

THE CENTRAL ELEMENTS OF ENTREPRENEURSHIP EDUCATION: A CASE STUDY IN NORTHERN FINLAND

Leena Eskola

University of Oulu, Finland

leena.eskola@oulu.fi

Kaija Arhio

Centria University of Applied Sciences, Finland

kaija.arhio@centria.fi

Anna-Mari Simunaniemi

University of Oulu, Finland

anna-mari.simunaniemi@oulu.fi

Harri Jokela

University of Oulu, Finland

harri.jokela@oulu.fi

Abstract:

The European Commission's Entrepreneurship 2020 Action Plan names school-based entrepreneurship education as a key issue for ensuring the development of the European welfare. Accordingly, the Finnish Ministry of Education and Culture announced national guidelines to ensure it reaches its entrepreneurship education objectives by 2015. To comply with these guidelines, the various Finnish regions have initiated targeted development actions for improving entrepreneurship education. Practitioners and researchers share a common understanding of the central elements that a coherent entrepreneurship education pathway should include. This study aims to analyse how these central elements are incorporated at various education levels. This is a cross-sectional multiple-case study based on a semi-structured web-based questionnaire. It takes various education levels, including the comprehensive-school level, the secondary-school level and the polytechnic school and university levels, as its units of analysis and seeks to form a comprehensive picture of the entrepreneurship education pathway in Northern Finland. The questionnaire was sent to headmasters and education managers at the comprehensive- and secondary-school levels, as well as education planners and study advisors (n=67).

The data revealed that a coherent entrepreneurship education pathway is not being realized in the target region. This is because the resources for teaching entrepreneurship education are not optimally allocated between the central elements. For example, some elements are repeated at almost all levels of entrepreneurship education, while others are nearly absent. This study highlights the need for strategic joint action. Additionally, this paper discusses gaps in the entrepreneurship education pathway and suggests action for developing a joint strategy for meeting the entrepreneurship education objectives.

Keywords: entrepreneurship education, education pathway, strategy, education, case study, Finland

1. INTRODUCTION

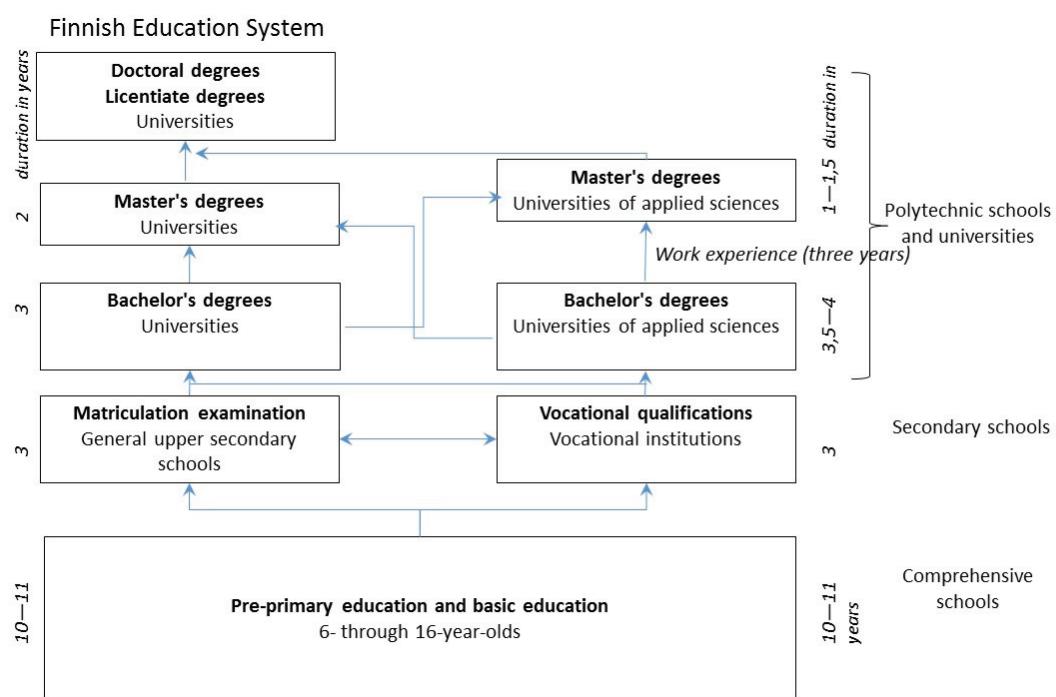
Business is a way of putting entrepreneurship into practice and, thus, entrepreneurship is basically more than business. Learning entrepreneurship means learning about, learning for, learning through and learning within entrepreneurship. Through entrepreneurial education, learners develop certain skills, knowledge, attitudes and modes of operation that enable them to act in an entrepreneurial manner, both in their own lives and together with others (Wang & Ellinger, 2011).

