Qualitative case study of mini-company experiences in five European countries

'If everything is told to you, it is not learning. You have to figure out something on your own.'

by
Trude Hella Eide
Vigdis M. Olsvik

Co-funded by the Erasmus+ Programme of the European Union

ICEE project has been funded with support from the European Commission, Erasmus+ Programme. This document reflects only the views of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

The Innovation Cluster for Entrepreneurship Education (ICEE) *is a multi-country research project and field trial on the impact of entrepreneurship education programmes, such as mini-companies in schools. The policy experimentation project is led by JA Europe in collaboration with:*

- *Ministries of Education in Estonia, Finland, Italy and Latvia plus Flanders Innovation and Entrepreneurship (representing the Ministry in Flanders, Belgium);*
- *3 research institutes (Eastern Norway Research Institute, The Foundation for Entrepreneurship - Young Enterprise Denmark, Faculty of Economics in Osijek, J.J. Strossmayer University),*
- *5 national JA organisations (in Belgium, Finland, Italy, Estonia, and Latvia).*

This report presents the results of the qualitative research carried out by the Eastern Norway Research Institute (ENRI). More information: http://icee-eu.eu/

ENRI working paper 04/2017

Qualitative case study of mini-company experiences in five European countries

“If everything is told to you, it is not learning. You have to figure out something on your own”.

by

Trude Hella Eide
Vigdis M. Olsvik

østlandsforskning
EASTERN NORWAY RESEARCH INSTITUTE

Title:	Qualitative case study of mini-company experiences in five European countries. 'If everything is told to you, it is not learning. You have to figure out something on your own.'
Author:	Trude Hella Eide & Vigdis M. Olsvik
ENRI working paper no.:	04/2017
ISSN no.:	0808-4653
Project no.:	1249-90
Project name:	ICEE qualitative research
Client:	JA Europe (Erasmus+ Key Action 3: Support for policy reform)
Project manager:	Trude Hella Eide
Report:	This research report presents empirical findings from the qualitative study in the ICEE project. The study consists of a 15-day field study in five schools in five countries – Belgium, Estonia, Finland, Italy and Latvia. The field study was conducted during the period from March to June 2016. A total of 70 informants were interviewed face to face (students, teachers, head teachers, parents, mentors, and JA representatives). In addition, we have had e-mail questions sent to representatives from the five ministries. This report sums up all the informants' experiences with the learning process and the outcomes of participating in mini-companies.
Tags:	Entrepreneurship education, Company Programme, mini-company, case study, interview, Europe, Junior Achievement, ICEE.
Date:	February 2017
Number of pages:	102
Price:	Kr 150,-
Publisher:	Eastern Norway Research Institute Box 223 N-2601 Lillehammer Telephone +47 61 26 57 00 Telefax +47 61 25 41 65 Email: post@ostforsk.no http://www.ostforsk.no

This publication is protected under the Copyright Act. Reproduction beyond private use is allowed only when sanctioned by law or approved by Kopinor (www.kopinor.no). Use contrary to law or approval may result in claims and criminal liability.

PREFACE

The Innovation Cluster for Entrepreneurship Education (the ICEE project) started 1 February 2015 and runs until 2018. The Eastern Norway Research Institute (ENRI) has been leading the research part of the project. The project is assigned by the European Commission through the Erasmus+ programme. The main partner in the consortium, with responsibility for practical implementation, is Junior Achievement Europe (JA). In this education policy experiment, 20 upper secondary schools in Belgium, Estonia, Finland, Italy and Latvia have participated in a 27-month field trial using mini-companies.

In the ICEE study the research is based on a combination of qualitative and quantitative methods. In this empirically oriented report we will present the results from the qualitative study. The data collection included a 15-day field study in five schools in five countries. The field studies were conducted during the period from March to June 2016. A total of 70 informants were interviewed face to face. In addition, ministry representatives from each of the five participating countries have reflected on some open questions posed by email. The field studies were carried out by Mona Stokke, Vigdis Mathisen Olsvik and Trude Hella Eide, all three of whom are researchers at the Eastern Norway Research Institute (ENRI). This empirical working paper was written by Vigdis Mathisen Olsvik and Trude Hella Eide. Vegard Johansen was responsible for the research conducted in the ICEE project and the quality assurance of this report.

We wish to thank all the informants who so generously lined up for interviews and shared their experiences with us. Without their participation, this research would not have been implemented. Finally, we would like to thank JA and the rest of the partners in the project for an interesting and exciting project!

Trude Hella Eide
research manager

Vegard Johansen
project manager

CONTENTS

1 Introduction 7

1.1 The ICEE project 7

1.2 The mini-company programme 8

1.3 Presentation of this report 9

1.4 Abbreviations 9

2 The national strategies on entrepreneurship education 11

2.1 Belgium 11

2.2 Estonia 13

2.3 Finland 14

2.4 Italy 15

2.5 Latvia 16

2.6 A brief comparative summary 17

2.6.1 The main actors involved in entrepreneurship education 17

2.6.2 The content of the national strategies on entrepreneurship education 18

2.6.3 A model of the implementation of the national strategy 19

3 Research methods 21

3.1 Research questions 21

3.2 Case studies 22

3.3 Methodological approach 23

3.3.1 The selection of informants 23

3.3.2 Focus group interviews 24

3.4 Using an interpreter 25

3.5 Method criticism 26

4 Belgium 27

4.1 Selection and focus 27

4.2 Hindrances and drivers for entrepreneurship education 28

4.2.1 Hindrances 28

4.2.2 Drivers 31

4.3 Preparation and training for the Company Programme 31

4.3.1 From the perspective of the teachers and mentors 32

4.3.2 From the perspective of the JA representative 32

4.4 Assessment of the Company Programme as a working method 32

4.4.1 From the perspective of the students 32

4.4.2 From the perspective of the teachers 33

4.4.3 From the perspective of the parents 33

4.4.4 From the JA representative's perspective 34

4.5 Learning process for students 34

4.6 Learning outcomes 35

4.6.1 From the perspective of the students 35

4.6.2 From the perspective of the teachers and head teacher 36

4.6.3 From the perspective of the parents 38

5 Estonia 39

5.1 Selection and focus 39

5.2 Hindrances and drivers for entrepreneurship education ... 40
5.2.1 Hindrances ... 40
5.2.2 Drivers ... 40
5.3 Preparation and training for the JA Company Programme (CP) ... 41
5.4 Assessment of the Company Programme as a working method ... 41
5.4.1 From the perspective of the teachers ... 42
5.5 Learning process for students and relations with teachers and mentors ... 43
5.6 Learning outcomes ... 44
5.6.1 From the perspective of the students ... 44
5.6.2 From the perspective of the teachers ... 44
6 Finland ... 47
6.1 Selection and focus ... 48
6.2 Hindrances and drivers for EE ... 48
6.2.1 Hindrances ... 48
6.2.2 Drivers ... 50
6.2.3 Strategies to spread entrepreneurship education ... 51
6.3 Preparation and training for the Company Programme ... 52
6.4 Assessment of the Company Programme as a working method ... 52
6.4.1 From the perspective of the students ... 52
6.4.2 From the perspective of the teachers ... 52
6.4.3 From the perspective of the parents ... 53
6.5 Learning process for students ... 54
6.5.1 From the perspective of the students ... 54
6.5.2 From the perspective of the teachers ... 54
6.5.3 From the perspective of the parents ... 55
6.6 Learning outcomes for students ... 56
6.6.1 From the perspective of the students ... 56
6.6.2 From the perspective of the teachers ... 57
6.6.3 From the mentors' point of view ... 57
6.6.4 From the perspective of the parents ... 58
7 Italy ... 59
7.1 Selection and focus ... 59
7.2 Hindrances and drivers for EE ... 60
7.2.1 Hindrances ... 60
7.2.2 Drivers ... 62
7.3 Preparation and training for the Company Programme ... 63
7.4 Assessment of the Company Programme as a working method ... 64
7.4.1 From the perspective of the students ... 64
7.4.2 From the perspective of the teachers ... 64
7.5 Learning process for students ... 65
7.5.1 Student-teacher relations ... 66
7.6 Learning outcomes ... 67
7.6.1 From the perspective of the students ... 67
7.6.2 From the perspective of the teachers ... 67
8 Latvia ... 70
8.1 Selection and focus ... 70
8.2 Head teacher on entrepreneurship education in the school ... 70
8.3 Hindrances and drivers for entrepreneurship education ... 71
8.3.1 Some drivers and one major hindrance ... 71

8.4 Preparation and training for the CP 72
8.5 Assessment of the Company Programme as a working method 73
8.5.1 From the perspective of the teachers 73
8.5.2 From the perspective of the students 75
8.6 Learning process and student-teacher relations 76
8.6.1 Student-teacher relations 76
8.6.2 Student-mentor relations and dealing with finances 76
8.7 Learning outcomes 77
8.7.1 From the perspective of the students 77
8.7.2 From the perspective of the teachers 78
9 Comparative summary of main findings 80
9.1 Drivers and hindrances 80
9.1.1 Educational reforms and a national strategy of entrepreneurship education 80
9.1.2 The main drivers at the school level: head teacher, teachers and students 81
9.1.3 Other important drivers: mentors and parents 81
9.2 Assessment of the Company Programme 82
9.1 Preparation and training for the Company Programme by the teachers 83
9.2 Learning process for students 84
9.3 Learning outcomes for students 85
9.4 Recommendations 86
REFERENCES 89
Attachments 91
Attachment 1 - Checklist 92

1 INTRODUCTION

In this opening chapter we provide a short presentation of the ICEE project and the pedagogical method called the mini-company programme, which this project concerns.

1.1 The ICEE project

The European Commission Entrepreneurship 2020 Action Plan says that every young person should have 'at least one practical entrepreneurial experience before leaving compulsory education'. Currently it is estimated that only one out of 10 children (10 per cent) has access to practical entrepreneurial experiences in school.

Founded in 2001 with the merger of Young Enterprise Europe and Junior Achievement International Europe, JA Europe has grown into Europe's largest provider of education programmes for entrepreneurship, work readiness and financial literacy. The JA Company Programme (CP) has reached millions of students in countries all over Europe and beyond (http://www.jaeurope.org/). The programme is supported by volunteer advisers from the business world who are on hand to guide the companies.

In February 2015, a three-year project called the Innovation Cluster for Entrepreneurship Education (ICEE) started. The project was funded by the European Commission under the Erasmus+ programme and was led by JA Europe in collaboration with five national ministries (Flanders/Belgium, Finland, Estonia, Italy, Latvia) and five national JA organisations in the same countries in addition to three research institutes (the Eastern Norway Research Institute; the Foundation for Entrepreneurship - Young Enterprise Denmark; and the Faculty of Economics at J.J. Strossmayer University of Osijek).

The ICEE project analyses the impact of entrepreneurship education (EE) and the drivers and hindrances of EE. It aims to understand what is needed to reach the European goal that every young person have a practical entrepreneurial experience before leaving compulsory education. The consortium tests what the scenario looks like at 50 per cent penetration among students in 20 academic and vocational schools across five countries (Belgium, Finland, Italy, Estonia, and Latvia). Through the use of control groups, quantitative surveys, qualitative focus groups and interviews, a team of researchers led by the Eastern Norway

Research Institute has analysed the learning outcomes among participating students, the impact on the wider society, the role of the teacher and of the school, and the system effects of educators.

1.2 The mini-company programme

The mini-company scheme is supported by the Junior Achievement network in Europe. In 2014-2015 school year, 313,000 students enrolled in the programme across the 39 countries in Europe that offer it. In this working method students (from age 14-15 all the way up to 19-20) have the opportunity to set up and manage a mini-company during a school year. The method is available for students in both general and vocational schools. A mini-company is a practical entrepreneurial experience based on a learner-driven method. Students work in teams and under the guidance of teachers and business volunteers. According to the presentation on JA's web-page, students participating in the programme develop their ability to generate ideas and turn them into action; they learn how to work in a team, take initiative and accept responsibility; they experience what it means to manage a real enterprise; they understand how economics and finance contribute to a project's success and they apply math, science, language, writing, technological or specialised skills in a practical way (ibid).

Students close down the mini-company at the end of the school year. During the year they can participate in competitions and trade fairs where they demonstrate what they have learned and achieved.

1.3 Presentation of this report

In chapter 2 we will give an introduction to the national strategies on entrepreneurial education in Finland, Belgium, Latvia, Estonia and Italy. Chapter 3 is a brief presentation of the research methods used in our study. The next five chapters (4–8) present our study findings from Finland, Belgium, Latvia, Estonia and Italy. The report closes with chapter 9, a comparative summary of the results for all five countries.

1.4 Abbreviations

ICEE	Innovation Cluster for Entrepreneurship Education
CP	Company Programme
MC	Mini-company
JA	Junior Achievement Europe
ENRI	Eastern Norway Research Institute
EE	Entrepreneurship education

2 THE NATIONAL STRATEGIES ON ENTREPRENEURSHIP EDUCATION

This chapter presents some background information about the five countries that participated in this research study. The focus is on each country's national strategy on entrepreneurship education (EE). The chapter is based in large part on data from the report 'Comparative Analysis of Eight National Strategies on Entrepreneurship Education' carried out by the ICEE Innovation Cluster on National Strategies, and partly on data provided by our short questionnaire e-mailed to the ministries of education in the five countries.

2.1 Belgium

Belgium/Flanders has many years of EE experience. The mini-company concept has been implemented at schools since 1996 by Vlajo (JA Flanders). Belgium's first Action Plan was published in 2008 and a new one (2015–19) is ongoing. The last two Action Plans are a shared initiative between several ministries, with a key role played by a working group made up by representatives of all the ministries and agencies involved in the implementation of the plan.

The content of the national strategy has a special focus on the goals of EE and on teacher training and support. In the most recent plan, the goal was for the educational institutions to develop an entrepreneurial culture in the school itself and more broadly involving the neighbourhood and the city. In Belgium/Flanders, schools have considerable autonomy in determining their curriculum and teaching methods, but if they want government recognition or funding they must meet the attainment goals. In addition, the government provides support in the form of content and tools/virtual knowledge centres with a large database of materials for teachers at all levels.

With regard to the model of implementation of their national strategy, Belgium/Flanders uses a top-down approach featuring close collaboration between dedicated actors at the ministry level and a broad range of stakeholders to create the best conditions for EE. They have issued a call for proposals for 'a bridging project', in the past years, between the world of education and business with a focus on developing the entrepreneurial spirit. There also exists a partnership between Flanders Innovation & Entrepreneurship and Vlajo (JA Flanders) and another intermediary organisation Stichting Onderwijs & Ondernemen to bring entrepreneurship into the schools. In this way the main actors and stakeholders collaborate at the level of strategy development as well as strategy implementation.

According to the report, the collaboration between the different organisations appears to work well, since the activities have been running for several years.

In our email questionnaire, which was answered by the Flanders Innovation & Entrepreneurship, we asked about the main drivers and hindrances to EE. The response was that the most important drivers for EE implementation in the country are collaboration between EE actors and the policy actions resulting from such collaboration. In Flanders, Flanders Innovation & Entrepreneurship assembles people from higher education into a forum for entrepreneurial higher education. This group, composed primarily of people from colleges and universities but also representatives of student associations, intermediary organisations and policymakers, takes up different issues and addresses them together; examples include social and legal issues or new projects to bring institutions, organisations and businesses closer together at regional level. The collaboration between different agencies and departments is crossing policy domains, for instance education, economy and work. This results in an action plan that helps to align the different initiatives concerning EE and to reduce overlap.

With regard to hindrances, Flanders Innovation & Entrepreneurship mentioned the general organisation of the school system and its perception of EE. Teachers and school boards do face high expectations, but since many of them have a rather narrow idea of EE, the practitioners see it as an extra burden. Another hindrance is the integration of EE into the curriculum, because it is linked almost exclusively to the subject of economics and not to competence in general. How the curriculum is formulated to achieve its prescribed goals is of utmost importance. In a way, autonomy of education represents another hindrance, because from the policy level Flanders Innovation & Entrepreneurship an only try to convince the school of the importance of EE. Seen another way, such autonomy is good because the schools that take on EE do so wholeheartedly.

We also asked the representatives of Flanders Innovation & Entrepreneurship if they could see any impact of EE with regard to the students' knowledge, generic skills and attitudes. They answered that the data collected are not sufficient to detect or predict impact. In EE it is difficult to link results to actions, since a person's decision to start a business is influenced by a complex of factors. Finally, when asked what effect they might see in the local community if EE were scaled up to reach a considerable proportion of students and teachers at a school, they said the effect would depend on the form of EE offered. The effect of a one-time, short-term initiative would differ from that of a long-term initiative integrated into the curriculum for a whole year or several years. How EE is defined is another important factor, they said. The impact on the local community may differ depending on whether the programme relates directly to business or addresses different aspects of the community, including the social economy. Both approaches have an impact, but the effects can be very different, so it is difficult to give a clear answer to this question.

2.2 Estonia

Since 1994, when Junior Achievement Estonia was established, EE activities have been carried out in Estonia. Through most of the intervening period, EE was provided only at general, vocational and higher education institutions and often in connection with the subjects of business or economics. As part of a continuation of the Lifelong Learning Strategy 2020, the Estonian Ministry of Education and Research decided to develop EE at all levels of education for the years 2014–2020, and the implementation of the strategy started in 2016.

The first part of the programme, the Entrepreneurship Education Programme, has set the following goals: to develop EE methodology, to elaborate teaching materials and to provide in-service teacher education. The three main principles of the programme are that EE should be taught at all education levels, that EE should be developed in collaboration with the universities, and that EE is to be understood as something for all people, not just future entrepreneurs.

In response to our short questionnaire the representative of the Ministry of Education and Research answered that the main drivers for EE implementation are the collaboration among different stakeholders (ministries, business organisations and schools from all education levels) and the financing of the project and the strategy provided by the ministry. The main hindrances are a lack of competent EE experts to develop methodology and evaluate the impact and the implementation and integration of EE in school curricula. The ministry also saw an impact from EE with regard to the students' knowledge, generic skills, and attitudes. Finally, if EE were scaled up to reach a considerable proportion of the students, the ministry representative would expect collaboration between schools and local communities to become more intensive, life in the countryside to become more attractive to young people, and local businesses and other organisations to contribute more to schools and community activities and to gain from a more loyal workforce for a more sustainable future.

