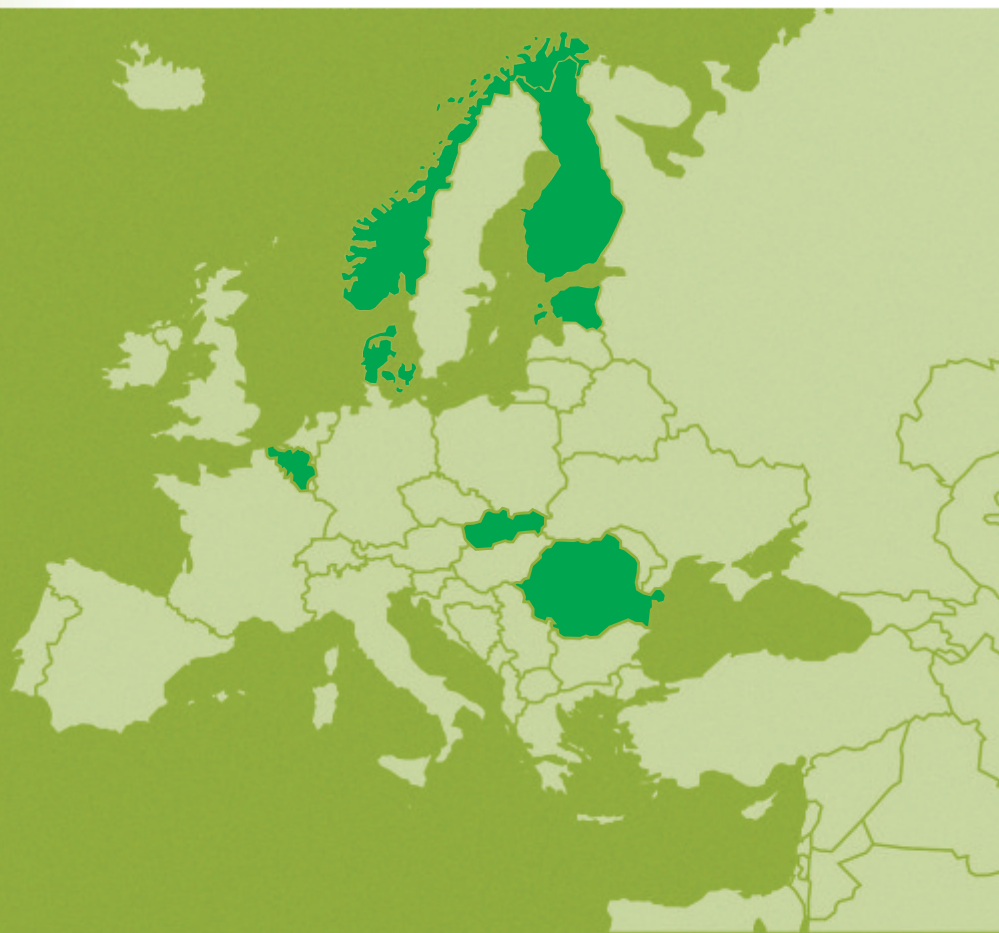




# JA-YE Company Programmes Participants' Experiences



ENRI-report no. 10/2007

## **JA-YE Company Programmes Participants' Experiences**

**What experiences did participants in Company  
Programmes  
have during their time as company founders - and  
what happened next?**

by

**Vegard Johansen**



# Eastern Norway Research Institute

Eastern Norway Research Institute was founded in 1984 through the collaboration of the regional councils and the boards of the colleges/universities in the counties of Oppland, Hedmark and Buskerud.

Eastern Norway Research Institute is located within the University College campus in Lillehammer and also has offices in Hamar. The Institute conducts applied, interdisciplinary and problem-orientated research and development.

Eastern Norway Research Institute is aimed at a broad and complex user group. Technical activities are concentrated in two areas:

- Business and regional development
- Welfare, organisation and communication

Eastern Norway Research Institute's most important project assignors are government departments and institutions, regional councils, government steering groups, the Research Council of Norway, the business community and industry organisations.

Eastern Norway Research Institute has collaboration agreements with Lillehammer University College, Hedmark University College and the Norwegian Institute for Nature Research. The knowledge resource is utilised in the best interests of all parties.

Experiences from participation in JA-YE Company Programmes

Vegard Johansen

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Entrepreneurship Education in Europe

Junior Achievement – Young Enterprise Europe

Vegard Johansen

Junior Achievement – Young Enterprise Europe (JA-YE) is a not-for-profit association based in Belgium. JA-YE brings the public and private sectors together to provide young people in primary and secondary schools and early university with high-quality education programmes to teach them about enterprise, entrepreneurship, business and economics in a practical way. JA-YE is Europe's largest provider of enterprise education programmes, reaching 2.2 million students in 40 countries in 2006.

The JA-YE Company Programmes gives students in Upper secondary school the opportunity to run their own company, giving them an insight into how to set up a business. The report "Experiences from participation in JA-YE Company Programmes" is based on a quantitative study of former participants from these 6 countries: Belgium, Denmark, Estonia, Finland, Romania and the Slovak Republic. The data used was collected through internet-based questionnaires. In addition to conducting the quantitative study in the 6 countries mentioned above, we consolidated and/or compared particular results of similar studies from Norway in 2005 and 2006 wherever we found them relevant and appropriate. JA-YE, entrepreneurship, enterprise, youth, Company Programmes, education, European comparisons, mini-companies

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## Preface

The European network Junior Achievement – Young Enterprise Europe (JA-YE) is a not-for-profit organisation providing “learning-by-doing” enterprise education programmes for young people. JA-YE is Europe’s largest provider of enterprise education programmes, reaching 2.2 million students in 40 countries in 2006. The very first programmes, the JA-YE “Company Programmes” (CP), was created in 1919. CP gives students in Upper Secondary schools the opportunity to establish and run their own enterprise. The report “Experiences from participation in JA-YE Company Programmes” is a quantitative study of former participants from Belgium, Denmark, Estonia, Finland, Romania and the Slovak Republic.

The study was commissioned by JA-Ye Europe. Special thanks go to the following for their initiative to undertake this study and collaboration during the process:

- Oldo Vanous (Vice President of Operations JA-YE)
- Caroline Jenner (CEO JA-YE)
- Diana Filip (Development and Marketing Manager JA-YE)
- Jarle Tømmerbakke (JA-YE Norway)

JA-YE Europe’s network and its national chapters across Europe have been instrumental in the successful completion of this survey. We thank the following for their practical help with the data collection:

- Toon Gilles (Young Enterprise Belgium - Flemish organisation)
- Michel Brüll (Young Enterprise Belgium - French organisation)
- Tina Stiller Petersen (Young Enterprise Denmark)
- Epp Vodja (Junior Achievement Estonia)
- Turo Numminen (JA-YE Finland)
- Dorin Calin (Junior Achievement of Romania)
- Jozef Glasnak (Junior Achievement Slovakia).

Special thanks go to Margrete Haugum and Trøndelag Research and Development. They have provided us with their data from their on the Norwegian Company Programmes in 2005.

Finally, we thank all respondents for their participation.

Lillehammer, June 2007

Ingrid Guldvik  
Head of research

Vegard Johansen  
Head of project

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# 1 Introduction

Europe faces both internal challenges, like rapid ageing, and external ones, like increasing global competition. In March 2000, the European Council in Lisbon set out a ten-year strategy to make the EU the world's most dynamic and competitive economy. Entrepreneurship Education (EE) plays a central role within the broader policy context set out to make the Lisbon objectives a reality. In its series of reports on EE, the European Commission has clearly stated that this kind of education must be at the core of education policy at the national level (European Commission 2000; 2003; 2005; 2006). Research on EE is therefore of relevance both for policy makers and those who carry out different EE programmes.

In our literature review from 2006 (Johansen et al. 2006), we identified some key areas that European EE-research should explore in the upcoming years. Our list of challenges included the lack of knowledge about EE-programmes and their impact: a) First of all, evaluations of EE programmes are seldom carried out. b) Second, they are almost never carried out across countries. c) Third, we have limited knowledge of the impact on participants' later careers (like the start-up of their own companies). d) Fourth, our lack of knowledge is a problem if we want to improve the pedagogical methods.

The project "Experiences from participation in JA-YE Company Programmes" is a quantitative study of previous participants from 6 countries: Belgium, Denmark, Estonia, Finland, Romania and the Slovak Republic. Data collection was performed through Internet-based questionnaires in March and April 2007. In addition to conducting the quantitative study in the 6 countries mentioned above, we consolidated and/or compared particular results of similar studies from Norway wherever we found them relevant and appropriate. In the report we raise four questions worth exploring:

- 1. Do the respondents recommend participation in CP to other students?**
- 2. Are entrepreneurial skills developed through CP?**
- 3. What do the participants think about CP as an educational method?**
- 4. Does CP lead to more business start-ups?**

## 1.1 JA-YE Europe and their Company Programmes

JA-YE Europe is the result of a merger of Junior Achievement and Young Enterprise in 2002. JA-YE is Europe's largest provider of enterprise education programmes, reaching 2.2 million students in 40 countries in 2006. JA-YE brings the public and private sectors together to provide young people in primary and secondary schools and early university with high-quality education programmes to teach them about enterprise, entrepreneurship, business and economics in a practical way. Thus, their mission is to train young people to learn how to discover business opportunities, and to prepare and motivate them to seek their full potential as self-employed entrepreneurs.

In this project, we discuss the experiences of former participants in JA-YE Company Programmes (CP). CP is the oldest of all JA-YE programmes and was developed as early as 1917. More than 200,000 secondary school students took part in the Company Programmes offered by JA-YE organisations across Europe in 2005. The students aged 14 to 18, form a mini-enterprise under the guidance of a teacher and volunteer business advisers. The students sell stock, elect officers, produce and market products or services, keep records, conduct stockholder meetings and liquidate (usually returning a profit), all in about 12 - 26 weeks. The programmes give students the opportunity to prepare for working life through the experience of running their own company. CP is recognised by the European Commission Enterprise Directorate General as a "Best Practice in Entrepreneurship Education".

## 1.2 Sample

JA-YE Europe has 40 members. In this project, JA-YE and ENRI (Eastern Norway Research Institute) initially agreed to include 8 countries. Our choices of countries invited to participate in the study, were based on the following criteria:

- a) We wanted regional diversity (Eastern Europe and Western Europe);
- b) CP had had to have to run for some years in order to evaluate the impact on later careers;
- c) JA-YE organizations had to be able to provide e-mail addresses of respondents.

In our final selection of JA-YE organizations, we ended up with 2 Nordic countries<sup>1</sup> (Denmark and Finland), 2 organizations from Continental Europe (the two Belgian organizations), and 3 organizations from Eastern Europe (Junior Achievement Slovakia, Junior Achievement Estonia and Junior Achievement of Romania).<sup>2</sup>

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<sup>1</sup> The Nordic countries had problems in providing enough functional e-mail addresses of respondents. Instead they proposed to call respondents and key in the answers themselves. Together we set this up and therefore we used a mix of these two methods in Denmark and Finland.

<sup>2</sup> In addition to these organizations we also approached Bulgaria and the United Kingdom, but due to their problems with our timeframe data for these countries were not collected.

### 1.1 JA-YE Europe 7

In the table below we tell more about our sample of respondents. As can be seen, we only evaluate results for Belgium, Estonia, Finland and Slovakia. We could only recruit 45 respondents in Denmark and 31 respondents in Romania, and therefore these results were omitted. The results for Denmark and Romania are, however, listed in the Appendix.

Previous to this comparative study, we performed a “pilot” in Norway. The study *Start-up Rate - Graduate Programmes companies* was a quantitative study of previous participants in the Graduate Programmes in Norway. The Graduate Programmes concept was established in the 2002/03 school year, and the aim was to give students knowledge of, and the opportunity to participate in, setting up a business.<sup>3</sup> Data collection was performed in October 2006 and we had a net sample of 257 participants. The response rate was 43.

We also included results from the project *What happened later?* Haugum performed a quantitative study of previous participants in the Company Programmes in Norway. Data collection was performed in 2005, and Haugum had a net sample of 306 participants. The response rate was 31.

**Table 1: From gross sample to net sample**

	Experiences from CP					Norway			Total
	Belgium	Estonia	Finland	Slovakia	Sum	CP	GP	Sum	
Gross sample	603	224	160	776	1763	987	596	1583	3346
Net sample	281	87	111	196	675	306	257	563	1238
Response rate	47	39	69	25	38	31	43	36	37

Sources: Experiences from participation in a Company Programmes  
 What happened later?  
 Start-up Rate - Graduate Programmes Companies

As seen in table 1, the net sample from our comparative study *Experiences from participation in a Company Programmes* was 675 and this gives a response rate of 38. The gross samples, including rarely used e-mail addresses, varied from 615 in Slovakia down to 160 in Finland. The highest response rate of all was found in Finland with 69 percent (111 respondents), followed by Belgium with 47 (281 respondents), Estonia with 39 (87 respondents) and Slovakia with 25 percent (196 respondents).

When we include the participants from the two Norwegian studies, we have a total net sample of 1238 participants, and a total response rate of 37. One reason that the response percentage is lower than 50 percent is that JA-YE organizations hold a number of rarely used e-mail

<sup>3</sup> Graduate Programmes companies can be established as part of a subject curriculum, or as an extra-curricular activity. Each company involves two or more students. A Graduate Programmes company exists for 12 months and in the course of this time, the students are able to start-up, run and liquidate the company (Johansen and Eide 2006).

addresses, in particular student e-mail addresses. Considering this, one may say that the response rate is acceptable.

In the report we add the results from the surveys in Norway as:

- a) a form of direct comparison and
- b) having Norway as an additional country participating in the survey when we found it appropriate.

This choice was made for the following reasons:

- Data collection in Norway was performed through an internet-based questionnaire in the same way as the comparative study.
- Most questions are the same and are formulated in the same way.
- The Norwegian Graduate Programmes survey is part of the larger project and served as a pilot for the comparative study.
- The Graduate Programmes and the Company Programmes are based on the same concept.

Table 1 shows that we experienced the problem that some countries have more participants than others. In order to adjust for differences in cross-country sample-size, we have given participants from the four countries different weights. By doing this, we arithmetically alter the value of respondents from the four different countries, and the samples from Belgium, Estonia, Finland and Slovakia are given equal weight. When we add Norway to the list (in the last parts of the tables), Norway is given equal weight with Belgium, Estonia, Finland and Slovakia.

## 2 Results from the survey

In Chapter 2 we discuss all the results from the survey conducted. We broke it down into 5 sections: About the respondents; Employability; Reasons for participation in CP; Development of entrepreneurial competences; Assessment of the CP method; and Entrepreneurial activity.