The European Commission's Entrepreneurship 2020 Action Plan names school-based entrepreneurship education as a key issue for ensuring the development of the European welfare. There is a clear need to advance an entrepreneurial culture by encouraging students to adopt the right mindset, learn certain entrepreneurial skills and maintain awareness of career opportunities, and teaching entrepreneurship at every level of education is important in this context (Commission of the European Communities, 2006; Seikkula-Leino, Ruskovaara, Ikavalko, Mattila, & Rytikola, 2010). Accordingly, the Finnish Ministry of Education and Culture announced national guidelines to ensure it reaches its entrepreneurship education objectives by 2015 (Ministry of Education, 2009a). Therefore, the various Finnish regions have initiated targeted development actions for improving entrepreneurship education.

In Finland, entrepreneurship education refers to both entrepreneurship in business and enterprising behaviour (Ministry of Education, 2009a). Finland has extensively promoted entrepreneurship education through curricula reforms undertaken at all educational levels. In its Guidelines for Entrepreneurship Education, the Ministry of Education (2009b) defined entrepreneurship education as a broad concept that extends beyond a practice of trade to encompass training for entrepreneurship. The goal of entrepreneurship education is to develop active individuals with initiative by providing an entrepreneurial learning environment, education and training, and active and enterprise-promoting policies in society.

According to Finnish law, all citizens have the equal right to free and compulsory basic education. To this end, the education system is structured so that it is highly permeable; in other words, there are no dead-ends in the pathway preventing progression to higher education levels. After comprehensive school, students can proceed to secondary school by enrolling in vocational school or undertaking a more theoretical upper secondary school programme. After secondary education, students can continue on to either a polytechnic school or a university. The Finnish education system allows students to take combined studies at both higher education institutions (see Figure 1; Finnish National Agency for Education, 2015).

Figure 1: The Finnish education system (modified from Finnish National Agency for Education, 2015)



2. THEORETICAL BACKGROUND

Practitioners and researchers share a common understanding of the central elements that entrepreneurship education should include. Kyrö's (1997) model, which has gained widespread acceptance in Finland, has three main aspects: (1) internal entrepreneurship, which refers to individual attitudes within a group or work community; (2) external entrepreneurship, or doing business; and (3) self-oriented entrepreneurship, which refers to individual actions, behaviours and attitudes (Kyrö & Nissinen, 1995; Kyrö, 1997). Various entrepreneurship education strategies have referenced this model in describing what elements should be taught to students at different ages. Seikkula-Leino (2007) also influenced entrepreneurship education strategies by providing additional practices that entrepreneurship education should address, including community, problem-solving, learning from mistakes, creativity and reflection.

This study focuses on the coherent entrepreneurship education pathway developed by the Southwest Finland region as part of its entrepreneurship strategy, whom goal is to support and improve learners working lives and entrepreneurial skills throughout the learning pathway. (see Table 1; Nieminen & Vainio, 2013). It aims to analyse how the central elements of this entrepreneurship education pathway are incorporated at different education levels in Northern Finland.

