, 2008; Porter, Ketels, & Delgado, 2007; Scherer, Adams, & Wiebe, 1989; Wagner, 2008).

Without a doubt these changes will have implications on teachers and how they teach entrepreneurship. The core set of skills of 21st century mentioned earlier are difficult to teach through traditional teaching and learning practices in which the learner tends to be a more or less passive recipient and require active, learner-centered pedagogies and learning activities that use practical learning opportunities from the real world. (European Commission, 2011). Furthermore, since entrepreneurship education is a transversal competence it should be available to all students and be taught as a theme rather than as a separate subject at all stages and levels of education (ECOTEC, 2010).

2.4.2 External entrepreneurship education

The primary focus of external entrepreneurship is on how to start a business including the key processes of business start-up; how to plan and launch a new business venture; how to grow and manage a business; the deployment of entrepreneurial skills and knowledge in a business context; imminent use of the knowledge and skills related to start a business; and self-employment (Jones and Iredale, 2010). In the context of schools, external entrepreneurship education is about developing innovation (Gibb 2005, p. 48) and business ideas, as well as strengthening co-operation between schools and the world of work, including such activities as work experience and study tours. (Ruskovaara, Pihkala, Rytkölä & Seikkula-Leino, 2011).

In contrast to internal education that addresses the requirements of a wider range of stakeholders, including consumers and community, external entrepreneurship education focuses primarily on the needs of the entrepreneur (Jones and Iredale, 2010). Nevertheless, the key difference between the two terms is that the primary focus of entrepreneurship education is on starting, growing and managing a business whereas the primary focus of enterprise education is on the acquisition and development of personal skills, abilities and attributes that can be used in different contexts and throughout the life course (Jones and Iredale, 2010). Both external and internal entrepreneurship education deal with two angles of perception: firstly, what methods and practices are introduced in classrooms and how they fit into the general curriculum; secondly, what are the long term outcomes of entrepreneurship education outside of the classroom in terms of its value for society and the individual life.

2.4.3 Classroom

When implementing entrepreneurship education in schools a difference between internal and external (enterprise) education should be considered. A key differentiator between entrepreneurship (internal) and enterprise (external) education lies in the pedagogical approach adopted (Jones and Iredale, 2010). Internal entrepreneurship education might, for example, use traditional didactic approaches (Jones and Iredale, 2006) to the teaching and learning of business ideas generation, business planning and the new venture creation process. In contrast, enterprise education takes a more creative, innovative pedagogical approach that utilises experiential action learning methods (Jones and Iredale, 2010). Moreover, Jones and Iredale, 2010, point out that the scope and practice of enterprise education is much broader than external entrepreneurship education, which is overly focused on how to start a business.

2.4.4 Society & life

European Commission's 2012 report "Effects and impact of entrepreneurship programs in higher education" is focusing on the entrepreneurship education impact on four dimensions: impact on the entrepreneurship key competence; impact on intentions towards entrepreneurship; impact on the individual's employability; impact on society and economy. Despite the fact that this research concerns higher education, all of the dimensions mentioned above are relevant to the long term objectives of entrepreneurship education. In other words, these are the long term outcomes of entrepreneurship education outside the classroom, the impact that applies to life after school, contribution to society and individual life.

According to European Commission, 2012, entrepreneurship education has a positive impact on the entrepreneurship key competence of individuals which consists of an entrepreneurial attitude, entrepreneurial skills and knowledge of entrepreneurship. In turn, improving the entrepreneurship key competences is expected to increase the employability of individuals: entrepreneurship education seems to have a positive effect on employability in terms of job experience, creativity in the current job and annual income earned of the alumni in paid employment. (European Commission, 2012).

Furthermore, entrepreneurship education is expected to improve the entrepreneurship key competence which will have an impact not only on the role of the individual in the economy (the

likelihood that the entrepreneurship alumni will participate in a business start-up is substantially higher and the enterprises run by these individuals are perceived as more innovative and the expectations regarding employment growth and turnover growth are higher), but also in society (social and personal life), in terms of the extent to which individuals take initiatives to start non-commercial projects outside of work. (European Commission, 2012).

The next chapter will focus in more detail on how entrepreneurship education is represented and understood on different educational and societal levels and how it is related to aims, practices, outcomes and strategies of entrepreneurship education that were addressed by previous entrepreneurship education research.

3 Making sense of entrepreneurship education

This thesis is about how entrepreneurship education is perceived by professionals involved in entrepreneurship education with the focus on high school principals. In order to get a bigger picture of what perceptions about entrepreneurship education exist among entrepreneurship education professionals and principals, both classroom level and broader level will be addressed during the interviews. (*Figure 1*). This chapter will be focused on how interviewees could make sense out of entrepreneurship education in terms of aims, practices, results and strategy in the context of the classroom (that is actual activities and teaching in a school) and on the level of society (that is how entrepreneurship education affects the broader educational system). Furthermore, the perceptions on the role of principals' in entrepreneurship education will be addressed as a part of the interview. This chapter will serve as a framework for the empirical work and is meant to serve as a base for recommendations for further development and improvement of entrepreneurship education understanding among high school principals.

Figure 1. The levels of perceptions of entrepreneurship education

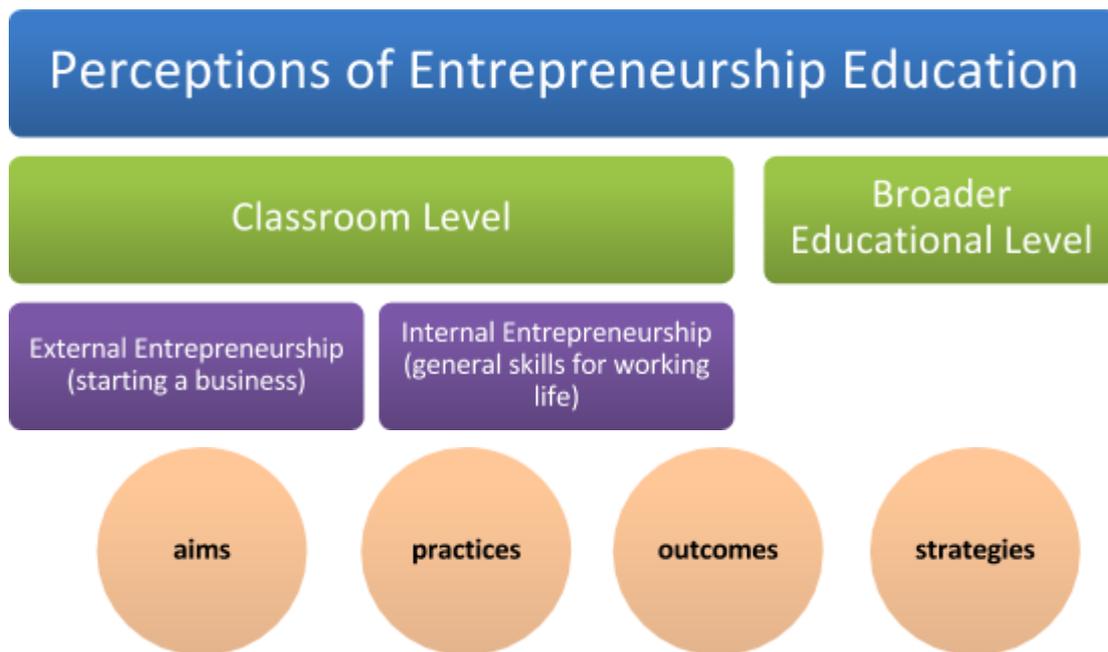


Figure 1 shows the two different levels that will serve as a base for entrepreneurship education professionals' and principals' sense-making of entrepreneurship education. The “classroom” level is a micro level that is related to the implementation of entrepreneurship education in a particular school. This level addresses both internal and external entrepreneurship. In other words it will focus both on what the existing perceptions of entrepreneurship education are in terms of acquiring business related skills and general skills that will help to succeed in working life. Furthermore, the perceptions about aims, practices, outcomes and strategies of entrepreneurship education existing on a classroom level will be addressed. The “broader educational level” is a macro level, and is concerned with the larger and long-term impact of implementing entrepreneurship education in high schools. This level is concerned with how entrepreneurship education in high schools can affect the education strategy and curriculum among a higher number of schools on the city or even country level. The perceptions of aims, practices, outcomes and strategies of entrepreneurship education on a bigger scale will be addressed in the same manner as on the micro that is classroom level.

Addressing each of the elements presented in the Figure 1 will allow us to see the bigger picture of different dimensions of entrepreneurship education at high school level and the role of principals in entrepreneurship education both in terms of principals' current understanding, current participation as well as ability to learn and take actions towards having entrepreneurship education as an integral part of the high school curriculum and school life in general. In terms of aims, practices, outcomes

and strategies, several existing ideas both on a classroom and broader level will be presented in this part.

The following sections will talk about aims, practices, outcomes and strategies on both classroom and boarder educational level.

3.1 The perceptions of aims, practices, outcomes and strategies on a classroom level

Entrepreneurship education is one of seven cross-curricular themes for basic education, and one of six cross-curricular themes for upper secondary education. (Finnish National Board of Education 2004; 2003). The theme in the curriculum for upper secondary education (high school) is called “Active citizenship and entrepreneurship” (Finnish National Board of Education 2004). The **goals** of the “Active citizenship and entrepreneurship” for high school students are similar to the goals set for a basic school education, that is to help the pupil perceive society from the viewpoints of different players, to develop the capabilities needed for civic involvement, and to create a foundation for entrepreneurial methods, although the levels of participation are global. (Finnish National Board of Education 2003). In terms of the ongoing curriculum reform process, according to Finnish National Board of Education, The National Core Curriculum for Upper Secondary Schools was reformed in 2003 and the local curricula based on the new national core curriculum came into effect on 1 August 2005. The core curriculum is being reformed and will be implemented in schools in 2016 (Finnish National Board of Education, 2015).

The main focus in the **implementation of entrepreneurship education** must be on practical exercises and on the creation of personal experiences of participation and influence. (Finnish National Board of Education 2003). The **outcomes** from the implementation of entrepreneurship education on a classroom level are related to external and internal entrepreneurship. In other words, the two possible outcomes of entrepreneurship education relate to establishing new enterprises and becoming entrepreneurs or alternatively utilising the skills received from entrepreneurship education in other professional societal areas.

According to Seikkula-Leino et al., 2009, in spite of the core curriculum, there is a long way to go from the international and national policy making level to the actual establishment of business

enterprises. The journey consists of two different stages: first, from the goal setting in the education system, starting from EU strategies and national curricula, to the altered daily teaching work of all teachers, and secondly, from the teaching to the altered behavior of the students in the years to come. (Seikkula-Leino et al., 2009). In terms of this study, the first stage is represented by a broader level of impact of entrepreneurship education while the second stage is relevant to entrepreneurship education on a classroom level. Furthermore, this study doesn't only address the establishment of business enterprises as an outcome of entrepreneurship education (internal entrepreneurship), it also focuses on how entrepreneurship education can help students to develop the qualities necessary to succeed in working and social life in general (external entrepreneurship). Therefore, entrepreneurship education *strategy* on a classroom level should address both internal and external entrepreneurship education. This creates a need to identify what perspectives among principals exist regarding entrepreneurship education strategies since principals are the ones who have the power to make an impact on those strategies on an actual classroom teaching level.

3.2 The perceptions of aims, practices, outcomes and strategies on a broader educational level

In Finnish comprehensive school, entrepreneurship education is not a school subject of its own, although 'participatory citizenship and entrepreneurship' is a new module in the national core curriculum (The Finnish National Board of Education 2004, pp. 40—41). Instead, the concept of entrepreneurship is supposed to be addressed through all school practices as a cross-curricular theme (Komulainen, Korhonen, Rätty, 2013).

In comprehensive school, the *aim* of entrepreneurship education is that the learners become familiar with the world of work and entrepreneurship, that they gain basic knowledge of the operation and the respective functions of the school community, the public sector, businesses, the industry and organisations and of entrepreneurship as a profession (FME, 2009). According to Elena Ruskovaara, Timo Pihkala, Tiina Rytkölä & Jaana Seikkula-Leino, 2011, entrepreneurship education in *practice* is rather limited since it is not a part of normal schoolwork. Instead, separate projects and theme days are carried out to fulfil the requirements set out in the curricula. In addition, many teachers do not know enough about the curricula or strategies connected to entrepreneurship education. (Seikkula-Leino et al. 2010; Ruskovaara et al.). According to European Commission, 2013, reinforcing entrepreneurial education in schools, vocational education institutions and universities will have a

positive impact on the entrepreneurial dynamism of our economies. Moreover, it emphasizes that besides contributing to the creation of social enterprise and business start-ups, entrepreneurship education will make young people more employable and more ‘intrapreneurial’ in their work within existing organizations, across the social, public and private sectors. In other words, all of this can be considered as the *outcomes* of entrepreneurship education on a broader level.

