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Evaluating and Measuring Entrepreneurship and Enterprise Education:

METHODS, TOOLS AND PRACTICES

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1 INTRODUCTION

1.1 Establishing the need for evaluations in enterprise education and entrepreneurship training

With regard to public policies the need for evaluation is linked to the accountability; the citizens are keen to know that their tax money is well spent on effective public policies. For this reason the policy makers need to conduct evaluations – systematic research – to find out what has happened in order to pass judgment on the policy. (Venetoklis 2002, 5.) The situation is quite similar also in the private sector. If hundreds of million euros are spent on management training and development, then managers of those companies are entitled to ask: Why should this produce better employees? How will this add to the long-term financial benefit of the company? (Rowe 1996, 17.) Accountability is not the only reason, however. Organisations that are involved in the planning and implementation of policies – whether as authorities or agents – would also want some feedback that would assist them in improving the ongoing policy operations or the planned operations in the future. (Venetoklis 2002, 5.)

The need to discuss evaluations with regard to enterprise and entrepreneurship education is not a new one. Already in 1986, Finnish researchers discussed the potential of evaluation with regard to entrepreneurship education stating that 'there is a lack of discussion of the aims for entrepreneurship education, of the eventual indirect or direct effects of it, or of education in general as a commodity.' It is not possible to conduct intelligible evaluation studies and analyses unless these questions are answered. (Niittykangas – Makkonen – Moilanen, 1986.) Therefore, the evaluation studies need to reflect the different aims for enterprise education and entrepreneurship training. In an earlier study (Hytti et al 2002) we suggested that there is diversity in the objectives that enterprise education programmes can seek to achieve, and to this end we proposed a conceptual schema that captures this array of objectives. These are as follows: (i) increasing understanding of what entrepreneurship is about; (ii) equipping individuals with an entrepreneurial approach to the 'world of work'; and (iii) preparing individuals to act as entrepreneurs and as managers of new business. Hence, evaluation studies need to reflect these different objectives and aims (see also Storey 2000, 177). The increase in the offer of enterprise education, given its varied nature and quality, necessitates that the programmes are evaluated (Niittykangas et al 1986, Puhakka 1999).

1.2 Evaluation: what do we mean by it?

The basic principle of evaluation is simple. In an evaluation it is established that a way of action X is good or that X is better than the way of action Y. Accurate evaluation requires that the value and benefit of a phenomenon is defined. An evaluation can be aimed at various points in the process: targets, performance, results or effectiveness of the programme. (Laukkanen, 1996) The evaluation may also be targeted at different issues, for example:

1. *Aims* (Have we done the right things?)
2. *Performance* (Have the things that we have done been done correctly?) and
3. *Results*
    - Comparison of results with aims
    - Comparison of results with those on the international level
    - Assessment of the impact of the results

The notion of causality is of vital importance in evaluation studies and especially in impact estimation. *'Causality is the relationship between a cause and its effect. Causation is the act which produces an effect. Cause is something that brings about an effect.'* (Venetoklis 2002, 7.) Hence, in evaluation studies there is a need to assess if the effect – for example, the emergence of start-ups – has been the result of the intervention aiming at increasing the number of start-ups, or if the companies would have been established irrespective of the intervention. The complexity of the world and the causes comes to bear that it is often quite difficult to assess one single cause to any effect as most effects are caused by multiple causes – some of which can be linked to the intervention but not all. If the aims are realised without any particular measure or intervention, it is customary to talk about 'dead weight'. Other notions that are important with regard to evaluation studies are 'substitution, displacement' – for example, the participating company or individual may gain access to the markets of another company or individual and - 'non-registration' - individuals or companies may participate at a programme with aims different aims from those of the programme.

Hence, to carry out an effective evaluation we need understanding of what we want out of it. Sometimes there would seem to be a lack of interest to apply the results and recommendations given in the evaluations especially if they are unfavourable to the programme or policy in question. The reasons can of course be either bureaucratic or political. The intended audience may not have the expertise to judge the results produced or lack of time prevents them to familiarise themselves with the contents of the studies. Thus, biased opinions of the results are formulated. (Venetoklis 2002, 2.) This means that policy makers and other people responsible for carrying out and ordering of evaluation studies should have a better understanding of the types of evaluations and the advantages and drawbacks attached to each type. (See also Akateeminen…, 1997) It is also important to understand that all evaluations are based on subjective criteria and assumptions, i.e. what is being measured is a subjective choice that already sets the boundaries for the study (Venetoklis 2002, 2).

The academic discussion of evaluations nearly always begins with the statement that evaluations are extremely difficult to conduct (see e.g. Curran et al 1999, Turok 1997). In the 1970's Coleman discusses the issue of studying policy impacts. In this context Coleman begins his article with a statement that *'there is no body of methods, no comprehensive methodology, for the study of the impact of the policy'.* Even the whole idea of measurement of the impacts of policies and the belief that this question could be answered with scientific measures were quite new. He continues with a statement that '*methodology for studying impacts of public policy must be developed*'. (Coleman 1975)

On the EU level, these methodological problems have resulted in various attempts to improve the practice of evaluation by introducing common frameworks and guidelines. In 1988, Regulations for the Reform of the Structural Funds introduced an integrated programme-based approach to regional policy. A research programme was commissioned to develop a European evaluation culture and to improve the quality of techniques. (Turok 1997) Since then there have been several recommendations regarding evaluations, and also handbooks for the evaluation of the evaluations. (e.g. Quality Assessment of Evaluation Reports.. 1996)

However, from the academic and theoretical point of view the fact that the evaluation process in its methodology is not a straightforward 'one size fits all' type of process is not a problem, but rather a challenge that provides the researcher with many alternative options. Several methodologies are applied in evaluations, all of which have their advantages and problems. Patton (1989) stresses that evaluators must be sophisticated in matching research methods to each research question and to the needs of a specific decision-maker. The evaluator needs to work closely with decision makers to design the evaluation that includes any and all data that will help shed light on the evaluation given the resource and time constraints. (Patton, 1989)

These are exactly the reasons why this research project is of importance. Through this research project we aim to increase the awareness of policy makers and promoters of enterprise education and entrepreneurship training of the potential in evaluation studies, to highlight the different assumptions surrounding different methodologies chosen, the possibilities of different methods and the expected outcomes of different evaluations. This is done to increase the use of well-designed evaluation research settings in enterprise and entrepreneurship education and training to be able to demonstrate the worth of conducting those courses and programmes in the first place. In the expert interviews conducted for this study a clear need for the project was identified.