Some additional notes:

- In the tables we only comment on weighted results of participants in Company Programmes (CP), but provide information about each country in the text.
- In every table we also give the “real” percentage, although we do not comment on this measure.
- We also give the percentage from the two studies in Norway - the Graduate Programmes and the Company Programmes - as a means of comparison.
- In addition we present the “Total Weighted, Norway\_and Percentage” (TWP). TWP refers to the weighted percentage including Belgium, Estonia, Finland Slovakia.

### 2.1 The respondents

In the survey we asked a number of questions about the respondents. These questions are later used as explanatory variables when we examine differences with reference to the development of entrepreneurial competences, assessments of the CP method and entrepreneurial competence. We examine the following; gender, age and completed education.

Starting with gender, we found that the distribution is close to being equal: 52 percent women and 48 percent men (after weighing all 5 countries).

**Table 2: Gender.**

	Belgium, Estonia, Finland, Slovakia		Norway	All countries
	Percentage	Weighted percentage	Percentage	Total weighted percentage
Men	45	46	57	52
Women	55	54	43	48
Sum	100	100	100	100
N	672	672	563	1235

Sources: Experiences from participation in a Company Programmes  
What happened later?  
Start-up Rate - Graduate Programmes companies

After weighing cases for the 4 countries in our comparative study of Company Programmes, the distribution is 54 percent women and 46 percent men. There are few differences between the countries, even though Finland stands out with more men than women:

- Estonia (57 percent women and 43 percent men)
- Belgium and Slovakia (56 percent women and 44 percent men)
- Finland (47 percent women and 53 percent men).

In the two Norwegian studies, the distribution was 57 percent men and 43 percent women.

In other words, the Norwegian and Finnish sample comprises more men than women, while the samples in Estonia, Belgium and Slovakia comprise more women than men.

Secondly we look at age. After weighing all 5 countries, the distribution is:

- 23 percent are 20 years or younger
- 46 percent are between 21 and 24 years of age
- 31 percent are 25 years or older
- The mean age is 24

**Table 3: Age.**

	Belgium, Estonia, Finland, Slovakia		Norway	All countries
	Percentage	Weighted percentage	Percentage	Total weighted percentage
-20 years	21	28	2	23
21-24 years	49	47	43	46
25 years or older	30	25	55	31
Sum	100	100	100	100
N	675	675	558	1233

Sources: Experiences from participation in a Company Programmes  
What happened later?  
Start-up Rate - Graduate Programmes companies

After weighing cases for the 4 countries in our comparative study of Company Programmes, 28 percent of the respondents are 20 years or younger, 47 percent are between 21 and 24 years of

age, and 25 percent are 25 years or older. In the Norwegian pilot study, the distribution was different: here 55 percent of the respondents are 25 years or older.

There are cross-country differences. The mean age of the sample is highest in Norway with 27 years followed by Belgium with 25 years. In Estonia the mean age is 22, and the mean ages in Finland and Slovakia are as low as 21 years.<sup>4</sup>

The last dimension looked at is education. After weighing all 5 countries, the distribution is:

- 25 percent of the respondents have completed a University degree (Bachelor/Master)
- 31 percent have completed some courses/subjects/units at University or University College
- 44 percent have only completed Upper Secondary school.

**Table 4: Level of completed education**

	Belgium, Estonia, Finland, Slovakia		Norway	All countries
	Percentage	Weighted percentage	Percentage	Total weighted percentage
Upper secondary school (USS)	46	47	34	44
USS and courses at University	32	31	33	31
Bachelor degree (3 years)	8	8	31	14
Masters degree or PhD.	15	14	2	11
Sum	100	100	100	100
N	674	674	561	1235

Sources: Experiences from participation in a Company Programmes  
 What happened later?  
 Start-up Rate - Graduate Programmes companies

Again we start our comments with the four countries in our comparative study of Company Programmes. Table 4 shows that 22 percent of the respondents have completed a University degree (Bachelor/Master), 46 percent of the respondents have only completed Upper Secondary school, while 32 percent have completed some courses/subjects/units at University.

In the Norwegian studies, the distribution was different. In the Norwegian sample 33 percent had completed a University degree (Bachelor/Master), 33 percent had completed some courses at University, and 34 percent had only completed Upper secondary school.

There are cross-country differences. In Finland and Slovakia, the majority of respondents have finished Upper Secondary school, while the majorities in Belgium, Estonia and Norway have finished some courses or have a degree at University:

<sup>4</sup> A short look at cross-country differences. Belgium; 46 percent are between 21 and 24 years, and 54 percent are 25 years or older. Estonia; 28 percent are 20 years or younger, 53 percent are between 21 and 24 years, and 20 percent are 25 years or older. Finland; 54 percent are 20 years or younger, 24 percent are between 21 and 24 years, and 22 percent are 25 years or older. Slovakia; 30 percent are 20 years or younger, 65 percent are between 21 and 24 years, and 5 percent are 25 years or older.

- Belgium: 23 percent of the respondents have completed upper secondary school, 44 percent have some courses at University, and 33 percent have completed a University degree.
- Estonia: 16 percent of the respondents have finished upper secondary school, 56 percent have some courses at University, and 28 percent have a University degree.
- Finland: 72 percent of the respondents have finished upper secondary school, 7 percent have some courses at University, and 21 percent have a University degree.
- Slovakia: 77 percent of the respondents have finished upper secondary school, 15 percent have some courses at University, and 8 percent have a University degree.

## 2.2 Employability

**Major Findings:** *Employability is the capability to gain initial employment, maintain employment and obtain new employment if required. By investigating employment rates provided by Eurostat (2007), we find little indication that former participants in JA-YE programmes have a higher figure of employment than other young people.*

Previous participants in the Company Programmes have diverse occupations today. This is explored in the table below. After weighing all 5 countries, the distribution is:

- 44 percent are still students
- 29 percent are employed in the private sector
- 11 percent are employed in the public sector
- 4 percent are employed in the NGO sector
- 5 percent are self-employed
- 7 percent are unemployed, disabled etc.

**Table 5: Profession**

	Belgium, Estonia, Finland, Slovakia		Norway	All countries
	Percentage	Weighted percentage	Percentage	Total weighted percentage
Student	44	46	34	44
Employed in private sector	30	27	35	29
Employed in public sector	10	11	12	11
Employed in NGO sector	4	5	0	4
Self-Employed	5	5	9	5
Non-employed	8	6	10	7
Sum	100	100	100	100
N	672	672	553	1225

Sources: Experiences from participation in a Company Programmes  
What happened later?  
Start-up Rate - Graduate Programmes companies

Again we start our comments with the four countries in our comparative study of Company Programmes. 46 percent are still students, 27 percent are employees in private companies, 11 percent are employed in the public sector, 5 percent are employees in the NGO sector, 5 percent are self-employed, and 6 percent belong to the final categories (unemployed, disabled, other). There are cross-country differences. In Slovakia (71 percent) the majority are students, in Belgium (63 percent) the majority are employees, and in Estonia and Finland the two groups are about equal in size.<sup>5</sup>

One crucial area to explore is employability. Participation in Company Programmes and Graduate Programmes is not only focused on bringing new entrepreneurs to the fore, but the personal qualities and skills developed through Entrepreneurship Education are also of relevance for those who want to become employees.

In order to find out whether or not former participants in JA-YE programmes have a higher figure of employment than other young people, we can compare our results with figures from Eurostat. Since many of our respondents are very young, the best approach is to compare the unemployment rate of population aged less than 25 years, i.e. unemployed persons as a percentage of the labour force. To perform this comparison we have to do the following with our sample:

- a) Take out participants that are still students (43 percent);
- b) Take out all participants that are 25 years of age or older.

This computation gives the following result.

**Table 6:** Comparison of unemployment rates among young people

	The general population (24 years or younger)					JA-YE participants (24 years or younger)	
	B	E	F	N	S	Average	Average
Employed/self-employed	80	88	81	91	73	83	86
Non-employed	20	12	19	9	27	17	14

Total respondents = 409, B = Belgium, E = Estonia, F = Finland, N = Norway, S = Slovakia  
 Sources: Experiences from participation in a Company Programmes  
 What happened later?  
 Start-up Rate - Graduate Programmes companies  
 Eurostat 2007

According to Eurostat (2007) the employment rate in 2006, among those aged less than 25 years, in our 5 countries was 83 percent on average. Among former participants in JA-YE programmes the unemployment rate, among those aged less than 25 years, in our 5 countries is 86 percent on average. There is a difference of 3 percentage points which is around the error-margin. In conclusion, we might state that by investigating employment rates in the population less than 25 years of age and employment rates among former participants in JA-YE programme's, we find little indication that former participants in JA-YE programmes have a higher figure of employment compared to other young people.

<sup>5</sup> In Estonia 46 percent of the respondents are students and 48 percent are employees, and in Finland 46 percent of the respondents are students and 40 percent are employees.

Those that are employed in the public, private and NGO sectors were also asked a follow-up question concerning their position. We find that 66 percent are employees, 31 percent are managers and 3 percent belong to the category “Other”. Again we find some cross-country differences.

- In Belgium 20 percent are managers, 78 percent are employees and 2 percent classify their position as “Other”.
- In Estonia 41 percent are managers, 51 percent are employees and 8 percent classify their position as “Other”.
- In Slovakia 36 percent are managers, 61 percent are employees and 3 percent classify their position as “Other”.
- In Finland 33 percent are managers and 68 percent are employees.

## 2.3 Reasons for participation in CP

**Major Findings:** We classify motivations for participation the JA-YE programmes in four groups:

1. Enterprise-based (Curious about having my own company): 48 percent.
2. Recommendation-based (By previous participants or lecturers/teachers): 23 percent.
3. Compulsory-based: 20 percent.
4. Advantage-based (Good for my CV and Provides easy credits): 9 percent.

The school’s traditional focus has, in general, given little attention to entrepreneurship training. The “new” emphasis on entrepreneurship, and Europe’s need to increase the number of people wanting to become entrepreneurs, has, on the other hand, given way to more and more young people taking part in entrepreneurship training. The Company Programmes (CP) is one of the best developed of the variety of entrepreneurship programmes provided across Europe. In table 6 we investigate during what school year the respondents began to attend CP.

**Table 7. Attendance to CP**

	Belgium, Estonia, Finland, Slovakia		Norway	All countries
	Percentage	Weighted percentage	Percentage	Total weighted percentage
1998 or earlier	22	20	34	23
1999-2000	18	16	14	15
2001-2002	23	21	9	19
2003-2004	29	32	29	32
2005 or later	8	11	14	11
Sum	100	100	100	100
N	653	653	542	1195

Sources: Experiences from participation in a Company Programmes  
 What happened later?  
 Start-up Rate - Graduate Programmes companies

We start our comments with the four countries in our comparative study of Company Programmes. After weighing cases the distribution is: 20 percent attended CP in 1998 or earlier, 37 percent attended CP between 1999 and 2002, and 43 percent attended CP in 2003 or later.

When including participants from the Norwegian studies we get the following distribution: 23 percent attended CP in 1998 or earlier, 34 percent attended CP between 1999 and 2002, and 43 percent attended CP in 2003 or later.

There is more than one reason to participate in JA-YE programmes. In the table below we investigate the variety of reasons for attending the Company Programmes and the Graduate Programmes. When including participants from all 5 countries we get the following distribution:

- a) Compulsory-based: 20 percent.
- b) Enterprise-based (Curious about having my own company): 48 percent.
- c) Recommendation-based (By previous participants or lecturers/teachers): 23 percent.
- d) Advantage-based (Good for my CV and Provide easy credits): 9 percent.

**Table 8. Reasons for participating in CP**

	Belgium, Estonia, Finland, Slovakia		Norway	All countries
	Percentage	Weighted percentage	(Only GP) Percentage	Total weighted percentage
Compulsory	16	13	44	20
Curious - having my own company	45	53	31	48
CP recommended by participants	7	6	4	6
CP was recommended by teachers	21	19	9	17
Participation was good for my CV	10	7	1	5
Participation provided easy credits	1	2	11	4
Sum	100	100	100	100
N	634	634	246	880

Sources: Experiences from participation in a Company Programmes  
Start-up Rate - Graduate Programmes companies

We start our comments with the four countries in our comparative study of Company Programmes. For only 13 percent participation in CP was compulsory, while 87 percent gave other reasons for their participation: 53 percent commented that their main reason was curiosity about having their own company, for 19 percent the rationale was recommendations from teachers, 7 percent argue that their motivation was that participation in CP was good for their CV, for 6 percent the incentive was recommendations from previous participants, and 2 percent thought that participation in CP would provide easy credits.

As can be seen, the distribution from the Norwegian study was quite different. 44 percent had the Graduate Programmes as a compulsory subject, 31 percent were curious about having their own company, 13 percent stated that the choice was based on recommendations from former participants or teachers, while 12 percent had an advantage-based motivation.

There are wide cross-country differences:

- Belgium: a mix between Recommendation-based participation (39 percent), Compulsory-based (26 percent) and Advantage-based (22 percent).
- Estonia: mostly Enterprise-based participation (56 percent) and some Recommendation-based (27 percent).
- Finland: mostly Enterprise-based participation (78 percent) and some Recommendation-based (12 percent)
- Norway: a mix between Compulsory-based participation (44 percent) and Enterprise-based (31 percent).
- Slovakia: mostly Enterprise-based participation (66 percent) and some Recommendation-based (24 percent).

## 2.4 Development of entrepreneurial competences

*Major Findings: The majority of former respondents of the Company Programmes (CP) finds CP useful with regard to the development of entrepreneurial skills. There are some variations with regard to country, age, reason for participation and involvement in entrepreneurial activity.*

The Company Programmes is about letting young people form a mini-enterprise under the guidance of a teacher and volunteer business advisers. The intention is that this experience may develop young people's entrepreneurial competences. In a former study we had used the following classification of entrepreneurial competences (Johansen et al. 2006):

- General entrepreneurial abilities
  - Creativity, curiosity, cooperation skills, capabilities for problem-solving and decision-making etc.
- Specific entrepreneurial abilities
  - Knowledge and skills on what needs to be done to establish and run an enterprise, see opportunities in the market, make use of resources, skills in production, know some economy, and knowledge of rules and regulations.
- Attitudes
  - Be aware of/plan to choose a career as self-employed.