In addition to the Ministry of Education and Research and other ministries, the actors involved in EE are educational institutions, employer unions and organisations such as JA Estonia. They work together with the enterprise centres in establishing EE in the country. In Estonia there has been, as mentioned above, a special emphasis on the importance of collaboration between many stakeholders for the development of this new strategy.

Estonia now has a policy reform which contains a strategy for EE implementation at all educational levels. It has also established a scheme for cooperation between key actors and has defined the roles and responsibilities of all the actors and stakeholders. In Estonia, the JA organisation plays an important role and has activities for students together with courses for the teachers.

2.3 Finland

The Ministry of Education and Culture and the Ministry of Economic Affairs and Employment are the two main actors at the ministerial level in Finland. In 2009 they formalised a steering group with people representing organisations, unions, educational institutions and local and regional authorities which is now being replaced with a new Entrepreneurship Management Group. Many of the actors in the steering group are united in YES centres, which work at the practical level for the vision that every child should be able to obtain an education in entrepreneurship. These centres are involved in projects and events, such as organising teachers' seminars, delivering teaching materials through the YES centres and arranging activities at all educational levels. The government provides the steering documents and establishes the top-level framework for the development in the area. Without this it would be difficult to establish a unified approach with a clear agenda and a clear EE vision.

The aim of the Guidelines from 2009 was to enhance the entrepreneurial spirit and make entrepreneurship an attractive career for young people. The main contents of the guidelines were educational goals and a specification of development priorities for all levels and all types of education. The national curriculum was updated in 2014-2015 with an even stronger EE emphasis, focusing on work skills and entrepreneurship as a multi-disciplinary approach. The cooperation between schools, institutions, businesses and associations takes different forms during different levels and phases. The 2009 Guidelines also made an effort to include EE in the initial training of the teachers. Today the plan is to strengthen these efforts by convincing universities to make EE part of teacher education.

In response to our short questionnaire to the Ministry of Education and Culture about what it saw as the most important drivers and hindrances with regard to EE, one of the drivers mentioned was that EE is part of the government's programme. In addition, structural changes observed in Finnish society, such as high unemployment among young people, represent another EE driver. Among the most important hindrances were rigid attitudinal structures, a rigid educational system, insular companies, teacher education and parents. When the ministry was asked about any impact of EE on the students' knowledge, generic skills and attitudes, the reply was that there are more and more EE programmes and tools. Nowadays youngsters take part in all kinds of programmes and actions and competitions at the local, national and European levels. When EE is scaled up to reach a considerable proportion of students and teachers at a school, the effects seen on the local community include strong changes in attitude among both students and teachers and growing regional inspiration, as Finland now has eight regional EE strategies.

According to the earlier-mentioned report, Finland has now established a progression model for implementing EE at different levels of its educational system. In order to monitor the actions in the EE guidelines, an evaluation was carried out in 2015. This evaluation concluded that the aims of the guidelines were fulfilled and that the networking between the

different actors involved in EE had intensified. The 17 regional YES centres had firmly established their positions and now covered the whole country. EE, moreover, had become entrenched in the core curricula and integrated into the plans of local schools and businesses. The evaluators suggest that the next steps are to involve teachers and head teachers in the implementation strategy by actively developing concrete measures and by offering further possibilities for EE. Continuous evaluation is the next step of the Finish strategy, especially by providing measurement tools for teachers to evaluate their own initiatives. Finland is also in the forefront of EE research by developing assessment tools for the schools which have now been translated into several languages.

2.4 Italy

In Italy, EE policy initiatives have taken the form of a new law making the former 'school-work exchange' into a mandatory programme in EE at the upper secondary level and in vocational schools. The Ministry of Education, Universities and Research is the main actor introducing EE in a systematic way in the education system. In Italy the change in national priorities is raising awareness about the importance of entrepreneurial skills and EE. Other actors involved are schools and businesses partaking in the school-work exchange programme and organisations which help implementing it. Because there are many small and medium-sized companies in Italy, the business associations play a key role. Since 2002, the JA organisation in Italy has also been working with schools and reaching a high number of students.

The main goals of the national strategy are implementing learning strategies, establishing a link between schools and businesses and between educational activities at school and local cultural, social and economic development. If the students are not able to set up real school-work exchanges, business simulations are offered in upper secondary schools. The simulator allows students to use tools as they would if they were to set up and run a real business. In Italy, so far, there is no provision for entrepreneur education in initial teacher training, but the actors involved agree that teacher training is a central issue.

With regard to our questionnaire addressed to the Ministry of Education, the most important drivers were the compulsory nature of school-work exchange in the last three years of every upper secondary path together with certification of acquired competences at the end of the path. Also mentioned were other projects promoted by the ministry which support the acquisition of entrepreneurial competencies and the establishment of a register of companies willing to take part in school-work exchange projects. The most important hindrances, by contrast, were the following: to find and contact companies to sign agreements, the high percentage of small and micro companies, lack of specific teacher preparation, lack of involvement by parents and lack of integration of EE in the official curriculum.

Based on their experiences, the ministry representatives saw some impact from EE, especially with regard to the students' generic skills. When EE is scaled up so that it reaches a considerable proportion of students and teachers at a school, they felt that the principal effect on the local community is increased awareness of the working world by students. Moreover, the students are able to fit in various working realities and also to realise autonomously their idea, which is good for the local community.

2.5 Latvia

Latvia has not yet developed a specific EE strategy, but in the country's broader education strategy there are some EE objectives. Despite this, there are different EE initiatives across the country, partly initiated at the ministry level and partly by educational institutions, NGOs and private businesses. Such initiatives, however, are often short-term projects mainly financed from European funds. The largest EE provider is the JA organisation, with initiatives for students though primary and secondary level together with training for teachers who want to teach entrepreneurship.

The Education Development Guidelines 2014–2020 have some objectives related to EE. With regard to these guidelines the Ministry of Education and Science is responsible for the administration of the EU funding, while other organisations are collaborating, such as the teachers' union, the employers' federation and the student union. In addition, the Ministry of Economics is responsible for the programme called 'Entrepreneurship and Innovations', but there is still no cross-ministry collaboration in this area. According to the report, Latvia is in a pre-strategy stage where there is progress in establishing a strategy, but mainly with regard to policy documents.

Although Latvia has no strategy in place yet, EE is included in the Education Development Guidelines 2014–2020 that identify tasks and measures for improvement in general education, including developing entrepreneurial skills. In the context of general education, the learning of topics that will foster the development of entrepreneurial skills has been adopted. Collaboration between vocational schools and apprenticeship enterprises also promotes the development of entrepreneurial skills by vocational students. The standards for initial teacher training underline that entrepreneurship should be included in all study programmes, such as innovation and project development together with financial and management competencies. However, EE activities are still mostly short-term, based on the personal enthusiasm of the teachers. Latvian authorities recommend providing more support to teachers in the form of tools and training in EE.

In response to our short questionnaire to the Ministry of Education and Science, a representative from the National Centre for Education answered that the Ministry of Education and Science and the National Centre for Education are most important drivers at the central level. In addition, Junior Achievement Latvia and the municipalities along with

with the schools and the communities are the main drivers at the grassroots level. One of the most important hindrances is time, as it is not possible to make any quick changes in the education curriculum and a comprehensive reform process takes time. In 2014, preparatory works for the development of a content of competence approach-based general education started. In the present school year, a selective and gradual approval of this content is occurring in 80 general education institutions. With the support from EU funds, the content of a competence approach-based education will be gradually implemented in grades 1–12, aimed at, among other, raising the level of knowledge and interest in science-related subjects, citizenship education and EE.

The central educational authorities expect to see the following EE impacts on students: increased knowledge about topics such as starting and running a company, the labour market, project work and financial literacy; an increase in generic skills such as creativity, problem solving, planning and presentations; and better attitudes with regard to school motivation, self-efficacy and effort to achieve goals. Transversal competencies, such as creativity, self-initiative, entrepreneurial attitudes, critical thinking and problem solving, are the focus of the new education curriculum that is under preparation by the National Centre for Education. This will influence the knowledge, skills and attitudes of all students in grades 1–12.

When EE is scaled up so that it reaches a considerable proportion of students and teachers, they expect an enhanced understanding of entrepreneurship in local communities. Family members will get information from the students about courses, contests, seminars, and applications of their knowledge and skills in practice. As a consequence, members of the local communities may be better informed about entrepreneurial opportunities and may be more encouraged to take the initiative and perhaps start their own entrepreneurial activity.

2.6 A brief comparative summary

The comparison between the eight countries in the report mentioned earlier was made with the use of an analytical tool called the Progression Model for Entrepreneurship Education Ecosystems in Europe. This tool consists of a framework for systematic EE development focusing on the main actors involved in EE, the content of the national strategies and the model of implementation. In the following summary of our five countries, we see that they are at different stages of development and implementation of their national EE strategies.

2.6.1 The main actors involved in entrepreneurship education

According to the report, when it comes to the actors involved at both the policy and implementation level, some of the success factors appear to be cross-ministerial cooperation, engagement of the business sector, engagement from the employers' organisations and the intermediary organisations, like the JA organisations and others.

The examples of Belgium and Finland show how cross-ministerial work can be organised. They underline the importance of high-level dedication to EE with a country's ministry of education leading the way. In these two example countries, the governments provide steering documents and give recommendations for EE development. In addition, collaboration at the ministerial level needs to include the engagement of organisations such as business organisations, educational institutions and local and regional authorities. In Belgium and Finland, the main implementers of EE policy are the JA organisations, which are the main providers of education programmes for entrepreneurship. That is also the case in the three other countries.

In Latvia, Estonia and Italy the national strategies on EE are not yet in place, or only recently have come into place. In these countries there seems to be less cross-ministerial collaboration, with only a few ministries involved. According to the Progression Model outlined in the report, Latvia is in the pre-strategy stage, with some progress achieved in establishing a strategy in the form of policy documents. Estonia and Italy already have policy reforms as well as a strategy to implement EE at most educational levels. Estonia, for instance, has established a mechanism for cooperation between key ministries and has defined the responsibilities and the roles of the stakeholders. In all three countries, the JA organisations play an important role and have ongoing activities for a considerable number of students and teachers. This way, they are supporting the development process from a political initiative to implement a national EE strategy.

2.6.2 The content of the national strategies on entrepreneurship education

The content of the national strategies consists, for instance, of EE goals and EE teacher training. The two countries, Belgium and Finland, which already have national EE strategies also have objectives for implementing entrepreneurship at all educational levels. Curriculums now support EE but it is still very hard to get teachers involved and inspired, as our data suggest. All five countries see teacher training as an important part of the strategy of implementing EE in the schools. Finland tries to involve teachers and school managers actively into the implementation of the strategy, while Belgium is investigating ways to do the same. These countries have also made EE available at all levels of education. However, since the schools have a certain degree of autonomy with regard to determining their teaching objectives and methods, EE is not implemented in all schools. With regard to teacher education, most of the countries have taken measures to see to it that the teachers receive entrepreneurship as a part of their continuous education.

In Italy, Estonia and Latvia, where the strategy plans are more recent, we see a different picture. In Italy, the Ministry of Education has established what it calls 'school-work exchange' as a compulsory element in secondary schools, but there are no specific plans with regard to EE. Estonia has moved into the stage of initial strategy development, with entrepreneurship introduced as a general element at all educational levels and indicators to

assess the implementation of the strategy, including teacher training in EE. In Latvia, the strategy documents stress that entrepreneurial skills should be part of all education and that EE and teacher training should be incorporated in all study programmes. However, in this country EE activities are still mainly project-based and short-term, with reliance on the teachers' personal enthusiasm.

2.6.3 A model of the implementation of the national strategy

Among our five countries only Belgium and Finland have implemented a strategy for evaluation with a focus on how to monitor the implementation strategy of EE. None of the regional strategies has been evaluated yet. Belgium and Finland also have a process for evaluation by monitoring and mapping the spread of EE in their educational systems. Often the responsibility for implementing the strategy is given to external organisations, which has been a success, since it allows more flexibility than would be possible at the ministerial level. In addition, independent institutions carry out the evaluation of the national strategies and the results are used to improve and formulate new strategies. This has proved to be an efficient way for policy makers to follow up on the measures. The JA organisations have also played a role in the implementation, monitoring and evaluation of EE.

3 RESEARCH METHODS

In this chapter, we provide a short description of the research questions and the research method, and describe the data collection that has been conducted for the case studies.

3.1 Research questions

The overall research theme concerns entrepreneurship education (EE) at the upper secondary school level. This is a very broad topic that can accommodate many different concepts, methods and theories. In the larger ICEE project, the mini-company (MC) is the method being investigated. The reader of this report should therefore take into account that MC is only one way of approaching EE. Nevertheless, in those cases in this report where we discuss EE, we usually refer to it as the mini-company method.

The larger ICEE study includes five schools in each of the five countries where the Company Programme is being tested in one year. One school in each country is a control school, while the others are running the JA Company Programme (CP). Some of the schools have operated with MC for many years; others are completely new to this method. The research will examine what effects we can see from the project. Effects in this context are defined as the learning benefits for the students and the way the MC method is being implemented and spread. The research questions add up to the following:

- What kind of system effects can we identify from the ICEE project (information from parents, teachers, head teachers and ministries/school owners)?
- What kind of hindrances and drivers can we identify?
- What kind of learning outcomes can be identified?
- Does increased focus on EE enhance the learning of other subjects? Does it affect academic ambitions?
- What is the effect on entrepreneurial ambitions and potential?
- Can we identify any community effects (parents, volunteers, local community and NGOs)?

In the ICEE study the research is based on a combination of qualitative and quantitative methods. The term 'mixed methods' is often used in this respect (Rossow & Baklien 2011). Rossow and Baklien state that this term is defined and applied very differently by different authors (for a review see Johnson et al. 2007). While some authors apply the term when both quantitative and qualitative methods are being used in a study, others limit its application

to when qualitative and quantitative methods are being integrated in the study (Weber et al. 1989 in Rossow & Baklien 2011). In the ICEE study we present results from the quantitative survey and the qualitative case studies separately, as in this report. However we will in further articles publish results in which mixed methods are integrated.

In the ICEE study we have conducted both an effect evaluation (quantitative method) and a process evaluation (qualitative method). The two approaches have addressed the same research questions, as shown above.

It is worth noting that the qualitative study has only been a small part of the entire ICEE project. This report will therefore not be able to describe all aspects of learning and project implementation as well as we would have liked. We hope our qualitative study will inspire a more extensive and in-depth study of the learning process associated with entrepreneurial education.

3.2 Case studies

A case study is an in-depth study of a particular situation rather than a sweeping statistical survey. It is a method used to narrow down a very broad field of research into one easily researchable topic. In studies where it is important to understand specific cases and ensure a more holistic approach to research, case studies are the preferred methodological approach. The advantage of the case study research design is that you can focus on specific and interesting cases. This may be an attempt to test a theory with a typical case or it can be a specific topic of interest. In this research, the focus has been on the learning outcomes from entrepreneurial education.

An important aspect of case studies is to be aware that each case must be treated individually, and interpreted contextually. In this case, cross-case comparison can be made and conclusions eventually drawn.

In a case study, one is deliberately trying to isolate a small study group, one individual case or one particular population. The present qualitative study consists of five upper secondary case schools – one school in each of the five countries. In the sample, we have both private and public schools and both vocational and general schools.

In the next subchapter, we will look into the methodological approach, including the selection of informants within the cases.

3.3 Methodological approach

3.3.1 The selection of informants

We had a contact person at each school who arranged for the interviews – chose informants, reserved location, convened appointments with the informants, etc. (see attachment 1). The range of interviewees was based on a list of criteria, which we sent to the schools ahead of the fieldwork. The contact person at the school was asked to select informants based on these guidelines:

- *It is important that group interviews can be carried out with groups consisting of whole mini-companies. Tentatively we will interview one to two mini-companies at each school, but the maximum is seven students in each group interview.*
- *It is important that group interviews with teachers consist of teachers involved with the students' mini-companies. Tentatively we will interview one or two groups of teachers, with from five to seven people in each group.*

The empirical data on which this study is based consist mainly of qualitative conversation interviews (individual and focus groups) with students, teachers, and parents, mentors, head teachers and JA representatives. The interviews were structured interviews to simplify comparisons between the five schools/countries. Each interview lasted for 1.5 to 2.5 hours.
All interviews were arranged by the JA representative in the country in question, and were conducted in a separate room within the schools or in a meeting room outside the school. In the interviews, we used an interview guide (see attachment 2) with focused topics. For the **students** we focused on the following topics:

- MC idea
- Group dynamics
- Learning process
- Cooperation
- Interactions with teachers
- Interactions with mentors
- Learning outcomes

For the **teachers** we focused on the following topics:

- Experience and education
- Understanding of entrepreneurship
- Learning process
- Cooperation
- Assessment
- Impact on students

In all five countries, we interviewed the following **informants**:

- Head teacher – individual interview
- Teachers – group interviews
- Students – group interviews

In three of the countries – Finland, Belgium and Italy – we interviewed the following additional informants:

- Parents – group interviews
- Mentors – group interviews
- JA representative -– individual interview

We also conducted a brief Q&A session via email with the ministries of education in each of the five countries.

3.3.2 Focus group interviews

The focus group method has been described as a 'carefully planned discussion designed to obtain perceptions on a defined area of interest in a permissive, non-threatening environment' (Krueger, 1994; p. 6 in Massey 2011). In this method one can combine elements of interviewing and participant observation, and provide an opportunity to probe the participants' cognitive and emotional responses while also observing underlying group dynamics (Vaughn, Schumm, & Sinagub, 1996). Usually the groups are composed of five to eight people and the interview lasts from one to two hours. The interview is carried out as a discussion of a small number of questions introduced through a questioning route or discussion guide. The group setting and the moderator's ability to offer helpful prompts are designed to encourage an insightful discussion of the pertinent issues by the group members. The resulting data offer a robust alternative to more traditional survey methods when absolute numbers of respondents are less important than is a rich investigation of content (Massey 2011).

Another benefit of the focus group method when doing cross-cultural studies is the cultural sensitivity it facilitates. It is usually called an 'empowering method' in which the informants have the power to define and explain phenomena, incidents or specific experiences. And in some occasions, focus groups may assist participants to come to mutual understanding of issues under discussion (Wibeck et al., 2007).