> *The development of appropriate performance indicators is a major challenge. It is easy to measure something but will it be relevant for measuring the impact of a programme is another question. (Ireland 2)*

It must be noted also that we acknowledge the different 'layers' for the evaluation studies and their use (see Figure 1). Feedback is needed at the policy, programme and training level. For example, a trainer is interested in receiving feedback from a training session within a programme. A programme promoter looks for evaluation results and feedback to improve the overall programme and a policy-maker needs information how the realm of programmes run under a particular policy is working.

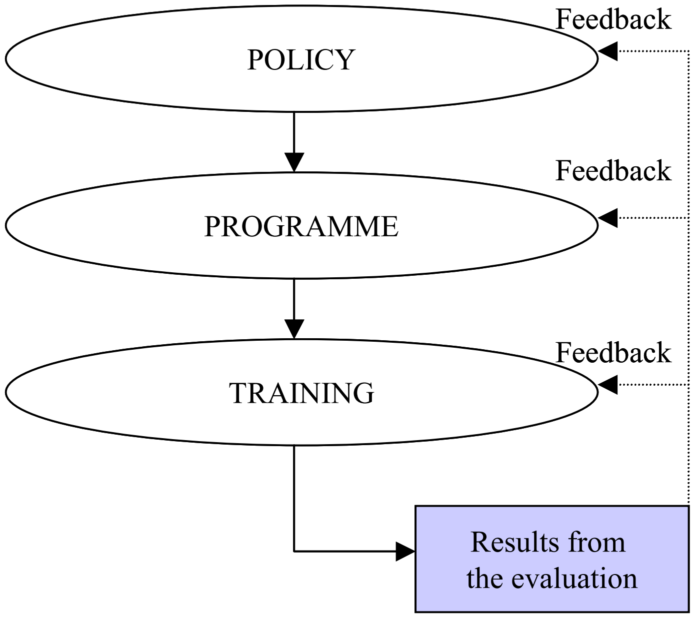


Figure 1 The layers of feedback loops for evaluation studies

1.3 Aims of the research

In this report we will provide an analysis of the existing evaluations carried out in Europe, together with the methods, tools and measurement systems. In addition, we will provide some advice and ideas how to plan and execute enterprise education and training programmes supported by effective evaluative practices. In this study we aim at answering the following research question:

> *How to run effective evaluation studies in the context of entrepreneurship and enterprise education and training programmes?*

This report is also supported by a practical Internet tool – www.entreva.net - to assist in the process. In the appendices we have included some cases that may be applied in pondering about the potential of evaluation in the different situations. It is necessary to underline that in this study the particular focus is not on assessing the effects or impacts of running of the programmes but to look at the evaluation practices, and what could be learned from them.

1.4 Research team

The report has been written by the Finnish co-ordinators of the project Dr. Ulla Hytti and Ms. Paula Kuopusjärvi from the Small Business Institute, Turku School of Economics and Business Administration. The research has been carried out together with the ENTREVA project partners in the following countries:

- Austria: Ms. Christine Stampfl, Österreichisches Institut für Bildungs-forschung der Wirtschaft (IBW)
- Germany: Prof. Jürgen Zick and Ms. Monique Woelk, Institute of Industrial Science, University of Kassel,
- Ireland: Dr. Thomas Cooney, Ms. Marie Moran, Dublin Institute of Technology,
- Norway: Dr. Per-Anders Havnes, Agder Research and
- Spain: Mr. Antonio Corral and Mr. Andoni Maiza, Instituto Vasco de Estudios e Investigación (IKEI).

1.5 Conducting the study

The material in this study consists of a literature survey and expert interviews conducted in six different European countries (Austria, Finland, Germany, Ireland, Norway and Spain).

1.5.1 Literature survey

A literature survey of 90 evaluation studies was carried out in the partner countries (See Table 1).

Table 1 Number of evaluation studies surveyed

COUNTRY	Frequency	Percent
Austria	14	15,6%
Finland	19	21,1%
Germany	8	8,9%
Ireland	21	23,3%
Norway	15	16,7%
Spain	13	14,4%
Total	90	100,0%

In the research project, the national researchers in six partner countries were asked to collect information from published or unpublished evaluation reports with regard to enterprise education and entrepreneurship training in their respective countries. The data gathering was conducted by using jointly agreed-upon guidelines in order to retrieve comparable data from all of the participating countries (See Appendix 1, p. 60)

The availability of data was speculated at the beginning of the project since many partners feared that there would not be enough publicly available data. This proved to be a right assumption in some of the countries necessitating the researchers to make a lot of contacts and to spend a considerable effort in locating the necessary material needed for the study. In some cases the programme promoters were eager to learn from the results in our project but were less prepared to give their own evaluation material to be applied in research or they did not have any material to give. The difficulty of researchers in gathering information therefore led to different number of reports evaluated in each partner country as it can be seen in Table 1.

The difficulty of researchers in gathering information is of course an interesting research result in many respects. Firstly, it points towards the different evaluation cultures in the different European countries. It seems that the evaluation studies have gradually become a common practice in many countries, whereas in other countries they are still fairly rare. Secondly, from a more theoretical point-of-view, new constructivist learning theories suggest that a reflection of one's learning is an important ingredient in the learning (Kolb 1984[1]). It seems that those promoting enterprise and entrepreneurship training are not possibly applying the potential of reflection to its fullest if there is lack of written analysis with regard to the different programmes and initiatives. Clearly, some people tend to regard evaluations as a tool for potential punishment, not a source for learning that could be shared.

Not all the studies reviewed were linked to a particular programme or initiative but some of the studies represented general discussion with regard to evaluations in the field or the studies incorporated an evaluation of a range of programmes. We, however, felt that this diversity increased the richness of our data and finally resulted in a more interesting analysis and better results. Therefore, in the end we were reasonably content with the data at hand.