Table 1: Coherent entrepreneurship education pathway (adapted from the Entrepreneurship Strategy in Southwest Finland, 2020, 2013).

Elements of entrepreneurial education	Age groups					
	Element 1 Target age: 0–6 years old	Element 2 Target age: 7–8 years old	Element 3 Target age: 9–12 years old	Element 4 Target age: 13–15 years old	Element 5 Target age: 16–19 years old	Element 6 Target age: 20+ years old
Self-oriented entrepreneurship	A positive and curious attitude towards life	An entrepreneurial attitude towards learning	Personal responsibility and personal expertise	The desire and ability to improve	The ability to persevere and achieve future goals	A passion for lifelong learning
Intrapreneurship	The ability to enjoy playing and working with others	Skills of taking regard to other team and be able to work fairly	Development of teamwork and collaborative skills	The ability to work as a responsible team member	The ability to contribute to personal and team development	The ability to assemble and lead teams
Entrepreneurship	Goal-oriented playing	Teamwork	Collaboration on projects	Projects that are from the learner aspect	Entrepreneurial business activity	Company management and business development

Entrepreneurial pedagogy requires learning arrangements that enable holistic, active, dynamic, creative, free and responsible learning for all dimensions of entrepreneurship. In this context, learning can be seen as an action-based process best taught in diversified learning environments (Gibb, 2009; Pfeffer & Fong, 2002). The teacher's role is to coach students and enable learning.

Entrepreneurship education focuses on developing students' operational behaviours, rather than conveying entrepreneurship-related information and procedures. Entrepreneurship is closely linked to innovation (Alvarez & Barney, 2007; Sarasvathy, 2001; Shane, 2000), and accordingly, entrepreneurship education should be a functional entity that generates new activity (Isokangas, 2009). Actively searching for business opportunities is both a creative process (Hills, Shrader, & Lumpkin, 1999) and a process of seizing opportunities (Honig, 2004; Rae, 2004). Thus, searching for business opportunities can be seen as one starting point for entrepreneurship education (DeTienne & Chandler, 2004; Hills et al., 1999).

3. AIMS

The present study aims to analyse how the central elements of Southwest Finland's entrepreneurship education pathway are incorporated at different education levels in Northern Finland, and specifically, in the Northern Ostrobothnia region. To this end, we have developed the following research questions:

- RQ1: What are the central elements of entrepreneurship education at different education levels in Northern Ostrobothnia?
- RQ2: Does entrepreneurial education in Northern Ostrobothnia cover the central elements of the entrepreneurship education pathway?

4. METHODOLOGY: DATA COLLECTION & ANALYSIS

The North Ostrobothnia province in Northern Finland includes seven sub-regions and 30 municipalities. The province has approximately 410.000 inhabitants, and the population is relatively young: 33% of inhabitants are younger than age 25, compared to 28% of inhabitants in Finland overall (Official Statistics of Finland [OSF], 2017). Of the 27.029 operating enterprises in the area, 95% are microenterprises, or enterprises with fewer than 10 employees. Of these microenterprises, 95% employ fewer than five persons (Jokela, Niinikoski, & Muhos, 2016). The region includes 308 individual schools, in addition to several education programmes provided by external education institutions (OSF, 2015).