We conducted focus group interviews with the teachers, pupils and parents in each of the five countries. Each group consisted of three to six informants. We were two researchers and one interpreter. All the interviews were recorded, and we took detailed notes throughout the interview.

3.4 Using an interpreter

The interviews were conducted in five different countries, and the research team does not speak any of the native languages in these countries. The working language throughout the interviewing was English, a second language for both the researchers and the informants. We had to use an interpreter in the interview settings, although some of the informants were fluent in English and gave their answers in English without the need of interpretation. We worked with a bilingual interpreter who played an intermediary role during the interviews. She was involved in translating back and forth and interpreting responses between non-English speaking participants and an English-speaking research team member.

It is well known that when using an interpreter to conduct interviews there is a potential threat to data-validity in various points in the interview process. When using an interpreter in a focus group interview these threats are further strengthened. One threat arises when the researchers, whose first language is Norwegian, addresses a question in English to the interpreter, whose first language is Finnish/French/Italian, etc. As researchers we do not have the possibility to ensure that the interpreter has understood the questions in the right way. In that case, it is important to spend time with the interpreter in advance, going through the questions and clearing up any misunderstandings.

Another threat occurs when the interpreter translates the interviewee's responses to English. It is difficult for the researcher to know whether the interpreter has summarised and/or modified the responses. We had occasions when this was the case. We discovered throughout the interview that the interpreter, instead of translating word by word, made a summary of the informant responses. This was a problem mainly in the focus groups, in which up to six people were expressing their opinions. On these occasions, we stopped the interviews and took a break. We then pointed out to the interpreter the need to translate sentence by sentence.

Threats may arise if the interpreter is not trained properly, lacks a full understanding of the particular research project, or has biased ideas; the quality of information obtained in such cases may be distorted (Ric, Liamputtong & Ezzy, 1999). We learned it was an advantage if the interpreter not only had linguistic abilities, but also in-depth knowledge of the research field, in this case EE.

In order to minimise the threats caused by using interpreters, we arranged for a meeting with each of them ahead of the interviews. The purpose of the meeting was to allow adequate preparation time for both the interpreter and the researchers – by getting to know each other and reviewing the goals and procedures of the ICEE project. We explained words and concepts that were used in the project, ensured that the interpreter understood the informants' need for confidentiality and anonymity, and ensured that the interview guide was properly understood (see attachment 3).

3.5 Method criticism

Informants who participated in this study were selected by actors involved in the ICEE project (either the schools themselves or JA representatives in the country). The possibility of biased, unrepresentative selections must be considered. If the informants have a close relationship with people or things to be evaluated, they may feel bound by loyalty and conscience. A result could be that they find it difficult to be critical or to answer in an unfavourable way. In qualitative research we don't necessarily speak of getting a *representative sample* of respondents. Instead we talk of getting an *informative sample* of informants. It is important to have informants who can describe and reflect on their experiences in a way that gives us extensive good or bad information about a phenomenon or a case. The selection of informants is therefore not arbitrary. When the scientist no longer has control over the selection of informants, it becomes even more important how the researchers ask their questions, in order to offset the imbalance. We emphasised open questions and questions that lead to reflection. We also stressed the researchers' external role in the ICEE project, and assured our informants that all data would be treated anonymously. It is important that informants feel they can speak freely without the risk of having to defend their views in retrospect. The fact that the interviewees spoke freely is also the reason we have chosen to reproduce direct quotations from the interview situations. Where words or concepts were obviously misused, we have made changes, but in general we have not corrected syntax or grammatical errors in the quotations, because we believed doing so would weaken the authenticity of the statements.

4 BELGIUM

The school in Belgium is an average-sized general school, located in one of the cities outside the capitol. The school has 100 teachers and 735 students. Three to four teachers and 54 students are involved in the company program.

The school has long experience in cooperating with its local business community and training students in economics-related games, but entrepreneurship education (EE) started here with the ICEE project. The consciousness of the importance of entrepreneurship was non-existent at the school before this start-up, says the head teacher.

The school has chosen to run the JA Company Programme (CP) in three classes (economics, chemistry, psychology). CP is mandatory for these classes (certain years). Three teachers are involved in the EE. The students can either have one hour per week or two hours per week, depending on the class they are in.

4.1 Selection and focus

Altogether we had 18 informants. We did group interviews with:

- seven students from one mini-company
- four teachers, with little or no EE experience
- four parents
- one mentor

And separate interviews with:

- representative of school management
- JA representative

In addition we sent a short question & answer e-mail to the:

- Ministry of Education in Flanders

4.2 Hindrances and drivers for entrepreneurship education

4.2.1 Hindrances

Not in the curriculum

In Belgium, education and thus EE is a full policy competence of the Flemish Government in the Dutch-speaking part of Belgium. An EE strategy has existed for about six years. Schools have considerable autonomy in determining their curriculum and teaching methods, but if they want government recognition or funding they must meet the attainment goals. In addition, the government provides support in the form of content and tools/virtual knowledge centres with a large database of materials for teachers at all levels.

Entrepreneurship is not part of the particular curriculum on the regional level. Nevertheless, there are curriculums in which the skills and competencies taught may be relevant for entrepreneurship, but it is up to the teachers to make the link. One of the main tasks for the JA representative is to help teachers integrate MC into different subjects:

> *Many schools see the MC as something on top, something extra. We try to help them to see the topics in the MC that can be integrated in the topics – languages, mathematics, etc. Some teachers see this, but it is difficult to integrate. We try to talk to teachers to think about ways to integrate and they see that they can do it this way.*

> *It would be great if the government had integrated it in the school.*

The head teacher is also very important, and is able to influence or suppress EE in his or her school. The head teacher's role in creating enthusiasm on the staff is invaluable. The head teacher has a major influence on a school's curriculum. Therefore there is always a risk when changing head teachers that entrepreneurship training will be stopped.

> *One of our colleagues got a new head teacher and he doesn't think entrepreneurship is important, so he is afraid it will stop from the next year. This is important.*

This randomness also makes it difficult to build expertise in the teacher group.

Mind-set

> *You have to create a different mind-set. The lessons are not given here, but there (pointing outside). It is different for students, teachers and parents. It creates a different atmosphere.*

It is also said that to be able to teach the CP one must change the mind-set of the people involved – not only the students, but also the parents and not least the teachers. This can be very challenging, because teaching is bound up with tradition and recognition for all people. The school's management has been working hard with the teachers involved in order to change the traditional attitude towards teaching.

It is said among the informants that the educational system is focused on subjects, not pedagogical methods. There are two kinds of teacher training systems in Belgium – a bachelor for teaching in the first years of secondary school, and a master for teaching in the final years of secondary. In the master programme, more time is spent on teaching methods and pedagogy, but the traditional way of teaching is still emphasised. One of the informants puts it this way:

> *We have very little on project-based learning. They (the teacher training) want to be sure you have the basics (that you know your subjects). If you have some extra time you can try some other kind of teaching methods.*

Time limit

The students have either one or two hours a week in the ICEE project. Our informants have two lessons a week, which they consider far too little. In practice they work more than two hours a week, and the extra time commitment detracts from their other schoolwork and consumes their leisure hours. The students find this stressful and complain about the amount of time it takes to implement the CP. The students must spend a lot of time on coordination and planning in order to make it through. One informant, an active sportsman, told us he found it very difficult to skip the MC work to focus on training and competition. Whatever he chooses to do hurts his conscience.

The limited time is also a barrier for the teachers teaching MC. They spend a lot of their spare time to get to know the CP and to prepare themselves for further progress, while they also have to keep up with their teaching in the other subjects. One of them says:

> *The workload is enormous for me. I have two hours and that are my (…subject…) hours, so I have to work double as fast. It takes away time from (…subject…).*

The teachers find the extent of the CP too large for the time allotted within school hours. They feel bad that students use their leisure time to work with CP, since they have sport activities or other engagements. Another problem is that some of the students live far from school and it can be difficult to travel back and forth. Yet another problem is it that some of the mini-companies consist of students who doesn't know each other well and find it difficult to work together when the teacher is not there to guide them.

> *It takes a lot of work. It should be two extra hours for us so they could do it in class and not at home. Not all of them live close to the school, so it is not so easy.*

In the end the students have to do it at home. It's difficult because some of them don't get on very well, and they have to organise this in their spare time.

If the school had increased the amount of time spent on this project, the teachers see many benefits:

If we all could have had two more hours we could have mixed the groups and they could have learned from each other, and also inspired each other.

It is a brilliant project if it was more time. I'd have loved it to be part of all the subjects at school.

From the JA perspective one of the solutions to this problem could be cooperation between the different teachers in the school.

The ideal situation for Vlajo will be that teachers cooperate with each other; that students of different classes and curricula cooperate with each other, even if they come from different types of education.

Lack of routines for internal communication

In the interview the students told us about a cooperative challenge they had had. They had felt the CEO was not working appropriately, but it was difficult to raise the problem internally. After they talked about it, everything was sorted out nicely and the general manager was replaced. But a lack of internal communication was a significant barrier to progress in the company, and which limited corporate development. The only reason they managed to sort things out, according to the informants, was that they were friends from before. Friendship overcomes conflicts.

Lack of coordination

Another overall barrier in Belgium is the lack of coordination between the different subjects and/or teachers. All the informants mention this as a major barrier. The students find it difficult to combine MC with other subjects. Teachers find it hard to impose MC in other teachers' classes and parents see the consequences from the lack of integration in the amount of time spent on MC. No consideration is given to the workload the projects represent. Students spend a lot of time on them outside of school hours, and often must argue to get to use the necessary time. They also feel that teachers are not positive to the students' spending so much time on the MC. The teachers' view is that MC compromises the other subjects.

Yesterday I got a mail from the chemistry teacher who asked for excuses for the students being away tomorrow, because of the fair. They are so often away from home. … The first answer he got was from one colleague who said, No, I am not doing this, they have only been working on their MC project, and so I won't change my day.

Lack of professional security

The teachers are concerned about their lack of knowledge about EE. For all of them this is their first time teaching MC and they feel uncomfortable both about their lack of experience with the teaching methods and about their lack of subject-matter knowledge. As one informant says:

I feel like I am loosing grip of it, since I don't have any economy.

Confidence and professional security are important values for the teachers who ask whether the ICEE project suffers from haste. If they had had more time to plan the project, maybe they would have had both more teacher training and more teaching hours?

4.2.2 Drivers

Cooperation with mentor

The students' experience of their relationship to their teacher is characterised by lack of interest, which probably is due to lack of knowledge. They point to their mentor when asked which role has had an influence on their learning process. One of the reasons this relationship works so well is that the mentor is a former CP student and knows the content and progress of the programme.

Good cooperation with the mentor, she understands, she has done MC before.

From the mentor's point of view, her role is more that of a coach than either a business partner or strict teacher:

Other mentors are focusing more on the business. I am more coaching. (…)

I want to be a trustworthy person for them. I said: I am not here to be another strict and angry teacher. I invest my spare time for you.

The schools' autonomy

Another driver that can be identified in the material from Belgium is the schools' autonomy, and by extension the head teacher's opportunity to influence the content of the school. If the head teacher is dedicated to the entrepreneurial education method, the incentives are strong to get it implemented.

4.3 Preparation and training for the Company Programme

4.3.1 From the perspective of the teachers and mentors

The teachers complain about lack of training. They have not had any teaching apart from what they've learned from their colleagues. One of the teachers has experience from being an entrepreneur himself, and while that experience dates from long ago he uses it in teaching the students. In general they all miss more training in the CP method.

The mentor confirms that the teachers seem to lack competence in the CP method. For example, students don't know the programme's timeline; they are unaware of the next milestone and what needs to be done beforehand. Such an overview is important if students are to succeed in planning their company's progress. Another aspect of this lack of competence from the mentor's point of view is that the teachers don't seem to know how to use the mentor, or even what the mentor's role is.

4.3.2 From the perspective of the JA representative

From the JA representative's point of view, teachers get a lot of information and support from Vlajo. They may call upon their regional coordinator whenever they want, but the problem is that they don't use that opportunity. Still the JA representative claims that there should be more guidance and valuation given to the teachers. The teachers are central to the CP's success. We need to create more room and space and competencies for teachers so that we can have this kind of project, says the JA representative, who has coined the term 'teacherpreneur' as a label for the kind of teachers JA wants. She says that JA wants to support the teachers more, because the teachers need it. One thing teachers lack is evaluation competency:

> *It is difficult for them to evaluate without points. We have a peer-evaluation system, templates on the website, but they don't use it. They need someone who explains to them. We do see that teachers sit beside the students and want to tell them what the correct way of doing it is.*

4.4 Assessment of the Company Programme as a working method

4.4.1 From the perspective of the students

The students say they have had little guidance and help from their teacher. On the other hand, they have had a lot of help from their mentor, who is the person they go to when they have questions or problems. The mentor is also the person who gives them feedback and discusses different directional selections. The students have trust in their mentor, because this person is a former CP student.

4.4.2 From the perspective of the teachers

According to the teachers, assessment of the students developed gradually, and the students eventually took over the guidance of one another.

> *I saw that after a couple of weeks they started to teach themselves. At first we told what we expected for the MC, and somewhere in November I planned a meeting with the companies and I had some points to discuss, make them fill in paper of self-evaluation and peer-evaluation. They started this without my interference. They managed another. They were a real company.*

The teachers used the manual from Vlajo[1], but

> *They needed me at first. It was brand new for all of them, but afterwards they managed themselves. They solved the problem themselves. I asked them questions to trigger them. It's a totally different way of teaching for me.*

> *I have to guide them and lead them. I have to go the manual, because I can't give them all answers. With the activities it's easier – I can also ask them questions, but the economic bit is difficult and I feel I am loosing grip of my class. At this moment I have a good contact with them from before; I see the advantages for the student, but not for me. It's too much to learn.*

4.4.3 From the perspective of the parents

According to the parents there are no assessments of the students apart from the feedback they get from their mentor. The parents say their children are seeking more guidance, especially in the initial phase, but also along the way. They say there are classes that do not realise what to do because they lack theoretical knowledge.

> *I think they need guidance. They don't have this experience with the bank or the economy, not the budgeting thing. There were students from the Latin class and they were completely lost. They had to find information on the internet.*

Parents try to help but fall short, mostly due to lack of competence but also lack of time. They feel that students spend very much time on MC and that there is danger of affecting other schoolwork. This is reinforced by the fact that it is difficult to combine CP with other school subjects. Parents hear their children complain about other teachers who dislike the shift of time and focus away from their subjects.

> *I can understand that they want many students to have this experience, but there are too few teachers. Maybe it should be more intensive so that they get enough feedback? It is something to think about.*

[1] The JA organisation in Flanders

On the other hand, all the parents expressed happiness over their kids' participation in the ICEE project, as we will see in subchapter 4.6.

4.4.4 From the JA representative's perspective

As seen in subchapter 4.3.1 the JA representative requests more education in the evaluation system for teachers. The peer-evaluation and the templates on the website seem difficult to use. Teachers are probably not accustomed to evaluating the learning process without being able to assign characters/points.

> *It is difficult for them to evaluate without points. We have a peer-evaluation system, templates on the website, but they don't use it. They need someone who explains to them. We do see that teachers sit beside the students and want to tell them what the correct way of doing it is.*

4.5 Learning process for students

'Too much to learn'

What this teacher says is that to teach in this way is a demanding form of teaching. Teachers have too little time and too little room to acquire the necessary skills. They can see that students benefit from it, but for the teachers themselves there is too much to learn and not enough time.

Another kind of relationship

On the other hand, teachers report that they gain valuable contact with students that they have not experienced before. Teachers and students become more equal, and their relationship becomes more informal due to their cooperation. According to this informant, the relationship becomes closer:

> *I learn more about the students. In a classroom it's different but here you can talk about everything, more informal. I get closer to them, another way of talking to them. The roles between teacher and student are less hierarchical.*

Group process

The students tell us that they have worked in a democratic way, with everyone deciding what to do. They discuss a lot with their coach, and she helps them decide. This worked well initially, but after some time they had a major conflict involving replacement of the CEO. The CEO has a high degree of responsibility and must make sure the others do their jobs correctly. In the beginning, say the informants, everyone decided and everyone did everything. Since the dispute they have divided tasks better, and while the whole group participates its members have been assigned different responsibilities. They have one arena for discussions and one arena for the more important decision-making. In this process, they

have learned how a group can collaborate better. Communication in the beginning was not very organised or coordinated, they say, but we learned from mistakes, and now we communicate better:

> *The problem was that we could not see what was important. We made a different group so we could see what was important.*

The informants' explanation indicates that they have managed to reflect on the differences and the conflict in such a way that they have learned from it. They now say:

> *The best way to learn is to make mistakes and realise it is a mistake and do something about it.*

In this way we can say that the conflict was an important eye-opener for the students.

Being told vs. learning by experience

Attendance is mandatory, but students get to choose the kind of business they pursue. They were asked to choose between products or services and divided into two groups. Students found the mandatory aspect provoking, and felt they did not get any explanation why they had to attend. In the beginning they felt very incompetent, partly because they lacked professional insight into what they should do. But eventually this feeling disappeared and they mastered what they put their minds to.

> *Mandatory? Why? We are not even doing economics! We got little explanation about what we were to do. We just had to do it. Now we think it's ok and we have learned a whole lot!*

The students are very clear on the point that they have learned a lot by being forced to do things by themselves. In the beginning the coordinator from Vljao explained and informed them, but after a while she let them experience things first hand. This was hard, and probably one of the reasons they ended up in conflict. On the other hand, it was important for them to take responsibility for their own learning process.

> *If everything is told to you it is not learning. We had to figure out something on our own.*

> *Learning is having a problem and trying to solve it.*

4.6 Learning outcomes

4.6.1 From the perspective of the students

As to learning outcomes, the students were asked whether they had obtained more business knowledge. They confirmed that they now knew how to start a company and understood both the workload required and the need for persistence. But beyond the impact on their

knowledge, the Belgian students emphasised generic skills and attitudes as important learning outcomes.