1.5.2 Expert interviews in the field

Based on the results of the literature survey, a template for interviews was developed (see Appendix 2) which was applied for conducting the interviews to gain more in-depth insight in the evaluation of enterprise education and entrepreneurship training. Alltogether we interviewed 30 experts from the partner countries. The experts were selected from three different groups: programme

[1] See also Sheehan and Kearns 1995 for an application to use Kolb's learning model in evaluating learning of inviduals taking place within a training programme.

promoters, evaluators and policy makers. *Programme promoters* are or have been responsible for organising enterprise education and entrepreneurship training programmes. *Evaluators* were generally researchers that had some experience in internal or external evaluations of entrepreneurship programmes or a group of programmes. Sometimes the evaluators were also responsible for running the programme, so they occupied a dual position of a programme promoter and evaluator. *Policy-makers* were responsible for giving guidelines for carrying out and financing of enterprise education and entrepreneurship training programmes and sometimes also evaluations of these programmes.

In each country, a selection of experts for the interviews was carefully made. The aim was to carry out at least 1 interview with a representative from each category and to carry out altogether 4-5 successful interviews in each country. Then, the researchers in each country applied the template developed in the project to document the interview text. It was decided that the researchers aim at conveying the key messages with some illustrative quotes but do not try to fully translate the interviews. In this report quotes from the documented interviews will be applied to illustrate our findings.

1.6 The structure of the report

In chapter 2, we will present the different approaches that can be applied in classifying and categorising evaluations and present the results from our survey and qualitative interviews in relation to these approaches. In chapter 3, we aim at providing a more holistic approach towards evaluations studies, i.e. we aim at profiling the ways how to conduct evaluation studies in the context of differing aims for the enterprise education and entrepreneurship training programmes and in the context of different purposes and aims for the evaluation studies. In chapter 4, we will present the main theoretical and practical conclusions.

2 EVALUATION STUDIES IN A LARGE PICTURE: WHY, WHAT, HOW, WHEN, BY WHOM?

2.1 Evaluations studies: why?

In our study we have analysed why the evaluation projects are actually carried out, i.e. what is the identified need for the evaluation studies. Based on the literature review and in-depth interviews of experts in the field, it could be concluded that evaluations are made to fulfil a variety of different aims. Next, we will describe the material in detail by using different categorisations.

2.1.1 External and internal evaluation studies

One of the possible categorisations applied to evaluation studies is the divide between internal and external evaluations. *Internal evaluations* are carried out or contracted by the programme promoter. The aim is at learning from own activities in order to improve the training offer. This may range from an evaluation to assess if the students participating in the courses are happy with the programme and whether their skills and knowledge is improving according to the objectives set in the programme to an evaluation to find out if the promoter is carrying out the right type of programmes and targeting the relevant outcomes for the customers or the society at large. In *external evaluation studies* an outside evaluator is contracted to carry out the evaluation study for a third party. A financier of a training programme may contract an external evaluation to compare whether the participants of a special course are in higher positions than the ones that participated another course or did not participate in any course. Internal and external evaluations can be overlapping or substitute one another.

Curran (1999) provides a further classification for the external studies:

- Evaluations sponsored by government funding departments and/or the agencies delivering the policy, conducted by private sector, for-profit bodies
- Evaluations conducted by independent, usually academic, researchers on a not-for-profit basis, sponsored by bodies other than those funding or delivering the initiative

In our study, we used this classification as a starting point of our analysis. In the literature survey, we aimed at analysing if the studies were internal evaluations conducted or commissioned by the beneficiary organisation or external evaluations conducted by an independent organisation for academic research purposes or conducted or commissioned by the policy maker. Most of the evaluations analysed, 35 out of 90, were external evaluations conducted or commissioned by the policy maker (financier). 28 of the analysed evaluations were internal evaluations conducted by the beneficiary organisation (See Table 2). In some cases the evaluation was carried out by an individual researcher for academic purposes such as for a Master's or a Doctoral thesis. One evaluation was carried out for academic purposes but by the beneficiary organisation itself.

Table 2 Orderer / conductor of the study[2]

ORDERER/CONDUCTOR OF THE STUDY	Frequency	Percent
Internal evaluation conducted by the beneficiary organisation	28	31,1%
Internal evaluation commissioned by the beneficiary organisation	8	8,9%
External evaluation conducted by an independent organisation for (academic) research purposes	17	18,9%
External evaluation conducted or commissioned by the policy maker (financier)	35	38,9%
External evaluation, other	7	7,8%

In addition, we looked at whether these evaluations were *compulsory* (requested by the policy-maker even if carried out internally) or *voluntary*. Determining this based on the report and/or other material at hand was, however, rather difficult resulting into several missing answers. It seems, though, that most of the evaluations (61 %) were in fact voluntary. In some cases the evaluation was integrated into the programme (or programme proposal) in the beginning and could therefore be regarded as both voluntary and compulsory. The evaluation could also be divided into two parts: compulsory and voluntary parts.

2 The total number exceeds 90 (95) due to some overlaps between the categories, i.e. some evaluations were categorised as internal and external.

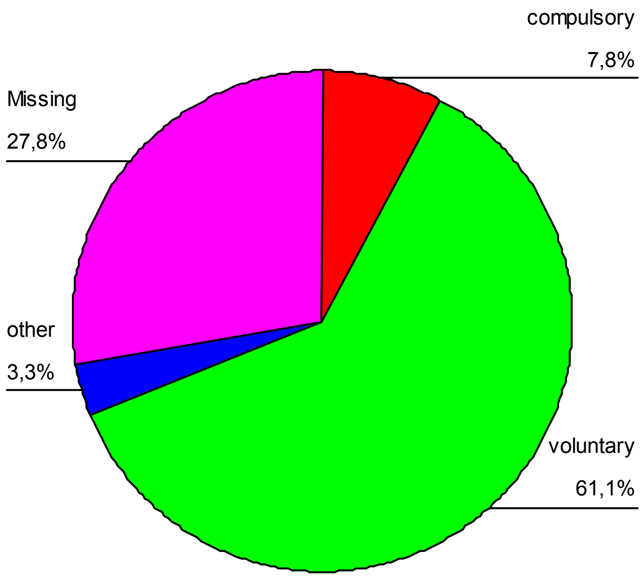


Figure 2 Compulsory vs. voluntary evaluations

The different parties involved in evaluating enterprise education and entrepreneurship training (programme promoters, evaluators, policy makers) have different perspectives to the task. The programme promoters and some of the evaluators were generally seeking for internal evaluation that would have a highly consultative approach in order to guide and improve the process at hand. The focus was very much on the level of individual programmes. According to the programme promoters using external evaluators was however beneficial for the following reasons:

- Independent assessment can be regarded as a sign of seriousness (by third parties)
- High-degree of transparency (referring to the work of external research team in general).