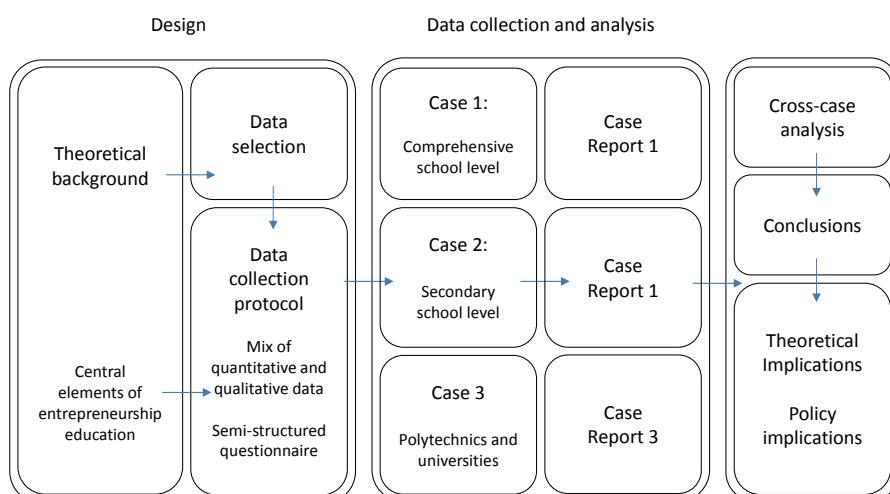
The data collected in this study is based on a web-based semi-structured questionnaire including both quantitative and qualitative elements. The online survey was e-mailed to a total of 399 managers and education

planners of education organizations, of which 67 (17%) participated in the study. The level of education represented by the informant and the municipality were used as background information, because the study aims to receive a representative sample of responses from all education levels and different geographical parts of the region. The survey was not sent out to representatives of pre-primary education (age 0-6y), and the respective parts of the entrepreneurial pathway were excluded in the data analysis.

The informants were asked to choose two most important elements of entrepreneurial education that are emphasized most at their organization. The informants could choose between the central elements included in the entrepreneurial pathway. To gain a realistic understanding, the target ages presented in Table 1 were not shown to informants in order to avoid giving leading cues. Intrapreneurship, entrepreneurship and self-oriented entrepreneurship were included as separate items.

This cross-sectional multiple-case study (Saunders, Lewis, & Thornhill, 2012; Yin, 1989) aims to analyse how the central elements of entrepreneurship education are incorporated at different education levels in Northern Finland. According to Yin (1989), ‘A case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context when the boundaries between phenomenon and context are not clearly evident, and in which multiple sources of evidence are used’. Figure 2 describes the research process we followed:

Figure 2: Research process (modified from Yin, 1989)



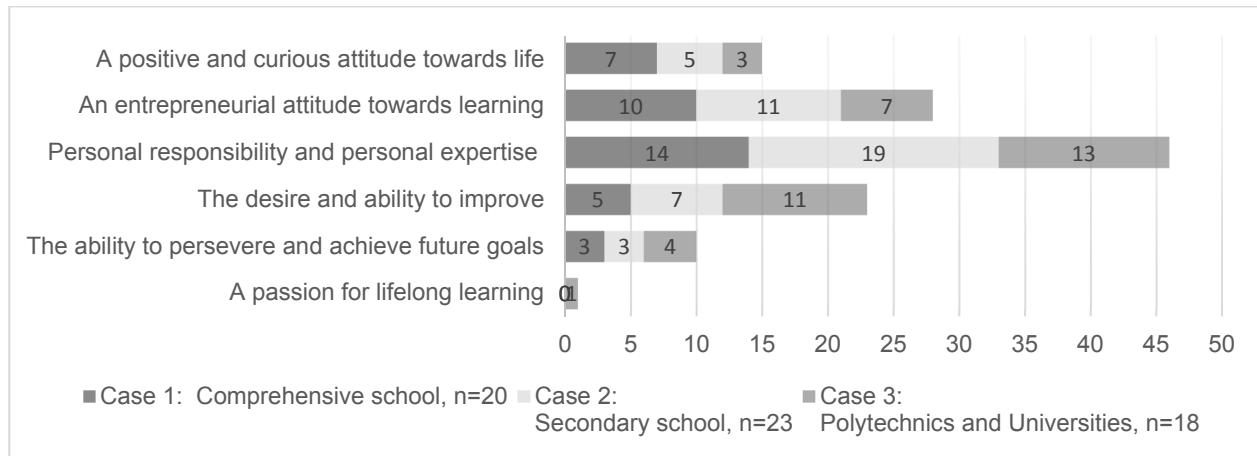
This study examines entrepreneurial education at three different levels – (1) comprehensive schools, (2) secondary schools, and (3) polytechnic schools and universities – to develop a comprehensive picture of the entrepreneurship education pathway in Northern Finland. By doing so, this study seeks to evaluate entrepreneurship education and highlight any gaps.