In this survey we chose to investigate the possible impact of participation in CP along six indicators of entrepreneurial competences:

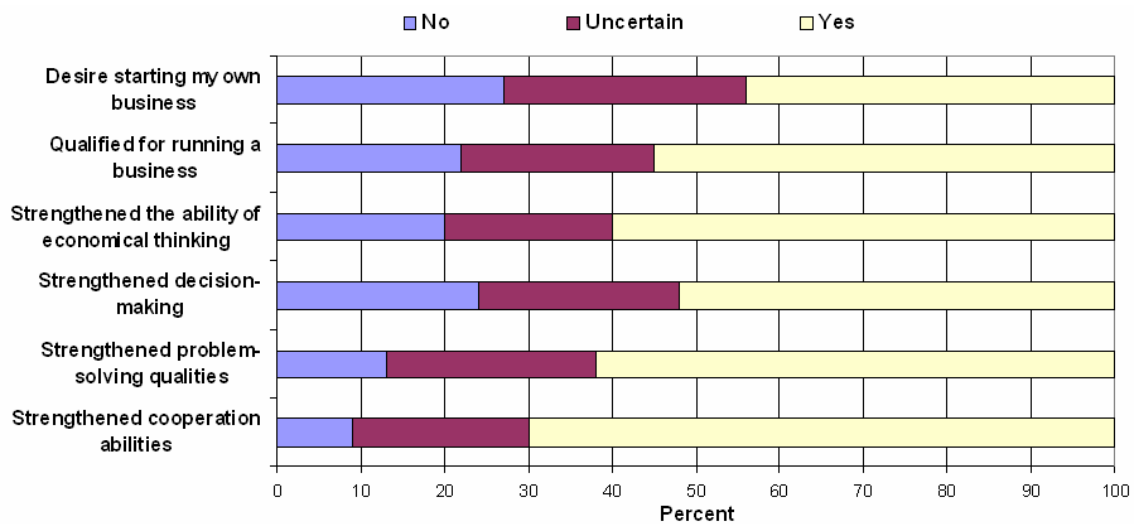
- Abilities for team-work
- Problem-solving capabilities
- Decision-making abilities
- Knowledge on how to set up and run a company
- Economic abilities

- Attitudes towards starting a company.

In the pilot – our study of former participants in the Graduate Programmes in Norway – we investigated some of these dimension, but not all of them. We found that after participation in the Graduate Programmes (Johansen and Eide 2006):

- 62 percent thought that they had developed better abilities to cooperate.
- 58 percent thought that they had developed better skills in decision-making and problem-solving.
- 60 percent thought that they were qualified to start up and run their own company.
- 57 percent thought that the participation had increased their desire for setting up a company.

In the next figure we will see what our respondents answered to the questions of usefulness in the Company Programmes. In other words, we are looking at the weighted percentage for Belgium, Estonia, Finland, Norway and Slovakia.



**Figure 1:** Usefulness of the Company Programmes for developing entrepreneurial competences. Weighted percentage

N = 927

Source: Experiences from participation in a Company Programmes  
What happened later?

General entrepreneurial competence involves active skills that are important for entrepreneurial work and for all work that is of benefit to society:

- 30 percent of our survey respondents believed that participation in CP had slightly strengthened their team working ability, while 70 percent believe that participation had strengthened this ability to a greater degree.
- 38 percent of our survey respondents believed that participation in CP had slightly strengthened their problem-solving ability, while 62 percent believed that participation had strengthened this ability to a greater degree.

- 48 percent of our survey respondents believed that participation in CP had slightly strengthened their decision-making ability, while 52 percent believed that participation had strengthened this ability to a greater degree.

Specific entrepreneurial competence concerns knowledge in setting up and running a company:

- 40 percent of our survey respondents believed that participation in CP had had a slight positive impact on their ability of economic thinking in economic terms, while 60 percent believed that participation had strengthened this ability to a great degree.
- 45 percent of our survey respondents believed that participation in CP had not qualified them for running a business, while 55 percent believed that participation had qualified them to run a business.

Attitudes to entrepreneurship concern awareness of, and desire for, choosing self-employment as a possible career.

- 44 percent believed that participation in CP had given them a greater desire to start up their own business, while 56 percent thought that taking part had had little impact in regard to this.

It is clear that CP prove beneficial to the participants in all countries, but on all of these questions there are cross-country differences. We refer to the Appendix for a further investigation, and in the synopsis below we present the highest-ranking country's percentage.

- Participation strengthened problem-solving abilities: highest in Slovakia (83)
- Participation strengthened decision-making abilities: highest in Estonia (76)
- Participation strengthened cooperation abilities: highest in Slovakia (91)
- Participation made them qualified to run a business: highest in Finland (69)
- Participation strengthened abilities of economic thinking: highest in Slovakia (77)
- Participation gave a greater desire to start up their own business: highest in Estonia (59)

It could, however, be the case that these differences we find between the countries are based on circumstances other than the different ways of managing JA-YE programmes. They could be based on participants' age, gender, reason for participation etc.<sup>6</sup> If so, factors determining the usefulness of CP is something we want to investigate further.

To begin with, we create a new variable called: "The Index of usefulness of CP". This variable comprises all six indicators we have looked at: ability for teamwork, problem solving capabilities, decision-making, knowledge on how to set up and run a company, economic

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<sup>6</sup> Our former study of participants in the Graduate Company Programmes in Norway (GP) revealed that some participants had a better experience than others. We found that: younger participants considered the usefulness of GP higher than older participants; participants in other EE-programmes considered the usefulness of GP higher than those who had not taken part in other programmes; those who chose to participate in GP found it to be more useful than those for whom the programmes was a compulsory subject; those who had a leadership position in a GP believed that the programmes was of greater use than those who did not have a leadership role (Johansen and Eide 2006).

abilities and attitude towards starting a company of their own. The variable ranges from the value 6 to 30, in which 30 is the full score.

Our next issue of concern is to investigate possible differences between subgroups:

- gender: do men find CP more useful than women?
- age: do young people find CP more useful than older people?
- year of participation; CP has developed in the last 10 years: do “newer” participants find it more useful compared to those that participated some years ago?
- educational attainment: are well-educated people more critical than those with completed Upper Secondary school?
- entrepreneurship: do those who are now involved in entrepreneurial activity find CP more useful than who are not involved in entrepreneurial activity?
- reason for participation: do those who have CP as a compulsory subject find it less useful than those who “chose” to participate based on “Recommendation”, “Enterprise” or “Advantage”?
- country differences: are there differences between participants from different countries?

Regression analysis is an attempt to understand how a set of independent variables affects a particular dependent variable. We estimate the strength of a modelled relationship between the dependent variable (Y) and the explanatory variables or independent variables (X), and are able to test for the statistical significance of the estimated parameters.

After numerous tests, using a combination of forward inclusion and backward elimination, we ended up with the model found in the table below.<sup>7</sup> In addition to the revised models we present, we also give the original model in the appendix.

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<sup>7</sup> For those who are interested let us briefly, explain the features of the regression table.

a) The constant refers to the predicted value when all values on other variables are zero. In the table below the constant is 24 points (the variable ranges from 6 to 30).

b) The unstandardized coefficient B shows the average increase in dependent variable with one measurement increase in X (independent variable) when other independent variables are held constant. An example from the table below is that participants from Estonia find the usefulness of CP 3.6 points higher compared to respondents from Belgium.

c) The standard of errors (Std.E.) is an indication on how much one parameter can differ from the correct value of parameters.

d) “t” refers to the value computed in the t-test.

e) Explained variance,  $R^2$ , is a measure on how well defined our model is. The adjusted  $R^2$  incorporates the complexity in the regression model relative to the complexity in the data (Hamilton 1992).

f) The two final parts is the p-value and the level of significance. In the social sciences it is in general agreed to follow a decision rule such as: reject  $H_0$  and believe  $H_1$  if  $p < 0,05$  (Hamilton, 1992).

**Table 9.** Factors explaining the perceived usefulness of CP. Revised model.

	B	Std. E.	t	p-value	Level
Constant	23,975	2,325	10,312	0,000	
Women	0,533	0,495	1,077	0,282	
Age	-0,228	0,085	-2,692	0,007	***
Entrepreneurial Activity	1,459	0,724	2,015	0,045	**
Enterprise-based participation	2,016	0,770	2,617	0,009	***
Recommendation-based participation	-0,232	0,788	-0,294	0,769	
Advantage-based participation	0,103	1,035	0,099	0,921	
Estonia	3,610	0,757	4,770	0,000	***
Slovakia	1,673	0,782	2,141	0,033	**
Finland	1,288	0,796	1,619	0,106	
Adjusted R <sup>2</sup>	0,20				

\*\*\* Significant at 0.01-level, \*\* Significant at 0.05-level, \* Significant at 0.1-level.

Reference categories to dummies: Men; Compulsory-based participation; Belgium.

Source: Experiences from participation in a Company Programmes

In order to keep our comments as simple as possible, we shall concentrate on two features: the adjusted R<sup>2</sup> and the level of significance/p-value. First, the adjusted R<sup>2</sup> in our model is 0.20 and this tells us that we explain 20 percent of the variance in degree of usefulness.<sup>8</sup> Second, any coefficient for which the obtained p-value is less than 0.05 is said to be statistically significant. Through this test we find significant effects for these variables: age, entrepreneurial activity, enterprise-based participation, Estonia and Slovakia.

From this test, in which we control for other predictors, we learned the following about participants' perceived usefulness.

- *Age matters*
  - There is a negative relation between age and experienced usefulness of CP: Younger people tend to find CP more useful than to older persons.
- *Entrepreneurial activity matters*
  - Those who are now involved in entrepreneurial activity tend to find CP more useful than those who are not involved in entrepreneurial activity.
- *Reason for participation matters*
  - Those with "Enterprise-based" motivation tend to find CP more useful than those participating for other reasons (compulsory-based, recommendation-based and advantage-based).
- *Country matters*
  - Participants from Estonia tend to find CP more useful than the other countries, and we also find that participants from Slovakia tend to find CP more useful than those from Belgium.

<sup>8</sup> In other words, we have included some important explanation variables in our model, but we still can not explain 80 percent of the variation in usefulness.

- *Gender does not seem to matter that much*
  - Women in the sample tend to find CP more useful than men, but this relation is non-significant.
- *Year of attendance and Educational attainment dos not matter.*

## 2.5 Assessment of the CP Method

**Major Findings:** *the majority of former respondents of CP found the CP Method to be well developed, but there are variations with regard to country, gender and the perceived usefulness of CP. While the majority agreed that teachers are well-educated, about half of the respondents agreed that mentors, the study material and the educational set-up at place of study are of high quality.*

JA-YE programmes are founded on teaching methods based on “learning-by-doing” principles. In this section we look at how the respondents assessed CP as an educational method.

But again we shall start with an exploration of the pilot study in Norway, in which the former participants in Graduate Programmes were asked how they assess the method based on “learning-by-doing” principles. The result was good: 24 percent considered the Graduate Programmes to be a very good educational method, 60 percent believed that the method is good, but that there is room for improvement, and 17 percent thought that the method required significant development (Johansen and Eide 2006).

The former participants in the Company Programmes were likewise asked to evaluate CP as an educational method. The results are shown in the table below.

**Table 10.** *Assessment of CP as an educational method.*

	Percentage	Weighted percentage
Very poor	1	1
Quite poor	2	2
Medium	17	17
Quite good	47	45
Very good	33	36
Sum	100	100
N	633	633

Source: Experiences from participation in a Company Programmes

The weighted results show that 36 percent consider CP to be a very good educational method, 45 percent believe that the method is good, but that there is room for improvement, and 20 percent thinks the method requires significant development.

Some groups of participants are more positive about the CP method than others. Controlled for other variables we find that:

- Participants from Estonia think more highly of the CP method than participants from the other countries.<sup>9</sup>
- Those now involved in entrepreneurial activity think more highly of the CP method than those who are not involved in entrepreneurial activity.
- Those who chose themselves to participate in CP, think more highly of the CP method than those who had to participate (Compulsory-based participation).
- Younger people are more satisfied with the CP-method compared with older respondents.

It is not enough to state that more than 8 out of 10 find that CP is based on a good educational method. For CP to be a successful educational tool, one is dependent on:

- a) the place of study having a good educational set-up;
- b) well developed study material;
- c) high-quality teachers; and
- d) active mentors.

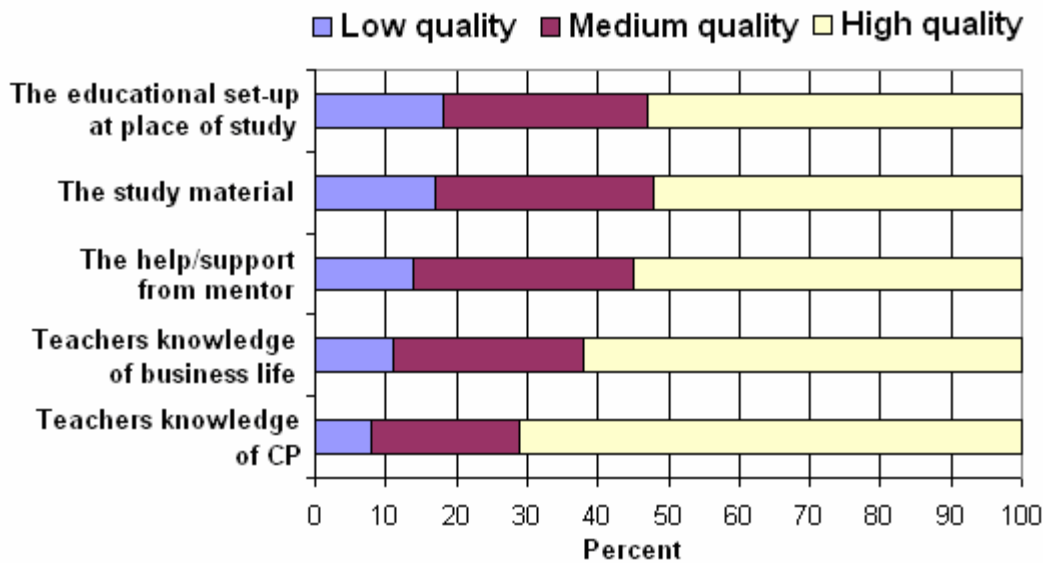
Of course we did also explore those issues in our pilot study in Norway considering former participants in Graduate Programmes. Again the results were good (Johansen and Eide 2006):

- 56 percent were reasonably pleased with the educational set-up.
- 53 percent were reasonably pleased with the study material.
- 62 percent were reasonably pleased with their teachers' knowledge about business life.
- 77 percent were reasonably pleased with their teachers' knowledge about business life.
- 61 percent were reasonably pleased with the help/support from their mentor.

The former participants in the Company Programmes were likewise asked to evaluate the same dimensions. The results are shown in the figure below.

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<sup>9</sup> A cross-country comparison gives these results. Belgium; 25 percent consider CP to be a very good educational method, 53 percent believe that the method is good, and 22 percent think that the method requires significant development. Finland; 31 percent consider CP to be a very good educational method, 46 percent believe that the method is good, and 23 percent think that the method requires significant development. Slovakia; 40 percent consider CP to be a very good educational method, 40 percent believe that the method is good, and 21 percent think that the method requires significant development. Estonia; 48 percent consider CP to be a very good educational method, 43 percent believe that the method is good, and 8 percent think that the method requires significant development.