As we saw in the last subchapter, the students have learned a lot from the conflict they went through. When asked what about the conflict was important to the learning outcome, they specify the importance of honesty and sincerity:

> *Honesty is very important, to say things to each other, we can admit wrongs and failures. Don't try to cover up if you do something wrong.*

Another side of being honest is the importance of communication. One of the informants explains it in this way:

> *Communication…, because if you don't know what the other ones want, you cannot know what to do. You have to talk to each other to be able to do the right things.*

So, communication is an important aspect of working together and being able to help each other when needed. The students we talked to had very good experiences of helping each other and operating as a team:

> *We help each other even if it is not our part/role.*

> *Teamwork and the importance of working together is what I've learned.*

Due to the very short amount of time, planning is important when working with the MC. The students are busy at this grade and have a lot of schoolwork to do, so to run their MC they were forced to become good planners:

> *Planning is important. It is more and more work; the school expects more of you.*

All in all, their experiences amount to what this boy explains:

> *If everything is told to you, it is not learning. You have to figure out something on your own.*

4.6.2 From the perspective of the teachers and head teacher

According to the head teacher the teachers have developed or changed attitude towards entrepreneurship during this year.

> *The teachers were afraid, they didn't see the use of it, and they said they prepared them for university. But now they are among the most positive ones.*

She also sees great learning outcomes for students and says that the main impacts are less to do with economics than with personal growth. In particular she has been surprised to see

students in one class who had had little or no experience of entrepreneurship beforehand who now present themselves as if they had never done anything else!

> *Motivation is increased and their verbal skills have increased. They are more open to other students, teachers, and companies. They are proud, it boosts their self-confidence. They really believe in themselves.*

> *They are very positive! They have increased their competencies. They will tell the other students that this is nice.*

The head teacher can also see a gender difference, with girls generally serving as the responsible CEO while the boys are the workers. Girls are more talkative and expressive, whereas boys are the hard workers, she says. Another difference was noted between the different subject classes. The psychology class is doing social entrepreneurship, offering services, while the economics and mathematics classes offer products. While the psychology class is focused more on events and services, the economics class is more focused on selling things. The science class has more of a cross-curriculum orientation. The head teacher is concerned about the social hierarchy that appears to be implemented in the CP as in society at large:

> *Pupils who study in science and mathematics are more successful and motivated for the MC than the ones who study psychology. The hierarchy that exists on the normal level are repeated also in the ICEE. This is for general education.*

When it comes to the teachers' view of the learning process, they emphasise that students are not used to this kind of working. Project-based learning is quite new for this school and therefore a new way of learning for the students. They see that cooperation, teamwork, trusting one another and taking responsibility are among the most important outcomes so far.

> *Take responsibility and respecting the deadlines Vljao asks for.*

> *The need for the group, it's not only about me. I have to play my roles and make the others good.*

> *They started as children and they are becoming entrepreneurs now. Lots of them take it very seriously; they understand what is expected*

The teachers reflect upon the fact that this way of learning is new to their students and that it was hard for them in the beginning, both for the teachers and for the students, but now they see that the students have learned by being forced to deal with their own experiences. And they conclude that this can be related to the completion of the CP.

> *They know what went wrong, and what they can do to improve it.*

In addition to new attitudes towards themselves and one another, they also see that students have increased their knowledge about business life in general, although they do not seem to have any more knowledge about the labour market in their local community.

> *They know that it's more than selling a product. They know what's needed to be able to sell products, and that if they just stand still behind their counter people won't come and buy.*
>
> *They learn about profit and cost.*
>
> *They are too young to be interested in the local labour market.*

4.6.3 From the perspective of the parents

They all have positive feelings about their kids' participation in the CP. The parents say students have learned a great deal from the conflict they had in the company, when they were forced to deal with how individuals performed their tasks. They learned that different people have different talents, abilities and interests – as in real life. They have learned to talk about difficult subjects and experienced that it is OK to switch roles without anyone being disappointed.

5 ESTONIA

In Estonia we visited one of the larger schools in the county, with more than 1,000 students. According to the JA representative this is one of the more popular schools among the parents, and, therefore, the competition to be expected as a student is high: the students are tested both as they enter first grade and throughout their stay at the school. In Estonia the schools have 12 grades. The first three or four are at the primary level; the middle level continues until grade 9; and the upper secondary level goes from grades 10 to 12. After grade 9, the students go to either the upper secondary school or the vocational school.

5.1 Selection and focus

Altogether we had 11 informants. We did group interviews with:

- six students from three mini-companies
- three teachers, all female, all but one with training in the mini-company programme

In addition, we did individual interviews with:

- the head teacher
- the head of the JA organisation

Finally, we sent a brief questionnaire by e-mail to the:

- Ministry of Education and Research

5.2 Hindrances and drivers for entrepreneurship education

5.2.1 Hindrances

The teachers did not see any major hindrances, but mentioned two minor ones, the lack of cooperation from the other teachers and the lack of trainers and time to get training in entrepreneurship education (EE) and the mini-company programme. One said the following with regard to the first hindrance:

> *The class teachers are important in this regard…They are mainly positive, but I have some other experiences too. They say that the students only think about their student company, and that they forget their physics. But usually, they are supportive, because they see that the students are not always motivated and that for them this can be a good experience.*

Another teacher added:

> *Now when we have been establishing a status, and because we have been doing well, now the teachers that accused us of sending the students away while they should have been in the classes feel ashamed.*

The JA representative referred to the second hindrance – a lack of trainers in the JA organisation and a lack of time for training teachers – in the following way:

> *The disadvantage is that we need more trainers, and that the teachers do not have the time to come for two days' training. The teachers work a lot of hours and even on weekends, because when they give their word to the students, they have to keep it.*

5.2.2 Drivers

The most important driver for EE in Estonia was, according to the teachers, the fact that it is now part of the national curriculum as a key competence and, therefore, should be integrated in every subject. One of them explained:

> *Yes, it is in the national curriculum in every school. The situation has changed. It is now counted as one of the national examinations. The students get grades, and it is written on the certificate. So it is useful for them now.*

As we see, the status of EE has changed during recent years. Our informants agreed that this was the single most important driver in implementing and spreading EE in Estonia. It has now spread to schools in every city and in many regions of Estonia. They also mentioned that throughout the country there are regional development centres which have to focus, as one of their responsibilities, on EE in their respective regions. According to the JA representative they have the finances and the ability to order training for the teachers, and the JA organisation is now establishing connections with all of them.

5.3 Preparation and training for the JA Company Programme (CP)

The teachers receive their training for the mini-company programme from the JA organisation in Estonia. One of them explained it this way:

> *Yes, in Estonia all teachers must have training from the JA organisation. They demand that not only one person, but a group take the training. She has not, but we have. The teacher training is a must; you have to know the rules and what it is not wise to do. We have the basic teacher training at JA, and they invite us back after half a year and we discuss what has happened since then.*

According to the JA representative, the organisation offers summer and winter courses in addition to basic training, and the teachers are followed up by the JA organisation in different ways:

> *For the teachers we offer additional training courses like summer and winter schools. They know that they get new methods, approaches and techniques from us so they come often. They also call us during the first year after they graduate. They are nervous and some of them call us often. Also before trade fairs and some competitions they call us for advice.*

In response to our question about how many schools the JA organisation in Estonia was involved in, she answered:

> *There are now 85 schools, mainly in upper secondary and vocational schools. This year we set a record. We had about 300 student companies. The contact with the students is mainly through the teachers, and we know most of the teachers, because Estonia is so small. About 60 of them are in the seventh to ninth grades, and the rest are at the vocational or gymnasium (upper secondary) level.*

As we see, the JA organisation plays a vital role in training teachers for the mini-company programme, and it is therefore an important actor in Estonia's EE. The head teacher of the school acknowledged this, together with the important role that the mentors played, but he also had a wider perspective:

> *The main question here is teacher training and to get support from JA is important, but we must also think larger and involve teachers in other educational arrangements… Also many of the mentors are from the entrepreneurial field or from universities, but they all come from our school. They have been students here, so we are close, and they also play an important part in our entrepreneurship education.*

5.4 Assessment of the Company Programme as a working method

5.4.1 From the perspective of the teachers

The teachers were asked to assess the mini-company programme as a working method and it became clear that they see it as an important part of EE. As one teacher said:

> *We have two words for it. First, an entrepreneurial mind-set and then business and entrepreneurship activities. To teach entrepreneurship only in theory is a crime, because it kills every interest a student has. I have tried it, to teach just a business plan. They understand nothing and they loose interest. We have to do both, and here the mini-company comes in, if we are to teach entrepreneurship in the right way.*

A second aspect that the teachers brought up was knowledge about finances, which the students, according to this teacher, lack:

> *Another important aspect is finances, because young people do not know how to handle money. Some of them are pretty well off, and never have had to think about it, but if they start a mini-company, somebody has to be the bookkeeper and do the accounts. Sometimes they are struggling hard to keep the accounts straight, and that is what you have to show to the management of the company.*

Another teacher pointed out that this method especially taught the students to be become responsible and creative:

> *The students are expected to be fully responsible. When they start a company, they have many ideas. One of my thoughts is that they have to be responsible. Once they have started a company, they have to finish it. At the same time there is creativity; we teach them that too.*

As a consequence, this school did not allow sponsorship of the students' companies. One teacher explained it in the following way:

> *We do not allow sponsorship in the mini-companies. I know that some countries do. We don't. The students must understand that for real businesses there is no sponsorship. But there are other reasons, too, for our decision. If we allow sponsorship then the students who have parents with money will be more successful, or they sell shares to the school or others, but here they must mostly rely on themselves.*

The teachers also mentioned that the mini-company programme influenced the parents of the students mainly in a positive way. But some responded negatively, as this quotation shows:

> *This programme also influences the parents. Some of them involve themselves, and the knowledge that the parents get from the school also influences them about economic skills. But we also have parents that ask why do you teach entrepreneurship at school?*

Finally, the teachers were asked about the gender perspective as part of the mini-company programme. They said they did not focus specifically on gender roles, but that it could be included, as this teacher pointed out:

> *It is not especially so, but it can be included. In real life they do not choose by gender who they include in their mini-company, but somewhere deep inside it is still the idea, as one student expressed long ago, that a business person is a man and that he must have a beautiful wife. It is absolutely nonsense, but is very interesting.*

According to this teacher, the possibility of adding a focus on gender roles within the mini-company programme should, therefore, be considered.

5.5 Learning process for students and relations with teachers and mentors

How do the students see their learning process and their relations with their teacher and their mentors? The students we spoke with were unanimous in their praise of their teacher, as shown in the following quotations:

> *She is really passionate, very helpful. She is using all her resources to help us.*

> *She has so many other students, and this makes it even more amazing. She is searching for opportunities for us and doing little things like sharing our product on Facebook. Now it is all about selling our product, and she has offered us many fairs in Estonia.*

> *Our teacher is always there for us. We can email her anytime, also outside the school hours. She really loves what she is doing and puts a lot of effort in her work. The most important thing is her support.*

The students also described their relations with their mentors mainly in positive terms, as the following quotations indicate:

> *He was very helpful. The mentors were offered by the teacher. She invited them to our class and we selected among them. He finished this school three years ago, so he knows the school very well. He gave us accounting lessons. In the beginning he asked us to make a detailed business plan, and he found some mistakes, and he was accurate about his comments. He has been a mentor in everything.*

> *Our mentor is a food science specialist at the university. He was very enthusiastic. He mainly helped us with recipes and flavours. We contacted many universities, but if they did not have the machines or if it was too expensive, we would not choose them.*

> *Our mentor is the opposite of our teacher. He is always stressing what is not good enough. She is always so positive. He starts with the negative. He is always supportive, but honest about our improvements.*

We also asked the JA representative what kind of relationships, if any, the JA organisation had with the students. In Estonia the JA organisation is not only involved in the teachers' training, but also with the learning process of the students, by arranging training for them as well.

> *If the students take the student company, yes, we relate to them, but otherwise not. We also have training for them. We introduced it three or four years ago, and we do it once a year in November and January in different places in Estonia. We offer them training in management, marketing and bookkeeping and development of products and also selling. It is a one-day course, and they have defined roles in the company. One is manager and one is responsible for marketing and so on.*

5.6 Learning outcomes

We asked the head teacher of the school what kind of learning outcomes he saw for the students participating in mini-companies. He pointed to a change in their attitudes and ways of thinking, but he also stressed teamwork.

> *They are changing their attitudes and thinking, but because at this age they want to do all kinds of things, we need the use this energy and change their roles inside the classroom. Teamwork is one major thing they learn. In the Nordic countries we like to work on our own, but we need to learn to work together.*

5.6.1 From the perspective of the students

As the following quotations show, the students point to a whole range of learning outcomes, ranging from a realisation of the knowledge they lack to an understanding that passion matters in building a company. In addition, they also learn skills like time management, teamwork and helping one another.

> *I have learned that I don't know a lot of things about this, that there is a lot of improvement.*

> *Time management, teamwork and helping each other in the company… Yes, when one of my teammates does Excel work, she may ask for help from me or another teammate, but also from friends from outside of school.*

> *Passion! You really have to live what you are doing, to put in the time necessary. There are many opportunities, but I learned that we have to reflect on what is the best at the moment.*

5.6.2 From the perspective of the teachers

The teachers have noticed several types of learning outcomes for the students. The main ones were new knowledge together with new skills and a change in attitudes. Here are some examples of concrete knowledge that the students acquired, including bookkeeping, marketing and selling:

Yes, yes. I think that they know better financing, and they know better bookkeeping, and that is important. They understand that to earn higher salaries you have to work. For me it is also important that they understand that profit is the payment for the risk that the entrepreneur takes.

Then there are selling and marketing, and to understand why some mini-companies sell a lot and others do not. So what went wrong? Maybe you did not do the research well enough? They learn this, too.

In addition, the teachers mentioned presentation skills, both in the native language and in English. This gives them a deeper understanding of the usefulness of the subjects that they learn at school, according to this teacher:

There are their presentation skills, that they all have to present themselves and that they also understand that they need English to present their products abroad. They also understand the other subjects at a deeper level, for instance that English is a useful tool. Many things will be forgotten, but a few will last, and this is one of them.

Another impact that the teachers underlined was teamwork skills, which included handling conflicts, becoming a leader and choosing partners well.

One other impact is teamwork skills, and since there are a lot of people in a company, you have to get them to work together. How to lead and handle conflicts? They also become more active and not so shy any more. There are some students that are real leaders, but the student companies bring up somebody else. If you let your friend down, and this also happens in real life, they realise that they should choose their partners well.

Some of the most important learning outcomes, according to this teacher, were that the students were learning good attitudes, like responsibility, handling both winning and losing, and trusting that they have the full support of their teacher.

Of course, they are maturing and one thing they are learning is responsibility, and that they need to support each other. They learn about competing and that it is hard, because other companies may win, and they may lose, and they were not ready for it. But also to know that I am always here and that they can always come to me.

Finally, we asked the teachers if they saw any differences in the learning outcomes for the girls and the boys. They were very clear that they saw a change over time, especially with regard to the fact that more girls were taking the programme and also becoming CEOs.

Earlier if there were girls and boys, the boys were always CEOs, but now it has changed. Usually they elect the person they think have the best leadership skills. It was a surprise for me. But of course we still have more boys, but now the boys take the programme and the girls take the programme, too. We have companies with only girls and only boys, but we have now mixed companies.

As the student companies evolve, the teachers also see a change in the gender roles between the girls and the boys, as this quotation shows:

> *In the beginning the boys have confidence when they start, but the girls obtain it as they see that they can do it, too. Many years ago, I asked some students to present a model of an ideal business person, and one guy says that a business man must have a beautiful wife. Well, he made two big mistakes. First, he thinks that a business person must be a man and the second one was about the wife. So the ideal is indeed changing.*

Summing up briefly, we notice several different learning outcomes for the students, both with regard to new skills and knowledge and with personal relations inside the company, including gender roles.

6 FINLAND

The case in Finland was a private vocational school located in one of the big cities, with 2,000 students and nearly a hundred teachers. Around 289 students and 13 teachers are involved in the JA Company Programme (CP). MC is compulsory for students in certain classes and optional for other classes. For all the students participating in the ICEE project, the CP has been compulsory. Entrepreneurship is one of the core values in the school's strategy and they have several teachers with education in entrepreneurship. The entrepreneurship studies are integrated into the vocational modules in the school, and the students have different kinds of projects for companies and other organisations implemented in their studies.

In Finland, entrepreneurship is emphasised within the broader education strategy of the latest five-year development plan for education and research (2011–2016), including the objective to promote entrepreneurship at all levels and to improve cooperation between education and work life. The Ministry of Education and Culture in cooperation with other ministries and stakeholders has issued guidelines (2009) for entrepreneurship education (EE). The guidelines include objectives for 2015, including a stronger focus on entrepreneurship at all levels of education and better collaboration between key players in the development of teaching methods to support entrepreneurship. Due to full school autonomy in this area, methods of implementation may vary. However, guidelines are also included as part of the core curriculum and these specify that the main focus should be on practical exercises and the creation of personal participation experiences. The learning environment may be developed in cooperation with different organisations and enterprises.

At the same time, the vocational school system emphasises competence-based qualifications to make it possible to recognise an individual's vocational competencies regardless of whether acquired through work experience, studies or other activities. An individual study plan is prepared for each student taking a competence-based qualification. The candidates

demonstrate their skills in competence tests, which are assessed by training experts and representatives from enterprises together with the candidates themselves.