Policy-makers approached the issue more from the macro perspective and for their needs macro-level analysis – for example, an analysis of the capability of the educational system as a whole to generate entrepreneurial intentions was an interesting focus. For this purpose external evaluations were considered necessary.

2.2 Financing of evaluations

Sometimes the reason for not conducting an evaluation is the (perceived) lack of resources and especially funding. Here, we will review the expert interviews of how the players in the field understand the situation.

2.2.1 Access to funding

Based on the literature survey and expert interviews made, it can be stated that there are several sources of funding for evaluations. The main financiers of evaluations are the European Union (Commission) and its different programmes, national ministries, local governments and administration (on a region, county or municipality level) and foundations or funds. Some evaluations are financed by the programme promoters, for example with the participation fees received. Quite often the funding for the evaluation is part of the programme or project, i.e. the evaluation is included in the budget of the project or programme and the evaluation is demanded by the financier.

There are a variety of opinions between the interviewed experts of the availability of funding for evaluation of enterprise education and entrepreneurship training. A few of the interviewed experts did not regard the lack of financing as a major problem. However, as always, money is a scarce resource and quite many of the interviewed experts argued that there was a lack of funding for evaluations.

Especially programme promoters felt that, although there was some funding available, more funding was needed. They argued that it was difficult to get finance for individual programmes. They also argued that more money was needed to carry out more comprehensive evaluations. It was also argued that the possibilities for funding are not well promoted.

There can, however, be some differences between the countries in receiving funding based on the interviews of programme promoters. In Germany especially the programme promoters expressed the difficulties in finding funding for evaluations, mainly due to the financial situation in the country.

> *"There is an interest but momentarily the focus of the programme has changed. One reason for this changing is the bad financial state in [federal state of Germany]." (Germany 1)*

The allocation of the funding was also seen as a solution since it was seen to be mainly a question of priorities what is being evaluated. It was also suggested that the evaluation of programmes should in general be integrated into the financing of programmes. However, the scarcity of funding was also sometimes seen to result from poor planning in the programmes (in case funding already was included in the original budget of the programme). The lack of funding may also result from the under-developed culture of evaluations and research. So, it is the mindset that needs to be changed first.

> *"Of course there are not enough funds. There never has been available enough money for evaluations and now that the climate gets tougher it is even more difficult to get money for this. In Austria there is no real culture for evaluation and research but it is being done on a rather small scale." (Austria 3)*

2.2.2 Financier attitudes

Based on a review of evaluation studies by Curran et al (1999) it was highlighted that evaluations sponsored by government funding departments and/or the agencies delivering the policy and conducted by private sector are much more likely to be favourable to the policy than evaluations conducted by independent, usually academic, researchers on a not-for-profit basis. As a result Curran (1999) states that the evaluations of small business policies should be as independent as possible.

In our study, most of the interviewed programme promoters and evaluators of enterprise education and entrepreneurship training, did not see this as problem. In their opinion the financiers/policy makers did not try influence on the results of an evaluation although they financed it. Since financiers pay for and contract evaluation studies it was considered that their attitude towards evaluations is generally positive. It was also argued that the policymakers consider evaluations to be important because they are needed for measuring the value of their investment. In some countries the topic is currently high on the policy agenda. Therefore, there is an interest among the policymakers to present interesting innovations in the field that are supported by research. However, according to some of the programme promoters and evaluators there are some problems regarding the financiers of evaluations. The programme promoters feel that although financiers request evaluations and reporting they do not demonstrate any real interest in them. In addition, according to some of the programme promoters the policy makers often have opportunistic agendas for the evaluations, i.e. their attitude is positive if the evaluation proves or legitimates the policy-maker's own political or ideological agenda.

The programme promoters also feel that the policy makers do not always order evaluations or that they try to influence their results due to the fear of receiving negative results. They also believe that policy makers may favour certain institutions when ordering evaluations in order to receive preferred results.

> *"I found out that policymakers only think positively of evaluations if the evaluation proves or legitimates their own political or ideological orientation. Therefore, the allocation of evaluations goes to certain institutions. I could not observe that the political orderers of an evaluation had a great interest in the conduction or neutral allocation of evaluations (i.e. in reality political orderers of evaluations get desired results and not objective results)." (Germany 4)*

Some of the evaluators interviewed also argued that the methodology might be developed in order to 'falsify' positive results for projects. According to one of the evaluators the financiers aim at influencing what is written in the reports or highlighted in the press releases but in practice they cannot influence them. However, (at least) one of the policy makers interviewed was of the opinion that ideally evaluations of public programmes should be externally financed and performed by an external body.

Nevertheless, it seems clear that the evaluators need to be wary of the possible effects of the financier on the results that they produce. There are some guidelines for conducting evaluations produced by national sources or EU bodies. There is a need to look for professional supervision and be conscious of the issue.

2.3 Competences of evaluators

Conducting evaluations of good quality also requires competent researchers. In the expert interviews we asked from the programme promoters and policy-makers if there are enough competent evaluators to carry out relevant research. The programme promoters had differing opinions on the availability of competent researchers in the field of enterprise education and entrepreneurship training. Quite many were satisfied with the competence of the researchers they had used and some of the programme promoters felt that their own personnel were competent enough to carry out evaluations for their purposes. However, it was also argued that finding competent researchers for more comprehensive evaluations would be a problem or that competent researchers are too expensive. Some also saw the lack of experience in the field as a problem, i.e. there were methodologically competent researchers interested in carrying out evaluations but who lacked the practice, substance and understanding of the subject at hand. There were also some differences between the partner countries in this sense.