Finally, an appropriate *strategy* would be required in order to be able to achieve the results mentioned earlier. Once again, according to European Commission's report “Entrepreneurship Education: Guide for Educators”, 2013, Through the Entrepreneurship 2020 Action Plan and the Rethinking Education Communication, the European Commission emphasizes the need to embed entrepreneurial learning in all sectors of education including non-formal learning. Both documents call on Member States to provide all young people with practical entrepreneurial experience before leaving compulsory education, highlighting the importance of learning by doing within education and training (European Commission, 2013). Nevertheless, this report still emphasizes mostly the role of the teacher in entrepreneurship education by stating that teachers have a central role, as they have a strong impact on the attainment of learners (European Commission, 2013). Despite the fact that teachers do have a strong impact on the attainment of learners, there’s little attention devoted to principals, who in turn can have a significant impact on the implementation of entrepreneurship education in schools.

By taking into account all the existing knowledge about entrepreneurship education on classroom and broader education levels and by using the model of different levels of perceptions about entrepreneurship education in Figure 1, this thesis is aiming to demonstrate how much understanding about entrepreneurship education exists among one of the key players, i.e. principals, and what measures should be taken to develop this understanding and convert it into actions.

3.3 Entrepreneurship education - perceptions by experts and principals; perceptions about principals’ role by experts

One of the main aspects of this framework is to find out what perceptions about the role of high school principals in entrepreneurship education exist among professionals who are directly involved in entrepreneurship education. For this purpose, professionals involved in entrepreneurship education in high school internally will be analyzed, and professionals involved in entrepreneurship education externally will be interviewed. (*Figure 2*).

Figure 2. The perceptions and opinions about entrepreneurship education in high school and the role of principals in entrepreneurship education



Figure 2 represents the focus group that will be used for this thesis to get versatile perceptions and opinions, which would allow us once again see a bigger picture of entrepreneurship education in high schools and the role of high school principals. Therefore, using Figure 1 as a basis for the questionnaire and discussion that will be initiated with professionals demonstrated in Figure 2, this thesis will deliver the qualitative outcomes of empirical work through the interpretive phenomenological analysis method which will be further discussed in the following chapter.

Only once all the elements have been put together would it be possible to draw conclusions on the role of principals' and most importantly their power to impact entrepreneurship education on different levels. Therefore, both Figure 1 and Figure 2 will serve as a structure for analysis, discussion and recommendations of this thesis, namely the future actions by both internal and external experts that need to be taken both at classroom level and broader educational level to create further integration of entrepreneurship education in high schools both as a part of the curriculum and as a part of school life and the educational environment.

4 Research methodology

The research methodology follows interpretive phenomenological analysis (IPA). Entrepreneurship and entrepreneurship education are seen here as socially constructed phenomena (Berger and Luckmann, 1969; Bouchikhi, 1993). This thesis is committed to examining how experts in the area make sense of this phenomena in the context of high school education and particularly in the context of the principals' role in entrepreneurship education in high schools. Moreover, this thesis aims to look into how a group of experts in entrepreneurship education make sense of entrepreneurship education at both classroom level and broader educational level.

The method of gathering data was designed to address a smaller yet heterogeneous focus group which includes people involved in high school entrepreneurship education internally (e.g. a teacher) and externally (e.g. a researcher). One of the key elements of the focus group would be principals' perceptions about entrepreneurship education and the perceptions about principals' role in entrepreneurship education by other interviewees.

The research data has been gathered through a number of face-to-face and email interviews. The data was collected from 5 respondents including a teacher, researcher, an expert involved in

entrepreneurship education in several ways, a high school principal and a high school coordinator who will be placed under the category “principals” in the following chapters. The data has been recorded, transcribed and then interpreted based on the access to the experience of entrepreneurship education phenomena provided by participants. When interviewing principals, the data was received through email interviews. The data has then been analysed to identify commonalities in participants’ experiences in order to tell a complete story about entrepreneurship education perceptions among the participants. In accordance with the outcomes of the analysis the appropriate discussion and recommendations have been made.

The questions have been designed to address both entrepreneurship education on a classroom level and on a broader educational level; emphasizing the importance of entrepreneurship education both for students and teachers as well as the education system as a whole. The questions have been structured in a very personal manner in order to be able to get personal perceptions and interpretations of the interviewees in the context of the entrepreneurship education phenomenon, specifically in the high schools with the focus on high school principals.

The focus group have been presented with a set of questions including common core questions regarding entrepreneurship education and additional questions depending on a participant’s role in order to get a better insight into the perceptions and experiences of a specific expert. All the participants were asked the following 5 core questions:

- 1) What does entrepreneurship education mean to you?
- 2) How would your ideal type of entrepreneurship education look like?
- 3) How do you think entrepreneurship education actually contributes to the broader education system?
- 4) Do you think entrepreneurship education is important for students? And why?
- 5) Do you think teachers can benefit from entrepreneurship education? And how?
- 6) How do you think entrepreneurship education can be successfully implemented in practice, in the short and long-term?

In addition to 5 core common questions, the internal group (Figure 2) were asked the following question:

- 1) Do you see entrepreneurship education implemented in your school curriculum and teaching?

In addition to 5 core questions, the external group (Figure 2) and a teaching participant from internal group were asked the following questions related to the role of principals in entrepreneurship education in high schools:

- 1) Who do you think plays the main role in the implementation of entrepreneurship education in high school?
- 2) What do you think is the role of principals in entrepreneurship education?
- 3) Why do you think there hasn't been any entrepreneurship education research focused on principals?
- 4) Do you think there is a sufficient understanding of entrepreneurship education among principals?
- 5) What do you think would be the best way to coach principals in entrepreneurship education?
- 6) Who do you think would be the right people to do that?

In terms of reaching out to participants to request an interview, principals turned out to be the most difficult group to reach. The main reasons for that included very busy schedules, language issues (the whole research had been conducted in English which would make it harder for Finnish principals to express their opinions), timing (when empirical work started at the end of May principals were busy due to the end of the school year; during the whole summer principals were out of school; subsequently the beginning of school year in mid-August was also the busiest time) as well as a lack of involvement in entrepreneurship education issues which will be further analysed and discussed in following chapters.

Initially, a large number of principals were contacted via email and invited to have an email interview in order to gather more versatile data. Plenty of responses have been received stating that principals will either direct the interview question to other people in school (for example counselors), or it was requested to do an interview in their native language, or simply stated that they had no time. Only two people among all principals, vice-principals and program coordinators asked have responded to the interview. Nevertheless, even having in-depth interviews with other experts and email interviews with principals have shown a clear connection which will be discussed and explain later. In other

words, there is a deeper reasoning behind principals being reluctant to responding to the questions regarding entrepreneurship.

According to Smith, (Smith et al, 2009), the aim of interpretive phenomenological analysis is to explore in detail how participants are making sense of their personal and social world, and the main currency for an IPA study is the meanings particular experiences, events, states hold for participants. In this thesis, the aim of the interpretive phenomenological analysis is to explore how experts in various areas of entrepreneurship education make sense of entrepreneurship education with the focus on a high school level and the role of principals in entrepreneurship education.

Furthermore, Smith argues that consistent with its phenomenological origins, IPA is concerned with trying to understand what it is like, from the point of view of the participants, to take their side. This is particularly relevant to this thesis since participants, while being a small focus group, represent a wide variety of perceptions that would allow us to see the entrepreneurship education phenomenon from different, whether opposite or similar, angles. Thus, this thesis aims to deliver more detailed outcomes of the research through a two-stage interpretation process (Smith et al, 2009) where participants are trying to make sense of their world; this thesis is trying to make sense of the participants trying to make sense of entrepreneurship education.

The received data was analysed through gathering different perceptions around one question and analysing the whole with eventually creating a bigger picture and making sense of the whole questionnaire and the various perceptions that were presented by participants. The data analysis was then discussed both in relation to each particular question and participants involved in responding to that question as well as the results and participants as a whole unit build around the phenomenon of entrepreneurship education in the context of high school and the role of principals. Moreover, the connection between the participants' area of expertise and their experiences has been created in order to get a better understanding of why certain perceptions are different or similar to each other. Based on the outcomes, the appropriate and justified conclusions as well as possible call to action were established and explained.

5 Empirical work - Making sense of the word of entrepreneurship education

Q1: What does entrepreneurship education mean to you?

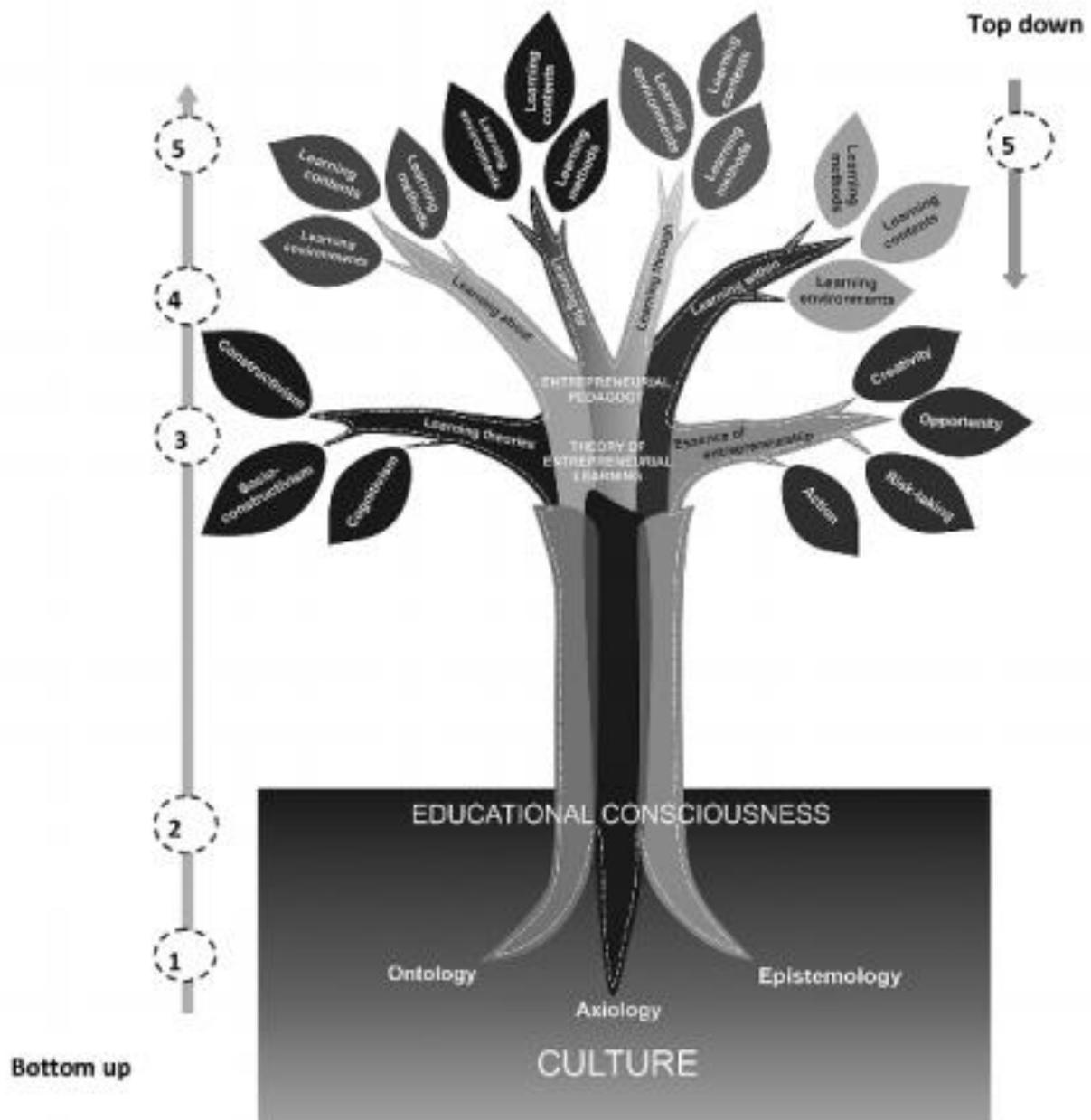
1: Researcher's perspective

“Entrepreneurship education is such a broad area. For me it's mainly about how people can learn to behave in an entrepreneurial way and adopt that kind of behaviour in any context and as a teacher, when I look at entrepreneurship education my main goal is to enhance that kind of behaviour and mindset in all my students; and the second target is to enhance their competencies in studying business, but that's not the primary goal for me. Of course, when you look at entrepreneurship education, one area, which is not often discussed, is also how to help people who are entrepreneurs. How to help them to learn more and how to help them to enhance their skills and competencies to enlarge their business.”