6.1 Selection and focus

Altogether, 18 informants were interviewed. We had group interviews with:

- four students from two mini-companies,
- four teachers, all with higher education in EE
- five parents
- two mentors

And separate interviews with:

- head teacher
- head of pedagogy
- JA representative

Questions & answers were sent by e-mail to the:

- Ministry of Education and Culture in Finland

6.2 Hindrances and drivers for EE

6.2.1 Hindrances

A traditional way of thinking

Our case-study school is a business school, teaching ICT and economics. Entrepreneurship is one of the core values in the school's strategy and the school has several teachers with education in entrepreneurship. The school has been providing EE for several years, and according to the head teacher:

> *… it is not a big issue, in the way that it does not provoke like in primary school where especially parents see it as capitalism.*

Some parents do react, but the most important hindrances are the attitudes among students and even teachers. According to the head teacher most of the students come from schools that are quite old-fashioned, with a traditional way of thinking. They are used to the traditional way of teaching, in which subjects are separated and what is measured is what goes in, not what comes out. Our case school has a competence-based curriculum whose outcomes are measured. The school is said to be competence-oriented, instead of subject-

oriented. When it comes to entrepreneurship this means different subjects must be assembled to achieve the competence desired. This way of thinking about learning and teaching can challenge a more traditional understanding of the school system, as the head teacher points out here:

> *If you have only mathematics, what is the need? You need to put it in a context. Maybe the parents, if they don't have the idea in their own minds, they can question it. Maybe you have to motivate the students about this, why do we have it.*

Teachers' attitudes

Another barrier is related to teacher attitudes. Some teachers are still very traditional; they are not ready for the change, but they are on their way, says the school management. Especially for specialised teachers (maths, language, etc.) it can be challenging take on a broader subject area. Teachers trained for business, economics and marketing can be easier to convince because their subjects are more related to topics within EE. However, the hardest thing is to change one's way of working, from traditional teaching methods towards cooperation, guiding and holistic-oriented teaching.

> *EE is a way of teaching and also a way of learning. So what kind of teachers we have is important. Our salary system is based on the lessons you are giving. So if you are thinking about a holistic approach, where you don't count every hour, the teachers don't share this mind-set. In the past you were teaching a subject, but now you have to think you are teaching individuals.*

> *The cooperation among teachers is not easy; it depends on the teachers.*

Surprisingly, the differences between old and young teachers are not as big as could be expected. But there have been improvements. The school's experience is that teachers are learning.

> *Teachers are individuals. Traditional teaching has for a long time been individual. This is not the case anymore. It is not so easy to open your own world, even for a colleague. It would be easy to say that younger ways are easier to change, but it is not true. The younger ones are also traditional. Every year there is progress. This is nice. They are trying and this is a great thing. And of course we have some stars that are doing everything perfect!*

Students' lack of motivation

The school offers compulsory EE for business students. It used to be optional, but the school wanted to try out an arrangement with compulsory education. The main reason they have emphasised this is that they wanted the students' motivation to improve. However, in the school's experience motivation has not picked up for everyone. Lack of motivation can therefore be a hindrance in EE.

> *We have students who do nothing. In every group, there are students who don't want to participate. In each group there may be six or seven MC. At least I can say the amount of dropouts*

has not increased (around 65 per cent of the students are completing their qualification within three years). The amount of dropouts has declined since we have taken the team-learning and EE. I believe the learning by doing is important.

Non-governmental finances

Throughout the whole of Finland there is an extensive specialist EE network that offers teacher training, promoting cooperation between schools and businesses and providing educational materials. These make up the so-called YES network, which operates in 17 regions throughout the country. The work JA is doing is also part of this network. The YES network is not paid for by the government, but is funded by grants and local support. At the same time the Ministry of Education and Culture has set some EE goals in which the YES network is the main provider of training, material and support. This is problematic, and the lack of governmental finances is perceived as a main obstacle, according to the JA representative.

6.2.2 Drivers

A national progression model for implementing EE

One of the most important drivers is the state strategy stating that entrepreneurial education should be integrated in the whole school system. Finland has established a progression model for implementing EE at different levels of the educational system, but it is still more common in the vocational schools than in the general schools. The school has a curriculum with 'an entrepreneurship ribbon' inside as one of the core values at all stages at the school.

According to the Finnish Ministry of Education and Culture, other drivers for the national implementation of EE are structure changes in society – such as high unemployment among young people, changes in professions and global economic frameworks, and a public sector which does not give carrier paths to young people.

The head teacher's role

Our data show clearly the importance of the tutorial in implementing and spreading EE. In our case school, the head teacher has arranged for the teachers to have good formal qualifications in entrepreneurship. The school collaborates with the university in providing supplementary education for teachers. The head teacher's role in building competence among the staff is one of the core issues of the school. The school has been working very systematically to implement EE at all levels:

…both from the bottom up, and from top down. We have been together in teams; all the teachers are involved in curriculum development. Also the students are involved. The decision of putting entrepreneurship in the core is based on our strategy.

A network of business relations

Finland has several regional networks for entrepreneurial education, called the YES network, which operates in 17 regions throughout the country. The work JA is doing is also part of this network. YES is a specialist EE network, promoting the establishment of EE by training the teaching staff, developing training and entrepreneurial education, promoting cooperation between schools and businesses and providing educational materials. In that way the model for the network is to serve the needs in the region. The YES networks are supported by schools, joint municipal authorities, regional development organisations, business associations, municipalities and entrepreneur associations. It is funded by supporting partners and through project grants. The head teacher emphasises that this network is an important arena where teachers can find mentors who would like to volunteer for the schools.

6.2.3 Strategies to spread entrepreneurship education

The most important strategy to spread EE is to implement entrepreneurship as a core value in the schools' strategy and pedagogic curriculum.

Further, the school system must adapt to a new system, a new way of thinking about teaching and learning. In order to achieve this it is important that the management of the school is positive and dedicated to the issue and works hard for it.

> *After we made the pedagogical strategy, we made our own curriculum. We made an entrepreneurship ribbon inside. The first year they have the camps, learning in teams and at the end of first year, they have a challenge camp making their business ideas. Starting second year is based on the CP. All modules are combined to the CP. The third year, they join a cooperative owned by the students. They put money in it and are members of the cooperative. They can have projects; they acquired themselves from real work. Hopefully they can earn money. Two teachers are taking care of this. It is voluntary. All the young students… This is the first time we try this curriculum. If they are specialised in business administration and accounting, they have a financial service module. The students are in the same group, but have different teachers. On the job, learning is compulsory. This is the mini-company.*

Another suggestion to improve the programme is to let students initiate the relationship with the mentors. A way to achieve this is to let the school invite people from outside to tell about different subjects and professions.

The head teacher stresses the importance of networking, to speak about the school in influential settings and to get funds from the state and local businesses.

6.3 Preparation and training for the Company Programme

The teachers are all trained in EE, both formally and practically. Since this school has entrepreneurship as one of its core values, it is desirable for teachers to share experiences and training. Usually teachers cooperate with teachers sharing the same ideas or attitudes towards entrepreneurship. However, it also depends on knowledge about entrepreneurship and knowledge, not least, about the JA programme. Many teachers don't know anything about this programme or the EE concept. Therefore cooperation in the collegium is arbitrary and up to the individual, although it is part of the school's strategy to have 'team teaching'. According to the informants, the school does not have the necessary resources to implement this principle.

Cooperation between teachers depends on the teachers. The school leaders do not monitor it. Teachers working with CPs get together and cooperate, but there is less cooperation with teachers outside the programme's theme.

> *We do have some cooperation with other teachers, for instance financial services and communication and languages. However, it depends on the teacher. It is more positive now. Colleagues used to be suspicious.*

> *I have worked with one in customer service and she is very interested. It is teacher-dependent.*

6.4 Assessment of the Company Programme as a working method

6.4.1 From the perspective of the students

One of the most important roles of the teacher is to be motivator and guide for the students in the MC. Some students work very independently, while others need pushing because they lack motivation and find the method demanding.

6.4.2 From the perspective of the teachers

According to the teachers, they follow the assessment system that is integrated in the JA manual with periods of assessment every nine weeks. This is the same for everybody, but it is also adjusted to each individual because some teams are very self-driven and others need close monitoring. Therefore, some of the teachers say they need to do continual, weekly assessments.

The teams are either very good or very poor, not in the middle.

(…) They have also understood that responsibility is important, that all members do their task. But other groups… I don't really know what they have learned… I have to push all the time!... That business is not so easy, maybe?

Therefore, the assessment practice varies among the teachers, adjusted to how the different teams work, and how responsible they are. Moreover, individual assessment, group assessment and peer assessment are all practiced. The teachers emphasise that they use the same assessment criteria for everybody. This is the body of criteria developed by JA. Students are not involved in criteria development.

6.4.3 From the perspective of the parents

The **parents** had little information about EE. The boys' parents in particular found it hard to remain informed, for the boys said little at home, and when asked directly they would reply with phrases such as: 'Just relax, everything is going fine. We're rowing it ashore.' The girls might say more about what they were doing in the MC. However, the parents also longed for written information. They had little or no contact with the school concerning the MC work, and they could not remember being given any particular information about the programme's issues and progress.

In general, parents found it difficult to see how the MC was set up with regard to progress – what was to be learned, in which time frame, and how the students were to be evaluated. They gave the example of the business plan, and the feeling that students had to move on to the next phase without receiving feedback on whether their plan was good or even realistic. Did everyone in the group agree on the plan, or did one person make it without the others' involvement? How do the teachers handle the fact that everybody should have a relationship to the group's business plan? What do they do to achieve this? The parents are worried that 'steps' in the structure, like selection of a business plan, are passed through without guidance or assessment – not only the teacher's assessment, but also the peer assessment. We know from the teachers' interviews that the assessment is done in different ways, which one must assume affects the individual's learning process and learning outcomes. One teacher tells us that he requires each student to present his or her business plan for the rest of the group in order to ensure that all of them have a relationship to the plan.

The parents also questioned the way the CP was connected to other subjects at this level.

It is hard to see the structure. It is lacking. It is too easily thrown to the kids, it does not sit in a structure, I cannot see the structure.

Others around the table are nodding. And one of the other informants' replies:

> *I see how it is linked to other subjects, but I don't know the structure, how are the steps building on each other in the structure.*

> *I think that the problem is… well, the good thing is that the girls are eager to do something…but I agree that the structure is not clear. First, you have to do the basic analyses. I don't know if they do that? If they are responsible for marketing, accounting or… I don't think the school has connected this.*

In the interview the parents keep discussing whether this lack of information about the structure and the programme's link to other subjects is actually a matter of being given the recipe first or having to experience real life first. They tend to support the 'being given the recipe first' approach. On the other hand they are all very satisfied with the practical and non-theoretical way of learning:

> *The good side is that they are doing things that are not too theoretical.*

> *I am happy that this has a 'hands on' approach more than a theoretical approach. Our daughter had not learned this by books. It is a good way of learning. The students are growing up and the parents cannot monitor so much anymore.*

6.5 Learning process for students

6.5.1 From the perspective of the students

Students point out that they have come a long way this year! For example, in marketing, they started to talk about the product with family and friends in the beginning; later they participated in a fair at the school, and now they are presenting their product in the 'real' market. They describe it as a gradual learning curve.

They have three teachers cooperating within the CP. They estimate the MC teacher's part to be about 50 per cent, with the two other teachers contributing about 25 per cent.

One of the mini-companies did not have a mentor. The other one had four. The students questioned the need for a mentor, although they see the benefit of having someone to discuss with and seek advice from.

6.5.2 From the perspective of the teachers

The teachers believe some students find the MC method challenging. The method requires a lot of the individual. Actually, it is hard for everybody, but some students may find the

working methods easier than others do. Some do not want to spend so much time or energy on schoolwork; they would perhaps rather listen to lectures than have to work by themselves, one said. Moreover, some students may think the MC is a way to be laid-back, but they soon find out differently. This has proved even more challenging now, after the MC became mandatory, it is said.

> *Some are not interested in using their brains. They prefer to listen, not to work themselves. This is a big problem. Now it is mandatory so we have more of these pupils now.*

> *Some say that ordinary teaching is better. They don't want to do the job themselves.*

The teachers find that students bring different levels of motivation to the programme, and see such variability as one of the programme's disadvantages now that it is mandatory. Earlier, students who didn't manage the MC programme could quit; now they cannot.

Another interesting issue discussed by the teachers is the fact that motivation and work ability do not necessarily have to do with students' personality or character. They can also be influenced by the group's composition:

> *(…) some people don't benefit from this model, but others do. But the reason is also that they are not in the right group, or let alone. They might have shined in another team.*

We are told stories of students who went on to great success after changing teams. There can be several reasons why some people work well together, and others do not, but generally speaking it is important to pay attention to team composition. In general, students choose members for their company themselves. Sometimes they need some guidance from the teachers. We also know from interviewing the students that mini-companies are often composed of friends. This is also the reason they generally do not quarrel, the teams say.

6.5.3 From the perspective of the parents

By the parents it was pointed out that this way of learning could be difficult for students unaccustomed to working independently. Some of them had the sense that that it was difficult for their child to succeed in the MC programme, because the way of learning was too independent and their child needed more guidance than was offered.

Another issue was dedication to the product. One of the MCs had passion for its products; the other group did not. One needs to be passionate about the product or service being offered, in order to promote it in a convincing way. One company did not do well because it had no motivation to sell and did not believe in its own product. Therefore, the members gave up their business and joined another company. The problem then was that they did not have the ownership of this product, and consequently lacked the convincing attitude that was needed. The parents could not tell whether this was due to the product itself, a failure

in marketing or the fact that the members did not choose it themselves. The lack of motivation among these boys made the parents question the whole idea of the MC as a compulsory programme rather than a voluntary one that could prove more motivating.

6.6 Learning outcomes for students

6.6.1 From the perspective of the students

Students mentioned business life, marketing and selling as important knowledge they have obtained. They have also learned that it is hard work being an entrepreneur, that it is important not to be lazy and that there is little spare time during a day.

They have learned that everything costs and they need to make a profit. A typical experience is that they sell their products too cheap:

I 1: We invested 40 euros each, and now we have sold for 500 euros. After we get the latest bunch, we will sell for 800.

I 2: We have sold for 3-400 euros, but we had low prices in the beginning, so we could have earned more.

I1: The money is motivating us to get into the MC!

I2: I remember when I heard about this project I found it very motivating to run a real business. In the beginning, we were a bit anxious, but not anymore. In the beginning, we thought it would be difficult, but it is not!

However, more important is the experience of the relationship between earning money and being able to sell your products. Several students mention selling and marketing as important learning outcomes for them. Interestingly it seems they have learned that marketing needs to be done in a personal way:

I have learned about the sales letters, how to sell our own product in a positive way. I tried to sell the product to my dad, but dad interrupted me already after the first sentence and said try to find another way to sell your product. We have also had the marketing fairs downstairs where fellow students have come to our stand and asked about the product. When we had this sales event each of the team members sold the product, so that everyone would test what is the best way to sell the product. Everyone tells about the product in his or her own personal way.

I have learned entrepreneurship marketing and how to sell your own product. We have figured it out ourselves when things did not work out, but we also had marketing classes where we could pick up the right way of doing it. But I think I have learned most by doing things myself, learning by doing.

Maybe the fairs we had here, where we had to represent our own company – there I learned a lot. That was really nice. I learned how to market my company and how much you as an individual were able to influence the marketing.

Further, they have learned the importance of getting along with other people and the need to talk about problems, and not to blame others. They are acknowledging diversity and the need to work with different kinds of people. One of the informants described a situation in which there had been a complaint among some of the MC members. They talked about it and sorted out the problems themselves. She adds:

I think I have learned most by doing things myself, learning by doing.

The students are also aware that parents are positive to the mini-company way of learning:

We talk to our parents about the MC and they are all positive. The parents think that we are learning better by learning by doing. It is good to practice before the real world, they say!

6.6.2 From the perspective of the teachers

According to the teachers, students have learned how to start up and run a company. They know something about the effort it acquires. However, they have also improved their skills, especially in communication and languages:

Especially communication skills and language skills have improved, and the selling skills have improved.

Improved selling skills are also connected to a more psychological attitude towards overcoming shyness. The students learn about themselves and they learn how to cross mental borders within themselves, as this teacher points out:

I notice that the students have got courage during the programme. They went to hand out flyers to people they did not know, and the same team visited their mentor, a big thing for them. They were much stressed, but got over it. One group of shy girls called the company that made the products. Making the call was a good learning experience.

A major factor in school motivation is how well a student's business has succeeded, says the teachers:

The school motivation is connected with the business successes. If no success, no happiness.

6.6.3 From the mentors' point of view

The mentors are concerned that students should have the ability to try to experience things they haven't done before. In this way CP is very good. It is practical, efficient and gives

people the opportunity to experience some facet of their own ability, and also to strengthen their self-confidence. Some people have the talent, but lack the courage, says one of the mentors.

6.6.4 From the perspective of the parents

Maybe it has taught him patience, since it is lasting for a whole year. The autumn season was boring, but now it is getting better. I don't know if he has learned to run a business. Maybe the value is not about running a business, but other things?

The parents focused their conversation on 'hard skills', for which they had trouble identifying the learning outcomes because the process had not been transparent. However, after one of them mentioned the topic of cooperation, they started talking more about 'soft skills'. The parents discussed teamwork, cooperation and the value of working together. They see the value of their children spending time together after school, working with their business. The children learn that they have to put more effort into the work if they want to become an entrepreneur. But more important are the lessons of managing one's own life, surviving in different situations, opening a bank account, paying bills – all of them important in real life, the parents say.

7 ITALY

The Italian case is a big public school in one of the biggest cities, a combination school of both vocational and general students. The vocational school had for a long time offered JA Company Programmes (CP) to its students, while this was the first year this activity was provided in the scientific classes. The ICEE project involves four classes from the vocational school and two classes from the general part of the school, and all the students participating are from the fourth year. The students have three to four hours a week in the CP.

None of the teachers we interviewed had prior experience with entrepreneurship education (EE).

7.1 Selection and focus

Altogether, 10 informants were interviewed. We had group interviews with:

- four students from three mini-companies
- five teachers

And separate interviews with:

- head teacher
- JA representative

In addition we had a short question & answer exchange by e-mail with the:

- Ministry of Education, Universities and Research in Italy

7.2 Hindrances and drivers for EE

7.2.1 Hindrances

Traditional pedagogy

'It all comes down to attitudes' is a sentence we heard several times – attitudes towards entrepreneurship in general, towards new teaching methods, towards change. In the different interviews, attitudes and ignorance among teachers, students, parents and employers are given special attention.

The first challenge was to train the teachers in entrepreneurial methods. Teachers from general schools are traditional, and they teach in traditional ways, the head teacher says. It was challenging to ask them to change the way they teach. When EE permeates our school system, we will need to change our way of teaching, was the general tone. On the question how the school head teacher managed to handle this challenge, she answered:

> *I said you have to!*

Lack of knowledge of own surroundings

Young people seem to know little about their own environment, according to the head teacher at this school, and they have no thoughts about the kind of future they are heading into. It is important that students have knowledge of their communities, their region and their country and of what kind of needs and challenges they face and how to solve them. Students need to know the variations that exist in different regions and cities of the country, including variations in commercial and industry structure. Therefore, it is important to have the kind of knowledge the CP provides. No other school subject covers it – at least not in the general school.