The policy makers interviewed were not unanimous either. Some were of the opinion that there are enough competent evaluators but suggested that the evaluators should specialize more. The ones that felt there were not enough competent researchers argued this to result from scarce funding.

> *There is a vicious circle: not enough money, no people who can qualify in the field. (Austria 3)*

2.4 Programme promoters' capabilities and attitudes regarding evaluations

According to the evaluators and policy-makers the programme promoters are quite interested in conducting evaluations. Similarly to the financiers they are also interested in demonstrating return on investment and results but often lack resources, time, money and knowledge for conducting comprehensive evaluations. The evaluations carried out by the programme promoters are often too general and superficial to provide any useful information. According to the experts the promoters may fear that the results of evaluations are negative and that the judgment is made based on too superficial evidence. They fear that only the 'hard', quantitative elements are measured and the 'soft' aspects remain unnoticed. The evaluators interviewed also criticised the planning of the programmes, which sometimes makes it impossible to evaluate the programmes afterwards. If there are not any objectives set for the programmes in the first place, then the target becomes anything the programme happens to hit (Storey 2000).

It is also argued that the programme promoters are more interested in carrying out the programmes and developing new, innovative projects than evaluating what has been achieved by the previous projects. Their interest also varies from time to time and case by case. For example, in the case of new and innovative projects the programme promoters are excited about the evaluation even if the results are poor but with the long-established promoters and programmes the willingness to take in criticism is lower.

2.4.1 Type of evaluation

In his analysis, David Storey (2000) aims at providing a best practice framework for evaluation studies by using a six-step approach where the step 6 would represent the best practice. The context for Storey's framework is provision of support for SMEs. In fact, he refers to the first three steps as monitoring and only the three last steps represent evaluation in Storey's terms. The distinction between the two is that only the last three aim at measuring the impact of the programme or policy measure. Next, we will shortly explain the six steps and the results of our analysis regarding the reviewed evaluation studies. (Table 3).

Table 3 Type of the evaluation

Type of evaluation	Frequency*	Percent
Step 1: Monitoring: take up schemes	37	41,1
Step 2: Monitoring: recipients' opinions	59	65,6
Step 3: Monitoring: recipients' views of the difference made by the programme	45	50,0
Step 4: Evaluation: comparison of the participants vs. others	12	13,3
Step 5: Evaluation: comparison with match cases	7	7,8
Step 6: Evaluation: taking into account selection bias	3	3,3
Type of evaluation: other	13	14,4

- 2 missing answers per each category
- multiple answers possible

In *Step 1,* the scheme is monitored by identifying the characteristics and nature of the take-up of the scheme. For example, the monitoring quantifies the number of firms participating at a programme or reviews the expenditure spent on the programme. In our study, this step involves studies where the number of students participating at a programme or the money spent on the programme are counted. In *Step 2*, the firms or individuals that have participated at a programme are asked for their opinions. This covers the participants' opinions about the content of the programme or policy, for example, if they there was value in the training provided and often also about the application procedures. In *Step 3*, recipients of the policy or participants at a programme are asked if they thought the policy made any difference to their performance; what would have happened if they had not participated in the programme. In our study this would mean asking the participants of a programme if the programme made any difference to their entrepreneurial attitudes or behaviour, e.g. willingness to set-up a company. These first three steps in the evaluation continuum that are in Storey's (2000) terms alone incapable of offering policy relevant insights into policy effectiveness because it is not sufficient to ask only the assisted firms or individuals if the programme made any difference but there is a need to compare those assisted with a group of not assisted. This is defined as evaluation.

In *Step 4*, therefore, the performance of those assisted will be compared against 'typical' firms. With regard to our study this would mean comparing for example the start-up activity of those participating at entrepreneurship programmes against the others not participating, i.e. 'normal' people. Or, comparing the attitudes of those participating at a programme with others. The problem is that those applying into a course may not be 'typical' or 'normal'. Hence, *Step 5* is needed to compare assisted firms with match cases. Again in our study this would mean for example comparing the start-up activity of business students participating at an entrepreneurship programme with those students who do not participate. It is of course impossible to identify a 'perfect' match but the similar educational background might serve as an appropriate match. In *Step 6*, there is an attempt to take into account selection bias by using statistical techniques or by using random panels.

In our study, the evaluation reports were classified based on Storey's classification of evaluations although this classification was understood to be highly theoretical, and the research team did not expect to find evaluations in all of the categories. The problem with Storey's typology with regard to our study is that it deals with assistance towards SMEs and in our case the beneficiaries are likely to be individual persons. However, we thought it might be a practical tool for collecting and comparing information on the evaluations.

Contrary to our expectations, we did find evaluations in each of the categories (See Table 3). Monitoring was, however, more common than 'real' evaluation. The preferred type of evaluation (in 66% of the evaluations analysed) was asking the recipients for their opinion concerning the programme. In many of the evaluations (50%) the recipients were also asked to give their view of the difference made by the programme. Also other types of evaluations emerged in our study. There were, for example, different types of comparisons, such as:

- A comparison of the participants' performance to that of persons who created a new venture in the framework of another programme.
- A comparison of the start-up related attitudes and start-up specific knowledge of the assisted before and after the programme
- A comparison between the participants who have started up a business and the participants who have not

Also different type of monitoring was used, such as monitoring of expert opinions. Other types reported were concept evaluation, evaluation of the training needs, theoretical analysis of the possibilities of training vs. effectiveness, development of the programme / action research and evaluation of the training needs.

2.5 Evaluation studies: what?

2.5.1 Educational level

In an earlier study, we also provided several classifications that may be applied in analysing enterprise education and entrepreneurship training (Hytti et al 2002). First, the *level of education* that provides an understanding that enterprise education and training may be found in all educational levels. The basis for the categorisation is the following (Table 4):

Table 4 educational levels

Educational level	Frequency	Percent
Under 6 years of age (Kindergarten and infant school)	2	2,2
6-12 years (Primary school and lower level of comprehensive school)	2	2,2
13-19 years (Education in upper level of comprehensive school, at the vocational level, in colleges and upper secondary school)	17	18,9
Higher education (Degree education in universities, colleges and at the polytechnic level)	28	31,1
Adult education (E.g. training for entrepreneurs, small business personnel or for unemployed and further education)	64	71,1
Teacher education (Training of the teachers already in working life and the training of the students becoming teachers, e.g. in teacher colleges)	3	3,3

Multiple answers possible

In this study, the majority of the evaluation reports analysed (71 %) dealt with enterprise education or entrepreneurship training aimed at adults (see Table 4). 31 % of the studies dealt with higher education and 18 % of the reports evaluated education aimed at 13-19 years old. In many of the programmes the target group included several levels of education.