2: Entrepreneurship education expert's perspective

“We have created a model (EnTree-model: A multilayered discussion on entrepreneurship education, Figure 3). This is the idea of what I think about entrepreneurship education. So it is a very holistic. It concerns the whole life of a human being and also, we have these two different ways of thinking/approaches about entrepreneurship. So we have this American approach, and then we have the continental approach. I would like to say that we have also got a Nordic approach, which is quite close to the continental approach. And, you know the difference. There are the questions “why”, “why are we educating?” and “why do we think entrepreneurship is important?” That is the part we have in this model, in this continental approach, but not in this American approach. So this is more methodology and teaching methods, and this is a more holistic/philosophical approach. So in this figure: “entree model” I would like to put some stress on this culture. Entrepreneurship is also culture related, and it depends on where you are what the context or the culture may be. Where you are living or where you are working.”

Figure 3. EnTree -model: A multilayered discussion on entrepreneurship education (Hägg & Peltonen, 2014)



3: Teacher's perspective

“Entrepreneurship is a very new concept to the leaders. The ideas that we’re seeing in educational leadership is, the world is drastically changing on the outside, so that means that schools have to drastically change. Entrepreneurship itself is a very new concept to be implementing in the schools. So the leaders are still trying to embrace that. They’re not against it. A good educational leader’s not going to be against a lot of things. Although they’re not against it, it was better for me to come onto the team and help translate some of the key terms and ideas coming out of the field of entrepreneurship and what can be implemented into school. Students don’t need to know everything about entrepreneurship. However, breaking entrepreneurship down to the key fundamentals can be difficult sometimes, especially when the educational leaders don’t really have time to study a new field of science. They’re busy doing their normal stuff. So that would be the first hurdle. That would also be the first opportunity for educational leaders in the future, is to maybe take somebody on who can translate and identify the core principles of entrepreneurship.”

4: Principal's perspective

“It means that the students learn how to proceed when they want to establish a company or get somebody interested in ideas they have or inventions they have made. They need help with bureaucracy and legal and financial matters.”

“Equipping young people with the skills and aptitudes necessary to succeed in establishing their own business”

Summary: There are clear similarities in perceptions among entrepreneurship education professionals in terms of a broader understanding of entrepreneurship education. This perspective differs to principals’ perspective who only identify entrepreneurship education as something related to establishing a company. In other words, principals see entrepreneurship education on a classroom level only in terms of external entrepreneurship while other professionals clearly identify internal entrepreneurship attributes.

Q2: How would your ideal type of entrepreneurship education look like?

1: Researcher' perspective

“I would say that the main issue that always must be kept in mind is to put the student first. By that I mean that, in many cases when we talk about entrepreneurship education, we take it for granted and there are a lot of discussions that we need more companies because of the economy and (I don't think that) when we look at education we always have to be very clear about goals, and also about values. So educational consciousness is very important. As a teacher you have to be very aware that you are not pushing students in the wrong direction. They have to have the freedom to choose their own path. But, if we are discussing how as a teacher we can enhance entrepreneurial behavior, I would say that learning should be student-centered, it should be rooted in action, but also in theory. So there must be a mix of theories and action. Also, learning should take place in teams and should be experiential; they should learn from their own experiences and mistakes. Also confusion is good, it's part of the process. It has to be fun, there has to be a passion for learning, and it has to be outside school premises, as you can't really learn how to be an entrepreneur while you are sitting in a classroom. And so you have to get in a world with a different kind of people and you have to learn ways to get to know your own strengths and also your own shortcomings. It's not easy, but if you keep in mind the things which are normally attached to entrepreneurs: freedom, risk-taking, the skill to see opportunities and handle your opportunities, then basically that's it.”

2: Entrepreneurship education expert's perspective

“I have been thinking this for 10 years, and I am very happy that we have managed to figure out this model (EnTree) because it's not so easy. And it's also very important that you can use different kinds of orientations; these pedagogical orientations. But you always have to have some elements of the essence of entrepreneurship. Also, to be able to live in security and certainty. These elements are very important. There are many others also, as well as here. These are the main theoretical approaches, but of course you can use many others. So we don't say that in entrepreneurship education, you should for instance, be experimental but you can use whatever you have in your toolbox. If you combine these two, for instance if you use behaviourism you have to have something about entrepreneurship, the essence of entrepreneurship combined with this way of approach. And then you have to know what the aim of this education is.”

3: Teacher's perspective

“I think speaking from the educational leadership point of view; you'd probably get an honest “I don't know”. For me if you're going to ask the business studies teacher, then of course I have a big grand idea that it should all be creative and we should all play and create and do all this fun stuff. So you're going to see two drastic views within this school. You're going to have it from the educational leader side and then from the business studies teacher. From the educational leader side, I don't think they have any idea what their ideal entrepreneurial curriculum is going to be. Our principal is the educational leader and he has identified how critical it will be, that's the stopping point. From that point, as a good leader I think he has stepped back from that, and I think a good leader will let go when they need to let go, and that's what he has done. He's said, “Ok, this needs to happen”. It needs to happen because the government is changing the curriculum. Obviously the job markets are changing from more corporate to small businesses.

Everything's changing. Yes there's a need to change. I think that needs to be stressed that our principal and the educational leaders have recognized it needs to change. So I think there's a big holistic idea to bring entrepreneurship into the school. But how, when, where, why is that going to happen? I think you'd be very lucky to find an educational leader who knows that. They haven't been taught entrepreneurship, they're not being taught entrepreneurship, maybe they will in the future. What they do teach in the educational programs up here is that leaders in schools are going to have to learn to collaborate. They're going to learn how to bootstrap their finances. They're going to learn how to think outside the box. So it's interesting that, if you look at all these courses that are offered to their educational leaders, they teach the principals in the frameworks of effectuation theory. So they teach theories of entrepreneurship, but they don't call it entrepreneurship. So the courses offered to educational leaders aren't entitled “entrepreneurship”, the professors don't say, “This is how an entrepreneurial leader would think”. They skip over all of that and move into the field of educational leadership, and call the same principle something different.”

4: Principals' perspective

“Somebody experienced would encourage them and guide them through the procedure. Definitely NOT a regular teacher.”

“This question lies outside my remit. We have a Young Entrepreneurship scheme operating within the school, open to IB students. We offer IB Business Management.”

Summary: There are clear similarities in perceptions, where the experimental nature of entrepreneurship education is emphasized as well as the need for bringing educators with more significant entrepreneurship education experience. Nevertheless, the perceptions about the “ideal” entrepreneurship education depend on each participant’s personal experience and expertise in entrepreneurship education.

Q3: How do you think entrepreneurship education actually contributes to the broader education system?

1: Researcher's perspective

“Right now we are in a position where entrepreneurship education is in a minor role. Although in Finland entrepreneurship education has been in the curriculum since 1994/95 so almost 20 years, but we still have a lot of work to do because entrepreneurship education, from my point of view, it would demand that we change the whole structure. We could get rid of timetables in the present form and also it would need teachers to do teamwork and to collaborate with businesses and other external organisations and people. I would disrupt the whole thing.”

2: Entrepreneurship education expert's perspective

“You know, there has been a lot of misunderstanding between general education and entrepreneurship education. I am an educator, and I think that most of the educators think that there’s something that comes from economics, and it’s some kind of political, you know, hidden agenda. They are afraid of it, but I think this model will help them to understand that our aim is also to educate towards a good life. Not because we want to support some policies.”

3: Teacher's perspective

“I think you would hear from leaders that entrepreneurship is something that could and should affect everything else. So if it's your biology students, working with the wood and metal class (last year they were building birdhouses and they could sell those), so given the idea that education leaders should and will go to this broader definition of entrepreneurship about collaboration and bootstrapping and have a bigger definition on entrepreneurship, I think they'll start to see that every subject within the school, if it's the language department or the science department. All those departments will see that entrepreneurship can be utilized in all of them. Entrepreneurship right now is very limited to the business studies thing, and I'm the only business studies teacher. So entrepreneurship is not being distributed throughout the school very evenly at all.”

4: Principals' perspective

“It would make studying more motivating when you see what you are heading towards and why you have to study.”

“Certainly education must be relevant to the challenges of the twenty-first century job market”

Summary: All the interviewees agree on the need for change in relation to the perceptions of entrepreneurship education. Furthermore, there seem to be need to disrupt the whole educational system since apparently entrepreneurship education is still very limited to business studies. All in all, there's a need to tackle the misunderstanding that exists between general education and entrepreneurship education and create a better understanding of a broad purpose of entrepreneurship education which is not only related to implementing governmental policies.

Q4: Do you think entrepreneurship education is important for students? And why?

1: Researcher's perspective

“I think it's important to know that in high schools, the whole learning is focused on exams that are taken at the end of term, but I'm not so sure if anyone should spend 3-4 years in school only for a score and only for learning things in theory as I think that learning is about learning for life. In that way there are many ways to learn, so I don't think that just sitting in a classroom and making memos is the only way to learn and I don't think it's a very good way to learn in modern society.”

2: Entrepreneurship education expert's perspective

“It's very important. Because it's a way of life; a way of thinking. And wherever you are, you need this attitude. So it's not only thinking about business. Of course if you have this entrepreneurial mindset, you act as an entrepreneur or you act in an entrepreneurial way, wherever you are. And it's not only for running a business of your own, it's very large...”

3: Teacher's perspective

“I don't think it's very critical for students to learn how to start a company. I think that's probably the least of their worries. When you talk to other educational leaders here I think their naivety towards entrepreneurship will limit their response to that question. I think you will get a lot of responses from educational leaders saying, well, “It's important because corporations are changing to small/medium sized companies and we're going to need to better prepare our students to work in those environments.” Yes, to better equip students for tomorrow's changing work environment we do need to teach them more entrepreneurial traits than how to work in a corporation. You definitely hear the importance of teaching students to be critical thinkers, so I think you're going to hear that from everybody in the leadership position. Taking it a little deeper as an entrepreneur, those are great things to teach kids, but those are the realities, they're going to go out and change jobs a lot. We can just tell them to be prepared about that. Taking it a little deeper, I think if you're teaching students how to collaborate, how to bootstrap instead of teaching students “hey, this is what's going to happen” now we can teach them the “how”. So a lot of education has always been emphasized on “what” and now we're changing to the “how”, and entrepreneurship is going to be a critical tool that leaders can use to teach that “how”.

4: Principals' perspective

“Definitely. The school is too closed and too dependent on teachers who might know the theory but not the practice.”

“As above”, i.e. “Certainly education must be relevant to the challenges of the twenty-first century job market”

Summary: In terms of the importance of entrepreneurship education for students, all of the participants seem to have common perceptions and an understanding of the importance of this particular issues.

Q5: Do you think teachers can benefit from entrepreneurship education? And how?

1: Researcher's perspective

“When teachers understand the true meaning of entrepreneurship education and see that there are a lot of different aims and a lot of different ways they can teach in an entrepreneurial way, it really enhances their competencies so it's concerned about professional growth. When they do teamwork it gives them more freedom to arrange the learning. Also when they contact other people it enlarges their own competencies and their skills and gives them new ideas, and they also, which I find very interesting, is that somehow they learn to respect their own work in a new light. So being a teacher is not just something that has to be done; it really has a meaning. And my research showed that when teachers realized that, it was so enlightening.”

2: Entrepreneurship education expert's perspective

“I think the key point is that; people who adopt this idea of entrepreneurial behaviour. For instance, students: they are more active, they are more responsible for how they go on with their studies, and also they are very alert to what is happening around them and they want to take the benefits from these opportunities that they see around them. So they are more active and they are more responsible for their own lives.”

3: Teacher's perspective

“Well, teaching is the best way to learn, they say, so if somebody's teaching entrepreneurship they're going to be able to learn the different characteristics or traits of entrepreneurship and one of the big ones that teachers and leaders would find is the idea of collaboration. I think it would be really cool for teachers to learn some aspects of entrepreneurship like collaborating, and once they find those traits within it they'll probably see their job ease up a little bit. So not only will they be able to teach students better, but their actual work environment and the spirit around here would be a lot better too. Practically, the learning outcomes would be great for the students. On the other hand being practical too, another positive benefit for teachers in entrepreneurship is that they'll probably better their environment, and happier teachers equals better outcomes.”

4: Principals' perspective

“I am more interested in teaching the students than the present teachers. There is a need for the school to open up and invite other actors from “real” life outside the school.”

“The Business Management (SL/HL) option in our school permits many students to gain a broad familiarity with marketing, finance, management skills, etc. These are life skills in many ways. Teachers of other subjects are less directly involved”

Summary: All of the entrepreneurship education professionals seem to have common perceptions about the importance of entrepreneurship learning for teachers. At the same time, principals consider that inviting other professionals to school instead of educating their own teachers is a better idea. Furthermore, from the principals' perspective, entrepreneurship education is only related to business studies and teachers of other subjects are not involved, which means that internal entrepreneurship education doesn't seem to be taken into consideration by principals.