Prejudices

Another barrier, as this informant saw it, is that parents, too, lack this knowledge about needs and opportunities for their kids. There is a widespread belief among parents that the entrepreneurial methods are useful only for those students taking practical and aesthetic subjects.

> *In general, Italian parents consider students who attend lyceum as heading to the university. So they don't need to waste time on learning by doing.*

People have the perception that entrepreneurship is about business. Therefore, there is a challenge to widen the perspectives and associations with regard to what entrepreneurship can be, and to show the benefits that such activities have on young people's professional future.

There are also prejudices in the other direction, from the business sector to the school sector, with the business sector expressing difficulty finding things to offer students from the social science subjects. The head teacher experienced this challenge when the school tried to find companies to cooperate with in the programme:

> *It is important to underline that in Italy we consider vocational school freer than the others; it was difficult to find companies that would cooperate with the scientific or linguistic or classical (lyceum). That was much more difficult.*

The law's lack of clarity

In September 2014 the Italian government published 'La buona scuola', a set of guidelines for a comprehensive reform of the school education system, and in March 2015 the reform was presented as a draft law. One of the main elements of the reform is 'work-based learning', under which traineeships are to become compulsory for students in the last three years of upper secondary education. That law is unspecific as to what to do and how to do it, and both head teachers and teachers feel unsure, as the following quotations indicate:

> *To me it is hard to say, the ministry really doesn't know exactly what is going on because they left it so open. They really don't know. The teachers don't know how to do it, how to embed it. There needs to be some more for the teachers.*

> *The ministry felt there is a need for this kind of activity, which is a big step in this traditional system, but it is hard for them to give clarifications for how it should be embedded. If you could pinpoint what students should learn it would be easier to say how to get there. Then it is not only the MC.*

The fact that the whole reform programme is left so open from the ministry can be a hindrance. The teachers do not know how to implement it. There are many different aspects and methods and theories in EE, with MC only one of the methods. It was entirely up to us to interpret this, say the informants.

> *The ministry gave us a law and obliged us to follow these instructions, but didn't give us instruments on how to follow (teacher).*

MC is associated with business

Even though this school had been doing work-based learning for a long time, because of the confusions described above, resistance by the teachers was massive. In addition there is the attitude against the MC method. For some of the teachers, this method is too strongly linked to business. Entrepreneurship is associated with 'money making'.

> *We have a lot of projects in this technical school and we have had them also in the past, but without the organised programme it is more creativity and that kind of thing. Learning by doing is*

compulsory here. It can be used in all subjects. But the teachers link entrepreneurship to money. For this reason most teachers refused the MC idea because most of them think it is not good to have entrepreneurship in all subjects because it is understood as money. They don't like the part that is linked to money.

Competence, training and information

According to the teachers they have had four hours at most of training in the CP. They feel they lack knowledge about the project that they are to commence. They have studied the material from JA and have been self-training at home, but they request both more training and more general information. This is related at least in part to their self-confidence. They have been studying on their own, reading the manuals from JA and figuring out the next step by studying it with their students. This has been a good thing, but it is also unsatisfactory to be a novice when you are meant to be a guide, they say. One way to overcome this obstacle is of course to follow the same programme next year, but they also suggest more teamwork and the possibility of discussing and sharing experiences with their colleagues. In order to achieve this, the programme must be organised and facilitated from the top of the organisation.

Teachers should work together, but this doesn't happen. Through this new law we had the chance to do it, to work together as teachers. We haven't understood yet what to do to reach this goal.

What we miss is information, so people on the top should play an important role in how to start and organise for example this project. I feel that teachers are walking alone. On one hand, the institution (administration, leaders) should communicate more to all the teachers, and decide how many teachers should be trained. In my opinion, administration should modify teachers, as teachers modify students.

7.2.2 Drivers

'La buona scuola'

'La buona scuola' is a set of guidelines for a comprehensive reform of the school education system in Italy, and in March 2015 the reform was presented as a draft law. One of the main points of the reform is 'work-based-learning', under which traineeships are to become compulsory for students in the last three years of upper secondary education (at least 400 hours for students in vocational education and 200 hours for students in general education). Traineeships can take place either in the private sector or in public administration (Education and Training Monitor 2015 Italy, European Commission 2015).

This new law is an important EE driver in Italian schools. Until last year JA Italy presented its programmes as something in addition to what the school was already working on, according to the JA representative. No programmes were embedded and there was no strategy for entrepreneurship in the school system. Now JA Italy has the opportunity to give the schools a concrete model for entrepreneurial education.

The head teachers are responsible for making a plan to implement EE in their schools. One teacher is responsible for coordinating the activities at the school, and more of the teachers are responsible for implementing it into their classes on the basis of a required guide, with instruments, manuals and tasks, developed by the ministry. It is up to the schools to decide what they want to do, and they are quite free as along as they fulfil their responsibility.

Colleague training

Since the school has a long history of practising entrepreneurial education in vocational classes, there are several teachers who are capable trainers in EE. The head teacher therefore decided that vocational teachers should give training to general teachers. This worked out very well. They met little resistance in the teaching staff, probably because the teachers were trained by their own colleagues, says the head teacher.

> *Then they had meetings between teachers from vocational, already trained, and teachers from scientific. They shared ideas and helped each other. Each class has a kind of tutor that gave guidelines to other teachers how to manage this new teaching. In the beginning of the year, September, they made a schedule of how many hours in each subjects, so it was easy for teachers to follow.*

The head teacher's role

It takes leadership to overcome the different barriers that arise. An innovative and persistent head teacher can be an important driver in this regard. If the head teacher is dedicated and believes in the project, important obstacles will be cleared. That was the experience in the Italian case:

> *The head teacher was very favourable of this. When you have a head teacher who wants to do this kind of thing, it is a door opener.*

7.3 Preparation and training for the Company Programme

The interview with the teachers dwells on their struggle to get CP integrated in the subjects. They have had minimal training – four hours directed by JA – and feel they have been left very much on their own. They assure us that they do the best they can, but it is difficult. This is the first year of CP for all four teachers. None of them is experienced and they feel they lack competence in key issues. The hardest part has been the business plan, with which they were completely unfamiliar. They have picked up knowledge here and there, and they have used the experienced students as a resource.

There has been little teamwork among the teachers, and therefore few opportunities to discuss and share experiences. However they have worked a lot individually. They believe management should take more control of CP's integration with subjects at school. A plan for this work should have been made.

Some students do not participate, and these are the same students who are little involved in other subjects as well. CP is separate from the other subjects they are pursuing at school.

The teachers have little or no contact with mentors. When mentors participate in the class the teachers usually go out and do other things, they tell us.

7.4 Assessment of the Company Programme as a working method

7.4.1 From the perspective of the students

The students say they have free rein, something they appreciate. The teacher gave them some advice along the way, but essentially they have tried to find their own way. The students give high marks to their teachers for dedication and for making themselves available when needed. The students got the feeling their teachers wanted them to succeed and therefore put extra effort in being available, although the students experienced support from teachers in all other subjects as well.

7.4.2 From the perspective of the teachers

Teachers say they have tried to integrate CP with other subjects, but that this has been difficult. One says she prepared a questionnaire in English that asked students to answer questions dealing with the CP. In this way she could examine both their knowledge of English and how much they had learned from being in the CP. Another teacher says he finds it difficult to assess whether students have adequate knowledge and experience related to what they will do. The challenge is that students acquire knowledge about the entire product in question, but without understanding the components that make it up, he says:

> *The students chose a project without having real skills; the problem was to support this project by providing my students skills. But my students lacked basic knowledge. They made the project, but I feel the need to make them understand what they did step by step. But they didn't really understand how.*

In general teachers find it difficult to evaluate students' involvement in the mini-companies, but some of the informants claim that there are no differences between this way of assessing and what they do in other subjects. It is all about putting up some goals for the students to reach. What they see is that there are differences in the maturity level of students aged 16 and 17 years. They feel that there are more of the younger students who do not find motivation in CP, probably because they are not mature enough to handle the responsibility they are assigned when working in a CP.

7.5 Learning process for students

In the interview with the students, we were presented with how the process had been conducted in the project. The class started with a brainstorming session in which they put down all the ideas they had. The next phase was to separate into different groups. In one of the companies, the members had a much more planned progression, with people working at different tasks at different stages. The other company arranged its process differently, working together on one task until it was completed before moving to the next. Common for both of them was the independence of the learning process. They expressed satisfaction at being in the driver's seat of their own learning process. At the same time they felt confident that their teacher would help if they needed guidance.

> *We are running the process ourselves. Teachers trust us and in the end teachers want results, they don't want to know how – they want the results. Of course there is supervision from teachers, but we are free to manage and arrange everything.*

> *At the very beginning they gave us some guidelines, how to start and arrange the meetings and this sort of thing. After some time we asked for help when needed, but we did it by ourselves.*

The informants were all associated with vocational school and stressed that they were accustomed this kind of project and development, compared to the students from general who did this for the first time.

> *Attending the vocational school, we are trained for this. By comparison, the students from the scientific school asked for help all the time. For the first time they worked on a product to trial, but for us this is more common.*

The main impression from the interview with the students is that they are positive and reflective about what they are involved in. It sounds as if they enjoy school, and they have nothing negative to say about the scheme. Nor do they have problems with some member sabotaging the project or dropping out. This is a recurrent topic in the interview.

The biggest challenge has been to create a business plan, the students say. This is also what distinguishes the ICEE project from other types of projects they have. They talk about the experience as being more realistic, more complex and closer to the way things are done in real life. Unlike other shorter projects, the ICEE project gives them the opportunity to develop their project over time. Therefore, the students emphasise the length and complexity of the CP as an advantage, giving them the opportunity to catch up on subjects they might have missed and to reflect upon what they have learned. It is a more instructive way of learning, they say.

> *JA is considered a really wide project with lots of subjects involved. In this way all the students have a chance to improve, because if I miss something I have the chance to fill the gap.*

The funny thing in my opinion is the fact that I choose a project. It is not like this in other projects. We can chose other projects also, like we stay in a room for three days to create something, but it is a short time, so you don't have the time to learn. JA is a long time, you have the opportunity to learn and reflect upon the learning.

The head teacher and teachers put a lot of emphasis on students getting to know their community. They find it important that students should become familiar with what kind of opportunities they have, what the region needs and what they can do in the future. Italy is varied. There are major differences from region to region. It is important to know what kinds of opportunities exist in your region. It is not just about getting to know the business; social entrepreneurship is important, too. Therefore, the school works extensively with local organisations and associations.

7.5.1 Student-teacher relations

The students are very positive towards the teachers who have been helpful all through the process, guiding and helping to modify and improve it. At the same time, students stress their ability to freely manage and arrange things by themselves:

At the very beginning they gave us some guidelines, how to start and arrange the meetings and something. After some time, we asked for help when needed, but we did it by ourselves.

The teachers give us time, skills, experiences and to work by ourselves. In the morning we can work on the project without staying in the classroom and in the afternoon they can invite us home.

Our teacher invited us in the afternoon to discuss the company and the project, so she is very dedicated.

This is not typical for this project; this is in general. Generally speaking, I can say that teachers here in this school are very, very kind; we can contact them whenever we want.

Some of the teachers highlight the pedagogical advantages of this way of learning. They feel they have gained a greater understanding of their students and managed to gain a closer understanding of each individual's personality. This is directly related to the way they have been working with the CP, which they describe as a different way of teaching and sharing time with students.

It is a positive project. As a teacher I learn a different way to teach and share time with my students; I really understood my students' personalities.

The head teacher says that she sees a clear difference in the way the teachers relate to their students. It is the relationship between teacher and student that has made the greatest impact, she says. The teachers realise that students are knowledgeable; they are creative and

have many ideas. Teachers are now paying more attention to students and they are talking to them in another way than before, she concludes:

> *I can say that what has changed is the relationship; teachers listen to students more than before. And teachers often wondered about all the creativity and so many project ideas the students had! (…) In the end students are very happy, first because they understood how to work in teams, how to cooperate. They saw that their teachers were more involved in the students' life, they took part in the students' ideas, and they noticed positive involvement between the students and the teachers. Because teachers paid more attention to students, the students became the centre of the lessons. This was a big change.*

7.6 Learning outcomes

7.6.1 From the perspective of the students

What is most accentuated among students in terms of learning outcomes is cooperation and independence – both the importance of involving everyone and the importance of self-reliance, or not waiting for others to tell them what to do.

> *It is important to have a big sense of involvement. To involve students who are more shy, the first thing is to involve everybody, that is important. The second is to be prepared to face challenges and to work on what we have missed and to improve it.*

> *Of course, this is good because you get the skills and the information about future and work. But I agree that because of this MC I am learning to be more independent, not waiting for a teacher. Take a book and study. So I learned how to work. You change the way of working.*

As this quotation shows, some students say they have learned how to be more pro-active, and therefore changed how they worked. They are no longer so dependent on their teacher.

> *Learning how to be more pro-active is an important outcome.*

> *Yes, it is important to be kind of self-sufficient, to take a book and read and try to work in advance, be prepared.*

7.6.2 From the perspective of the teachers

They teachers point out that students are committed and enthusiastic and have learned a lot about teamwork and taking responsibility. They have learned that everyone is responsible for his part, and that this responsibility must be followed up. They have learned to take more responsibility for their own learning, to go to the books and search for their own answers when they are stuck. They do not always ask for help, but try to find the answers by

themselves. Some of the students joined EE also last year, and they help other students in the lower grades. They therefor experienced how it was to be a tutor.

Teamwork, learning by doing, responsibility – that's what they learned.

For most of the students the experience of working and creating something together was new and unfamiliar. In this way the project was an awakening for the students, according to the teachers:

For my students the project was an awakening. The learned that they enjoyed to work altogether.

I like to say that entrepreneurship is organisation through a shared method. Students usually study alone and are not able to work together. Through this project, they experienced how to work together, sharing ideas, and spending time together is important. The project helped students even though there were delicate phases.

Another important aspect of the CP is the change in attitude teachers have noticed among some students. First of all, the CP has been important for those students who do not show much interest in schoolwork in general. By working together in an MC they have been integrated and given a role, and consequently experienced the meaning of teamwork and practical work. The result is that students recognise themselves as part of the project, and therefore have a good time.

In our class there are students that are not so good but are good in the MC. They have been really integrated into the MC.

Through the project and my communication, they changed their attitude towards the project and the school in general. Some students lack skills so they have difficulties, of course, but I am talking about school attitude. When they meet me, they tell me what has happened, what they did. They want to share and that is positive.

However, some of the students are not mature enough and have problems especially when it comes to teamwork and being responsible for their own learning. This might be the first time they engage in this kind of cooperative work, and for some the experience is difficult:

I have a class of 18 and a few of them are not interested. They are young, only 16, and it is the first time they work in team. It is a difficult experience for them too.

I see some students improving a lot, but some are not interested in learning and not interested in MC.

The teachers are curious as to what will come after the project finishes:

> *Organisation – how to move on with our normal program and link it to this new programme? We should be able to link our normal programme to this new programme. We must be multi-tasking. It depends on how the administration implements it.*

8 LATVIA

In Latvia we visited a vocational school with more than 600 students. Altogether the school has 24 study programmes, and students from all the programmes can cooperate in the student JA Company Programme (CP). The school also collaborates well with local entrepreneurs, and in recent years the parents have paid increasing attention to the programme.

8.1 Selection and focus

Altogether we had 13 informants in Latvia. We had group interviews with:

- six students from three different mini-companies
- five teachers, all female

And individual interviews with:

- head teacher of the school
- JA representative in the region

Questions & answers were sent by e-mail to the:

- Ministry of Education and Science in Latvia

8.2 Head teacher on entrepreneurship education in the school

According to the head teacher, the school is engaged in entrepreneurship education (EE) mainly because it is a vocational school with teachers who are interested in EE, but also because they have the equipment for running student companies.

> *We are engaged in it, because we are a vocational school, and because we have teachers that are really interested and enthusiastic about it. The school teaches for example accounting and chefs how to cook, and they have the skills to make a production out of it, and we have the equipment at the school that they can use, and they can grow from that experience.*

In addition, the head teacher explained that EE was part of the school curriculum and a choice that every school made itself:

> *The programme in entrepreneurship education is obligatory in the school programs, but on the national level it is a choice for each school. Since it includes after-school-time activities, it is up to the school.*

In response to our question about the school's future EE plans, she said:

> *We will continue this company programme and try to get the students to become more entrepreneurial. In this programme they can implement something new, and they can gain some practice and take their idea internationally as well.*

The teachers confirmed what the head teacher said with regard to the place of EE at their school, and one of them answered as follows:

> *In each and every programme, for instance in business and economics, they can have mini-companies or they can learn about it in theory and just write the business plan without the practical part.*

With regard to a national EE plan in Latvia, the teachers said there are some goals, but mainly at the university level. The teachers confirmed that there were few national guidelines:

> *On the national level there are some goals set for the schools for entrepreneurship education, but not for this school as we already have it in the curriculum. Also, the plan is mostly for the universities and not for the vocational schools and does not affect them that much... No, there are not many guidelines from the national level.*

8.3 Hindrances and drivers for entrepreneurship education

8.3.1 Some drivers and one major hindrance

One EE driver, according to the head teacher, was the teachers' interest and enthusiasm in the subject; a second was the personal growth of the students; and a third was the fact that EE fit into an ongoing discussion about critical thinking and creativity in Latvian education.

During the group interview the teachers also expressed pleasure in seeing the students' company presentations at the school's trade fair, and described this as a key driver for their work with the student CP.

> *We had a trade fair at the school, and we had 38 companies that presented their products. It was good for all the teachers to see the students in a different light, being in a different setting and presenting their products. The teachers were very proud of their students.*

Furthermore, the teachers we interviewed had no problems with the other teachers' negative reactions to EE and the student companies. It was rather the opposite, due to the fact that the students also asked for support from the teachers of different subjects in their student company work. When asked if the other teachers felt that it affected their subjects in a negative way, one of them said:

> *For the other subject teachers it is the opposite. It does not have a bad effect on their subjects. They can go the teachers and ask how can we do this, for example in math they can use it there. They go to the teachers and ask them about how they can do this and that.*

Both the head teacher and the teachers cited primarily the drivers when introducing their school's EE and mini-company programme. In fact, the only – but major – hindrance that they brought up was the lack of a national EE plan for all educational levels in Latvia.