When comparing the levels of education to the aims of enterprise education, it can be noticed that the aims were divided quite equally between different levels of education (Figure 3). Following the expectations learning to become an entrepreneur is more common in higher education and in adult education than on the other school levels.

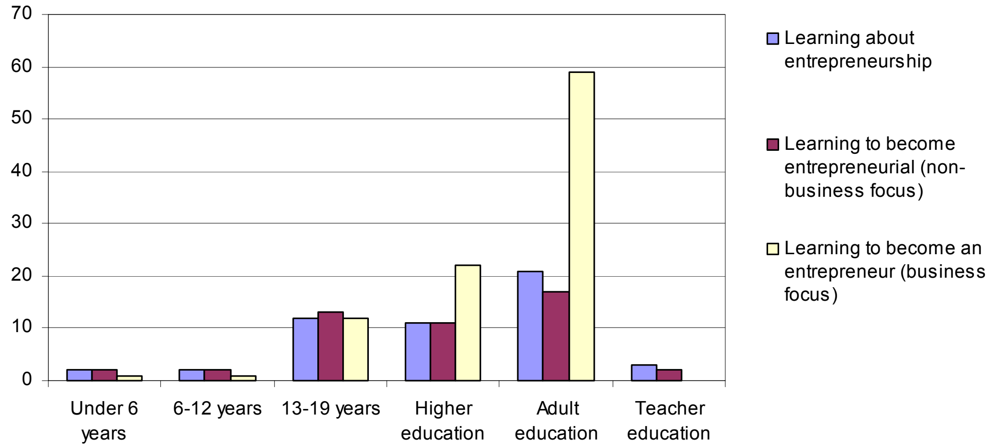


Figure 3 Aims of enterprise education by level of education

2.5.2 Teaching and learning methods

The variety of teaching and learning methods in these programmes was found to be important and, hence, we decided to further classify the methods into the following categories for the purpose of further analysis (Hytti et al 2002), (see Table 5).

Table 5 Teaching and training methods applied in enterprise education and training (Hytti et al 2002, 52)

Method	Description	Frequency	Percent
'Traditional' teaching methods	Enterprise education is taught through lectures, taking exams and writing essays.	54	60,0
Business simulation	The setting up and managing of business is being simulated either via computer-assisted programmes or otherwise. This category also includes using the case method in teaching.	18	20,0
Workshops	Workshop in this context means for example group work, group discussions and project work.	40	44,4
Counselling/ mentoring	Individual and/or group mentoring is given for the participants to learn from the potential career options and their own related capabilities and possibilities and to guide in business start-ups and business operations or projects. The mentors can be teachers, business people or other experts or entrepreneurs.	46	51,1
Study visits	The participants are taken to visit companies or other organisations and/or entrepreneurs or members of other interest groups visit the schools in order to build stronger schoolwork life relations and to familiarise participants with the world of work. In some programmes study visits were also made abroad.	9	10,0
Setting up a business	Real companies are set up and managed within the programmes.	24	26,7
Games and competitions	Games and competitions are applied in order to increase the attractiveness of entrepreneurship and/or interest towards small businesses.	9	10,0
Practical training	The students work for a period of time in a real company as a part of the programme	7	7,8
Other		26	28,9

Multiple answers possible

The above classifications were also applied in our study to categorise the evaluated programmes in order to analyse what kind of programmes are evaluated. All of the above mentioned methods could also be found in the enterprise education programmes evaluated in the reports we analysed. The most frequently used methods were ‘traditional’ teaching methods (in 60 % of the reports) and counselling/mentoring (in 51 % of the reports analysed). Other popular methods were workshops, setting up a business and business simulation. The programmes also included other methods that did not fall into the categories given, such as:

- Exchange of experience
- Company – school co-operation in several forms
- Apprenticeship
- Distance education
- Enterprise incubators
- Networks
- Preparing a business plan

2.6 Evaluation studies: how?

We have suggested in this report that there is no single ‘one-size-fits-all’ –type of best practice available for evaluating enterprise education and entrepreneurship training but the evaluations need to reflect the aims and contents of the programmes as well as the needs and aims set for the evaluation. In this chapter, we will discuss how the analysed evaluation studies were carried out in practice.

2.6.1 Timing of an evaluation

Timing of the evaluation versus the actual target for evaluation is a factor that may be used as a typology (see Figure 4). *Ex ante evaluations* are conducted prior to the actual action or programme. An *interim evaluation* is built into the process, i.e. the action is evaluated when in progress. *Ex post evaluations* are conducted after the action and/or programme is completed.