5. FINDINGS

We present the findings for our research questions in Figures 3–5.

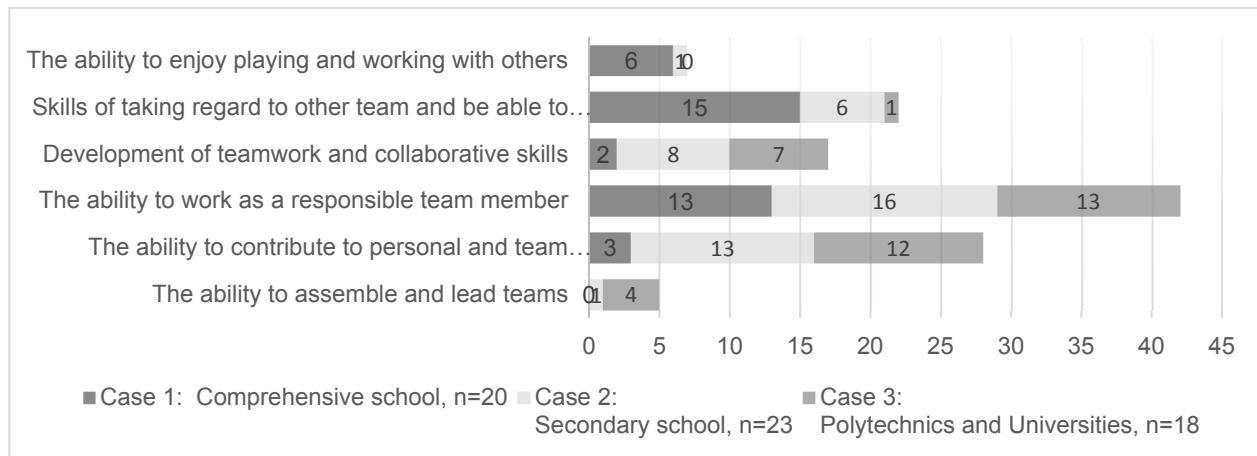
Figure 3 summarises how self-oriented entrepreneurship is taught at different education levels based on the entrepreneurship education pathway. One central element was notably emphasised at all education levels: Personal responsibility and personal expertise (n=46 of 61). Almost half of the respondents also An entrepreneurial attitude towards learning (n=28) as a highly emphasised element. Two elements were paid very little attention at all education levels: the ability to persevere and achieve future goals (n=10) and A passion for lifelong learning (n=1).

Figure 3: The central self-oriented entrepreneurship elements taught at different education levels



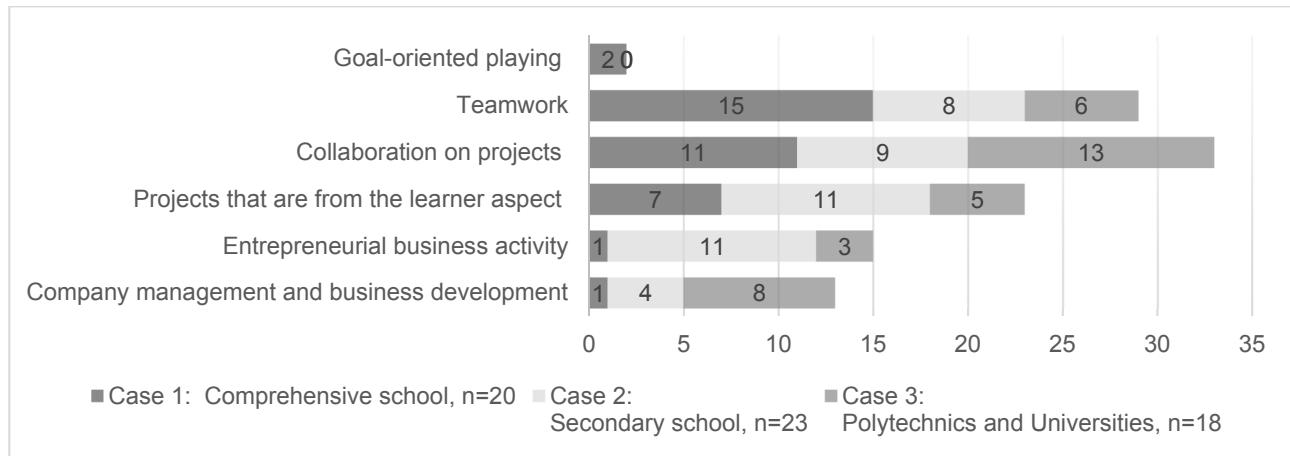
Regarding intrapreneurship, The ability to work as a responsible team member is emphasised at all education levels (n=39), as is the ability to contribute to personal and team development (n=28). However, the ability to assemble and lead teams gains very little attention, particularly at the comprehensive- and secondary-schools levels (n=5) (see Figure 4).