**Figure 2:** Assessment of educational set-up, study material, teachers and mentors. Weighted percentage

N = 640

Source: Experiences from participation in a Company Programmes

Figure 2 shows that respondents have different views on all issues of concern, but most of them are positive. A majority of respondents are positive about their teachers, while about half of the respondents are positive about mentors, the study material and the educational set-up.

- 71 percent consider that their lecturers/teachers knowledge of CP was of high quality.
- 21 percent found it to be medium, and 8 percent were dissatisfied.
- 62 percent consider that their lecturers/teachers knowledge of business life was of high quality, 27 percent found it to be medium, and 11 percent were not satisfied.
- 55 percent consider that the help/support from mentor from the private/NGO sector was of high quality, 31 percent found it to be medium, and 14 percent were unhappy.
- 52 percent consider that the study material was of high quality, 31 percent found it to be medium, and 17 percent were dissatisfied.
- 52 percent consider that the educational set-up at place of study was of high quality, 29 percent found it to be medium, and 18 percent were not satisfied.

There are noticeable cross-country differences. We refer to the Appendix for a further investigation. In the synopsis below, we present the highest-ranking country's percentage.

- Consider their teachers to have good knowledge of CP: Estonia (82 percent).
- Consider their teachers to have good knowledge of business: Finland (71 percent).
- Consider the educational set-up at place of study to be good: Slovakia (65 percent).
- Consider the study material to be good: Estonia (65 percent).
- Consider the help/support from mentor to be good: Highest in Slovakia (63 percent).

We must ask ourselves if cross-country differences are based on circumstances other than the different ways of managing JA-YE programmes. It could be based on participants' age, gender,

reason for participation etc. As formerly explained, regression analysis is an attempt to understand how a set of independent variables affect a particular dependent variable.

To do this sort of analysis we create an index based on the following measures: opinion of the educational set-up at place of study, opinion of the study material, opinion of lecturers/teachers knowledge, opinion of the help/support from mentor from the private/NGO sector. The dependent variable varies from 5 to 25 points. In order to explain differences we investigate the possible effects of :

- Gender: do men perceive CP different from women?
- Age: do young people perceive CP different from older people?
- Year of participation: do “newer” participants perceive CP different from those that participated some years ago?
- Educational attainment: are well-educated people more critical to CP?
- Entrepreneurship: do those who are involved in entrepreneurial activity now perceive CP differently from those who are not involved in entrepreneurial activity?
- Reason for participation: do those who have CP as a compulsory subject perceive CP differently from those that “chose” to participate?
- Perceived usefulness of CP: do those that found CP useful have different opinions with regard to CP compared with those that found CP less useful?

After numerous tests, using a combination of forward inclusion and backward elimination, we ended up with the model found in the table below.

**Table 11:** Factors explaining the perception of CP. Revised model.

	B	Std.E.	t	p-value	Level
(Constant)	8,513	1,875	4,539	0,000	
Women	0,693	0,349	1,984	0,048	**
Perceived usefulness of CP	0,259	0,038	6,807	0,000	***
Age	0,108	0,062	1,754	0,080	*
Completed Upper Secondary	0,677	0,432	1,567	0,118	
Estonia	1,134	0,562	2,017	0,044	**
Slovakia	1,258	0,575	2,187	0,029	**
Finland	0,518	0,567	0,914	0,362	
Adjusted R <sup>2</sup>	0.17				

\*\*\* Significant at 0.01-level, \*\* Significant at 0.05-level, \* Significant at 0.1-level.  
Reference categories to dummies: Men; Participant attended university; Belgium.  
Source: Experiences from participation in a Company Programmes

The adjusted R<sup>2</sup> in our model is 0.17, and this tells us that we have managed to explain 17 percent the variance in perceptions of CP. In the social sciences it is in general agreed to follow a decision rule such as: reject H<sub>0</sub> and believe H<sub>1</sub> if p < 0,05 (Hamilton, 1992). Through this test we find statistically significant effects for the variables Women, Perceived usefulness of CP, Estonia and Slovakia, while Age is close to becoming significant. Other variables are non-significant.

From this test, in which we control for other predictors, we learned the following about differences in perceptions about CP.

- *Gender matters*
  - Women tend to find CP better compared with men.
- *Perceived usefulness of CP matters*
  - Those who found CP highly useful tend to find CP better than those who found CP less useful.
- *Country matters*
  - Participants from Estonia and Slovakia tend to find CP better than the participants from Belgium.
- *Age matters (but not that much)*
  - There is a positive relation between age and perception of CP: older people tend to find CP better than younger people. The relation is, however, non-significant at the 0.05-level.
- *Educational attainment seems to matter (but not that much)*
  - Even if those only completing Upper Secondary tend to find CP better than those with higher education, the relation is non-significant at the 0.05-level.
- *Entrepreneurial activity, Year of attendance and Reason for participation do not matter*

In the final part of this section, we examine if participants would recommend CP to other students.

**Table 12.** Recommendation of CP to other students?

	Percentage	Weighted percentage
To a very small degree	1	1
To a quite small degree	3	2
To a medium degree	15	13
To a quite large degree	38	37
To a very large degree	44	47
Total	100	100

Source: Experiences from participation in a Company Programmes

The majority of respondents had a positive view of participation in CP and would recommend the programmes to other students; 47 percent highly recommend other students to participate in CP, 37 percent recommend it to a quite large degree, 13 percent recommend it to a medium degree and 3 percent are not going to recommend it.

Some groups of participants are more positive about recommending CP than others. Controlling for other predictors, we find that:

- Participants from Estonia are more likely to recommend CP than participants from the other countries<sup>10</sup>

<sup>10</sup> Again we find some differences between countries: In Belgium 37 percent of the respondents would recommend participation to a very large degree, 35 percent would recommend it to a quite large degree, and 28 percent would recommend it to a lesser degree. In Slovakia 45 percent of the respondents would recommend participation to a very large degree, 46 percent would recommend it to a quite large degree, and 10 percent would recommend it to a lesser degree. In Finland 52 percent of the respondents would recommend participation to a very large degree, 26 percent would recommend it to a quite large degree,

- The younger participants are more likely to recommend CP compared to those in older age groups
- Those now involved in entrepreneurial activity are more likely to recommend CP than those who are not involved in entrepreneurial activity
- Those who chose to participate are more likely to recommend CP than those who had to participate (Compulsory-based participation)
- The year of attendance, gender and educational attainment do not matter

## 2.6 Entrepreneurial activity

*Major Findings: 15 percent of former participants in JA-YE Programmes (Company Programmes and Graduate Programmes) are involved in entrepreneurial activity, and those most likely to be entrepreneurs are men over the age of 25. We concluded that young people who participate in JA-YE Programmes probably are more likely to become entrepreneurs than young people who do not participate in JA-YE Programmes.*

Former cross-country studies have proven that entrepreneurship has a positive effect on economic growth and employment.<sup>11</sup> For this reason entrepreneurship was chosen as one of the key areas to focus upon to reach the goals of the Lisbon agenda. It is not easy, however, to develop an entrepreneurial economy. This necessitates a broad policy context aimed at different phases of the entrepreneurial process with actors like governments, community-based organizations, business at different levels, research, the education system and the media, to mention some. *Entrepreneurship Education (EE)* is supposed to play a central role within this broader policy context.

From a vast number of empirical studies, including this one, we know that EE plays a role in developing young peoples' entrepreneurial competences. The question still stands: do they use these competences to create new enterprises? In other words: are young people who participate in entrepreneurship education more likely to become entrepreneurs? In exploring this issue we only evaluated participants older than 18 years of age.

One method of measuring whether JA-YE programmes contribute to a culture of creativity and new business creation is to study the start-up frequency among previous participants. This has formerly been done in Norway and Sweden.

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and 22 percent would recommend it to a lesser degree. In Estonia 52 percent of the respondents would recommend participation to a very large degree, 43 percent would recommend it to a quite large degree, and 5 percent would recommend it to a lesser degree.

<sup>11</sup> See Johansen et al. 2006 for an overview of such studies.

- In Sweden approximately 9 percent of former JA-YE students started up their own businesses, and the rate increased to as much as 20 percent of those now older than 29 years of age (Centrum før Marknadsanalys 1998).
- In Norway studies of entrepreneurial activity among former participants in JA-YE Norway's Company Programmes were carried out in 2002 and 2005. Luktvaslimo (2002) finds that 10 percent of former participants in CP have subsequently set up a company, while Haugum (2005) finds that the share is 17 percent.
- In our pilot – the study of former participants in the Graduate Programmes in JA-YE Norway – we found that 18 percent are involved in entrepreneurial activity.

In other words, the share involved in entrepreneurial activity among former participants in JA-YE Norway's Programmes is 17-18 percent. This figure of 17-18 percent can be compared to those 9 percent involved in entrepreneurial activity in the general population, according to the most recent study from Global Entrepreneurship Monitor (Kolvereid et. al. 2006). In our report from 2006 we concluded as follows:

“From a calculation of error margins we can state firmly that the proportion of previous participants in the Graduate Programmes and the Company Programmes who are involved in entrepreneurial activity today is markedly higher than in the general Norwegian population.” (Johansen and Eide 2006)

From these studies it seems that EE should be considered an important driver towards creating a more dynamic enterprise culture.

One of the objectives of EE is to contribute to the establishment of a stronger culture of entrepreneurship. In our presentation of the results from our study of former participants in the Company Programmes of Belgium, Estonia, Finland and Slovakia, we shall begin with the overall picture. It must be mentioned that those who are included in this subchapter are those respondents who are 18 years of age or older. In table 12 we give the overall picture.

**Table 13.** Start-up rate following participation in CP and GP.

	Belgium, Estonia, Finland, Slovakia		Norway	All countries
	Percent	Weighted percentage	Percent	Total weighted percentage
Not involved in entrepreneurial activity*	88	86	83	85
Involved in entrepreneurial activity**	12	14	17	15
Sum	100	100	100	100
N	609	609	543	1152

\* I have no plan of setting up a company & No, but I'd like to set up a company within 3 years

\*\* In the process of setting up a company right now & Yes, I have set up a company

Note: In the *What happened later?* these divisions are not made

Sources: Experiences from participation in a Company Programmes  
 What happened later?  
 Start-up Rate - Graduate Programmes companies

We shall begin with the figures from our study of former participants in Company Programmes. Among these respondents, 11 percent have established their own company and 3 percent are in

the process of starting up a company. This implies that 14 percent of those who have participated in CP have subsequently become involved in entrepreneurial activity. Furthermore, we find that that 36 percent have plans to establish a business within the next three years and 50 percent have no plans to start up their own company.

In the Norwegian studies, in which the respondents were former participants in the Company Programmes and the Graduate Programmes, 17 percent were involved in entrepreneurial activity.

*Summing up findings in all countries: 15 percent are involved in entrepreneurial activity*

The annual study Global Entrepreneurship Monitor (GEM) investigates variations in the level of entrepreneurial activity across 35 countries. In the GEM-studies they find notable differences between countries. For instance, Belgium has a very low level of entrepreneurial activity (3-4 percent), Finland is “heading in the right direction” (GEM 2007b), and in Norway 9 percent of the general population is involved in entrepreneurial activity. GEM does not provide figures for Estonia and Slovakia.

The figures from our studies on Company Programmes and the Graduate Programmes also show variations according to the countries examined:

- Estonia: 21 percent are involved in entrepreneurial activity.
- Norway: 17 percent are involved in entrepreneurial activity.
- Finland: 15 percent are involved in entrepreneurial activity.
- Slovakia: 13 percent are involved in entrepreneurial activity.
- Belgium: 9 percent are involved in entrepreneurial activity.

The important question we ask is this: **are young people who participate in JA-YE Programmes more likely to become entrepreneurs?**

When we explore the figures referred to above, the obvious answer is: YES. But this is not enough. Answering this question is more complicated than that, since we cannot rule out that some of those who take part in entrepreneurship programmes are more interested in entrepreneurship than the rest of the population. Therefore we also suspect them to be more likely to set up a company regardless of their participation in the programmes. In order to control this effect, we invented a control mechanism by asking respondents about their motivation for participating in JA-YE Programmes. Our expectation is that those with an Enterprise-based motivation are more likely to set up a company regardless of whether they participated in JA-YE Programmes or not.

In table 13 we compare entrepreneurial activity according to different motivations. There are two groups: a) Those with an Enterprise-based motivation and b) those with other motivations (Compulsory, Recommendation-based and Advantage-based).

**Table 14.** *Involvement in entrepreneurial activity for those with an Enterprise-based motivation and those with other motivations. Weighted percentage.*

	Belgium, Estonia, Finland, Slovakia		Belgium, Estonia, Finland, <u>Norway</u> and Slovakia	
	Enterprise	Other motivation	Enterprise	Other motivation
Involved in entrepreneurial activity	17	11	18	12
Not involved in entrepreneurial activity	83	89	82	88
Sum	100	100	100	100
N	265	342	339	512

Sources: Experiences from participation in a Company Programmes  
Start-up Rate - Graduate Programmes companies

We shall begin with the figures from our study of former participants in Company Programmes. Among the respondents that chose to participate because they were curious about having their own company, 17 percent are now involved in entrepreneurial activity. On the other hand, the rate of entrepreneurial activity is 11 percent among those with other motives (Compulsory, Recommendation-based and Advantage-based).

In the second part of the table we also include the figures from Norway. Now we find that 18 percent of the respondents that chose to participate because they were curious about having their own company are involved in entrepreneurial activity. On the other hand, 12 percent of those with other motives are now involved in entrepreneurial activity.

Our test has shown two things:

- a) Motivation matters. Those who chose to participate because they were curious about having their own company have a higher rate of entrepreneurial activity than those who attended for other reasons.
- b) The figures for those who attended for other reasons is still quite high: the results show that the share involved in entrepreneurial activity among those giving reasons other than curiosity about starting a company, is higher compared to with overall level of entrepreneurial activity.

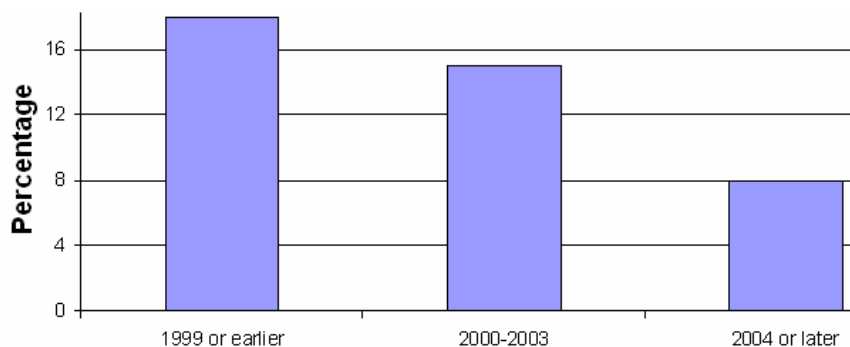
In other words, even when we leave the control group (enterprise-based motivation) outside, we find that the level of entrepreneurial activity is higher than that of the general population in the countries looked at. This means that we are able to conclude that young people who participate in JA-YE Programmes are more likely to become entrepreneurs.