Q6: How do you think entrepreneurship education can be successfully implemented in practice, in the short and long-term?

1: Researcher's perspective

“I don't think there are any easy answers to that. I think that in the short-term, teachers should attend further training more eagerly, because there is some training available. There should be more, but they are there and most of them are really good, so that's in the short-term. And also there is information available on the internet for example, so they just need to sit down and talk with their colleagues and start to experiment in the short-term. In the long run, I think that support from the management, from the principals, is needed because in many cases teachers say that they don't feel that they are supported or appreciated by their colleagues or by their principals. So it is important to get feedback and support from the management.”

2: Entrepreneurship education expert's perspective

“The problem at the moment is that the teachers don't adopt this model. If the teachers and all the staff who are responsible adopt this model, and they themselves are entrepreneurial, in how they act and how they handle people. Young people, they are like... how do I say... a virgin mind. If teachers are giving this example when they behave like this, the young people can learn.”

3: Teacher's perspective

“Yeah, that's a super-critical question because you have the short and the long-term thing. The current situation is that educational leaders today are not being taught entrepreneurship whatsoever. So I think that there's a huge understanding at the national level that entrepreneurship needs to be taught. That's why it's in the next curriculum. However, it's not coming from the bottom up. The stress on schools and education to be more entrepreneurial is definitely coming from the top down. So you're going to have a lot of leaders in the future (in the next 5-10 years) being super-reactive to entrepreneurship. You're not going to find a lot of proactive leaders. So I would say that the current situation is horrible for entrepreneurship and leaders. Maybe not horrible, but scary if you think that the teachers are not being prepared whatsoever, or the leaders aren't being prepared whatsoever.”

4: Principal's perspective

“New teachers should be instructed before they leave university. Thus we would get the thought rooted in the school environment.”

“Why not? We have a broad mission to provide a solid educational experience. Economics is compulsory for all. Thereafter students with an interest can opt for Business Management. A surprisingly large number of graduates go on to study business in higher education. Whether they become entrepreneurs or employees is of less significance.”

Summary: Some of the common perceptions regarding the implementation of the entrepreneurship education in the short and long-terms are related to educating teachers. At the same time, some of the principals' perception show us once again that entrepreneurship education is only perceived in the context of business studies. Some of the other different perceptions have to do with the role of policymakers and the lack of a proactive approach to entrepreneurship education.

The internal group (Figure 2) were asked the following question:

Q1: Do you see entrepreneurship education implemented in your school curriculum and teaching?

3: Teacher's perspective

“Very slowly. Very slowly, with a lot of difficulties. When you have a leader trying to implement something they're not an expert on you're going to have a lot of difficulties. And I think one of the only real ways to have it implemented is doing what our principal is doing, a hands off approach. Bring in people that are motivated, bring in people that have the knowledge and just let it be. So if you're trying to implement ideas and you only know half of the ideas then you're implementing half of the whole concept to students and then everybody loses. So nationwide it's probably being implemented on a very slow process. There's a lot of room and risk that it's going to be implemented wrong.”

4: Principals' perspective

“We actually have for many years offered a course called “Innovation”. It has been very popular and we have a teacher who has a company of her own. She has an MSc and MBA education.”

“Business Management - 150 hours at Secondary Level and 240 hours at High school Level”

Summary: Some of the common perceptions regarding this question have to do with bringing in people who have the required knowledge. Nevertheless, principals' opinions differ in that there is still a very strong perception regarding entrepreneurship education being only related to business studies.

Following questions related to the role of principals in entrepreneurship education in high schools:

Q1: Who do you think plays the main role in the implementation of entrepreneurship education in high school?

1: Researcher's perspective

“Personally I think it should start from the teachers themselves, because right now we are being given pressure and challenges from the government and it leaves nothing basically. Also it's important to have feedback and support from the management, but in the end it's always the teacher who does or doesn't implement new things, in my opinion. You don't really need guidance or permission from the management because nobody is saying how you can deliver a certain course, you must start doing things your own way.”

2: Entrepreneurship education expert's perspective

Based on the previous answer, teachers play the main role in the implementation of entrepreneurship education in high schools (See Appendix 3 for the full interview).

3: Teacher's perspective

The interviewed teacher was hired specifically to teach business studies, teach entrepreneurship and teach business to their students, as well as to work on projects with the leadership staff and other projects around the city and around the community that the school is trying to get involved in entrepreneurially. Therefore, the above question was modified to fit in with the interview flow (See Appendix 1 for original interview and the context of responses below).

“In the classroom the principal has a very hands-off approach to what I would like to do in the classroom. They’ve had some lessons planned out in the past, but it was very, very super-practical: “this is how you start a business.” For a lot of 14 year-olds, they don’t need to know how to go to the registration office, the tax office. They’re more creative, they want to play. So getting a 13 and a 14-year old student to play with entrepreneurship is becoming more of the idea then how to use it as a tool. They’ll learn how to use it as a tool later in life. We’ve had business studies in the past. The vice-principal for example, he’s a PE, Gym and a math teacher. However, he’s done some of the business studies in the past. Now with the business studies needing to be taught, plus this whole new requirement of schools adjusting to entrepreneurship there was a need for a separate person to come into it. As a private school, this school has the ability and the freedom to make decisions to do that. Whereas all the other school are city operated, and they don’t have the flexibility to create a position like that. So the city schools are going to need to be super-innovative and entrepreneurial themselves in figuring out how to put somebody into that spot.”

Summary: There is a common perception existing among the participants that teachers play the main role in the implementation of entrepreneurship education in high schools. It is also appears that management and principals have a hands-off approach but can contribute by supporting the teachers. Furthermore, when combining different opinions it seems that most schools cannot bring a professional from the outside therefore, teachers taking initiative and teaching their courses in a more entrepreneurial way is very important.

Q2: What do you think is the role of principals in entrepreneurship education?

1: Researcher's perspective

“I would say that when a teacher tries new things and then gets some results, he or she can go the principal and say, “ok, I’m going to try that,” and then say, “ok, it went this way or that way,” and if he or she sees that it was a good experiment, then he can ask, “how can I enhance this? How can I broaden this? How can I take more colleagues into that approach and how can we take it further?” So that’s the role of the management to then make it happen in the future.”

2: Entrepreneurship education expert's perspective

Of course they also have a very important role. I think that the whole system should be established on the base like this. And of course teachers and professors can use their own personality as they want, but this idea should be... this is the key point that, that they understand that, not just giving lessons...”

3: Teacher's perspective

“Our principal’s title officially, as the leader of a private school, is a CEO. He sits in the principal’s office, he doesn’t do very much with the teachers, and he doesn’t do very much with the planning of the school itself. He’ll get a lot of information from the vice-principals. He’ll sit down with the teachers and he’ll sit down with the vice-principals, but only to listen to their ideas, only to hear them and then sign off. He’s not really taking their ideas and then making them his own. He’ll take what the outside community is saying, bring it to the vice-principals, and then it becomes the job of the vice-principals and teachers to distribute it throughout the school. So what you see is our principal is being a like a pivot point. But he’s not really going to change the world and he’s not going to really change the school, that’s the job of the teachers and the vice-principal. His job is to be the pivot point where all of that can happen and all of this can happen freely. So, since he doesn’t know entrepreneurship so well, it’s a lot better for him to back off, bring somebody in that knows that a little bit more. I think the next is; an educational leader here has to know how to bootstrap, has to know how to collaborate, has to know all those fundamental traits of a good entrepreneurial leader, they just don’t know that they’re being entrepreneurial. They were never taught to be entrepreneurial, they were never told, and “this is entrepreneurship.” So if they’re not told what entrepreneurship is,

how can they tell teachers or students what entrepreneurship is? So that's what you're seeing today, and that's what you're going to see in the future."

Summary: In terms of the role of principals, some common perceptions have to do with principals' role in supporting teachers and listening to their ideas in order to implement these ideas in the future if they prove to be working. The main perception related to this question, points out that principals are not the ones who create and implement entrepreneurship education but rather they are the ones who can provide necessary support to other educators and help them to make things happen in the future.

Q3: Why do you think there hasn't been any entrepreneurship education research focused on principals?

1: Researcher's perspective

"I think that is the next phase. If you look a few years back, there wasn't any research on teachers either, but there was a lot of research on entrepreneurial learning. Then it started by defining what is entrepreneurial learning, and then it moved on to the issues of entrepreneurial pedagogy, but no one defined what entrepreneurial pedagogy is, it was taken as granted. Then if you look at the newest research, there is a trend that is saying, "Ok, next we have to look at how teachers perceive entrepreneurship education," so some research has already been done on that level and the next level I guarantee is principals. But I think that one of the reasons why this kind of research is missing is that we are so focused on the learning aspect and we are not interested in teaching and certainly in Finland, we already talk about education. Education is as challenging a word as entrepreneurship, because some people think that when you educate something, you try to put someone else to a certain form, and it is more neutral to talk about learning, rather than education or teaching and talk about management then, because if you look at school management you end up dealing with obstructions and timetables and nobody knows how to fix that."

2: Entrepreneurship education expert's perspective

“I don’t know. Good question. I don’t have an answer.”

3: Teacher’s perspective

According to the teacher’s perspective, educational leaders were never taught to be entrepreneurial, they were never told, “this is entrepreneurship” and this could be a reason of the lack of research: “...And Finland being one of the leading education research places... If that’s true, then it’s interesting to see that the world leading education system has no emphasis whatsoever on entrepreneurship and leaders at all. And there’s one finance course and one project management course. Everything else is...” (See Appendix 1 for the full interview).

Summary: It appears that the lack of entrepreneurship education research focusing on principals is a difficult questions. Some of the perceptions point out that so far entrepreneurship education research has focused on other aspects and focusing on principals might be the next phase.

Q4: Do you think there is a sufficient understanding of entrepreneurship education among principals?

1: Researcher’s perspective (note: the question was paraphrased to fit in with the interview flow yet the response is relevant to the question stated in this thesis):

“Right now, I am afraid that many of them think that entrepreneurship, especially in high school, is something to do with studying business and that is not the main idea of a high school. So it is understandable, but if the principals can see and get more information and experience about entrepreneurship education, maybe they can then see it in a new light. But, I’m afraid I have no answer on how to fix it, except maybe sending principals to training.”

2: Entrepreneurship education expert's perspective

“No, they’re very narrow. They have this idea that entrepreneurship education is how to educate the people to establish a business of their own and how to establish a start-up. You know. It’s very, very narrow, so we have a lot of work to do to understand this.”

3: Teacher's perspective

“So, our principal is not an expert in entrepreneurship. He knows that it's going to be a big part of the school in the coming years. I was doing some teaching before here, supporting the school, so I was brought on specifically to translate what entrepreneurship is to our principal, to the staff so a lot of, when things are being implemented here in the school, from the entrepreneurship point of view they'll look at me and say “is this ok? Is this good, or what's next?” So if you find an educational leader who knows what entrepreneurship is in the first place, great, I think you've found a gold mine. Good luck trying to find a leader who even understands what entrepreneurship is, besides starting a company.”

Summary: It appears that all the participants have a common perception about principals' understanding of entrepreneurship education, which only relates to establishing a business.

Q5: What do you think would be the best way to coach principals in entrepreneurship education?

1: Researcher's perspective (note: the response refers to the previous answer where “sending principals to training” was suggested):

“It would be more like coaching. What I would do, I would first explain what entrepreneurship education is about, what the different aims are, but then I would like to get the principals to open projects in their own schools. The one thing that is missing right now in entrepreneurship education is strategies for schools. I think that is the next step. You know, original entrepreneurship education strategies have been made and some of them are in existence right now. Helsinki launched an entrepreneurship education strategy; I also know that in other parts of Finland similar approaches are going on, but at school level there is still a lack of strategies and programs related to what it means in practice, what is entrepreneurship education in our schools.”

2: Entrepreneurship education expert's perspective

“Yes they should be. At the moment I'm having systems for principals. They come from primary schools and upper secondary schools.”

3: Teacher's perspective

The answer to this question was derived from the interview flow (See Appendix 1 for the full interview).

“...it would maybe be cool to start my own coaching or consulting company and then hire other entrepreneurs that are interested in getting that into the schools. I could approach it saying “ok this is my job: coaching other leaders how to be entrepreneurial”. So that’s one way, we could do it as a job. You could also, I was thinking about contacting the EU commission or the US embassy and seeing if they would fund my research and then, for example if the EU education commission funds my project then obviously they would have those findings at their ability to distribute. So I think there’s a lot of different possibilities of how to get the word out. I don’t know what the best method is; I just think that the word needs to be spread somehow. Maybe do like a TV commercial...”