8.4 Preparation and training for the CP

We asked the teachers how long they had been teaching EE and the mini-company programme. Among the five teachers, three had taught EE for 12 years, one for six years and one for three years. As to the mini-company programme, three had used the programme for six years, one for three years and one was just starting up. In sum, the teachers had considerable experience both in teaching EE and the mini-company programme.

During our interview they pointed out that they worked together as a team, and that they divided the tasks among themselves.

> *We are a team, there is no boss here. We work together and decide who is responsible for what. We divide the work between us.*

In response to our question about what kind of EE teacher training they had received, they said that they had learned it from their studies at the university and from courses from JA Latvia and from other universities, but that it was not specifically included in their teacher training.

> *First of all, we learned it at the university. We had subjects that included entrepreneurship, so we learned it from that. Then there are courses from JA Latvia, and there are courses from other*

universities that also include entrepreneurship. Some of us also take part in seminars about teaching entrepreneurship as a whole… No, it is not included in our teacher training.

With regard to their understanding of the concept of EE and the mini-company programme and the difference between the two, they felt that EE provided the theory while the mini-company programme added the practicality, and together they made up the whole concept.

Before it was entrepreneurship education and that was just teaching the theory, but now with the mini-company programme the students can also learn about it in a practical way. They learn entrepreneurship education through the practice, and since this is a vocational school they have many programmes and try to include it in every subject.

The core issues for the students using the mini-company programme were about learning to plan and carry out their project. Often the students discovered that this was not as easy as they thought.

It is that the students need to learn how to plan their project and their finances and to communicate and also to do all the paperwork. It is not as easy to do it yourself than it seems if you see it from outside. From the outside they think it is very easy, that you can have an idea and then the next morning you have a company, and everything is ok, and that there is not much more to do.

The teachers also underlined the importance of the students being able to evaluate themselves and to find out what role they wanted to play in their future jobs.

It is important that the students can evaluate themselves, how it is and what it is, what is the core of it, also how they feel about their work, if they can work alone or with someone in a team. It is also that the students can find out if they will be working for someone or if they want to be a leader in the future.

8.5 Assessment of the Company Programme as a working method

8.5.1 From the perspective of the teachers

Due to very good feedback from their peers the mini-company programme had now spread to all students at the vocational school and this made the programme a success, according to one teacher:

Now all the students from all the programmes can participate, and what keeps the programme a success is that the students hear about it and get good feedback from their peers, and then they want to do it themselves. It is not for the first-year students, but the second- and third-year students.

The teachers were very dedicated when it came to their guidance of the students, as this quotation shows:

> *We never say no to the student. We always say yes. If the student contacts us, we talk to them and give them guidance. The preparation for the national competition and the trade fairs is done outside of the school time and on their free time and sometimes ours.*

Not only the students, but also the teachers put in a lot of their free time working with the mini-companies, especially in connection to the national competition and the trade fairs. The reason is the fulfilment the teachers feel in seeing the growth of their students, as this teacher did:

> *It is because of the fulfilment. The students grow, and we see the growth of the students. We see the change from the students sitting in the classroom until they are presenting their idea at the trade fairs. We see a big difference.*

Another teacher mentioned the gratification of seeing the students mature and the valuable practice they gained during the programme that made them understand the theory better. In addition, going abroad to present the idea motivated both the students and the teachers, and was a driver for the other students at the school.

> *I see the students grow and coming with their first money and I see the happiness of the students. When the students have done this in practice, then the theory is also more interesting for them, and it is also easier to teach them. They are more enthusiastic about it all. They understand it more. Then the students from the mini-companies can be a driver for the other students to try the same thing. They can explain it to them. There is also a lot of motivation for the students when they go abroad and present their things internationally. There are a lot of emotions from the students and the teachers as well.*

The teaching is organised around the material received from JA Latvia, but the teachers also have to improvise and they do not have a set schedule for teaching. They have to be available for the students whenever needed.

> *Yes, there is the material from JA, but it also depends on what the students do. We improvise on the spot. There is not a schedule. We do not measure our work in hours. Sometimes there are quieter times, but it depends on the students and the companies.*

Another teacher agrees and calls this 'a natural way of learning', as we can see in the following quotation:

> *No, they do not have set lessons, and yes they also use their free time. When the students need help, they come to us. It is a more natural sort of teaching. They come with their problems, and they do it when they need it.*

When asked if they were paid for using their free time, they laughed, and one of them answered:

A little bit.

The teachers explained that their role was mainly that of a consultant and sending the students to other relevant teachers, if they themselves did not have the necessary expertise. One teacher pointed out that some of teachers simply enjoyed themselves:

When the mini-company is registered, the members work usually with the teacher whom they are registered with, who is a kind of consultant. But they also have questions for other teachers. When the teachers understand that they cannot answer that question, or it is not part of their expertise, then they send the student to one of their colleagues... Yes, they have different subjects. It may be teachers in any subject, not only economics or finance. For example, one teacher is in the history field, but she is also with the student companies, because she simply enjoys it.

Finally, the teachers praised the mini-company programme because it gives students the freedom to explore their ideas and to do what they want the most, as this teacher said:

The students are braver, because they do not get marks. They can explore more. There are many programmes, and this one does not fence them in. It gives them freedom exploring their ideas and feeling that they can do what they want.

8.5.2 From the perspective of the students

At this vocational school we interviewed six students from three different student companies. The biggest challenge for one of the companies was getting the job done together. The found that they needed strict rules regarding the amount of work everyone was to commit to the MC. Work ethics were a central issue. In addition, there was a problem with communication which resulted in the firing one of the members who did not contribute sufficiently.

We had to fire one because of lack of confidence and strict rules. You need to do your job if we are to go to the finals. We are four people, working at different times and in different styles, so we need to have strict rules of when to work. We have learned much about communication, but we still have a problem with it. I am the one in charge and I am trying to make them work and to do something with the (product). The other teammate, when he was 10 minutes into the job, he was just walking around and said 'We are playing' and did not take it seriously.

Another company had conflicts over who was doing what tasks. It appeared to us that the conflicts in this company stemmed from traditional gender roles, and whether different tasks should be reserved for different genders.

Boy: She wants to carry her own (products), and it is heavy. I don't like that. We argue about that. I say let me carry for you. Girl: it is true, but. … Boy: I want her to do the artist thing.

8.6 Learning process and student-teacher relations

In this subchapter we mainly examine the relations between the students and their teacher and between the students and their mentor.

8.6.1 Student-teacher relations

In one of the companies there were problems with so-called 'vagrants' who did not do what was expected. As the following quotation shows, this teacher had to be tough with the boys in one of the companies in order to get them to do their work, so that they would be able to go to the finals. According to the students the teacher was tough with them because they were boys, since girls were treated more gently.

> *We are boys and not girls, so (the teacher) has to talk to us in a rough way… (The teacher) has to swear and bang it into us.*

In another company we noticed that the boy had taken the role of the teacher and also had a patronising attitude towards his female partner. This could be interpreted as another example of traditional gender roles being played out within a student company.

The informants emphasised the support received from their teacher, even though the teacher did not believe in their idea.

> *The teacher helped with the paper work, but that was all. … No, I do not think she really believed in our idea… She did not believe in our idea, but she supported us.*

8.6.2 Student-mentor relations and dealing with finances

The mentor can play different roles in a student company, and in the first company the mentor played mainly a practical role. In addition, five other teachers helped the company in different ways. As we see, the students in this company put in their own money in the company every month.

> *He is not like a mentor emotionally, more a practical mentor. We have had five other teachers who helped us with repairing, sketching, welding. We put in 50 euros every month.*

In the second student company, the members listened to their mentors' ideas, evaluated them and then decided what to do. With regard to their finances they did not use their own money, but only used what they earned, except at Christmas.

> *Boy: We acquired ideas from our mentors and evaluated the ideas. We planned the finances. We do everything with what we earn. We do not put any more money in or use our parents' money. We will only support our business with the company's own money…*

Boy: Yes, in the beginning we collected all the money to supply the company. We did not want to lose our money.
Girl: It was just for Christmas that we rewarded ourselves with something extra.

Summing up, we see that the mentors play different roles in different student companies. In addition to the mentors, the companies get support from the other teachers at the school. There are also different ways to organise the finances of the company. Some use their own money, while others rely mainly on the money that the company brings in.

8.7 Learning outcomes

With regard to the learning outcomes of the student companies we have the opinions of the head teacher, the teachers and the students themselves. We open this subchapter with the head teacher's perspective on the impact of EE and the use of student companies:

First of all, the students will be more competent and feel more strongly about themselves. They gain more experience, and it is also a good way to spend their free time, to gain some profit, to learn to manage their time and to manage the tasks in the group. During production they learn that there are many things that they have not thought of before, for example that their product should not only be pretty, but that they should be concerned about who should use it, how to sell it, etc.

In this quotation the head teacher points out personal growth in competence and confidence as well as the skills and knowledge the students acquire during the learning process – for instance, in manage their time and organising the work of the group.

8.7.1 From the perspective of the students

We also asked the students what they had learned from working with their mini-company. The students learned a variety of skills but also to stand up for their ideas in the face of criticism. They also learned that they had to sacrifice their free time to build their company.

We learned that we had an idea people did not believe in, but we learned to go against what others believe. We learned how to speak, to market our product… but most of all how to make a product. We also learned about sacrifice, for instance our spare time.

The informants also pointed out that they have learned different skills in addition to producing their product, like sales, setting a price and deciding salaries.

There are a lot of small things that I did not think through, like advertising... I discovered a lot of things not only producing, but the sales, how to come up with a price and to decide the salary for the workers.

One of the girls said she changed during the two years she spent with her company. An extra bonus for her and other students was the chance to travel abroad to attend international competitions; this meant a lot, especially to this girl.

> *I learned how to make a business, how to communicate the idea, to sell it. I now have a lot of experience. I have changed during these two years. I have knowledge about… (here she is interrupted). I had never been to Finland, so right now I have been to Finland two times. It is not as in our country.*

Summing up the learning outcomes for the students, we see that both the teachers and the students themselves recognise that they have gained a lot of knowledge and skill with regard to building a company and personal growth. We also notice traditional gender roles in the ways the boys and the girls relate to their companies, and the need to question this pattern.

8.7.2 From the perspective of the teachers

Like the head teacher, the teachers saw both a change in attitude and a gain of knowledge and skill among the students due to their work with student companies. In addition, they pointed out the differences between the girls and boys in their ways of relating to their companies.

The next teacher brought up the fact that the students were better able to understand the usefulness of the other subjects, like English, and that they, therefore, became more motivated to learn them. The students acknowledged that they and the other students had experienced personal growth. Most of all they discovered that they could really build their own company, as this teacher observed:

> *The programme changes their attitudes towards the subjects in the way that they see that they are useful. For instance, in English they need the knowledge to go abroad and they see that it is useful. Also with regard to the companies they understand how the skills they are taught are useful, and, therefore, they pay more attention to these subjects. Also the students get the chance to evaluate themselves, and they discover how much they have grown. During the programme they also see the growth of the others students as well, and that they all have become more self-dependent. Their attitudes to each other change and they see that they can in fact build their own company.*

Another teacher also pointed out the knowledge and concrete skills that the students learned in addition to getting to know themselves better with regard to their weaknesses and strengths.

> *They get the knowledge of how to present themselves, how to communicate with others, and they also gain the knowledge about themselves, whether they want to be the leader or if they want to follow others. In the spring, when they have the contest, they also evaluate themselves, what they have gained and what are their weaknesses and their strengths. Also through the presentation they gain this understanding of themselves.*

Finally, we asked the teachers if they saw any differences in how the girls and the boys relate to their companies, and one teacher pointed out the traditional gender roles that were observable:

> *The guys are usually more open and talkative, and the girls are following the rules and do what they are told to do. At the trade fair, they will have prepared everything perfectly, and they will stand there smiling, but not talking too much, being quiet. The guys will present themselves to everyone and sell their products. The girls are more afraid. The guys at one fair had these bread sticks and they were not selling much, so they took them and started to go around and hand it out to people and have them try it, and then they started selling a lot and got some orders. The girls would not have thought of that. Maybe the guys are more risk taking?*

As this quotation shows, there is a need to look closer at gender roles with regard to the student companies and to find ways to change the traditional gender pattern. The responsibility of doing that lies with the teachers, but also with the JA organisation, which should raise the issue in connection with its teaching and materials.

9 COMPARATIVE SUMMARY OF MAIN FINDINGS

In this, the final chapter, we provide a comparative summary of our main findings of this qualitative study with regard to the following five topics: drivers and hindrances, assessment of the JA Company Programme (CP), the teachers' role in the CP, the learning process, and student learning outcomes.

9.1 Drivers and hindrances

In this subchapter we focus on the most important drivers and hindrances for the implementation and upscaling of the CP. In attempting to fill the two categories we realised that factors identified as drivers were often simply the reverse of hindrances – the other side of the same coin. Therefore, we have decided to presents drivers and hindrances together.

9.1.1 Educational reforms and a national strategy of entrepreneurship education

One overall finding of this study is that the CP is understood and interpreted in relation to ongoing discussions about modern versus traditional pedagogy. This frame of reference is employed in addressing issues of curriculum, teaching method and assessment method, among other topics. Several of our findings can be related to this discussion, which is now taking place in several of the countries in our study. These countries are in the process of implementing comprehensive educational reforms, in practice turning away from subject-oriented learning and adopting a more competence-oriented approach. This way of learning is close to the learning-by-doing approach which lies at the heart of the CP. These reforms may pave the way for entrepreneurship education (EE), but since they take a long time to

implement they also act as a hindrance. However, in a long-term perspective the reforms may construct the platform upon which EE can be built.

In addition, several of our informants mentioned that having a national EE strategy was another main driver for the integration of EE and the CP into the curriculum. If it becomes part of the school curriculum, it is much easier for teachers to implement in their respective schools. So educational reforms based on a more competence-oriented way of learning and a national EE strategy of are major drivers at the national level. The main actors responsible for these processes are the ministries of education and in some countries also national centres of education.

9.1.2 The main drivers at the school level: head teacher, teachers and students

There is no doubt that the head teachers play an important role in promoting and implementing EE and the CP in their schools, as pointed out by several teachers and JA representatives. Much has already been accomplished if head teachers understand the importance of the subject and how it can play a role in contributing to a new way of learning, according to the JA representatives. Head teachers serve as important door openers with regard to introducing EE in the school system.

In addition to the head teacher, the teachers play a crucial role in the implementation and upscaling of EE and the CP. Many informants said that if some of the teachers are enthusiastic about EE their interest could spread to the other teachers as well as to the parents. Furthermore, having access to good teacher training is important, and the JA organisations play an active role in educating and supporting teachers. By the same token, if the teachers lack sufficient EE training and knowledge and also claim that the time allotted for the CP is too limited, causing students to neglect other subjects, the teachers themselves may become major hindrances.

Last, but not least the students may become important drivers. If the students' experiences are positive and the teachers and the parents see that EE is making a difference with regard to knowledge, skills and personal growth, much is won. In this sense, EE students may play the role of ambassadors in relation to the head teacher, the teaching staff and other students. Their enthusiasm depends crucially on whether they get sufficient time for learning and the dedicated support they need. It is therefore important for the students to have at least one person they feel they can ask for help and advice. This person may be the teacher, the mentor or both.

9.1.3 Other important drivers: mentors and parents

In some of the countries there are regional business networks, like the YES networks in Finland, the regional development centres in Estonia and the work-exchange networks in

Italy. These networks may serve as drivers with regard to introducing and supporting EE in the school system. Often they supply the schools with mentors, but we also see mentors offering to serve at the schools they once attended. Establishing strong links between mentors, schools and the JA organisation may be crucial to successfully implementing EE in the school system.

Parents, for their part, felt very satisfied with the practical and non-theoretical way of learning that EE and the CP represent. However, they also felt uninformed about the big picture, including the learning process and the lack, in their view, of individual assessment. Parents need more information about the CP and the pedagogical platform on which it rests; only then can they become more involved and thereby act as a positive driver for EE in school.

Summing up, we see that EE needs backing from ministries of education in the form of educational reforms and changes from subject-oriented to more competence-oriented ways of learning. More concretely, a country's ministry must establish a national EE strategy and integrate it into school curricula. If this does not happen, the ministry may be a hindrance rather than a driver. Likewise, at the school level, if the head teacher, the teachers and the students are unenthusiastic, they may function as a hindrance. The same may be said about parents, mentors and the JA organisations, but the ministries of education and the schools are the most crucial drivers. Without their support, it will be very difficult to implement and scale up EE and the CP.

9.2 Assessment of the Company Programme

As a working method the CP receives very good assessments from teachers and students, but there are some challenges. First of all, it is quite obvious that the CP is a time-intensive working method. In all five countries, teachers and students alike have worked much longer than the time allotted by the CP, requiring them to use their free time. In some countries both parents and other teachers at the school complain that the students spend too much time working on their companies. Therefore, if the CP is to be implemented on a more permanent basis, the time frame must be discussed and eventually expanded. The analysis has also revealed that the time set aside to integrate CP into the various subjects at school has been too limited. Teachers have managed to a small degree to adopt the method into the teaching of other subjects, with the possible exception of languages and special subjects such as marketing. The CP project tends therefore to be perceived as peripheral to other subjects at school.

Secondly, the success of the CP is dependent on a good relationship between the student and a facilitator. This facilitator can be the teacher, the mentor, or both. The most important success factor seems to be that a dedicated person guides and leads the students through the learning process. In cases where the teachers lack skills and experience, the mentors assume

a more important position. The teacher and the mentor do not seem to have complementary roles; instead they both fill the functions of tutor and helper. It was surprising to find that there is little or no contact between teachers and mentors in coordinating the implementation of the programme. If the teachers are less involved than the mentors, there may be challenges for the teachers in assessing and monitoring the students' learning process, which requires close follow-up.