In the next sections we evaluate different characteristics of the entrepreneurs. We look at the effects of year of attendance, gender, age and education. In this section we only refer to the results for Company Programmes in the figures and tables, and we use the results from the pilot Norwegian studies to introduce the different categories. We start our discussion with some bivariate results, and then go on and perform a logistic regression analysis in which we control the effects of other variables.

#### **a) Year of attendance**

It is only natural that those who participated in CP several years ago would subsequently have had more time to develop a business idea and establish their own company than those more recently involved. In our pilot-study in Norway we found that of those who took part in the period 2002-2004, 25 percent were involved in entrepreneurial activity, while the corresponding percentage was 14 percent for those who participated in 2004-2006.

In figure 3 (below) we find that the start up-rate for those who attended CP in 1999 or earlier is 18 percent, the rate is 15 percent for those attending between 2000 and 2003, and only 8 percent for those attending in 2004 or later.



**Figure 3.** Start-up rate following participation in CP and year of participation. Weighted percentage.

N = 609

Source: Experiences from participation in a Company Programmes

### b) Gender and age

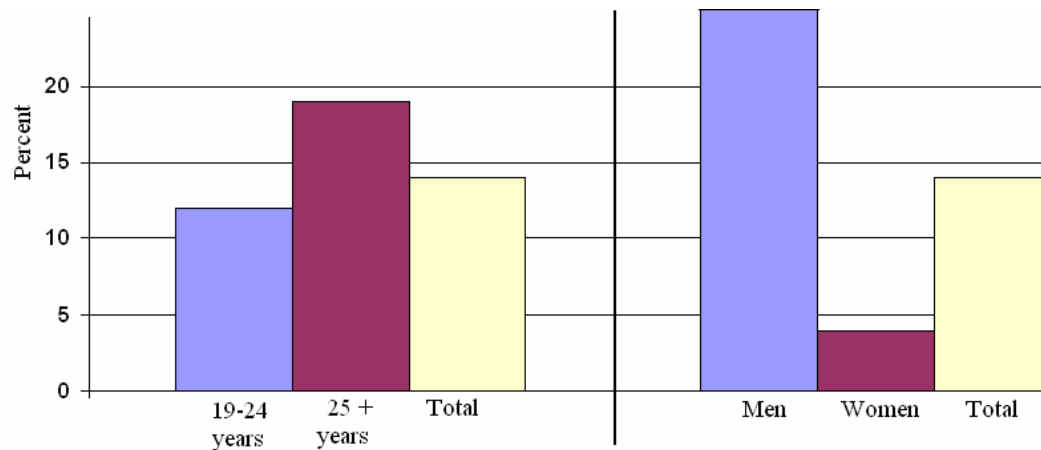
Scholars of “entrepreneurship demographics” agree that age and gender are significant socio-economic factors in a person’s decision to start a business.

In the two Norwegian studies, of the Graduate Programmes (Johansen and Eide 2006) and Company Programmes (Haugum 2005), we found differences between men and women and according to age: 22 percent of men and 11 percent of women were involved in entrepreneurial activity; and 15 percent of those between 18 and 24 years were involved in entrepreneurial activity compared to 19 percent of those 25 years or older.

Other studies have also shown the effect of gender and age:

- Global Entrepreneurship Monitor (GEM 2007b) concludes that early stage entrepreneurial activity is most prevalent in the age group of individuals 25-34 years, and that men are significantly more likely to start a business than women.
- Athayde (2004) finds that involvement in entrepreneurial activity is considerably lower for those less than 24 years of age, compared to those between 30 and 40 years of age.
- Waagø (et al. 1997) find that those between 25 and 34 years are twice as often involved in entrepreneurial activity compared to those between 18 and 24 years of age.

In figure 4 (below) we find that involvement in entrepreneurial activity increases with age; from 12 percent among those between 19 and 24 years, and 19 percent among those more than 25 years of age. We also find that while only 4 percent of women are involved in entrepreneurial activity, the rate is as high as 25 percent for the men in the sample. In other words, there seems to be both gender differences and age differences with regard to entrepreneurial activity.

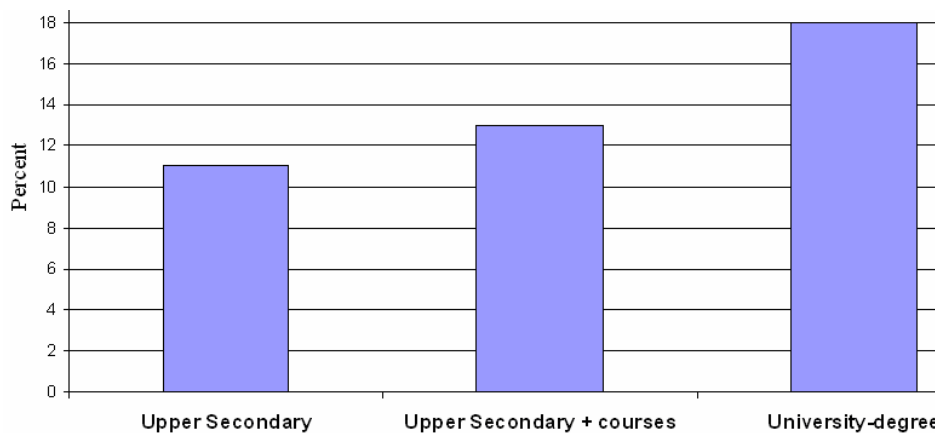


**Figure 4:** *Involvement in entrepreneurial activity by gender and age. Weighted percentage*  
N = 609

Source: Experiences from participation in a Company Programmes

### c) Education

According to GEM (2007b) people with post-secondary or graduate education are more involved in early-stage entrepreneurial activity, than those with less education. In figure 5 (below) we investigate this connection in our sample.



**Figure 5:** *Involvement in entrepreneurial activity by educational attainment. Weighted percentage*  
N = 608

Source: Experiences from participation in a Company Programmes

As can be seen in figure 5, the level of entrepreneurial activity increases as the completed level of education rises: 18 percent of those with a degree (Bachelor/Master) are involved in entrepreneurial activity, compared to 13 percent with some courses at University, and 11 percent having completed Upper Secondary school.

There is one country that differs from the others with regard to the entrepreneurial activity by educational attainment. This country is Belgium. While Estonia, Finland and Slovakia follow the proposed path - the level of entrepreneurial activity grows as the completed level of educational rises – the opposite seems to be true for Belgium. In Belgium only 6 percent of those with a degree (Bachelor/Master) are involved in entrepreneurial activity, compared to 11 percent among those only having completed Upper Secondary school and those with some courses at University. Thus, in Belgium people with higher education are less inclined to set up a company than those without a University-degree.

#### d) Characteristics of entrepreneurs

Through our simple bivariate analysis we found many possible explanatory factors for entrepreneurial activity. But in order to evaluate the “real” effect of each of them, we have to conduct a multivariate analysis, i.e.

- It could be that differences in entrepreneurial activity according to educational attainment are in reality a consequence of age.
- It could be that differences between countries are in reality a consequence of age.

Logistic regression is useful for situations in which you want to be able to predict the presence or absence of a characteristic or outcome based on values of a set of predictor variables. It is similar to a linear regression model but is suited to models where the dependent variable is dichotomous.

Our dependent variable is entrepreneurial activity. The predictors, or explanatory variables, are:

- Gender: we expect that men are more often involved in entrepreneurial activity than women.
- Age: we expect that the older participants are more often involved in entrepreneurial activity than younger participants.
- Reason for participation: we expect that those who participated in CP because of interest in starting their own company are more often involved in entrepreneurial activity than those that attended for other reasons.
- Educational attainment: we expect that people with Upper Secondary school are less often involved in entrepreneurial activity than those with higher education.<sup>12</sup>
- Countries: we expect there to be differences between the countries.

**Table 15.** *Factors explaining entrepreneurial activity. Revised model.*

	B	S.E.	Wald	p-value	Exp(B)	Level
(Constant)	-3,794	1,433	7,003	0,008	0,023	
Women	-2,298	0,429	28,631	0,000	0,101	***
Age	0,128	0,061	4,447	0,035	1,137	**
Enterprise-based participation	0,773	0,374	4,279	0,039	2,167	**
Belgium	-1,225	0,527	5,407	0,020	0,294	**

<sup>12</sup> One reason is that we expect this group to be younger; another is that former research has shown that those with higher education are more likely to become entrepreneurs (see Johansen et al. 2006).

Finland	-0,919	0,471	3,810	0,051	0,399	*
Slovakia	-0,719	0,448	2,575	0,109	0,487	

\*\*\* Significant at 0.01-level, \*\* Significant at 0.05-level, \* Significant at 0.1-level.

Reference categories to dummies: Men; Non-Enterprise-based participation (Compulsory, Advantage, Recommendation); Estonia.

Source: Experiences from participation in a Company Programmes

In the social sciences it is in general agreed to follow a decision rule such as: reject  $H_0$  and believe  $H_1$  if  $p < 0,05$  (Hamilton, 1992). Through this test we find statistically significant effects for the variables: Women, 21-24 years of age, 25 years or older, enterprise-based participation and Belgium. Finland is close to becoming significant and other variables are non-significant. From this test, in which we control for other predictors, we have learned the following about differences in entrepreneurial activity:

- *Gender matters*
  - Men are more likely to be involved in entrepreneurial activity than women.
- *Age matters*
  - The higher the age of former participants, the more likely they are to be involved in entrepreneurial activity
- *Reason for participation matters*
  - Participants who were curious about having their own company are more likely to be involved in entrepreneurial activity than those who participate for other reasons (compulsory-, recommendation- and advantage-based reasons).
- *Country matters*
  - Participants from Estonia are more often involved in entrepreneurial activity than those from other countries, especially Belgium.
- *Educational attainment does not matter*

We examined more closely those 14 percent of the respondents who have set up their own business. The first important finding concerns whether or not respondents based their company on the same business idea as their CP company.<sup>13</sup>

In this study we find the following results:<sup>14</sup>

- 6 percent told us “Yes, the business idea was the same”.
- 13 percent told us “To some degree - the business/branch was the same”.
- 81 percent told us “No, the company was not a continuation”.

Another concern is the motivation for setting up a company. In the annual GEM-study they found that most entrepreneurs in South America, Asia and Africa start their business because

<sup>13</sup> In former studies of this issue in Norway, the research on former participants of GP showed that half of the entrepreneurs based their company on the same concept/business idea as their GP- company (Johansen and Eide 2006). In another study, Haugum (2005) found that almost 1 in 3 of those who set up a company after participating in CP had based the company on the same concept as their CP-business.

<sup>14</sup> We found few differences between the countries in this study. Belgium; 2 of 14 did, to some extent, base it on the same business idea. Slovakia: 2 of 14 percent did, to some extent, base it on the same business idea. Estonia; 2 of 12 percent did, to some extent, base it on the same business idea. Finland: 4 of 12 did, to some extent, base it on the same business idea.

they have no alternative, while entrepreneurship in most European countries is based on opportunity (Kolvereid et. al 2006). We asked the following: of these statements – which would best describe your motivation for setting up your own company?

**Table 16:** *Entrepreneurship based on opportunity or necessity.*

	Percentage	Weighted percentage
Necessity	3	4
Opportunity	65	65
Combination of the two	11	11
None	20	20
Sum	100	100
N	54	54

Source: Experiences from participation in a Company Programmes

Only 4 percent decided to become self-employed in order to get out of unemployment (necessity), while 65 percent decided to become self-employed because there was a marketing opportunity. 11 percent argued that there was a combination of the two, while 20 percent found that none of our statements gave the real reason.

Our final concern was whether or not they were still running the company. Table 15 shows that 85 percent are still running their company, 9 percent closed it, and 6 percent sold it.

**Table 17:** *Are you still running the company?*

	Percentage	Weighted percentage
Yes	85	85
No, I closed it	9	9
No, I sold it	6	6
Sum	100	100
N	53	53

## Conclusions

In the 1990s Entrepreneurship Education (EE) became an area of commitment for the European Union, much due to the goal of creating a more dynamic enterprise culture. The European network Junior Achievement –Young enterprise Europe (JA-YE Europe), provides “learning-by-doing” enterprise education programmes in primary and secondary school, as well as university. JA-YE brings the public and private sectors together to provide young people in primary and secondary schools and early university with high-quality education programmes to teach them about enterprise, entrepreneurship, business and economics in a practical way.

The very first programmes, the JA-YE “Company Programmes” (CP), was created in 1919. CP gives students in upper secondary school the opportunity to run their own company. In the project “Experiences from participation in JA-YE Company Programmes” we invited participants from 6 countries: Belgium, Bulgaria, Denmark, Estonia, Finland and the Slovak Republic. The data used were collected in the spring of 2007 through Internet-based questionnaires. In addition to conducting a quantitative study in the 6 countries mentioned above, we consolidated and/or compared particular results of similar studies from Norway in 2005 and 2006 wherever we found it relevant and appropriate.

The aim of the project was to find out how the participants experienced their time as founders of mini-companies, and whether or not participation in the programmes has had an impact on their later careers, including the start up of their own companies.

We shall begin this last chapter with a short guidance to the reader on how to interpret the results. After this evaluation we shall address the four questions raised in the Introduction.

### 3.1 Guide to the reader

Evaluations of EE programmes are seldom conducted, and cross-country comparisons of such projects are virtually never considered. Therefore, this study is quite unique among academic research projects considering entrepreneurial activity. We are aware that it could become a standard reference when politicians, commentators of entrepreneurship, academics working in the field of entrepreneurship, and organizers of EE programmes are to comment on the impact of EE programmes on young people's later careers.

It is, of course, especially our figures of entrepreneurial activity that might have the opportunity to "live their own lives". When the researcher presents his results, he should reflect on the confidence of the results. Therefore, we have chosen to provide a short guidance to the reader, with reference to results on entrepreneurial activity.

The margin of error is a statistical expression of the amount of random sampling error in a survey's results. The larger the margin of error, the less confidence one should have that the poll's reported results are close to the "true" figures; that is, the figures for the whole population.