Summary: It seems that participants have a common perception that providing coaching to principals might be necessary for them to gain a broader understanding of entrepreneurship education.

Q6: Who do you think would be the right people to do that?

1: Researcher's perspective

“I don’t think there’s any specific group, but whoever it is, that person or group has to understand the whole picture of entrepreneurship education, because otherwise, it will be too narrow. It can’t focus just on business or education, it has to be taking the whole picture into consideration.”

2: Entrepreneurship education expert's perspective

“I think for instance, in Etu-Töölö high school, principals have studied these models for as long as I have been teaching this. They have always sent teachers to courses every year. And at the moment more than 20 teachers have been trained to this model and they are using it. It takes years but I think in 10 years we will come a long way.”

3: Teacher's perspective

The answer to this question was derived from the interview flow (See Appendix 1 for the full interview).

“Think “ok what can we do as researchers? What can we do to suggest that entrepreneurship needs to be implemented? Or how can it be implemented. So like, “how” and “what” of entrepreneurship should be implemented in the future would be the first step. It just needs to be marketed. The traits of entrepreneurship just need to be communicated. They’re not being communicated. And with that you’ll be 50/50 with finding a leader who’s open to it, or who doesn’t know anything and backs away from it. And then the leaders that you do find are open to it, then you have a 50/50 chance of it being implemented correctly. So with the current situation you’ve a very low percentage or a very low opportunity that entrepreneurship will be implemented somewhat ok. Like, maybe 20% and the other 80% is either it’s not going to be implemented or it’s going to be implemented horribly, and it’s going to be all reactive and not proactive. I think if you look at it, the whole situation like that, I think it’s very optimistic, we now see that there is a niche, there’s an opening in the studies.”

Summary: Generally, perceptions regarding this question point out that there is no specific group of people who could coach principals and that all entrepreneurship education professionals and educators themselves can be involved in the process.

The empirical work demonstrated a range of opinions which nevertheless lead us to a strong case in relation to entrepreneurship education overall, entrepreneurship education in high schools and especially the role of high school principals in entrepreneurship education and the current state of awareness that exists among them. Main conclusions from the data are:

- 1) Principals agree with the importance of entrepreneurship education, although they mostly view it as a business education
- 2) Teachers play an important role in the implementation of entrepreneurship education and can make changes at the classroom level but there can be lack of support from the management
- 3) Steps were taken in the past to create a coaching program for principals but haven’t been successful yet

- 4) Despite the entrepreneurship focus of decision makers in education and EU, there is still a fundamental lack of understanding of the term “entrepreneurship education”
- 5) Entrepreneurship studies are not included in the training of future principals
- 6) Public schools in Helsinki don't have enough flexibility and finance to focus on entrepreneurship education and hire people with expertise
- 7) Fundamentally principals have a hands-off role when it comes to entrepreneurship education implementation
- 8) Some actions are taken to address entrepreneurship education in high schools and educate principals locally but they are not nearly enough to scale and affect the broader education system

Furthermore, the empirical work shows how different experts involved in entrepreneurship education interpret this phenomenon. It is not surprising that interviewees discuss the entrepreneurship education through their own experiences.

The main message of the empirical work shows that while principals don't create entrepreneurship education strategies as a part of their job, they are important facilitators of the entrepreneurship education in high schools through supporting teachers and being open to a new approach to teaching. Nevertheless, it appears that the core understanding of entrepreneurship education by principals both on a classroom level and broader level is only limited to the business context. In practice it means that this issue has to be address through future research in order to gain understanding on how to reach current principals and coach them about entrepreneurship education and what changes need to be made to educate future principals to understand the holistic nature of entrepreneurship education and its importance on different educational levels.

6 Discussion and recommendations

Even by taking a glance at the participants' responses it is clear that there is a massive gap in entrepreneurship education understanding between principals and other professionals who are directly involved with entrepreneurship education. It is obvious that principals interpret "entrepreneurship education" just in the context of including business classes in the curriculum and generally, relate entrepreneurship education to starting a venture. In other words, it appears that essentially principals perceive entrepreneurship education to be equal to business education.

On the other hand, when we look at the response received from a teacher directly involved in the planning of entrepreneurship activities (which is an exceptional case among high schools in Helsinki), we can see how perceptions are drastically different from those of principals. In this particular case, the participant had a strong entrepreneurship background; therefore it is not surprising that there is a broader understanding of entrepreneurship education. At the same time, we can also see an understanding of the whole picture and what measures can be taken to create more awareness of entrepreneurship education among principals.

When we move further, we can see that the interviewed researcher has a clear idea from personal experience regarding those measures to help principals understand entrepreneurship education. Here, we get another set of interesting perceptions regarding what this kind of a "coaching program" would entail and why it is not that simple to bring it to life as well as what challenges might arise in terms of overall principals' attitudes towards entrepreneurship education and entrepreneurship education coaching. Even with having a small research sample, we can clearly see how perceptions evolve through the course of empirical work. In other words, it is clear that principals, while having the power to make a change, don't have enough understanding of entrepreneurship education, at the same time other participants are able to see the whole picture, and have a clear vision on how this situation could be changed on a broader educational level.

In essence, this thesis used a sample group that included both internal and external players who could affect the implementation of entrepreneurship education in high schools in different ways.

6.1 Perceptions of principals

The study shows that there's clearly a lack of understanding of what entrepreneurship education really means and despite the fact that principals recognise its importance, they tend to believe that entrepreneurship education only has to do with establishing a company and the business side of things. In other words, entrepreneurship education among principals is only perceived in terms of external entrepreneurship. Furthermore, it appears that teachers have more awareness and willingness towards integrating more entrepreneurship related activities into the curriculum yet, it seems that they don't get enough support from the management, i.e. principals. Therefore, there's a clear misconception that exists among principals and other educators regarding the meaning of the word "entrepreneurship" in entrepreneurship education.

As was mentioned earlier, the word entrepreneurship is interpreted as business, therefore when hearing about "entrepreneurship education", education professionals automatically think about "business education". Therefore, the first step would be to change a common misconception about the meaning of entrepreneurship education and create channels through which this information could be delivered to principals and other educators who are in the position to make a change on a school level. Some schools make an effort to implement entrepreneurship education; therefore it is essential for principals to share the knowledge and experience among each other. The empirical work has shown that there are local measures that are taken to educate or at least help principals to understand entrepreneurship education but there is no trend yet.

The lack of understanding leads to the lack of support of the initiatives taken by others, for example teachers. While principals themselves are not directly involved in education, they have the power to create an entrepreneurship environment within the school. But in order to do so, they have to have a better understanding of entrepreneurship education or at least about its importance outside of starting a business. Essentially, to enhance principals' understanding of entrepreneurship education, external support by entrepreneurship education professionals is required.

6.2 Perceptions of other entrepreneurship education experts

This thesis has shown not only other experts in entrepreneurship education can clearly understand the holistic nature of the subject; all of them have expressed similar opinions as to the role of principals in entrepreneurship education and the lack of understanding among principals. While principals were found to be an important fundament for entrepreneurship education, the importance and the ability of teachers to make a change was emphasized. Furthermore, it has shown that researchers and educators are trying to make a change themselves by using available measures. Nevertheless, there is a common notion that there is a need for coaching/training for principals to expand their understanding of entrepreneurship education.

All in all, the empirical work suggests that the interviewees make sense out of the entrepreneurship education phenomenon and the role of principals in entrepreneurship education in a similar way. At the same time, there seems to be less knowledge regarding the lack of previous entrepreneurship education research focusing on principals, although there were good assumptions related to these questions.

While initially this thesis was supposed to emphasize aims, practices, outcomes and strategies of entrepreneurship education, even in the early stages of empirical work it became clear that there is a very long way to go before these aspects can be discussed with principals as there is a lack of understanding of the holistic meaning and purpose of entrepreneurship education. One of the interesting findings is that principals are not the ones who can implement entrepreneurship education because they simply have other duties. However, principals are a crucial element in every school system and therefore can provide much-needed support to teachers who would like to add elements of entrepreneurship education into their classes. Nevertheless, the first step towards principals' participation in the questions of entrepreneurship education would be developing an understanding of the true nature of entrepreneurship education and how it can benefit students, teachers and society in the long-term.

Furthermore, as mentioned earlier some of the educators and researchers are very keen to address the issue by creating coaching programs or using certain methods to decode the “entrepreneurship education” meaning to principals. While individual attempts are very important, the change has to be made on a higher level. Simultaneously, for the change to be made on a higher level, there is a need for more awareness of principals' roles and their lack of understanding of entrepreneurship education. This certainly calls for more in depth research on the topic of principals' role in entrepreneurship

education and the perceptions and most likely misconceptions that exist among principals regarding the meaning of entrepreneurship education.

One of the significant findings from this study shows the initial causes for the lack of entrepreneurship education understanding among principals, namely the lack of entrepreneurship courses for future school leaders. This thesis has shown the lack of understanding of entrepreneurship education among principals which is not surprising given the fact that future principals and future leaders in general are not taught to be entrepreneurial. This leaves us with the even bigger issue - the lack of entrepreneurship courses for future leaders, which might lead us to another question: whether those with the power to implement entrepreneurship education for future leaders understand the broader meaning of the terms or do they only see it as something related to the starting of a company. This is another topic that requires further research in order for us to understand the whole structure of causes and consequences in terms of entrepreneurship education on different educational levels.

7 Conclusion

Entrepreneurship education is a phenomenon worth studying in view of its central focus in the development of social and economic well-being (Seikku-Leino et al, 2010). This thesis aimed to address entrepreneurship education in high schools and obtain a better understanding on how the implementation of entrepreneurship education in high schools works. Since principals and vice principals appear to have the power to make changes and integrate more entrepreneurship activities in their schools, the role of principals in entrepreneurship education was addressed. It would be impossible to assume how principals can take part in entrepreneurship education implementation in high schools without knowing whether principals fully understand the concept of entrepreneurship education. To get a broader idea about what's going on in entrepreneurship education in schools, the sample group didn't consist solely of principals but other experts in the field who gave a valuable contribution to the development of this study.

Despite the novelty of this study, various limitations and lack of previous studies focusing on principals, this study gave insights into how principals view entrepreneurship education, why it is important to consider principals as one of the key players when it comes to the implementation of entrepreneurship education, why there hasn't been enough focus on principals in the context of entrepreneurship education, what measures can be taken to coach principals to understand the concept

and the importance of entrepreneurship education and why it is important to focus on the entrepreneurship education of future leaders.

Since entrepreneurship education is considered important at many societal levels (Seikku-Leino et al, 2010), this study demonstrates yet another area of entrepreneurship education research that requires more attention. However, the results presented in this study show that even with a small focus group there are clear indications that: 1) the role of principals in entrepreneurship education is highly overlooked; 2) principals' lack of understanding and misinterpretation can result in a lack of support to teachers who want to implement more entrepreneurship education in their classes; 3) the effort from teachers, policy makers and entrepreneurship education experts is required to change the current situation; 4) there is clearly a lack of entrepreneurship courses when preparing principals who will lead schools in the future.

In summary, the findings suggest a strong need for:

- more focus on principals and education leaders in entrepreneurship education research;
- development of a learning tool that would help create a better understanding of entrepreneurship education among principals such as coaching/training programs;
- in terms of long-term effects, it is essential to integrate entrepreneurship courses into studies and training for future principals

This thesis highlights the crucial factor in the implementation of entrepreneurship education in high schools, namely the role of principals and the need for development of principals' understanding of entrepreneurship education, which has received insufficient attention in the context of entrepreneurship education.

The interpretive phenomenological analysis demonstrated a clear gap that exists between entrepreneurship education experts' interpretation and principals' interpretations. Furthermore, other experts who participated in this study interpret principals' lack of understanding in a similar way, which shows us a clear pattern regarding insufficient understanding of entrepreneurship education by principals strengthened by perceptions of entrepreneurship education experts. All in all, this study demonstrated that high school principals perceive entrepreneurship education in a narrow manner, as opposed to the holistic nature of this phenomenon.

This study suggested several measures that can be taken in order to create more awareness of the true meaning of entrepreneurship education among principals. Nevertheless, much more research on this issue is required in order to fully understand why the role of principals have been overlooked in

previous research, what the best ways are to improve the present situation and how future principals can be taught to be entrepreneurial.

This study is meant to introduce a new orientation for research on entrepreneurship education, in which increasing attention should be paid to high school principals as one of the fundamental groups of educators who play an important role in the support of entrepreneurship education implementation in high schools.

Finally, as it was pointed out in the literature review, the EU Commission recognised that the quality of teaching is the single most important within-school factor affecting student attainment (European Commission, 2011). While the outcomes of this study have confirmed the importance of teachers in entrepreneurship education it is important to remember that teachers can only make changes if they are supported by principals. Therefore, future research focusing on principals in the context of entrepreneurship education in high schools is important in order to create more awareness among policymakers who could subsequently contribute to making a change on a broader educational level.