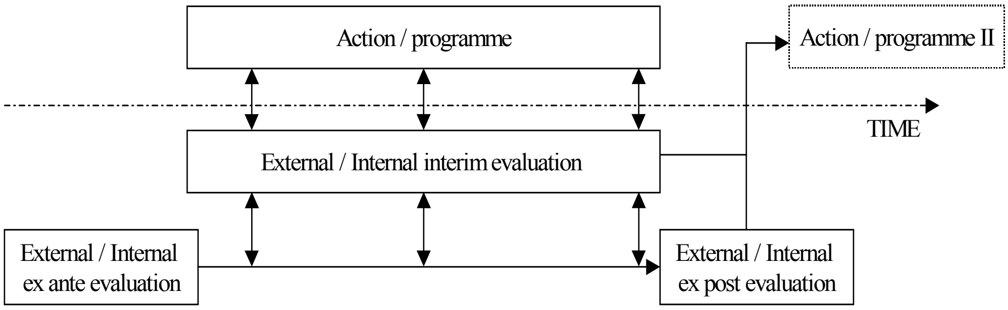


Figure 4 Timing of external/internal evaluation process versus action

The decision with regard to timing of an evaluation needs to be matched with the aims of the evaluation study. If the aim is to assist in programme planning questions, it is appropriate to conduct an ex ante evaluation. Furthermore, the timing can also be linked to the evaluation studies in another way. The timing of estimating impacts in an ex post-evaluation is crucial – when is it possible to start measuring the impacts and when to stop? The results in some studies suggest that immediately after an entrepreneurship course only a small number of participants may actually be engaged in an entrepreneurial endeavour but many more consider that the course had a positive effect on their plans to establish a business in the future. (Nieminen – Suokas 1994, Mitterauer et al 2000) This would suggest that the follow-up studies how these plans are realised would be of importance. This is dependent on the programme and its expected outcomes, and it is necessary to understand that if the measurement were conducted a few weeks earlier or later, the results might be different. For this reason, in order to get a full picture, one would need time series and panel data to study these periods. However, in most cases 'this ideal best practice' is not possible due to lack of available data often linked with the lack of financing (Venetoklis 2002).

The typology presented above was also applied in our study to categorise the evaluated programmes in order to analyse the timing of the evaluations. In most of the reports the evaluation took place after the programme had ended (ex post evaluations). In 26 % of the reports an evaluation was carried out during the programme (interim evaluation) and in 12 % of the reports the evaluation was ex ante. It was also possible to have a mixed approach – e.g. to conduct a study both ex ante and ex post. The evaluation can also be a continuous process instead of ad hoc interventions. These types of evaluations are the most time and effort consuming as they spread over the time period – before and after the process. In theory, these types of evaluations could be regarded as the 'best practice' but they are seldom executed due to budget or time constraints.

Table 6 Timing of evaluation

Timing of evaluation	Frequency	Percent
Ex ante evaluation	11	12,2
Interim evaluation	23	25,6
Ex post evaluation	66	73,3
Other	12	13,3

Multiple answers possible.

2.6.2 Information and data sources

Since evaluation studies are carried out for different reasons and for achieving different aims, also the *information sources* may vary. We identified the following categories for possible information sources (Table 7).

Table 7 Information sources

Information source	Frequency	Percent
Participants	78	86,7
Teachers/trainers	35	38,9
Promoters (beneficiaries)	30	33,3
Statistics	16	17,8
Other	24	26,7

Multiple answers possible.

The important finding in this respect is that participants need not to be the only sources of information although for obvious reasons they are frequently used. Teachers/trainers and promoters are also sources of information in quite many of the evaluation studies analysed. In addition, other information and data sources were used, such as the students' parents, existing literature, authorities, experts, key organisations and written material of the programme or project.

2.6.3 Quantitative and qualitative methods applied

The predominant approaches to evaluations have been economics-based relying heavily on *quantitative data* collected by some kind of survey-based methodology, at least in the UK (Curran 1999). In some occasions the need to establish better databases and to aggregate more detailed data to allow more accurate evaluations has been emphasised. (See e.g. Storey 1998 and Hietala 1997) The problem with general statistics is that they lag at least 2-3 years behind and they seldom provide sufficient data in any case, and thus the evaluations that use general statistics as the primary source of data can only be conducted some years afterwards.

In other studies the issue of the need for better data has been translated also as the need for more *qualitative data*. Curran et al. (1999) point out also the need for more qualitative approaches for a number of reasons. Firstly, they are more people-centred than the aggregate approaches. They assess the impact of the policy from the point-of-view of the beneficiary. Secondly, qualitative approaches do not adopt neo-classical economic assumptions about the behaviour of individuals, firms and market economies which reflect better the actual situation in SMEs and by entrepreneurs. Thirdly, qualitative approaches to evaluation also refuse to assume any simple, rational policy-making process. In addition, qualitative evaluation strategies do not reject quantitative contributions but they absorb quite easily quantitative elements into the qualitative evaluation. Hence, in many cases the combination of several sources of information and evaluation techniques is required. (Heinonen and Leiwo, 1998)

The reports analysed for this study used more frequently quantitative than qualitative methods, i.e. information was collected through surveys or semi-structured interviews (Figure 5). Nevertheless, also qualitative methods were applied, for example, by carrying out open-ended face-to-face or telephone interviews. Also case study method and group discussions are applied. In addition, the analysis of secondary material, such as project reports and literature, is conducted. Over half of the studies reviewed in the literature analysis had applied both quantitative and qualitative methods. For example, the questionnaire used included both multiple-choice and open-ended questions. In some evaluations a survey had preceded the (qualitative) interviews.

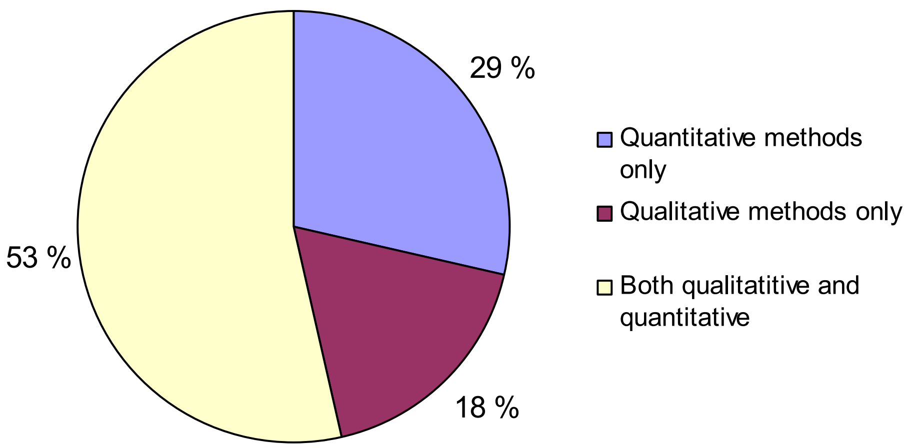


Figure 5 Quantitative and qualitative methods applied

2.7 Use of evaluation studies and their results

So far, we have discussed the different types of evaluations. In this section we present the results from the expert interviews of *the use of evaluations*. There are two separate key impediments in using evaluation studies. First, an understanding of the results and, second, a clear will to take the results into practice.