A. In the sample, 15 percent of former participants in JA-YE Programmes (Company Programmes and Graduate Programmes) have subsequently been involved in entrepreneurial activity. With regard to this figure we should be aware that this figure is the weighted average in 5 countries with a total of 1152 respondents answering this question. Considering a very simple estimation of error margins, this means – on the assumption that we have a probability sample and generalize to the population of former JA-YE-participants in the five countries with 95 percent probability – that we find the share subsequently involved in entrepreneurial activity to be between 13 and 17 percent

B. We also presented figures for each country. Samples in Estonia and Finland are small and therefore the error margins are huge. Samples in Belgium and Slovakia, on the other hand, are large enough to make sense even when considering error margins. With 95 percent probability, assuming that we have a probability sample:

- We find that the share of former CP participants subsequently involved in entrepreneurial activity in Belgium is between 6 and 13 percent.
- We find that the share of former CP participants subsequently involved in entrepreneurial activity in Slovakia is between 7 and 18 percent.

- We find that the share of former JA-YE participants subsequently involved in entrepreneurial activity in Norway is between 14 and 20 percent.

C. We can do the same for age groups and gender. We considered all former participants in JA-YE programmes, and then found that in our full sample:

- 25 percent of former male JA-YE participants have subsequently become involved in entrepreneurial activity.
- 5 percent of former female JA-YE participants have subsequently become involved in entrepreneurial activity.
- 13 percent of former JA-YE participants between 18 and 24 years of age became subsequently involved in entrepreneurial activity is between 9 and 15 percent.
- 19 percent of former JA-YE participants 25 years or older became subsequently involved in entrepreneurial activity.

We should also consider error margins for these results. With 95 percent probability, assuming that we have a probability sample of the five countries:

- We find that the share of former male JA-YE participants subsequently involved in entrepreneurial activity is between 21.5 and 28.5 percent.
- We find that the share of former female JA-YE participants subsequently involved in entrepreneurial activity is between 3 and 7 percent.
- We find that the share of former JA-YE participants between 19 and 24 years of age subsequently involved in entrepreneurial activity, is between 10.5 and 15.5 percent.
- We find that the share of former JA-YE participants 25 years or more subsequently involved in entrepreneurial activity, is between 16 and 22 percent

### 3.2 Do respondents recommend CP participation?

*Conclusion: Former respondents of CP are likely to recommend CP to other students. There are some variations with regard to country, age, reason for participation and involvement in entrepreneurial activity.*

The majority of previous participants are positive towards taking part in CP and would recommend CP to other students:

- 47 percent would highly recommend CP
- 37 percent would recommend CP to a quite large degree
- 16 percent would recommend it to a lesser degree

Through multivariate analysis, controlling for other predictors, we found that some groups of participants are more positive about recommending CP than others.

- Participants from Estonia are more likely to recommend CP than participants from the other countries.
- Younger participants are more likely to recommend CP than older participants.
- Those now involved in entrepreneurial activity are more likely to recommend CP than those who are not involved in entrepreneurial activity.
- Those who chose to participate are more likely to recommend CP than those that had to participate (Compulsory-based participation).

### 3.3 Are entrepreneurial skills developed through CP?

*Conclusion:* The majority of former respondents of CP found CP useful with regard to the development of entrepreneurial skills. There are some variations with regard to country, age, reason for participation and involvement in entrepreneurial activity.

General entrepreneurial competence involves active skills that are important for entrepreneurial work and for all work that is of benefit to society:

- 70 percent stated that CP-involvement had strengthened cooperation skills.
- 62 percent stated that CP-involvement had strengthened problem-solving abilities.
- 52 percent stated that CP-involvement had strengthened decision-making abilities.

Specific entrepreneurial competence concerns knowledge of setting up and running a company:

- 60 percent stated that CP-involvement had strengthened skills in economic thinking.
- 55 percent stated that CP made them more qualified to run a business.

Awareness of, and desire for, self-employment as a possible career:

- 44 percent stated that CP involvement had made them desire to establish a business.

Regression analysis is an attempt to understand how a set of independent variables affects a particular dependent variable. Through this multivariate technique we learn that some groups of participants are more positive about the usefulness of CP than other groups.

- Age: younger people tend to find CP more useful than older persons.
- Entrepreneurial activity: those now involved in entrepreneurial activity tend to find CP more useful than those who are not involved in entrepreneurial activity.
- Reason for participation: those with “Enterprise-based” motivation tend to find CP more useful than those participating for other reasons (compulsory-based, recommendation-based and advantage-based).
- Country matters: participants from Estonia and Slovakia tend to find CP more useful than those from the other two countries (Belgium and Finland).

### 3.4 How is CP evaluated as an educational method?

*Conclusion: The majority of former respondents of CP find the CP method to be well-developed, but there are variations with regard to country, gender and the perceived usefulness of CP. While the majority agree that teachers are well-educated, about half of the respondents agree that mentors, the study material and the educational set-up at place of study are of high quality.*

With regard to this question, we begin with the respondents' overall opinion of CP as an educational method?

- 36 percent considered CP to be a very good educational method.
- 45 percent believed that the method is good, but that there is room for improvement.
- 19 percent thought the method requires significant development.

For teaching of CP to be successful, one is dependent on the place of study having a good educational programmes; on the lecturers having a good knowledge of the CP method and the business community; on mentors being active; and the teaching material working well. The majority of respondents were positive in relation to all of these areas, but there was a minority that believed there is room for greater improvement:

- 71 percent considered their lecturers/teachers knowledge of CP to be of high quality.
- 62 percent considered their lecturers/teachers of business life to be of high quality.
- 55 percent considered the help/support from mentor to be of high quality.
- 52 percent considered the study material to be of high quality.
- 52 percent considered the educational set-up at place of study to be of high quality.

From our regression analysis, in which we control for other predictors, we learned the following about differences in perceptions about the CP method:

- Gender: women tend to find CP better compared to men.
- Perceived usefulness of CP: those who found CP highly useful tend to find CP better than those who found CP less useful.
- Country: participants from Estonia and Slovakia tended to find JA-YE programmes better than participants from Belgium.

### 3.5 Does CP lead to more business start-ups?

**Conclusion:** *15 percent of former participants in JA-YE Programmes (Company Programmes and Graduate Programmes) are now involved in entrepreneurial activity, and those most likely to be entrepreneurs are men who are more than 25 years of age. We concluded that young people who participate in JA-YE Programmes probably are more likely to become entrepreneurs than young people who do not participate in JA-YE Programmes.*

From a vast number of empirical studies, including this one, we know that EE plays a role in developing young peoples' entrepreneurial competences. One question still stands: are young people who participate in entrepreneurship education more likely to become entrepreneurs? To answer this, we examined the start-up frequency among previous participants in the Company Programmes and the Graduate Programmes (Norway):

- 11 percent have established their own company.
- 3 percent are in the process of starting up a company.
- 35 percent have plans to establish a business within the next three years.
- 50 percent have no (immediate) plans to start up their own company.

We concluded that 15 percent of those who have participated in JA-YE Programmes in the five countries have subsequently become involved in entrepreneurial activity, and this is a very high figure for this age group. Considering error margins, the share is between 13 and 17 percent. By performing multivariate logistic regression analysis, we found that gender, age, reason for participation and country matter for involvement in entrepreneurial activity.

- Men are more likely to be involved in entrepreneurial activity than women.
- Those more than 25 years of age are more likely to be involved in entrepreneurial activity than those between 19 and 24 years of age.
- Participants who were curious about having their own company are more likely to be involved in entrepreneurial activity than those participating for other reasons.
- Participants from Estonia are more often involved in entrepreneurial activity than those from other countries, especially Belgium.

To be certain that participation in JA-YE programmes leads to more people getting involved in entrepreneurial activity, one should examine whether individuals who might independently have considered setting up an owner-managed business, took part in JA-YE Programmes. We found that the start-up rate is significantly higher among participants with an *Enterprise-based* motivation, and this could provide an argument questioning our hypothesis that participants in JA-YE Programmes are more likely to become entrepreneurs. At the same time there are some fundamental findings in disagreement with a conclusion of that sort.

- a) The share involved in entrepreneurial activity is quite high (12 percent) among those who did not join JA-YE because they wanted to start their own company.
- b) Those involved in entrepreneurial activity found CP highly useful for developing entrepreneurial skills, they think highly of the educational method and many "new" entrepreneurs state that CP did increase their desire to start their own business.

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## Appendix:

The reader should note that all results shown in the Appendix are of the original sample. With regard to entrepreneurial activity, for instance, we also include those less than 19 years of age.

### Results for Belgium (VLAJO)

#### Gender

	Frequency	Percentage
Men	40	66
Women	21	34
Total	61	100

#### Age

	Frequency	Percentage
24 years	6	10
25 years	15	25
26 years	11	18
27 years	10	16
28 years	10	16
29 years +	9	15
Total	61	100

#### Level of completed education

	Frequency	Percentage
Upper secondary school	15	25
Upper secondary school + some courses at University/College	29	48
Bachelor degree from University/College (3 years)	3	5
Masters/PhD. degree from University/College (5 or 8/9 years)	14	23
Total	61	100

#### Profession

	Frequency	Percentage
Student	6	10
Employed in public sector	6	10
Employed in NGO sector	12	20
Employed in private sector	29	48
Self-Employed (owner-manager, co-owner)	3	5
Disabled	4	7
Total	60	100

Employees: What is your position?

	Frequency	Percentage
Executive (Senior Manager)	4	10
Manager	7	18
Employee	27	69
Other	1	3
Total	39	100

Employees: Are you running your own business at the same time?

	Frequency	Percentage
Yes	7	17
No	35	83
Total	42	100

During what school year did you begin to attend the company programmes (a stand-alone programmes or a component of another programmes)?

	Frequency	Percentage
1998 or earlier	35	61
1999	17	30
2000	3	5
2001	2	4
Total	57	100

Why did you participate in the company programmes?

	Frequency	Percentage
Compulsory	21	37
I was curious about having my own company	5	9
CP was recommended by previous participants	1	2
CP was recommended by lecturers/teachers	19	33
Participation in CP was good for my CV	11	19
Total	57	100

We are interested in your evaluation of what the young enterprise you took part in has meant for your own development. What is your attitude to the following statements?

Participation in CP:

	Disagree	Uncertain	Agree	Sum	Total
Strengthened my problem solving qualities	16	37	47	100	57
No impact on my ability to make decisions	30	34	36	100	56
Very positive for my cooperation abilities	5	25	70	100	57
Made me qualified to run a business	30	20	50	100	56
No impact on my ability to think in economic terms	33	18	49	100	57
Made me desire to start my own business	40	39	21	100	57

What is your attitude to the following questions? What is your:

	Poor	Medium	Good	Sum	Total
Overall opinion of CP as an educational method?	9	9	82	100	57
Opinion of the help/support from mentor?	21	54	25	100	56
Opinion of teachers' knowledge of business life?	12	21	67	100	57
Opinion of teachers' knowledge of CP?	11	33	66	100	57
Opinion of the study material?	21	26	53	100	57

Opinion of the educational set-up at place of study?	19	26	55	100	57
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Have you started your own business after completing the company programmes?

	Frequency	Percentage
No, and I have no plan of setting up a company	39	68
No, but I would like to set up a company within three years	10	18
No, but I am in the process of setting up a company right now	1	2
Yes, I have set up a company	7	12
Total	57	100

When did you set up your company?

	Frequency	Percentage
2001	2	29
2004	2	29
2005	1	14
2006	2	29
Total	7	100

Of these two statements – which would best describe your motivation for setting up your own company?

	Frequency	Percentage
Become self-employed to get out of unemployment (Necessity)	0	0
Become self-employed because of a marketing opportunity	4	57
Both	1	14
None	2	29
Total	7	100

Did you base the company on the same business idea as your CP-company?

	Frequency	Percentage
Yes, the business idea was the same	0	0
To some degree - the business/branch was the same	0	0
No, the company was not a continuation	7	100
Total	7	100

Are you still running the company?

	Frequency	Percentage
Yes	6	86
No, I closed it	0	0
No, I sold it	1	14
Total	7	100

To which degree would you recommend participation in your company programmes to other students?

	Frequency	Percentage
Would not recommend it at all	2	4
To a quite small degree	4	7
To a medium degree	9	16
To a quite large degree	17	30
To a very large degree	24	43
Total	56	100

## Results for Belgium (LJE)

### Gender

	Frequency	Percentage
Men	118	54
Women	102	46
Total	220	100

### Age

	Frequency	Percentage
21-22 years	46	21
23-24 years	78	36
25-26 years	38	17
27-28 years	37	17
29 years or older	21	10
Total	220	100

### Level of completed education

	Frequency	Percentage
Upper secondary school	50	23
Upper secondary school + some courses at University/College	96	44
Bachelor degree from University/College (3 years)	19	9
Masters/PhD. degree from University/College (5 or 8/9 years)	55	25
Total	220	100

### Profession

	Frequency	Percentage
Student	59	27
Employed in public sector	34	16
Employed in private sector	93	42
Self-Employed (owner-manager, co-owner)	13	6
Unemployed/other	21	10
Total	220	100

### What is your position?

	Frequency	Percentage
Executive (Senior Manager)	2	2
Manager	15	14
Employee	85	82
Other	2	2
Total	104	100

### Are you running your own business at the same time?

	Frequency	Percentage
Yes	1	1
No	111	99
Total	112	100

During what school year did you begin to attend the company programmes (a stand-alone programmes or a component of another programmes)?

	Frequency	Percentage
1998 or earlier	61	29
1999	17	8
2000	43	21
2001	56	27
2002	23	11
2003	3	1
2004	4	2
2006	2	1
Total	209	100

Why did you participate in the company programmes?

	Frequency	Percentage
Compulsory	48	23
I was curious about having my own company	27	13
CP was recommended by previous participants	27	13
CP was recommended by lecturers/teachers	56	27
Participation in CP was good for my CV	44	21
Thought that participation in CP would provide easy credits	4	2
Total	206	100

We are interested in your evaluation of what the young enterprise you took part in has meant for your own development. What is your attitude to the following statements?

Participation in CP:

	Disagree	Uncertain	Agree	Sum	Total
Strengthened my problem solving qualities	18	31	51	100	208
No impact on my ability to make decisions	38	30	32	100	206
Very positive for my cooperation abilities	12	37	62	100	206
Made me qualified to run a business	43	37	21	100	207
No impact for on my ability to think in economic terms	45	24	31	100	206
Made me desire to start my own business	37	33	30	100	206

What is your attitude to the following questions? What is your:

	Poor	Medium	Good	Sum	Total
Overall opinion of CP as an educational method?	5	19	76	100	205
Opinion of the help/support from mentor?	14	30	56	100	205
Opinion of teachers' knowledge of business life?	22	36	41	100	206
Opinion of teachers' knowledge of CP?	14	26	60	100	205
Opinion of the study material?	22	36	42	100	204
Opinion of the educational set-up at place of study?	38	27	35	100	204

Have you started your own business after completing the company programmes?