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Appendix I

Interview 1 - Full transcription (Teacher)

Q: What does entrepreneurship education mean to you?

A: Going into what I was mentioning earlier, entrepreneurship is a very new concept to the leaders. The ideas that we're seeing in educational leadership is, the world is drastically changing on the outside, so that means that schools have to drastically change. 10 years ago computer technology studies were a big thing. Entrepreneurship itself is a very new concept to be implementing in the schools. So the leaders are still trying to embrace that. They're not against it. A good educational leader's not going to be against a lot of things. Although they're not against it, it was better for me to come onto the team and help translate some of the key terms and ideas coming out of the field of entrepreneurship and what can be implemented into school. Like I said earlier, students don't need to know everything about entrepreneurship. There are reasons why we get a masters in it, and we deal with that stuff. However, breaking entrepreneurship down to the key fundamentals can be difficult sometimes, especially when the educational leaders don't really have time to study a new field of science. They're busy doing their normal stuff. So that would be the first hurdle. That would also be the first opportunity for educational leaders in the future, is to maybe take somebody on who can translate and identify the core principles of entrepreneurship.

Q: And this is what you're doing here?

Ai: Partly yeah, so coming on and teaching actual entrepreneurship is one thing. In the classroom the principal has a very hands-off approach to what I would like to do in the classroom. They've had some lessons planned out in the past, but it was very very super-practical: "this is how you start a business." For a lot of 14 year-olds, they don't need to know how to go to the registration office, the tax office. They're more creative, they want to play. So getting a 13 and a 14-year old student to play with entrepreneurship is becoming more of the idea then how to use it as a tool. They'll learn how to use it as a tool later in life.

Q: Is your role at this school unique, or do other schools employ people in a similar role?

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A: It's new to this school. We've had business studies in the past. The vice-principal for example, he's a PE, Gym and a maths teacher. However, he's done some of the business studies in the past.

Now with the business studies needing to be taught, plus this whole new requirement of schools adjusting to entrepreneurship there was a need for a separate person to come into it. As a private school, this school has the ability and the freedom to make decisions to do that. Whereas all the other school are city operated, and they don't have the flexibility to create a position like that. So the city schools are going to need to super-innovative and entrepreneurial themselves in figuring out how to put somebody into that spot. This school has had the opportunity to do it a different way. Is it going to be better? I haven't figured that out.

Q: What would your ideal type of entrepreneurship education entail?

A: I think speaking from the educational leadership point of view; you'd probably get an honest "I don't know". For me if you're going to ask the business studies teacher, then of course I have a big grand idea that it should all be creative and we should all play and create and do all this fun stuff. So you're going to see two drastic views within this school. You're going to have it from the educational leader side and then from the business studies teacher. From the educational leader side, I don't think they have any idea what their ideal entrepreneurial curriculum is going to be. In fact, the teacher who was just here taking some books, he was put on as the key person to create, in the high school, 100 new study spots, and those new students are going to focus on society and economical issues. So they'll be taking a lot of history classes, some economics classes, not so much entrepreneurship, but more economics and business and general type... So our principal is the educational leader and he has identified how critical it will be, that's the stopping point. From that point, as a good leader I think he has stepped back from that, and I think a good leader will let go when they need to let go, and that's what he has done. He's said "Ok, this needs to happen". It needs to happen because the government is changing the curriculum. Obviously the job markets are changing from more corporate to small businesses. Everything's changing. Yes there's a need to change. I think that needs to be stressed that our principal and the educational leaders have recognized it needs to change. From that good point, as a good leader they've said "Ok now we're

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going to put this in the hands of experts". So I think there's a big holistic idea to bring entrepreneurship into the school. But how, when, where, why is that going to happen? I think you'd be very lucky to find an educational leader who knows that. Because the stuff that I'm studying, these are the compulsory courses that we have to take, and then there are specialties. There's one course in finance. How does an educational leader do some finance stuff? And then there's project management. Everything else is how to be a leader. How to lead in a school. Very soft human science type of thing, nothing very concrete. So this is the leading curriculum of the leading university in Finland for educational leaders. That's the current curriculum form. There's absolutely no entrepreneurship in it. So this is the curriculum that educational leaders in Finland are going to be taught over the next 3-5 years. No entrepreneurship. They haven't been taught entrepreneurship, they're not being taught entrepreneurship, maybe they will in the future. In 3 or 5 years, education leaders that are being trained will start to be introduced to it. But, people of our young age are not being exposed to it in educational leadership programs throughout Finland. So if you see a lack of entrepreneurship from the educational leaders now. You're going to at least see it for the next 5-10 years. This is why I think it would be super-important for our research to actually happen. And if you're coming from your research and a very entrepreneurial theory and stuff like that, I'm going to have to push my research from the educational leadership. Somewhere in the middle if we start comparing notes later on, I can give you all the notes from the educational leadership side, if you find entrepreneurial stuff. But I think you and I will be pretty frustrated next year when we put all of this together and we realize there's big gaps, but that's just a bigger opportunity for you and I to have a cool thesis, because it's going to be more fresh research into the field. Just the fact is, good luck for the both of us in finding past information on this because it's not happening in leadership, it hasn't happened in leadership and I don't understand why there hasn't been an interest in seeing how entrepreneurial leaders have to be. What they do teach in the educational programs up here is that leaders in schools are going to have to learn to collaborate. They're going to learn how to bootstrap their finances. They're going to learn how to think outside the box. So it's interesting that, if you look at all these courses that are offered their educational leaders, they teach the principals in the frameworks of effectuation theory. So they teach theories of entrepreneurship, but they don't call it entrepreneurship.

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Our principal's title officially, as the leader of a private school, is a CEO. So this is a private school and it has a board and it has its own finances and its set up as a company. The board elects our principal as the principal, he's not hired but the city, he's not hired by the government. He's hired by a private board, just as a board in a company would elect a CEO. He's been the CEO of the company. He sits in the principal's office, he doesn't do very much with the teachers, he doesn't do very much with the planning of the school itself. He'll get a lot of information from the vice-principals. He'll sit down with the teachers and he'll sit down with the vice-principals, but only to listen to their ideas, only to hear them and then sign off. He's not really taking their ideas and then making them his own. He's basically dealing with the media on the outside. He's dealing with the board, he's dealing with a lot of the outside stakeholders and the community. He'll take what the outside community is saying, bring it to the vice-principals, and then it becomes the job of the vice-principals and teachers to distribute it throughout the school. So what you see is our principal being a like a pivot point. So everything underneath him is translated down, although he lets that all be. And then on the outside he's taking everything from there and taking it. Although he's not pushing so much into the outside, he'll tell the board, "hey we need some more money here," or "the teachers need better coffee," things like that. But he's not really going to change the world and he's not going to really change the school, that's the job of the teachers and the vice-principal. His job is to be the glue. His job is to be the pivot point where all of that can happen and all of this can happen freely. If he starts saying, "well, we're going to be doing this more, we're going to be doing this more," the whole school can go and do it. So, since he doesn't know entrepreneurship so well, it's a lot better for him to back off, bring somebody in that knows that a little bit more and that puts more pressure on me to build a program. But, if I fail, I've failed because of knowledge and skills and all that. If he fails, it was because of the lack of knowledge or the lack of skills, which is even worse. So that's the next step. I think the next is; an educational leader here has to know how to bootstrap, has to know how to collaborate, has to know all those fundamental traits of a good entrepreneurial leader, they just don't know that they're being entrepreneurial. They were never taught to be entrepreneurial, they were never told, "this is entrepreneurship." So if they're not told what entrepreneurship is, how can they tell teachers or students what entrepreneurship is? So that's what you're seeing today, and that's what you're going

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to see in the future. You're still going to see a lot of this confusion and chaos in the next couple of years.

Q: Maybe that's the reason that there hasn't been much research. Its not been taught as a concept to principals

A: Could be. And Finland being one of the leading education research places... If that's true, then it's interesting to see that the world leading education system has no emphasis whatsoever on entrepreneurship and leaders at all. And there's one finance course and one project management course. Everything else is...

Q: How do you think entrepreneurship education contributes to the broader educational system?

A: I think you would hear from leaders that entrepreneurship is something that could and should affect everything else. So if it's your biology students, working with the wood and metal class (last year they were building birdhouses and they could sell those), so given the idea that education leaders should and will go to this broader definition of entrepreneurship about collaboration and bootstrapping and have a bigger definition on entrepreneurship, I think they'll start to see that every subject within the school, if it's the language department or the science department. All those departments will see that entrepreneurship can be utilized in all of them. Entrepreneurship right now is very limited to the business studies thing, and I'm the only business studies teacher. So when we go into meetings and department meetings I'm always with the history and civics people, so business is somehow tied into civics, society thing. So for me to talk about entrepreneurship, when I talk about it, my voice and ideas only reach a certain amount of teachers, particularly around me. If I want to go and talk to somebody in the language department about entrepreneurship I have to set up a very specific meeting with that person or with that department, and they have to take time out of their schedule to specifically listen to me. So entrepreneurship is not being distributed throughout the school very evenly at all.

Q: The next question is about why entrepreneurship education is important for students, but I think you've probably already answered that.

A: Yeah, well I mean, just to emphasize a couple of key things, just to put it on the record, obviously coming from an entrepreneurial background I don't think its very critical for students to

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learn how to start a company. I think that's probably the least of their worries. When you talk to other educational leaders here I think their naivety towards entrepreneurship will limit their response to that question. I think you will get a lot of responses from educational leaders saying, well, "it's important because corporations are changing to small/medium sized companies and we're going to need to better out students to work in those environments." I think you're going to get a lot of that answer, which is a true thing. Yes, to better equip students for tomorrow's changing work environment we do need to teach them more entrepreneurial traits than how to work in a corporation. You definitely hear the importance of teaching students to be critical thinkers, so I think you're going to hear that from everybody in the leadership position. Taking it a little deeper as a entrepreneur, those are great things to teach kids, but those are the realities, they're going to go out and change jobs a lot. We can just tell them to be prepared about that. Taking it a little deeper, I think if you're teaching students how to collaborate, how to bootstrap instead of teaching students "hey, this is what's going to happen" now we can teach them the "how". So a lot of education has always been emphasized on "what" and now we're changing to the "how", and entrepreneurship is going to be a critical tool that leaders can use to teach that "how".

Q: How can teachers benefit from entrepreneurship education?

A: Well, teaching is the best way to learn, they say, so if somebody's teaching entrepreneurship they're going to be able to learn the different characteristics or traits of entrepreneurship and one of the big ones that teachers and leaders would find is the idea of collaboration. Teachers here I think by the end of the school year; kind of April/May, they're so tired and they're so focused on what their projects have been through the year. At the beginning of the year you see a lot of teachers talking to other teachers and being very collaborative and, the language department wants to do something with the science department, but come April or May they want to do their own thing, they just want the school year to finish and just be done with it. So I think it would be really cool for teachers to learn some aspects of entrepreneurship like collaborating, and once they find those traits within it they'll probably see their job ease up a little bit. So not only will they be able to teach students better, but their actual work environment. And the spirit around here would be a lot better too. Practically, the learning outcomes would be great for the students (yay! We should all celebrate

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that). On the other hand being practical too, another positive benefit for teachers in entrepreneurship is that they'll probably better their environment, and happier teachers equals better outcomes.

Q: Another question, which I think you've also already mentioned concerns how entrepreneurship education is implemented here in the curriculum.

A: Very slowly. Very slowly, with a lot of difficulties. When you have a leader trying to implement something they're not an expert on you're going to have a lot of difficulties. And I think one of the only real ways to have it implemented is doing what our principal is doing; a hands off approach. Bring in people that are motivated, bring in people that have the knowledge and just let it be. So if you're trying to implement ideas and you only know half of the ideas then you're implementing half of the whole concept to students and then everybody loses. So nationwide it's probably being implemented on a very slow process. There's a lot of room and risk that its going to be implemented wrong. So there's no cookie cutter way of doing it, and you're going to see a lot of trial and error, with a lot of error.

Q: Do you think its common in a lot of schools that it's slow?

A: Yeah. An educational leader today is so busy, and just to run a normal school year takes 99% of your energy. So, when there's big national curriculum changes then in order to implement that, it's going to be a lot of stress and a lot of work.

Q: So that's why they hire someone to...?

A: Yeah. Our principal is a young dynamic guy, he's one of the youngest principals in Finland, and being in a private school he has a lot of flexibility and can be very open to ideas. So I think he was given the best scenario for that, even with the openness and the flexibility, he's completely backed off, which I think is a pretty good characteristic of a leader.