Thirdly, another challenge is to communicate, especially to parents, the educational principles that underlie the CP's learning-by-doing method and assessment system. Some parents call for clearer learning goals and assessment criteria. They feel they have little control over what their children must learn, how they will learn it and when. The parents' generation is likely less familiar with the CP's inductive learning approach, and needs more information about these principles of teaching. Also among some of the teachers and JA representatives we find an assumption that the teachers lack formative evaluation expertise. Some teachers try to follow the assessment system in the JA manual, but adjust it to each team, because some teams are self-driven, while others need to be closely monitored. The CP also has a system of both self-evaluation and peer-evaluation, but not all teachers seem to use it. This may especially be the case if the teachers are only used to give grades. In our view, therefore, teachers and parents both need more training and information about the CP's learning methods and assessment criteria.

9.1 Preparation and training for the Company Programme by the teachers

Among teachers in the five countries, we see a wide range of experience with regard to their preparation and training for EE and the CP. In some countries the teachers have long experience in both subjects, while in other countries the teachers are newcomers to the field. The newcomers felt they had inadequate training for the responsibility of leading their students in the CP. They had a need to feel competent both in the pedagogical process and in the academic content of the CP, and called for more training.

In other countries some of the teachers had studied EE at university and, in addition, had received basic CP training from the JA organisation. They had also attended follow-up courses and received support and help from the JA organisation. They used the JA manual, had weekly classes with their students, and followed up with their students whenever they needed it.

In some of the countries the teachers worked in teams and felt that the mutual support they got from teamwork was a big asset. They emphasised that they divided the work tasks between team members and that there was no boss in the team. Their challenge was to integrate the CP with other subjects at their school and to engage the teachers of these subjects in the CP. In some schools, for instance, they successfully involved the English

teacher in student companies whose members planned to attend fairs and competitions abroad. But in this regard there was still much work to do.

As mentioned in the previous subchapter, relations between the teachers and the mentors are, generally speaking, rather weak. Once a student company has found a mentor – usually with the help of the teacher – the company and the mentor seem to pursue the relationship without much teacher involvement. In some countries both students and mentors requested more contact and cooperation between the two levels.

9.2 Learning process for students

Above all the teachers emphasise that through the CP the students have been introduced to a new way of learning – project-based learning, where teamwork and cooperation are among the most important assets. Learning by doing is a new approach for most of the students, and the teachers observe a noticeable progression made by the students from the beginning of the school year to the end in terms of handling the many project challenges.

The students are also content with working independently, and they claim they learn more that way. The teachers, mentors and parents are of the same opinion. However, learning outcomes depend on effective assessment throughout the learning process by the teacher. When teachers monitor their students closely, we see that the learning process is more qualified. The students describe the CP as more 'real' than any other projects they have been part of, due to the programme's length and time requirements, which enhance authenticity and provide opportunity for trial and error.

At the same time, we see that the students participating in the CP find that they have learned what competencies they have, what role within the company they feel comfortable with and what they can master. They take part in a group process, which is not unique to the CP, but in which they learn to work in a democratic way, with everyone taking part in the discussions and exerting influence. Consequently, they learn valuable communication skills, conflict solving and decision making, although they still need couching and guidance in these skills from the teachers. The students also learn they must keep up the passion and work hard for their company to succeed. In addition, they learn to take responsibility both for the student company and for their own learning process. There are indications, however, that students must be at the fifth grade level or above to handle such responsibility.

From the teachers' point of view, we find that teachers relate to the students in a more respectful way as a result of gaining a closer relationship with the students and following their learning processes up close. Teachers and students find themselves on more equal terms, with relationships that are more informal and cooperative in nature. Some teachers also highlight the pedagogical advantages of this way of learning, saying they feel they have gained a greater understanding of their students. They realise the students are

knowledgeable, creative and have many good ideas. One of the head teachers had observed a clear a difference in how the teachers related to their students, and saw this as one of the greatest impacts of the CP. Other teachers, too – those the students had asked for help – noticed a change in the quality of their relationship and took a new and closer look at the students.

9.3 Learning outcomes for students

When it comes to the learning outcomes for the students we find many of the same results across the five countries. First of all, teachers, students and parents mention a wide range of learning outcomes which we have divided into three categories: *knowledge*, such as how to start and run a company; *generic skills*, such as creativity, conflict solving and presentations; and *attitudes*, such as school motivation, responsibility, self-efficacy and self-confidence.

Both the teachers and the students point out that the students have gained considerable knowledge about starting and running a company, not only in theory, but in practice, by actually establishing their own company. This is concrete knowledge about the different phases of a business, from having an idea to producing, marketing and selling it. In addition, the students mentioned that they also realised that it takes passion, hard work and long hours to carry out their initial idea.

In relation to this process they also learn a number of generic skills. Teachers, parents and students all mentioned such skills as how to communicate and resolve conflicts within a group, how to present a product (in one's native language as well as in English at international fairs) and how to handle company finances. For students, a by-product of this process was coming to understand the usefulness of other subjects they were being taught, such as English, and as a consequence they started to pay more attention to them.

The third learning outcome relates to the changing of attitudes and the personal growth that the teachers, parents and students themselves noticed. They had developed new attitudes towards themselves and the other students, having to do with responsibility, courage, patience, pro-activity and independence. These were but a few of the characteristics mentioned by the informant groups. The teachers mentioned personal gains such as improved confidence and competence as some of the most valuable CP learning outcomes. The parents who also witnessed these personal changes held a largely positive view of the CP, and especially of learning by doing, but admitted that they had difficulty identifying the learning outcomes, because the learning process had not been transparent.

Finally, the teachers could see a certain change in gender roles among the boys and girls. In particular, more girls took classes in EE than before, and more became the CEO of their mini-company. Still, the teachers pointed out the persistence of traditional gender roles, both in the choice of what the company should produce or sell and in the way companies presented

themselves. Consequently, there seems to be a need to focus more on gender roles in the student companies and to find ways to challenge the traditional gender pattern. The responsibility lies not only with the teachers and the school, but also with the JA organisation, which must raise the issue in relation to both their teaching and their teaching materials.

9.4 Recommendations

We are now half way through the ICEE-project and it is time to take a pit-stop and do some reflections on the path forward. The qualitative study is only a small part of the research conducted in ICEE, but our results are supporting the preliminary findings from the pre-surveys (not yet published). The findings from the qualitative research are also in line with earlier research results on Company Programme (Johansen et.al. 2008, 2012, Harris-Christensen & Eide 2007) although there are new findings in this study that has not been emphasised earlier.

The main objective of the ICEE-project is to analyse the impact of entrepreneurship education and understand what is needed to reach the European goal, which is that every young person should have a practical entrepreneurial experience before leaving school. In this last chapter, we would like to sum up some of the findings from the qualitative research and give some recommendations for the further process of implementing entrepreneurship education in the schools.

- The Ministries of Education should continue their work on educational reforms adopting a more competence- oriented approach.
- It is also a need for the Ministries to continue establishing a national strategy of entrepreneurship education and integrate it into the school curriculum.
- There should be more focus on the important role of the head teachers as door openers in implementing entrepreneurship education in their schools.
- The teachers need to be given proper access to entrepreneurship education and training in the use of Company Programme or similar programmes. It is also necessary that teachers get enough time allotted for teaching and that they are encouraged to work together in teams.
- It is important to recognize students as ambassadors in relation to the head teacher, the teaching staff and other students, and to give students sufficient time for working on their companies and adequate support from their teacher, mentor or both.
- Strong links should be established between regional business networks, mentors, schools and JA organisations or similar organisations, to further entrepreneurship education.
- Parents should be informed about entrepreneurship education, the Company Programme, the learning process and assessment methods, to ensure their involvement.

- We also recommend that the ICEE project continue to delve into the above-mentioned topics using both quantitative and qualitative in- depth studies.

REFERENCES

Harris-Christensen, H. & Eide, T. H. 2007. *"Entreprenørskap er en muskel som kan trenes!". Et forprosjekt om entreprenørskapsopplæring blant elever og studenter.* ENRI working paper no. 03. Lillehammer: ENRI

Johansen, V., Skålholt, A. & Schanke, T. (2008). *Entreprenørskapsopplæring og elevenes læringsutbytte*. ENRI report no. 8, 2008. Lillehammer: ENRI

Johansen, V. & Mathisen, T. (2012). *Entreprenørskap i utdanningen og oppnåelse av læringsmål.* ENRI report no. 14, 2012. Lillehammer: ENRI

Krueger, R.A. 1994. *Focus groups: A practical guide for applied research.* Thousand Oaks CA: Sage Publications.

Massey, O.T. 2011. A proposed model for the analysis and interpretation of focus groups in evaluation research in *Evaluation and Program Planning* 34 (2011), 21–28.

Rossow, R. & Baklien, B. 2011. Applying mixed methods in evaluation of a community prevention project: reflections on strengths and challenges. In *Nordic Studies on Alcohol and Drugs,* Research report, Vol . 28, 2011.

Vaughn, S., Schumm, J. S., & Sinagub, J. 1996. *Focus group interviews in education and psychology.* London: Sage.

Wibeck et al. 2007. Learning in focus groups: An analytical dimension for enhancing focus group research. *Qualitative Research*, 7(2), 249–267.

ATTACHMENTS

Attachment 1: Checklist

Attachment 2: Interview guides

Attachment 3: Guideline for interpreter

ATTACHMENT 1 - CHECKLIST

1) Contact information for persons in the research group
Eastern Norway Research Institute

- Trude Hella Eide, Research Manager, te@ostforsk.no
- Vigdis M. Olsvik, vmo@ostforsk.no
- Mona Stokke, ms@ostforsk.no

2) Preliminary time schedule for fieldwork at the schools
The time schedule shows when the scientists gather the research data in the five countries and the name of the researches involved.

Activity/Time	March	March	April	May	May
Group interview students	Finland	Belgium	Latvia	Estonia	Italy
Group interview teachers	Finland	Belgium	Latvia	Estonia	Italy
Interview head teacher	Finland	Belgium	Latvia	Estonia	Italy
Interview JA representative	Finland	Belgium	Latvia	Estonia	Italy
Interview ministry official*	Finland	Belgium	Latvia	Estonia	Italy
Group interview parents	Finland	Belgium			
Group interview volunteers	Finland	Belgium			
Observe at competition	Finland	Belgium			
ENRI staff	Trude Mona	Trude Mona	Trude Mona	Vigdis Mona	Vigdis Mona

* Online survey with open questions

3) Selection of one school in each country
The selection of schools to participate in the field study will follow these criteria:

- Size: both large and small schools
- Education programme: aim for 2 vocational + 2 general +1 technical, if possible
- Travel time: The choice of school must also depend on where the school is situated in the country.

1.

4) Selection of informants
Informants for interviews will be chosen by the school. We will conduct group interviews with the students and the teachers, and individual interviews with the head teachers. In two countries we will also conduct group interviews with the parents and volunteers, when attending the National Competition (Finland and Belgium).
The contact persons at each school need to arrange for the group interviews, both for the persons to be invited and for the location in accordance to specified criteria from the researchers.
Selection of informants will follow these criteria:

- It is important that group interviews can be carried out with groups consisting of whole mini-companies. Tentatively we will interview one to two mini-companies at each school, but the maximum is seven students in each group interview.
- It is important that group interviews with teachers consist of teachers involved with the students' mini-companies. Tentatively we will interview one to two groups of teachers, from five to seven people in each group.

5) Preliminary program for the field study
Day one: Arrival at the hotel, first meeting with JA and the interpreter.

- In the afternoon, meeting at the hotel with JA-representative and the interpreter (and contact person from the school). Going through and making the last preparations before the data collection.

Day two: At the school – overview of classwork and interviews

- Individual interview with JA representative
- Group interviews with mini-companies
- Group interview with the teachers
- Group interview with the parents (only for Belgium and Finland)
- In the afternoon: meeting with contact person, JA representative and the interpreter. Summing up of the day.

Day three: At the school – interviews

- Group interview with the teachers
- Interview with the head teacher
- Group interview with the mentors (only for Belgium and Finland)
- In the afternoon: meeting with contact persons, JA representative and the interpreter. Summing up of the day.

6) List of documents to be sent to us

Each country must send us information about:

1. Contact information (email and mobile phone) for the following persons:
    - JA representative
    - contact person at the school
    - interpreter
2. The school's local curriculum of entrepreneurship and teaching plan
3. Short presentation (about 150 words) of how mini-companies are implemented at the school, e.g. main purpose, topics, cooperation with local businesses and so forth.

7) Booking of accommodation

Each JA representative **undertakes the booking of hotel for the researchers.**

ATTACHMENT 2 - INTERVIEW GUIDES

Interview guide headmaster

1. Have you been involved in general entrepreneurship education or only in mini-companies?
2. Why did your school engage in entrepreneurship education? /why not?
    a. Is this something that is been decided on the local level or is it decided on the national level?
3. What are the main national strategies in regard to EE (entrepreneurship education) in your country?
    a. What is your role in implementing the strategies in your school?
4. What are your future plans for EE at your school?
5. What kind of impacts do you see for your students participating in mini-companies?
6. Any other things you would like to comment on?

Thank You!

1

Interview guide – JA-representative

1. Can you firstly give us a brief overview of the Finnish school system?
2. Can you explain the organisation model of JA Finland? (founders)
3. How many schools are JA Finland involved in CP? At what level?
4. In what way are MCP related to national educational strategies?
5. What are your expectations of the outcome from the ICEE-project?
6. What do you see as the most important drivers for implementation and upscaling of the MCP in Finland?
7. And what do you see as the most important barriers?
8. Can you explain your relation with the school?
   A. How do you cooperate with the headmaster?
   B. How do you cooperate with the teachers?
   C. How do you cooperate with the students?
9. Any other things you would like to add?

Thank You!

1

Interview guide mentor/volunteer

1. Can you describe your role as a mentor in the mini-company-programme (MCP)?
2. What kind of cooperation have you had with the students?
3. What kind of cooperation have you had with the teachers?
4. What are the strengths and the weaknesses of the MCP, from your point of view?
5. Do you have any suggestions for improvement of the MCP?
6. Do you think entrepreneurial education has any other effects than personal, for instance for the region or the nation?
7. Any other things you would like to comment on?

Thank You!

1

Interview guide parents

1. What do you know about the Mini-Company-Programme (MCP)?
    a. Did you know the programme before this research project?
    b. Do you talk about the programme at home?
    c. Did you have any other children in this programme?

2. How do you assess it?

3. What kind of value or impacts has joining the MCP had for your son/daughter?
    - Confidence, thrust, well-being etc

4. Do you think entrepreneurial education has any other effects than personal, for instance for the region or the nation?

5. Any other things you would like to comment on?

Thank You!

1

Interview guide students

1. What is the name of your mini-company?
    a. What is your product or service?
        i. How did you pick your idea?

2. What are your roles in the company?

3. Can you explain what has happened from the start until now, in your mini-company?

4. How did you cooperate in the mini-company?
    a. Did you have any conflicts? What happened? How did you solve them?
    b. Who decides what to do? (you?, the teacher?, mentor?)

5. How was the cooperation with your teacher? (Support and assistance)
    a. What did the teacher help you with?
    b. How did the teacher influence on your work?

6. How was the cooperation with your mentor?
    a. What did the mentor help you with?
    b. How did the mentor influence on your work?

7. Have you participated in the competition? How was it?
    a. What do you think about the selection process?
    b. How was it to compete?

8. What have you learned from the work in your mini-company?

Knowledge:	Skills:	Attitudes:

9. Any other things you would like to comment on?

Thank You!

1

Interview guide - teachers

BACKGROUND

1. How long have you been engaged in entrepreneurship education?

0 years	1 – 3 years	4 years or more	other

2. What kind of teacher training in entrepreneurship education have you received?

Teacher training provided by JA on mini-companies	Teacher training provided by JA on entrepreneurship education in general	Teacher training provided by University/university college	none

3. What is your understanding of entrepreneurship education?

4. Does your school have a plan for entrepreneurship education?

Yes – entrepreneurship education is an integral part of my school's ethos and culture	No - entrepreneurship education is not integrated in my school's education plan	Other

5. Could you explain <u>how</u> you have been teaching the mini-company programme – from the beginning until now?

a. Did you work alone or together in a team?

b. When you are working in the MCP, have you had any reactions from your feloow colleagues? (pos or neg)

c. How many hours a week do you teach MCP?

ASSESSMENT OF THE MINI-COMPANY PROGRAMME

ATTACMENT 3 - GUIDELINES FOR THE INTERPRETER

Prior to the session

We would like to meet the interpreter in advance to allow adequate preparation time for both the interpreter and the researchers. Our suggestion is to meet at the hotel, the evening we arrive. The purpose of the meeting is to:

- Get to know each other☺
- Review the goals and procedures of the ICEE project.
- Explain words and concepts that are used in the project.
- Ensure the interpreter understands the informants' need for confidentiality and anonymity.
- Ensuring interview guide is understood

During the session

The interpreter can introduce her/himself in the native language and describe her/his role during the interview. It is important to clarify expectations and questions regarding the role of the interpreter. During the interview we would like the interpreter to:

- Give a direct translation of the questions posed by the researchers.
- Give a direct translation of the answers given by the informants, sentence by sentence. Interpreter must not *interpret* or summarize the answers unless the researchers are requesting this.
- Notify immediately if the researchers go too fast or you otherwise have trouble translating what is being said.
- Ask for pauses if needed!

After the Session

We want to be able to spend some time with the interpreter after the interview, to:

- Discuss any difficulties in the interpretation process
- Clarify any misunderstandings
- Check out our own understanding of the interview

Confidentiality

The interpreter must treat all the informants and all the data confidentially. By signing this paper, the translator declares her/his confidentiality.

…….(signature)

Qualitative case study of mini-company experiences in five European Countries

This empirical data note presents the results from the qualitative study in the ICEE project. The study consists of a three-day field study in five different schools in five countries – Belgium, Estonia, Finland, Italy and Latvia. The field studies were conducted during the period from March to June 2016. A total number of 70 informants are interviewed face to face (students, teachers, parents, mentors and JA representatives). The report sums up the experiences from the learning process and the outcome of the project, and concludes with some recommendations for the further work in entrepreneurship education.

ENRI working paper 04/2017

ISSN no: 0808-4653

Co-funded by the Erasmus+ Programme of the European Union

ICEE project has been funded with support from the European Commission, Erasmus+ Programme. This document reflects only the views of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.