	Frequency	Percentage
No, and I have no plan of setting up a company	140	68
No, but I would like to set up a company within three years	50	24
No, but I am in the process of setting up a company right now	7	3
Yes, I have set up a company	9	4
Total	206	100

When did you set up your company?

	Frequency	Percentage
2000	2	22
2002	1	11
2003	2	22
2005	1	11
2006	2	22
2007	1	11
Total	9	100

Of these two statements – which would best describe your motivation for setting up your own company?

	Frequency	Percentage
Become self-employed to get out of unemployment (Necessity)	0	0
Become self-employed because of a marketing opportunity	7	78
Both	0	0
None	2	22
Total	9	100

Did you base the company on the same business idea as your CP-company?

	Frequency	Percentage
Yes, the business idea was the same	0	0
To some degree - the business/branch was the same	2	22
No, the company was not a continuation	7	78
Total	9	100

Are you still running the company?

	Frequency	Percentage
Yes	7	78
No, I closed it	1	11
No, I sold it	1	11
Total	9	100

To which degree would you recommend participation in your company programmes to other students?

	Frequency	Percentage
Would not recommend it at all/ To a very small degree	2	1
To a quite small degree	5	2
To a medium degree	50	24
To a quite large degree	75	36
To a very large degree	74	36
Total	206	100

## Results for Belgium (LJE + VLAJO)

### Gender

	Frequency	Percentage
Men	158	56
Women	123	44
Total	281	100

### Age

	Frequency	Percentage
21-22 years	46	16
23-24 years	84	30
25-26 years	64	23
27-28 years	57	20
29 years or older	30	11
Total	281	100

### Level of completed education

	Frequency	Percentage
Upper secondary school	65	23
Upper secondary school + some courses at University/College	125	45
Bachelor degree from University/College (3 years)	22	8
Masters/PhD. degree from University/College (5 or 8/9 years)	69	25
Total	281	100

### Profession

	Frequency	Percentage
Student	65	23
Employed in public sector	40	14
Employed in NGO sector	12	4
Employed in private sector	122	44
Self-Employed (owner-manager, co-owner)	16	6
Unemployed/disabled/other	25	9
Total	280	100

### What is your position?

	Frequency	Percentage
Executive (Senior Manager)	6	4
Manager	22	15
Employee	112	78
Other	3	2
Total	143	100

### Are you running your own business at the same time?

	Frequency	Percentage
Yes	8	5
No	146	95
Total	154	100

During what school year did you begin to attend the company programmes (a stand-alone programmes or a component of another programmes)?

	Frequency	Percentage
1998 or earlier	96	36
1999	34	13
2000	46	17
2001	58	22
2002	23	9
2003 or later	9	4
2004	266	100

Why did you participate in the company programmes?

	Frequency	Percentage
Compulsory	69	26
I was curious about having my own company	32	12
CP was recommended by previous participants	28	11
CP was recommended by lecturers/teachers	75	29
Participation in CP was good for my CV	55	21
Thought that participation in CP would provide easy credits	4	2
Total	263	100

We are interested in your evaluation of what the young enterprise you took part in has meant for your own development. What is your attitude to the following statements?

Participation in CP:

	Disagree	Uncertain	Agree	Sum	Total
Strengthened my problem solving qualities	17	33	50	100	265
No impact on my ability to make decisions	37	31	33	100	262
Very positive for my cooperation abilities	10	26	64	100	263
Made me qualified to run a business	40	33	27	100	263
No impact for my ability to think in economic terms	43	23	35	100	263
Made me desire to start my own business	38	34	28	100	263

What is your attitude to the following questions? What is your:

	Poor	Medium	Good	Sum	Total
Overall opinion of CP as an educational method?	6	16	79	100	262
Opinion of the help/support from mentor?	15	35	50	100	261
Opinion of teachers' knowledge of business life?	20	33	47	100	263
Opinion of teachers' knowledge of CP?	13	25	62	100	262
Opinion of the study material?	22	34	44	100	261
Opinion of the educational set-up at place of study?	34	27	40	100	261

Have you started your own business after completing the company programmes?

	Frequency	Percentage
No, and I have no plan of setting up a company	179	68
No, but I would like to set up a company within three years	60	23
No, but I am in the process of setting up a company right now	8	3
Yes, I have set up a company	16	6
Total	263	100

When did you set up your company?

	Frequency	Percentage
2000	2	13
2001	2	13
2002	1	6
2003	2	13
2004	2	13
2005	2	13
2006	4	25
2007	1	6
Total	16	100

Of these two statements – which would best describe your motivation for setting up your own company?

	Frequency	Percentage
Become self-employed to get out of unemployment (Necessity)	0	0
Become self-employed because of a marketing opportunity	11	69
Both	1	6
None	4	25
Total	16	100

Did you base the company on the same business idea as your CP-company?

	Frequency	Percentage
Yes, the business idea was the same	0	0
To some degree - the business/branch was the same	2	13
No, the company was not a continuation	14	88
Total	16	100

Are you still running the company?

	Frequency	Percentage
Yes	13	81
No, I closed it	1	6
No, I sold it	2	13
Total	16	100

To which degree would you recommend participation in your company programmes to other students?

	Frequency	Percentage
Would not recommend it at all/ To a very small degree	3	1
To a very small degree	1	0
To a quite small degree	9	3
To a medium degree	59	23
To a quite large degree	92	35
To a very large degree	98	37
Total	262	100

## Results for Denmark

### Gender

	Frequency	Percentage
Men	18	40
Women	27	60
Total	45	100

### Age

	Frequency	Percentage
26 years	3	6,7
27 years	14	31,1
28 years	19	42,2
29 years	8	17,8
30 years or older	1	2,2
Total	45	100

### Level of completed education

	Frequency	Percentage
Upper secondary school	8	18
Upper secondary school + some courses at University/College	10	22
Bachelor degree from University/College (3 years)	11	24
Masters/PhD. degree from University/College (5 or 8/9 years)	16	36
Total	45	100

### Profession

	Frequency	Percentage
Student	5	11
Employed in public sector	11	24
Employed in NGO sector	1	2
Employed in private sector	20	44
Self-Employed (owner-manager, co-owner)	1	2
Unemployed/disabled/other	7	15
Total	45	100

### What is your position?

	Frequency	Percentage
Manager/Executive	5	27
Employee	14	64
Other	2	9
Total	22	100

### Are you running your own business at the same time?

	Frequency	Percentage
Yes	5	20
No	20	80
Total	25	100

During what school year did you begin to attend the company programmes (a stand-alone programmes or a component of another programmes)?

	Frequency	Percentage
1998 or earlier	35	78
1999-2000	8	18
2001 or later	2	4
Total	45	100

Why did you participate in the company programmes?

	Frequency	Percentage
Compulsory	11	24
I was curious about having my own company	20	44
CP was recommended by previous participants	4	9
CP was recommended by lecturers/teachers	7	16
Participation in CP was good for my CV	2	4
Thought that participation in CP would provide easy credits	1	2
Total	45	100

We are interested in your evaluation of what the young enterprise you took part in has meant for your own development. What is your attitude to the following statements?

Participation in CP:

	Disagree	Uncertain	Agree	Sum	Total
Strengthened my problem solving qualities	33	29	38	100	45
No impact on my ability to make decisions	27	29	44	100	45
Very positive for my cooperation abilities	27	27	47	100	45
Made me qualified to run a business	33	27	40	100	45
No impact for my ability to think in economic terms	27	24	49	100	45
Made me desire to start my own business	36	23	41	100	45

What is your attitude to the following questions? What is your:

	Poor	Medium	Good	Sum	Total
Overall opinion of CP as an educational method?	14	16	70	100	44
Opinion of the help/support from mentor?	29	29	42	100	38
Opinion of teachers' knowledge of business life?	16	43	41	100	44
Opinion of teachers' knowledge of CP?	21	43	36	100	44
Opinion of the study material?	18	42	40	100	38
Opinion of the educational set-up at place of study?	15	32	53	100	41

Have you started your own business after completing the company programmes?

	Frequency	Percentage
No, and I have no plan of setting up a company	22	50
No, but I would like to set up a company within three years	15	34
No, but I am in the process of setting up a company right now	1	2
Yes, I have set up a company	6	14
Total	44	100

When did you set up your company?

	Frequency	Percentage
2000	1	20
2003	2	40
2006	2	40
Total	5	100

Of these two statements – which would best describe your motivation for setting up your own company?

	Frequency	Percentage
Become self-employed because of a marketing opportunity	4	80
Both	1	20
Total	5	100

Did you base the company on the same business idea as your CP-company?

	Frequency	Percentage
No, the company was not a continuation	5	100
Total	5	100

Are you still running the company?

	Frequency	Percentage
Yes	4	80
No, I closed it	1	20
Total	5	100

To which degree would you recommend participation in your company programmes to other students?

	Frequency	Percentage
Would not recommend it at all	4	9
To a quite small degree	6	14
To a medium degree	9	21
To a quite large degree	15	35
To a very large degree	9	21
Total	43	100

## Results for Estonia

### Gender

	Frequency	Percentage
Men	50	57
Women	37	43
Total	87	100

### Age

	Frequency	Percentage
19-20 years	24	28
21-22 years	26	30
23-24 years	20	23
25 years or older	17	19
Total	87	100

### Level of completed education

	Frequency	Percentage
Upper secondary school	14	16
Upper secondary school + some courses at University/College	49	56
Bachelor degree from University/College (3 years)	14	16
Masters/PhD. degree from University/College (5 or 8/9 years)	10	12
Total	87	100

### Profession

	Frequency	Percentage
Student	40	46
Employed in public sector	14	16
Employed in NGO sector	7	8
Employed in private sector	21	24
Self-Employed (owner-manager, co-owner)	4	5
Unemployed/disabled/other	1	1
Total	87	100

### What is your position?

	Frequency	Percentage
Manager/Executive manager	16	41
Employee	20	51
Other	3	8
Total	39	100

### Are you running your own business at the same time?

	Frequency	Percentage
Yes	8	20
No	32	80
Total	40	100

During what school year did you begin to attend the company programmes (a stand-alone programmes or a component of another programmes)?

	Frequency	Percentage
1998 or earlier	17	21
1999	6	7
2000	6	7
2001	8	10
2002	10	12
2003	12	15
2004	14	17
2005 or later	8	10
Total	81	100

Why did you participate in the company programmes?

	Frequency	Percentage
Compulsory	13	16
I was curious about having my own company	45	56
CP was recommended by previous participants	4	5
CP was recommended by lecturers/teachers	18	22
Thought that participation in CP would provide easy credits	1	1
Total	81	100

We are interested in your evaluation of what the young enterprise you took part in has meant for your own development. What is your attitude to the following statements?

Participation in CP:

	Disagree	Uncertain	Agree	Sum	Total
Strengthened my problem solving qualities	8	16	76	100	80
No impact on my ability to make decisions	76	9	15	100	80
Very positive for my cooperation abilities	5	15	80	100	80
Made me qualified to run a business	16	18	66	100	80
No impact for my ability to think in economic terms	84	10	6	100	80
Made me desire to start my own business	11	30	49	100	80

What is your attitude to the following questions? What is your:

	Poor	Medium	Good	Sum	Total
Overall opinion of CP as an educational method?	0	9	81	100	81
Opinion of the help/support from mentor?	16	40	44	100	75
Opinion of teachers' knowledge of business life?	11	28	61	100	79
Opinion of teachers' knowledge of CP?	5	12	83	100	79
Opinion of the study material?	6	31	63	100	79
Opinion of the educational set-up at place of study?	5	30	65	100	79

Have you started your own business after completing the company programmes?

	Frequency	Percentage
No, and I have no plan of setting up a company	30	38
No, but I would like to set up a company within three years	32	41
No, but I am in the process of setting up a company right now	5	6
Yes, I have set up a company	12	15
Total	79	100

When did you set up your company?

	Frequency	Percentage
2000	1	8
2003	1	8
2004	3	25
2005	3	25
2006	3	25
2007	1	8
Total	12	100

Of these two statements – which would best describe your motivation for setting up your own company?

	Frequency	Percentage
Become self-employed to get out of unemployment (Necessity)	0	0
Become self-employed because of a marketing opportunity	6	50
Both	3	25
None	3	25
Total	12	100

Did you base the company on the same business idea as your CP-company?

	Frequency	Percentage
Yes, the business idea was the same	2	17
To some degree - the business/branch was the same	0	0
No, the company was not a continuation	10	83
Total	12	100

Are you still running the company?

	Frequency	Percentage
Yes	9	82
No, I closed it	1	9
No, I sold it	1	9
Total	11	100

To which degree would you recommend participation in your company programmes to other students?

	Frequency	Percentage
Would not recommend it at all/ To a very small degree	0	0
To a very small degree	0	0
To a quite small degree	0	0
To a medium degree	4	5
To a quite large degree	34	43
To a very large degree	41	52
Total	79	100

## Results for Finland

### Gender

	Frequency	Percentage
Men	51	47
Women	57	53
Total	108	100

### Age

	Frequency	Percentage
16-18 years	26	23
19-20 years	34	31
21-24 years	27	24
25 years or older	24	22
Total	111	100

### Level of completed education

	Frequency	Percentage
Upper secondary school	79	72
Upper secondary school + some courses at University/College	8	7
Bachelor degree from University/College (3 years)	1	1
Masters/PhD. degree from University/College (5 or 8/9 years)	22	20
Total	110	100

### Profession

	Frequency	Percentage
Student	51	46
Employed in public sector	13	12
Employed in NGO sector	5	5
Employed in private sector	26	24
Self-Employed (owner-manager, co-owner)	5	5
Unemployed/other	10	9
Total	110	100

### What is your position?

	Frequency	Percentage
Manager	12	31
Employee	27	69
Total	39	100

### Are you running your own business at the same time?

	Frequency	Percentage
Yes	3	7
No	38	93
Total	41	100

During what school year did you begin to attend the company programmes (a stand-alone programmes or a component of another programmes)?

	Frequency	Percentage
1998 or earlier	21	19
1999	10	9
2000	2	2
2001	6	5
2002	10	9
2003	11	10
2004	26	23
2005	19	17
2006	6	5
Total	111	100

Why did you participate in the company programmes?

	Frequency	Percentage
Compulsory	7	6
I was curious about having my own company	87	78
CP was recommended by previous participants	2	2
CP was recommended by lecturers/teachers	11	10
Thought that participation in CP would provide easy credits	4	4
Total	111	100

We are interested in your evaluation of what the young enterprise you took part in has meant for your own development. What is your attitude to the following statements?