Figure 4: The central intrapreneurship elements taught at different education levels



Regarding entrepreneurship, collaboration on projects (n=33), teamwork (n=29) and also projects from the learner aspect (n=23) are present in education practices at all education levels. Goal-oriented playing is present only at the comprehensive-school level (n=20), which is in line with the education pathway model. For entrepreneurship, the findings are more equally divided over several central elements compared to the previous sections. In line with the pathway, comprehensive schools place the most emphasis on goal-oriented playing, teamwork and projects (see Figure 5). The emphasis should preferably be on the middle-most elements at secondary schools and at the lower elements at polytechnics and universities. However, higher-level education also emphasises projects, and it places less emphasis on correct business and company management, though it should in theory focus on these more advanced entrepreneurship elements.

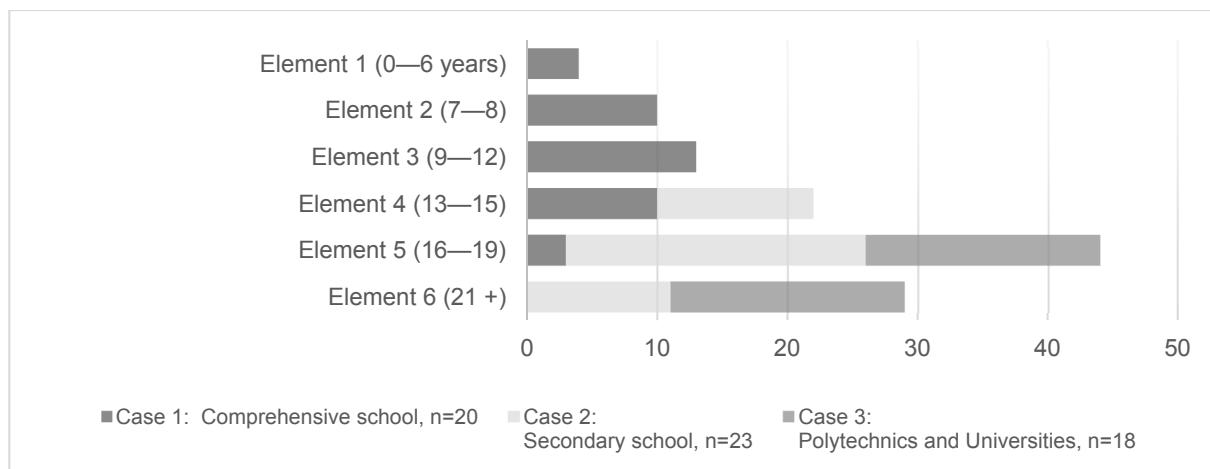
Figure 5: The central entrepreneurship elements taught at different education levels



6. DISCUSSION

Figure 6 represents the ideal emphasis of the central elements at different education levels (see Table 1 for element descriptions). Comprehensive schools should focus on elements 1–3, while secondary schools should focus on Elements 4 and 5, and polytechnic schools and universities should focus on the most advanced elements, Elements 5 and 6.