Q: But do you think there is less flexibility in the city schools?

A: Well financially they do. Financially they're limited. Everything that they do they need to create reports and write requests, so they need to see the financial implications of doing that and then they'll get money after spending it. Whereas in the beginning here, this school gets their pot of gold at the beginning of the school year and then it can be used as our principal sees fit. So if I go up to

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him and say, “hey, we need to be doing this in the entrepreneurship department, that means we need money for this,” he can at that very moment say yes or no. And as a city school, if I had an idea halfway through the school year to implement something I would have to wait until the next school year. So you’ll see a lot of time delays too, so not only are they going to have financial restrictions in the city schools, that’s going to lead to time constraints, so if they do implement something it’s probably going to be implemented late.

Q: How many private schools are there in Finland generally? Do you have any idea?

A: I think it’s probably less than 20.

Q: In the whole of Finland?

A: Yeah. Well, the Finnish education system went really far away from private schools in the 90’s. They basically tried to bankrupt all of them, and the ones that survived were the ones that thought entrepreneurially then. This school, the leader at that point had to find out what was going on in the current world to draw people in, and in the early 90s, having a bilingual international school was kind of exotic and was the next cool thing. So this school changed in the early 90s towards the internationalism, and that has been its saving phase. The school was basically bankrupt, but now it’s doing very well. So the private schools that do exist, exist because they have found a niche. And I think a lot of the private schools that survived are more like religious based. So when you get outside of Helsinki and into the countryside you have a little bit more of farming type people who are very religious. They want to send their students to more of a religious type school. There’s a couple out there.

Q: How do you think entrepreneurship education can be implemented successfully in both the short-term and long-term?

A: Yeah, that’s a super-critical question because you have the short and the long-term thing. Going back to; what’s the current situation? The current situation is that educational leaders today are not being taught entrepreneurship whatsoever. More than likely they never took it in their undergraduate program and they’re definitely not taking it in their masters program. So seeing that these are going to be the leaders in 5-10 years, and I would say that’s the long run, even then, you’re going to have leaders who don’t know the basic concepts of entrepreneurship. So from there

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it's all speculation. Given the fact that neither you or I can really find a lot historical context with it is horrible news, given that the current curriculum in universities for leaders is not teaching it, that's even worse news. So I think that there's a huge understanding at the national level that entrepreneurship needs to be taught. That's why it's in the next curriculum. However, it's not coming from the bottom up. The stress on schools and education to be more entrepreneurial is definitely coming from the top down. So you're going to have a lot of leaders in the future (in the next 5-10 years) being super-reactive to entrepreneurship. You're not going to find a lot of proactive leaders. So I would say that the current situation is horrible for entrepreneurship and leaders. Maybe not horrible, but scary if you think that the teachers are not being prepared whatsoever, or the leaders aren't being prepared whatsoever. So it's bad and going to get worse.

Q: Why is there no focus on entrepreneurship for future leaders in in universities?

A: Well the universities are very reactive also. I think, when they build their curriculum they see what's working in education and they build a program to fit what's currently working. So it's very reactive to what's successful out there now. Again, it's not being very proactive in deciding what's next. You would think in an education program, and especially an educational leadership program would be more proactive. Sadly it's not. That means the leaders of the schools are not going to be very proactive entrepreneurially in the future either. You might want to rephrase your question there cause maybe I've got a better answer to that. I don't think that really answered your question so well.

The thing is, nobody told the leaders that this is a good thing to do. I think that entrepreneurship has always been one of those things where you can go off and do it if you're an entrepreneur. You don't realize that everybody's an entrepreneur. Everybody, at some point during their day, exhibits or utilizes some entrepreneurial trait. At some point. Some people do it more than others. Some people make money doing it. Some people don't, they're nurses or doctors and they make their money doing that, but they utilize entrepreneurial traits in frameworks, but they were never told to do it. So that's the worst thing is, maybe one of the objectives of our research is to start pushing universities to teach entrepreneurship outside of the business world. You know, it's good for us to learn all of those great ideas, but you go talk to a hospital leader; a hospital leader is going to need to be entrepreneurial.

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Q: And who's responsible for implementing entrepreneurship education for future leaders?

A: Every program has a program director, and that program director is just as human as you or I. The program director knows those students. The program director should know everybody in the program to some extent. So it's not like each department is this big bureaucratic system. The departments and the universities are small, inclusive. They just rebuilt this curriculum last year and it was basically the secretary, the program director and one other person. So in that meeting with those three people, it should have just been brought to their attention that entrepreneurship is good. And they're very easy to approach people. They might seem like "oh, they're program directors" or "they're school leaders" and yes they're very busy and things like that. However, a good program director and a good school leader should always be open to receiving information about what's out there. And our principal is an open guy and I think most of them are open about it, they just have never been taught it. And they're so busy in their other day to day things, you come to them with a great idea and they say "yeah you're right, that is a good idea. Now how do we do that? Can you do that and I back off of it?" Then they're taking the idea and trying to implement it to the best of their ability. So I think if you go and you talk to an educational leader and you show them how important entrepreneurship is, you're not going to get anything like "no this is a bad idea, we don't have enough time or money to do this", no, it's one of those great ideas that I think all of them would realize how great it is, it's just they've never been exposed to it. So if they've never been exposed to it how are they supposed to know how good it is?

Q: What do you think should be done so those program directors so that they can realize entrepreneurship can be a part of the curriculum?

A: I could approach it saying "ok this is my job: coaching other leaders how to be entrepreneurial". So that's one way, we could do it as a job. You could also, I was thinking about contacting the EU commission or the US embassy and seeing if they would fund my research and then, for example if the EU education commission funds my project then obviously they would have those findings at their ability to distribute. So I think there's a lot of different possibilities of how to get the word out. I don't know what the best method is, I just think that the word needs to be spread somehow. Maybe do like a TV commercial...

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And they would be open to like... I don't think you're going to get a really negative response from education... You'll get a realistic thing, them saying "hey, I'm a little busy for this" and stuff, but none of them are going to look at this and go "this is a waste of time. This is just a bad idea and I don't know why you're doing it". No they're going to say, "this is really good, however I wish I had more time to do this". So the market is there, the niche is there, the need, the want from educational leaders is there. It's just not being put out there to them. So when you think about the next step or two in your own research, I would suggest that you start looking at more of the future; what is the future of entrepreneurship and leaders going to be? Obviously by looking into the literature review I think we can both agree that it's been horrible. I think with the responses you're going to get now, and then also looking at the curriculum for a masters program in leadership, the current situation is going to be identified as horrible. So there's a bad past and a horrible, and I think our research would be best in the future. Think "ok what can we do as researchers? What can we do to suggest that entrepreneurship needs to be implemented? Or how can it be implemented?" Like, maybe if you're research came from "what aspects of entrepreneurship need to be implemented?" and then I came at it from the "how" because I know how educational leaders work, I know their schedule, I know what's being told to them. You're very current and you're very knowledgeable of the current day entrepreneurial frameworks. For me effectuation was like the cool thing about the framework. It still is but there's other frameworks in entrepreneurship and I think if you're job was to break down the different traits and the different facets and what should be in education and then there was like a "how can it be implemented?" that might be the future. So like, "how" and "what" of entrepreneurship should be implemented in the future would be the first step. It just needs to be marketed. The traits of entrepreneurship just need to be communicated. They're not being communicated. And with that you'll be 50/50 with finding a leader who's open to it, or who doesn't know anything and backs away from it. And then the leaders that you do find are open to it, then you have a 50/50 chance of it being implemented correctly. So with the current situation you've a very low percentage or a very low opportunity that entrepreneurship will be implemented somewhat ok. Like, maybe 20% and the other 80% is either it's not going to be implemented or it's going to be implemented horribly, and it's going to be all reactive and not proactive. I think if you look at it, the whole situation like that, I think it's very optimistic for you and I, because for us, we now see that there is a niche, there's an opening in the studies.

Appendix II

Interview 2 - Full transcription (Researcher)

Q: What does entrepreneurship education mean to you?

A: Entrepreneurship education is such a broad area. For me it's mainly about how people can learn to behave in an entrepreneurial way and adopt that kind of behaviour in any context and as a teacher, when I look at entrepreneurship education my main goal is to enhance that kind of behaviour and mindset in all my students; and the second target is to enhance their competencies in studying business, but that's not the primary goal for me. Of course, when you look at entrepreneurship education, one area, which is not often discussed, is also how to help people who are entrepreneurs. How to help them to learn more and how to help them to enhance their skills and competencies to enlarge their business.

Q: How would your ideal type of entrepreneurship look like?

A: I would say that the main issue that always must be kept in mind is to put student first. By that I mean that, in many cases when we talk about entrepreneurship education, we take it for granted and there are a lot of discussions that we need more companies because of the economy and (I don't think that) when we look at education we always have to be very clear about goals, and also about values. So educational consciousness is very important. As a teacher you have to be very aware that you are not pushing students in the wrong direction. They have to have the freedom to choose their own path. But, if we are discussing how as a teacher we can enhance entrepreneurial behavior, I would say that learning should be student-centered, it should be rooted in action, but also in theory. So there must be a mix of theories and action. Also, learning should take place in teams and should be experiential; they should learn from their own experiences and mistakes. Also confusion is good, it's part of the process. It has to be fun, there has to be a passion for learning, and it has to be outside school premises, as you can't really learn how to be an entrepreneur while you are sitting in a classroom. And so you have to get in a world with a different kind of people and you have to learn ways to get to know your own strengths and also your own shortcomings. It's not easy, but if you keep in mind the things which are normally attached to entrepreneurs: freedom, risk-taking, the skill to see opportunities and handle your opportunities, then basically that's it.

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Q: How do you think entrepreneurship education actually contributes to the broader educational system?

A: Right now we are in a position where entrepreneurship education is in a minor role. Although in Finland entrepreneurship education has been in the curriculum since 1994/95 so almost 20 years, but we still have a lot of work to do because entrepreneurship education, from my point of view, it would demand that we change the whole structure. We could get rid of timetables in the present form and also it would need teachers to do teamwork and to collaborate with businesses and other external organisations and people. I would disrupt the whole thing.

Q: Do you think entrepreneurship education is important for students? And why?

A: I think its important to know that in high schools, the whole learning is focused on exams that are taken at the end of term, but I'm not so sure if anyone should spend 34 years in school only for a score and only for learning things in theory as I think that learning is about learning for life. In that way there are many ways to learn, so I don't think that just sitting in a classroom and making memos is the only way to learn and I don't think it's a very good way to learn in modern society.

Q: Do you think teachers can benefit from entrepreneurship education? And how?

A: When teachers understand the true meaning on entrepreneurship education and see that there are a lot of different aims and a lot of different ways they can teach in an entrepreneurial way, it really enhances their competencies so its concerned about professional growth. When they do teamwork it gives them more freedom to arrange the learning. Also when they contact other people it enlarges their own competencies and their skills and gives them new ideas, and they also, which I find very interesting, is that somehow they learn to respect their own work in a new light. So being a teacher is not just something that has to be done; it really has a meaning. And my research showed that when teachers realized that, it was so enlightening.

Q: How do you think entrepreneurship education can be successfully implemented in the short and long-term?

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A: I don't think there are any easy answers to that. I think that in the short-term, teachers should attend further training more eagerly, because there is some training available. There should be more, but they are there and most of them are really good, so that's in the short-term. And also there is information available on the internet for example, so they just need to sit down and talk with their colleagues and start to experiment in the short-term. In the long run, I think that support from the management, from the principals, is needed because in many cases teachers say that they don't feel that they are supported or appreciated by their colleagues or by their principals. So it is important to get feedback and support from the management.

Q: Who do you think plays the main role in the implementation of entrepreneurship education in high school?

A: Personally I think it should start from the teachers themselves, because right now we are being given pressure and challenges from the government and it leaves nothing basically. Also it's important to have feedback and support from the management, but in the end it's always the teacher who does or doesn't implement new things, in my opinion. You don't really need guidance or permission from the management because nobody is saying how you can deliver a certain course, you must start doing things your own way.

Q: What do you think is the role of principals in entrepreneurship education?

A: I would say that when a teacher tries new things and then gets some results, he or she can go the principal and say, "ok, I'm going to try that," and then say, "ok, it went this way or that way," and if he or she sees that it was a good experiment, then he can ask, "how can I enhance this? How can I broaden this? How can I take more colleagues into that approach and how can we take it further?" So that's the role of the management to then make it happen in the future.

Q: In terms of principals and management, how do you know if they are able to make the right judgment if a teacher wants to implement something new? Particularly if a principal does not like the idea of implementing something new. Is this a challenge?