Participation in CP:

	Disagree	Uncertain	Agree	Sum	Total
Strengthened my problem solving qualities	13	32	55	100	110
No impact on my ability to make decisions	60	21	20	100	111
Very positive for my cooperation abilities	7	17	76	100	111
Made me qualified to run a business	12	19	69	100	111
No impact for my ability to think in economic terms	72	17	11	100	111
Made me desire to start my own business	20	23	57	100	111

What is your attitude to the following questions? Percent. What is your:

	Poor	Medium	Good	Sum	Total
Overall opinion of CP as an educational method?	2	22	77	100	111
Opinion of the help/support from mentor?	15	25	60	100	111
Opinion of teachers' knowledge of business life?	5	24	71	100	109
Opinion of teachers' knowledge of CP?	5	26	69	100	111
Opinion of the study material?	22	32	46	100	109
Opinion of the educational set-up at place of study?	20	33	47	100	111

Have you started your own business after completing the company programmes?

	Frequency	Percentage
No, and I have no plan of setting up a company	68	62
No, but I would like to set up a company within three years	27	25
Yes, I have set up a company	14	13
Total	109	100

When did you set up your company?

	Frequency	Percentage
2000	1	8
2003	1	8
2004	1	8
2005	4	33
2006	4	33
2007	1	8
Total	12	100

Of these two statements – which would best describe your motivation for setting up your own company?

	Frequency	Percentage
Become self-employed to get out of unemployment (Necessity)	1	8
Become self-employed because of a marketing opportunity	9	75
None	2	17
Total	12	100

Did you base the company on the same business idea as your CP-company?

	Frequency	Percentage
Yes, the business idea was the same	1	8
To some degree - the business/branch was the same	3	25
No, the company was not a continuation	8	67
Total	12	100

Are you still running the company?

	Frequency	Percentage
Yes	12	100
Total	12	100

To which degree would you recommend participation in your company programmes to other students?

	Frequency	Percentage
To a quite small degree	5	5
To a medium degree	19	17
To a quite large degree	29	26
To a very large degree	57	52
Total	110	100

## Results for Romania

### Gender

	Frequency	Percentage
Men	16	52
Women	15	48
Total	31	100

### Age

	Frequency	Percentage
16-17 years	18	58
18-19 years	10	32
20 years or older	3	10
Total	31	100

### Level of completed education

	Frequency	Percentage
Upper secondary school	23	74
Some courses at University/College and higher	8	26
Total	31	100

### Profession

	Frequency	Percentage
Student	27	87
Employed in NGO sector	1	3
Self-Employed (owner-manager, co-owner)	1	3
Unemployed/other	2	7
Total	31	100

During what school year did you begin to attend the company programmes (a stand-alone programmes or a component of another programmes)?

	Frequency	Percentage
2003-05	5	17
2006	24	83
Total	29	100

Why did you participate in the company programmes?

	Frequency	Percentage
Compulsory	1	3
I was curious about having my own company	10	35
CP was recommended by previous participants	3	10
CP was recommended by lecturers/teachers	10	35
Participation in CP was good for my CV	5	17
Total	29	100

We are interested in your evaluation of what the young enterprise you took part in has meant for your own development. What is your attitude to the following statements?

Participation in CP:

	Disagree	Uncertain	Agree	Sum	Total
Strengthened my problem solving qualities	7	33	59	100	27
No impact on my ability to make decisions	71	11	18	100	28
Very positive for my cooperation abilities	14	21	64	100	28
Made me qualified to run a business	25	18	57	100	28
No impact for my ability to think in economic terms	57	18	25	100	28
Made me desire to start my own business	14	21	64	100	28

What is your attitude to the following questions? Percent. What is your:

	Poor	Medium	Good	Sum	Total
Overall opinion of CP as an educational method?	3	17	79	100	29
Opinion of the help/support from mentor?	14	35	52	100	29
Opinion of teachers' knowledge of business life?	24	21	55	100	29
Opinion of teachers' knowledge of CP?	24	28	48	100	29
Opinion of the study material?	7	28	65	100	29
Opinion of the educational set-up at place of study?	14	31	55	100	29

Have you started your own business after completing the company programmes?

	Frequency	Percentage
No, and I have no plan of setting up a company	10	37
No, but I would like to set up a company within three years	15	56
No, but I am in the process of setting up a company right now	1	4
Yes, I have set up a company	1	4
Total	27	100

When did you set up your company?

	Frequency	Percentage
2005	1	25
2006	2	50
2007	1	25
Total	4	100

Of these two statements – which would best describe your motivation for setting up your own company?

	Frequency	Percentage
Become self-employed to get out of unemployment (Necessity)	1	25
Become self-employed because of a marketing opportunity	1	25
Both	1	25
None	1	25
Total	4	100

Did you base the company on the same business idea as your CP-company?

	Frequency	Percentage
Yes, the business idea was the same	2	50
To some degree - the business/branch was the same	2	50
Total	4	100

Are you still running the company?

	Frequency	Percentage
Yes	3	75
No, I closed it	1	25
Total	4	100

To which degree would you recommend participation in your company programmes to other students?

	Frequency	Percentage
To a very small degree	2	7
To a quite small degree	11	39
To a medium degree	8	29
To a quite large degree	7	25
Total	28	100

## Results for Slovakia

### Gender

	Frequency	Percentage
Men	109	56
Women	87	44
Total	196	100

### Age

	Frequency	Percentage
- 20 years	58	30
21 years	63	32
22 years	44	22
23 years	19	10
24 years +	12	6
Total	196	100

### Level of completed education

	Frequency	Percentage
Upper secondary school	150	77
Upper secondary school + some courses at University/College	30	15
Bachelor degree from University/University College (3 years)	16	8
Total	196	100

### Profession

	Frequency	Percentage
Student	138	71
Employed in public/NGO sector	7	4
Employed in private sector	31	16
Self-Employed (owner-manager, co-owner)	8	4
Unemployed/Other	11	6
Total	195	100

### Employees: What is your position?

	Frequency	Percentage
Executive (Senior Manager)	6	17
Manager	7	19
Employee	22	61
Other	1	3
Total	36	100

### Employees: Are you running your own business at the same time?

	Frequency	Percentage
Yes	4	11
No	33	89
Total	37	100

During what school year did you begin to attend the company programmes (a stand-alone programmes or a component of another programmes)?

	Frequency	Percentage
1998 or earlier	9	5
1999	4	2
2000	5	3
2001	9	5
2002	23	13
2003	54	30
2004	59	33
2005	14	8
2006	4	2
Total	181	100

Why did you participate in the company programmes?

	Frequency	Percentage
Compulsory	9	5
I was curious about having my own company	118	66
CP was recommended by previous participants	13	7
CP was recommended by lecturers/teachers	29	16
Participation in CP was good for my CV	10	6
Total	179	100

We are interested in your evaluation of what the young enterprise you took part in has meant for your own development. What is your attitude to the following statements?

Participation in CP:

	Disagree	Uncertain	Agree	Sum	Total
Strengthened my problem solving qualities	8	8	83	100	179
No impact on my ability to make decisions	64	15	22	100	178
Very positive for my cooperation abilities	6	4	90	100	179
Made me qualified to run a business	21	14	65	100	178
No impact for my ability to think in economic terms	77	11	12	100	179
Made me desire to start my own business	37	25	38	100	179

What is your attitude to the following questions? What is your:

	Poor	Medium	Good	Sum	Total
Overall opinion of CP as an educational method?	21	40	40	100	179
Opinion of the help/support from mentor?	11	26	63	100	179
Opinion of teachers' knowledge of business life?	8	24	68	100	179
Opinion of teachers' knowledge of CP?	7	19	74	100	179
Opinion of the study material?	19	26	55	100	178
Opinion of the educational set-up at place of study?	12	23	65	100	179

Have you started your own business after completing the company programmes?

	Frequency	Percentage
No, and I have no plan of setting up a company	58	34
No, but I would like to set up a company within three years	93	54
No, but I am in the process of setting up a company right now	8	5
Yes, I have set up a company	14	8
Total	173	100

When did you set up your company?

	Frequency	Percentage
2000	1	7
2002	1	7
2004	4	29
2005	4	29
2006	2	14
2007	2	14
Total	14	100

Of these two statements – which would best describe your motivation for setting up your own company?

	Frequency	Percentage
Become self-employed to get out of unemployment (Necessity)	1	7
Become self-employed because of a marketing opportunity	9	64
Both	2	14
None	2	14
Total	14	100

Did you base the company on the same business idea as your CP-company?

	Frequency	Percentage
To some degree - the business/branch was the same	2	14
No, the company was not a continuation	12	86
Total	14	100

Are you still running the company?

	Frequency	Percentage
Yes	11	79
No, I closed it	3	21
Total	14	100

To which degree would you recommend participation in your company programmes to other students?

	Frequency	Percentage
To a very small degree	1	1
To a quite small degree	2	1
To a medium degree	14	8
To a quite large degree	80	46
To a very large degree	78	45
Total	175	100

## Original regression models

### Factors explaining the perceived usefulness of CP. Original model

	B	Std. D.	t	p-value	Level
(Constant)	116,079	308,229	0,377	0,707	
Women	0,528	0,496	1,065	0,288	
Age	-0,260	0,111	-2,335	0,020	**
Year of attendance	-0,046	0,153	-0,298	0,766	
Entrepreneurial Activity	1,430	0,726	1,970	0,050	**
Completed Upper Secondary	-0,441	0,597	-0,739	0,460	
Enterprise-based participation	2,019	0,770	2,621	0,009	***
Recommendation-based participation	-0,275	0,791	-0,348	0,728	
Advantage-based participation	0,017	1,042	0,017	0,987	
Estonia	3,510	0,770	4,561	0,000	***
Finland	1,448	0,818	1,770	0,078	*
Slovakia	1,894	0,821	2,307	0,022	**
Adjusted R <sup>2</sup>	0,20				

### Factors explaining perceptions of CP. Original model.

	B	Std.D.	t	p-value	Level
(Constant)	-62,777	234,163	-0,268	0,789	
Women	0,550	0,371	1,482	0,139	**
Age	0,137	0,085	1,621	0,106	
Year of attendance	0,035	0,116	0,303	0,762	
Entrepreneurial Activity	-0,628	0,544	-1,154	0,249	
Completed Upper Secondary	0,644	0,449	1,436	0,152	
Compulsory-based participation	-0,080	0,541	-0,147	0,883	
Perceived usefulness of CP	0,264	0,039	6,863	0,000	***
Estonia	1,211	0,571	2,119	0,035	**
Finland	0,538	0,573	0,938	0,349	
Slovakia	1,261	0,592	2,131	0,034	**
Adjusted R <sup>2</sup>	0.15				

### Factors explaining entrepreneurial activity. Original model.

	B	S.E.	Wald	p-value	Exp(B)	Level
Women	-2,297	0,429	28,616	0,000	0,101	***
Age	0,126	0,063	4,019	0,045	1,134	**
Enterprise-based participation	0,769	0,375	4,207	0,040	2,157	**
Completed Upper Secondary	-0,065	0,391	0,027	0,869	0,937	
Belgium	-1,213	0,532	5,202	0,023	0,297	**
Finland	-0,894	0,496	3,245	0,072	0,409	*
Slovakia	-0,687	0,486	1,998	0,158	0,503	
(Constant)	-3,720	1,496	6,183	0,013	0,024	
R <sup>2</sup> <sub>Pseudo</sub>	0.19					

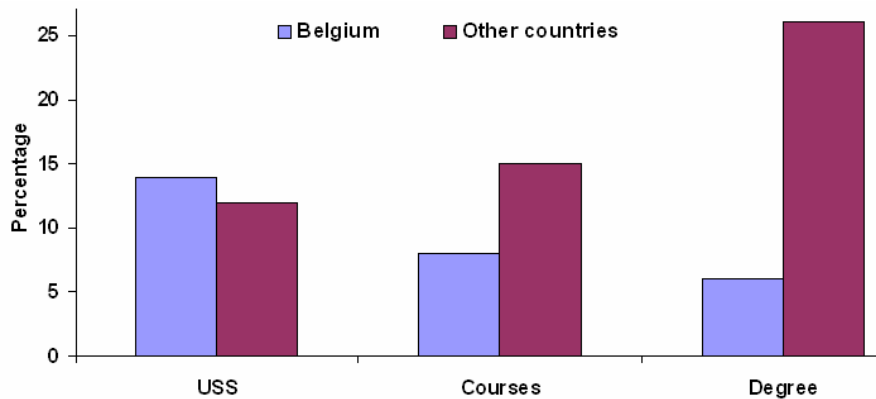
## Entrepreneurial activity and educational attainment

On special request we performed a further analysis of entrepreneurial activity rate and educational attainment.

The starting point is that our study shows that entrepreneurial activity grows as educational attainment increases. The question raised is this: is this the picture true in all countries?

As we will show, it is not. Belgian young people with a higher education degree who have gone through a Company Programme are:

- Less inclined towards entrepreneurship than those with lower degrees in Belgium
- Less inclined towards entrepreneurship than their peers with higher education degrees in other countries?



**Figure:** Entrepreneurial activity rate and educational attainment.

USS = Upper secondary school

Courses = Upper secondary school, with some courses at University/University College

Degree = Degree from University/University College (Bachelor, Master, PhD)

In the three other countries entrepreneurial activity increases with educational attainment, while in Belgium entrepreneurial activity decreases with educational attainment.

- In Belgium entrepreneurial activity rates are very high among those having only completed Upper secondary school compared to those with a University degree (twice as high).
- Compared to other countries, entrepreneurial activity rates are high among those having only completed Upper secondary school, and very low among those with a University degree.

It should be noted that the number within each group in Belgium becomes quite small when we perform this operation:

USS = 62 respondents

Courses = 120 respondents

Degree = 81 respondents

### **Experiences from participation in JA-YE Company Programmes**

Junior Achievement – Young Enterprise Europe (JA-YE) is a not-for-profit association based in Belgium. JA-YE brings the public and private sectors together to provide young people in primary and secondary schools and early university with high-quality education programmes to teach them about enterprise, entrepreneurship, business and economics in a practical way. JA-YE is Europe's largest provider of enterprise education programmes, reaching 2.2 million students in 40 countries in 2006.

The JA-YE Company Programmes gives students in Upper secondary school the opportunity to run their own company, giving them an insight into how to set up a business. The report "Experiences from participation in JA-YE Company Programmes" is based on a quantitative study of former participants from these 6 countries: Belgium, Denmark, Estonia, Finland, Romania and the Slovak Republic. The data used was collected through internet-based questionnaires. In addition to conducting the quantitative study in the 6 countries mentioned above, we consolidated and/or compared particular results of similar studies from Norway in 2005 and 2006 wherever we found them relevant and appropriate.

4 research questions are raised:

- a) Do the respondents recommend participation in CP to other students?
- b) Do entrepreneurial skills develop through CP?
- c) What do the participants think about CP as an educational method? And
- d) Does CP lead to more business start-ups?

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