Figure 6: Ideal allocation of central elements in the entrepreneurship education pathway at different education levels



The respondents were asked to choose the two entrepreneurial education elements that are emphasised most in their organisation. The data revealed that the central elements are not emphasised at the education levels as recommended by the pathway. As a result, some elements are repeated at almost all levels of education, while others are nearly absent. This indicates that the pathway of entrepreneurship education is not being realized in the target region, and therefore resources are not optimally allocated between the central elements. The first research question asked, ‘What are the central elements of entrepreneurship education at different education levels in Northern Ostrobothnia?’ The findings show that at every level of education, the same elements are emphasised: for self-oriented entrepreneurship, this is being in charge of oneself and personal expertise; for intrapreneurship, this is the ability to work as a responsible team member ; and for entrepreneurship, the elements are collaboration projects and teamwork.

The second research question asked, ‘Does entrepreneurial education cover all the central elements described in entrepreneurial pathway?’ The data show that some elements are not included in education practices, particularly correct business and company management and business development.

This can perhaps be partially explained by a lack of entrepreneurial competencies among teachers. Seikkula-Leino et al. (2015) examined whether teacher educators possessed the necessary competencies for teaching entrepreneurship education, as well as what skills teacher educators impart to prospective teachers regarding developing entrepreneurial skill sets. According to their research findings, teachers use a variety of models

and methods in entrepreneurship education. However, there still is room for improvement, specifically in how prospective teachers are taught to teach entrepreneurship – for example, through practice enterprises, cooperatives, on-the-job learning, young enterprises and incubator-type methods.

In entrepreneurship education, the practices are kept separate from the aims and results; since there is no specific subject that teaches entrepreneurship, teachers often do not see themselves in an entrepreneurship context (Seikkula-Leino et al., 2010). These teachers cannot meaningfully reflect on entrepreneurship because they lack an the central elements of entrepreneurship education are allocated throughout the pathway, a joint strategy understanding of entrepreneurship education and practices, possibly because the aims of entrepreneurship education are not clear to them. Moreover, because of this, they may have no vision for its development. As a solution, Seikkula-Leino et al. (2009) recommended curriculum reform to incorporate more learning and reflection. They also suggested emphasising the connection between aims and results in the context of entrepreneurship education (Seikkula-Leino et al., 2010) and highlighted the need to take strategic joint actions to advance entrepreneurship education. Achieving a better-balanced strategy requires broad participation in its development. Many Finnish regions have already developed such strategies; however, Northern Ostrobothnia needs a custom strategy that considers its specific regional characteristics.

Focusing solely on strategies and structures will not help necessarily help individuals get the most from their entrepreneurship education. Jones and Matlay (2011) discussed the heterogeneity of entrepreneurship education and found that many entrepreneurship educators believe that developing the students is more important than delivering facts. What makes entrepreneurship education effective has less to do with transferable techniques or a standardised curriculum and more to do with the unique set of dialogic relationships, as outlined in our conceptual framework. However, our findings show that entrepreneurship education is best realized if there is a strategy to guide the work.

In summary, although education at every level addresses elements of entrepreneurship, there are no unambiguous pedagogic or didactic instructions. Therefore, it is understandable that the recommended pathway has not been achieved, as there is no consensus on a curriculum or teacher roles. This study highlights the need to take strategic actions towards joint entrepreneurship education.

7. CONCLUSION

The results show that entrepreneurship education is understood and implemented differently at different levels of education in the rural Northern Ostrobothnia province.

As a result, an entrepreneurship education strategy is needed to establish an effective entrepreneurship education pathway.

Future research could focus on analysing the entrepreneurial education pathway from the perspective of individual students. Another interesting research avenue could focus on how the pathway's content might be altered after a unified strategy is implemented.

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