A: That is, because I think that a principal should also know what entrepreneurship is about, because right now, I am afraid that many of them think that entrepreneurship, especially in high school, is something to do with studying business and that is not the main idea of a high school. So

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it is understandable, but if the principals can see and get more information and experience about entrepreneurship education, maybe they can then see it in a new light. But, I'm afraid I have no answer on how to fix it, except maybe sending principals to training.

Q: So you think perhaps creating a training program for principals would be effective?

A: I mean the governmental educational office, is giving funding for this kind of training. For instance, myself and my colleague tried to get it last year. We failed, but we are going to apply for training, entrepreneurship education training for principals again in January, because I feel that its so important to have this kind of training.

Q: Who do you think would be the right people to create this training program for principals?

A: I don't think there's any specific group, but whoever it is, that person or group has to understand the whole picture of entrepreneurship education, because otherwise, it will be too narrow. It can't focus just on business or education, it has to be taken the whole picture into consideration.

Q: For example, if you were to get this funding, what would the ideal training program for principals look like or consist of?

A: It would be more like coaching. What I would do, I would first explain what entrepreneurship education is about, what the different aims are, but then I would like to get the principals to open projects in their own schools. The one thing that is missing right now in entrepreneurship education is strategies for schools. I think that is the next step. You know, original entrepreneurship education strategies have been made and some of them are in existence right now. Helsinki launched entrepreneurship education strategy; I also know that in other parts of Finland similar approaches are going on, but at school level there is still a lack of strategies and programs related to what it means in practice, what is entrepreneurship education in our schools.

Q: Do you think principals would be open to this? And how would you get them interested in participating?

A: That's a challenge. Some of them would be interested, but of course there are many principals who hear the word entrepreneurship and say, "that's not for me." But, what I have seen with the

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teachers is that when you have the energy to start and carry on with the approach of some programs, then word will go out.

Q: Would it be a good idea to name entrepreneurship in another way? Would this help dispel certain assumptions made by people?

A: That's something I hear a lot. Personally I think its better to talk about entrepreneurship as long as we are open with what we mean by it, that it is not just venture creation. I understand that problem, but I am a little bit worried that if we start discussing something else and trying to avoid the term entrepreneurship then I don't think we end up with what we want to end up with. That's my theory.

A: I'm not talking about entrepreneurship education as such. I try to interlink it with broader subjects like ethical education or responsible education or good school environment and in that way, open up what entrepreneurship education could be.

Q: Why do you think there hasn't been any entrepreneurship education research focused on principals?

A: I think that is the next phase. If you look a few years back, there wasn't any research on teachers either, but there was a lot of research on entrepreneurial learning. Then it started by defining what is entrepreneurial learning, and then it moved on to the issues of entrepreneurial pedagogy, but no one defined what is entrepreneurial pedagogy, it was taken as granted. Then if you look at the newest research, there is a trend that is saying, "Ok, next we have to look at how teachers perceive entrepreneurship education," so some research has already been done on that level and the next level I guarantee is principals. But I think that one of the reasons why this kind of research is missing is that we are so focused on the learning aspect and we are not interested in teaching and certainly in Finland, we already talk about education. Education is as challenging a word as entrepreneurship, because some people think that when you educate something, you try to put someone else to a certain form, and it is more neutral to talk about learning, rather than education or teaching and talk about management then, because if you look at school management you end up dealing with obstructions and timetables and nobody knows how to fix it.

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Q: There is still very little entrepreneurship in the high school curriculum. Who do you think is responsible for that and what are the steps to improve this?

A: Before becoming principals in high schools or primary schools you have to take a course. It's an administrative course for principals, so I would like to see entrepreneurship education become a theme within that program. That would help. But in any way, when we talk about management and leadership studies, also needing entrepreneurial behaviour in management in general would be a huge step forward. But I'm not sure if management studies see it that way. I think there shouldn't be any difference if you are leading and managing school organisations than any other organization because they have to be also better coaching in school organisations. In general I would say that enhancing entrepreneurial behaviour in any organization is needed.

Q: Why was previous application for funding rejected?

A: I don't know. I'm doing this through my own company and it's a new company, so maybe there was some lack of trust or something. Let's see how we manage this time. It's not easy to get funding for principal programs. I don't know why.

Q: Generally it seems to be easy to get funding, especially for things like tech startups

A: Yes. But the government are funding further training for teachers and further training for principals. There are a lot of applications for that kind of thing. It's a lot of competition. So its not easy to get funding, even if you have a good idea how you would like to carry out your new program and you have to argue why you are doing it and how you are doing it.

Q: So many other people are also concerned with this issue?

A: Yes, but I think that, because entrepreneurship education, as you have mentioned in your thesis, its just one of the themes which is going on in the educational world. There is e-learning, ensuring a safe learning environment etc. There are many competing teams so to speak, and if you don't see what entrepreneurship education can be means to any of those, but if you can't see then yeah... And sometimes even the people who are giving the funding don't see it in the same way.

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Q: So it seems that generally, there is a lack of understanding of this issue

A: Its quite funny because there is a clear definition coming from the EU and also we have had this discussion going on for 20 years and still there is a lot to do.

Appendix III

Interview 3 - Full transcription (Entrepreneurship Education Expert)

Q: My thesis is about a principal's role in entrepreneurship education in high schools. First I will ask you some questions about your own views on entrepreneurship education and then I'll ask some questions about your views on the role of principals within entrepreneurship education.

A: Have you seen the figure... (EnTree figure) We have created a model. This is the idea of what I think about entrepreneurship education. So it is a very holistic...

Q: What does entrepreneurship education mean for you?

A: So if you read this article through, you can understand this very holistic model. It concerns the whole life of a human being and also, you know... we have these two different kinds of... ways of thinking/approaches about entrepreneurship. So we have this American approach, and then we have the continental approach. I would like to say that we have also got a Nordic approach, which is quite close to the continental approach. And, you know the difference... There are the questions "why", "why are we educating?" and "why do we think entrepreneurship is important?" That is the part we have in this model, in this continental approach, but not in this American approach. So this is more methodology and teaching methods, and this is a more holistic/philosophical approach. So in this figure: "entree model" I would like to put some stress on this culture. Entrepreneurship is also culture related, and it depends on where you are what the context or the culture may be. Where you are living or where you are working. So you know this ontology, epistemology and axiology is a very important route of this figure because there are values and... what is valuable?... what kind of person is valuable. You know the picture of a man and a picture of the world, and then you also... what kind of knowledge is important, and where is it derived from? So for me, this axiology is most important. And also you see this educational consciousness, it goes through the whole tree, and so you are aware why you are educating people towards entrepreneurship. So I would like to say that this is a sustainable way to educate. Also, if you manage to make it so that the people understand what this is all about. I believe that that their life will be sustainable.

Q: So your ideal type of entrepreneurship education would be based on EnTree?

A: Yes. I have been thinking this for 10 years, and I am very happy that we have managed to figure out this model because it's not so easy. And it's also very important that you can use different kinds

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of orientations; these pedagogical orientations. But you always have to have some elements of the essence of entrepreneurship. And there are just examples. I can give you a list of 30 or 40 different attributes, but maybe these are the most important. Also to be able to live in security and certainty. These elements are very important. There are many others also, as well as here. These are the main theoretical approaches, but of course you can use many others. So we don't say that in entrepreneurship education, you should just, for instance, experimental... you know... but you can use whatever you have in your toolbox. If you combine these two... so... for instance in you use behaviourism you have to have something about entrepreneurship, the essence of entrepreneurship combined with this way of approach. And then you have to know what the aim of this education is.

Q: How do you think entrepreneurship education contributes to the broader educational system?

A: You know, there has been a lot of misunderstanding between general education and entrepreneurship education because... I am an educator, and I think that... most of the educators think that... there's something that comes from economics, and its some kind of political, you know, hidden agenda. They are afraid of it, but I think this model will help them to understand that our aim is also to educate towards a good life. Not because we want to support some policies... you know...

Q: Do you think entrepreneurship education is important for students? And why?

A: It's very important. Because it's a way of life; a way of thinking. And wherever you are, you need this attitude. So it's not only thinking about business. Of course if you have this entrepreneurial mindset, you act as an entrepreneur or you act in an entrepreneurial way, wherever you are. And it's not only for running a business of your own, it's very large...

Q: What about teachers? How can teachers benefit from entrepreneurship education?

A: I think the key point is that; people who adopt this idea of entrepreneurial behaviour. For instance, students: they are more active, they are more responsible for how they go on with their studies, and also they are very alert to what is happening around them and they want to take the benefits from these opportunities that they see around them. So they are more active and they are more responsible for their own lives.

Appendix III, 3

Q: How can entrepreneurship education be implemented in high schools in the long and short-term?

A: The problem at the moment is that the teachers don't adopt this model. If the teachers and all the staff who are responsible adopt this model, and they themselves are entrepreneurial, in how they act and how they handle people. Young people; they are like... how do I say... a virgin mind. If teachers are giving this example when they behave like this, the young people can learn.

Q: So you think that teachers play the main role?

A: Yes! Exactly.

Q: What do you think is the role of high-school principals?

A: Of course they also have a very important role. I think that the whole system should be established on the base like this. And of course teachers and professors can use their own personality as they want, but this idea should be... this is the key point that, that they understand that, not just giving lessons...

Q: Do you think that principals should also understand this idea, to help teachers?

A: Yes, exactly. Because of course, the principals, they have their power over the whole system.

Q: Do you think there is a sufficient understanding of entrepreneurship education among principals?

A: No, they're very narrow, especially in these business schools. They have this idea that entrepreneurship education is how to educate the people to establish a business of their own and how to establish a start-up. You know. It's very very narrow, so we have a lot of work to do to understand this. But all the time I get good feedback. A teacher from Finnish university called me and was asking about this model. They want to adopt this model.

Q: How do you think principals should be coached? Also using this model?

A: Yes they should be. At the moment I'm having systems for principals. They come from primary schools and upper secondary schools. I also have this university of applied sciences, some principals of this level, but not scientific universities.

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Q: Generally, who would be the right people to educate and coach high-school principals?

I think for instance, in Etu-Töölö high school, principals have studied these models for as long as I have been teaching this. They have always sent teacher to courses every year. And at the moment more than 20 teachers have been trained to this model and they are using it. It takes years but I think in 10 years we will come a long way.

Q: There is some research related to teachers but hardly any related to principals. Why do you think there is no focus on principals when we speak about entrepreneurship?

A: I don't know. Good question. I don't have an answer, but maybe you can raise this question.

Appendix IV

Principals - email interview 1

1. What does entrepreneurship education mean to you?

It means that the students learn how to proceed when they want to establish a company or get somebody interested in ideas they have or inventions they have made. They need help with bureaucracy and legal and financial matters.

2. How would your ideal type of entrepreneurship education look like?

Somebody experienced would encourage them and guide them through the procedure. Definitely NOT a regular teacher.

3. How do you think entrepreneurship education actually contributes to the broader educational system?

It would make studying more motivating when you see what you are heading towards and why you have to study.

4. Do you think entrepreneurship education is important for students? And why?

Definitely. The school is too closed and too dependent on teachers who might know the theory but not the practice.

5. Do you think teachers can benefit from entrepreneurship education? And how?

I am more interested in teaching the students than the present teachers. There is a need for the school to open up and invite other actors from “real” life outside the school.

6. Do you see entrepreneurship education implemented in your school curriculum and teaching? And how?

We actually have for many years offered a course called “Innovation”. It has been very popular and we have a teacher who has a company of her own. She has an MSc and MBA education.

7. How you think entrepreneurship education can be successfully implemented in practice, in the short and long-term? New teachers should be instructed before they leave university. Thus we would get the thought rooted in the school environment.

Appendix IV, 2

Principals - email interview 2

1. What does entrepreneurship education mean to you?

Equipping young people with a skills and aptitudes necessary to succeed in establishing their own businesses.

2. How would your ideal type of entrepreneurship education look like?

This question lies outside my remit. We have a Young Entrepreneurship scheme operating within the school, open to IB students. We offer IB Business Management.

3. How do you think entrepreneurship education actually contributes to the broader educational system?

Certainly education must be relevant to the challenges of the twenty-first century job market

4. Do you think entrepreneurship education is important for students? And why?

As above.

5. Do you think teachers can benefit from entrepreneurship education? And how?

The Business Management (SL/HL) option in our school permits many students to gain a broad familiarity with marketing, finance, management skills, etc. These are life skills, in many ways. Teachers of other subjects are less directly involved.

6. Do you see entrepreneurship education implemented in your school curriculum and teaching? And how?

As above - BM=150 hours at SL and 240 hours at HL.

7. How you think entrepreneurship education can be successfully implemented in practice, in the short and long-term?

Why not? We have a broad mission to provide a solid educational experience. Economics is compulsory for all. Thereafter students with an interest can opt for Business Management. A surprisingly large number of graduates go on to study business in higher education. Whether they become entrepreneurs or employees is of less significance.