2.7.1 Quality and interpretation of the results of evaluations

According to the programme promoters most evaluation reports present the results clearly and they are easy to understand. This is expected especially from the evaluation studies that the promoters have ordered from an external evaluator. There are some programme promoters, however, who feel that if one is not familiar with the concepts in evaluation studies, some of the issues may remain unclear.

The target group for the evaluation – the users of the results - needs to be taken into account already when planning the evaluation in order to produce results that are easy to understand. Some programme promoters argued that evaluation reports tend to be rather general and superficial, especially if several programmes are evaluated at the same time. Sometimes different types of programmes are evaluated by using the same criteria, for example, general activity data is collected which does not provide useful information for the programme promoters.

Evaluation reports are often written in a pseudo-science way. (Austria 2).

Most of the experts felt that policy makers and financiers of enterprise education and entrepreneurship training are capable of understanding the results from evaluation studies. However, some problems are also encountered in this sense. According to some of the programme promoters the financiers are not always capable of identifying the proper elements that need to be evaluated but require the evaluation of wrong issues; issues that are not useful for the programme promoters in improving the programme. The financiers are seen to be more interested in controlling than improving the programmes. Some programme promoters even argue that policy-makers do not understand or value scientific methodology. These results suggest that there are indeed conflicting perspectives to what is expected from evaluations. Controlling is irrelevant for the programme promoters who consider continuous improvement of programmes to be an important element.

2.7.2 Taking the results and recommendations into practice

According to the programme promoters the evaluations conducted have had a direct impact on their daily activities and they are very useful for the improvement of the existing programmes and the planning of new ones. They are used e.g. for improving the content and format of the programme and for changes in the learning/teaching processes.

All of the interviewed experts, however, felt that the evaluations could and should be utilised in a much more thorough sense. Quite often lack of resources, especially money and time, seems to hinder the implementation of the results. This is referred to as a problem both by the programme promoters and the policy-makers. There are also several other reasons given for the lack of implementation of the results of evaluations. Often the poor implementation is a sum of many factors.

Taking the results and recommendations into practice is not always easy because you cannot use them 1:1 – it is analogous to medical diagnosis and therapy, sometimes you cannot use the best treatment because there is another problem that makes this treatment unusable. (Germany 5)

Also the policy and financing decisions taken and the ‘hidden’ agendas hinder the usability of evaluation studies.

The evaluation reports are not used because the drive is towards innovation (experimental approach on a continuous basis) rather than to gradual improvement of existing programmes.

This could be seen to reflect the financing decisions of many of the programmes of the European Union. In most cases one of the strongest factors influencing the decision to finance a particular project is its innovativeness. (Spain)

The evaluators feel that they have a very limited influence on the ways evaluation studies are applied and used. The worst-case scenario for the evaluators is that the evaluation serve an alibi function for the policy-makers and disappear in the drawers even without being read.

So, the problems with the evaluations from the evaluator perspective are 1) that the evaluations are not read and 2) the hidden aims that are not communicated to the evaluator (Austria 2).

In a similar vein, some of the policy-makers also argued that the programme promoters are not really implementing the results of evaluations. They feel that negative results are sometimes hidden and not considered as useful for future development.

The usability of evaluation reports is also affected by the contents and clarity of the reports. It is suggested that the use of comprehensible language ('non-jargon') and, for example, of executive summaries would improve the usability of the evaluations conducted. According to the policy-makers the evaluation reports often offer an extensive analysis of the problems but few solutions.

Another problem seems to be the insufficient promotion of the results or the availability of published evaluation reports. For example, the programme promoters would be interested in documented good practices, which they consider difficult to locate. Quite often the evaluation reports are only used internally and they are not published. Therefore, many experts argued that there is a need for more open sharing of the results and knowledge gained. The results should be published and promoted by sending out press releases, organising workshops, etc.

The usability of evaluations is also hindered by the lack of commonly accepted criteria and measuring instruments. Also more systematic and longer-term approach is needed.

There is a need for systematic analysis of evaluation instruments in order to increase transparency. (Germany 5)

The work on indicators should be continued (Finland 4)

Need to know more about the long-term effects. Different evaluations are needed than we have used so far. (Norway 5)

3 EVALUATION STUDIES: AIMS, MEASURES, RESULTS

In the previous chapter we have aimed at analysing the different aspects of evaluating enterprise education and entrepreneurship training programmes individually, aspect by aspect. Although this analysis gives us detailed information of the different options in carrying out evaluation studies, it is not sufficient to guide through the process of planning and executing an entrepreneurship training project and its evaluation. For example, if we have gathered information on the number of universities engaging in entrepreneurship training, the number of projects or programmes running or the number of students and the investment spent (Veciana – Urbano 2000, Kollanus et al 2000, De Pablo López et al 2001), then it is no longer possible to carry out an impact assessment (see also Storey 2000). Therefore, a more holistic approach is needed in our study to understand the process and to be able to give suggestions for further action in carrying out efficient evaluation studies in the context of enterprise education and entrepreneurship training.

In this chapter we aim at looking at the different options for evaluating enterprise education and entrepreneurship training programmes and policies and suggest courses of actions that may be helpful for the promoters, evaluators and policy-makers. An Internet-based database and model is also designed to provide further information and advice (www.entreva.net).

The discussion is primarily organised around the different aims set for enterprise education programmes and training (Hytti et al 2002):

1. Learning about entrepreneurship
2. Learning to become entrepreneurial (non-business focus)
3. Learning to become an entrepreneur (business focus)

Furthermore, we will focus on the different aims set for evaluations studies that we have elaborated based on Diamond and Spencer (1983):

1. Evaluation as a Planning tool
2. Evaluation as a Monitoring tool
3. Evaluation as an Impact assessment tool

Hence, the discussion here is influenced by the understanding that objectives set, firstly, for the programme and, secondly, for the evaluation need to be geared to the principles and practices of evaluation.

3.1 Aims of enterprise education and entrepreneurship training

In an earlier study (Hytti et al 2002), we defined the following three sets of aims that an enterprise education and entrepreneurship education programme may have. The different roles assigned to enterprise education are summarised below (Figure 6).

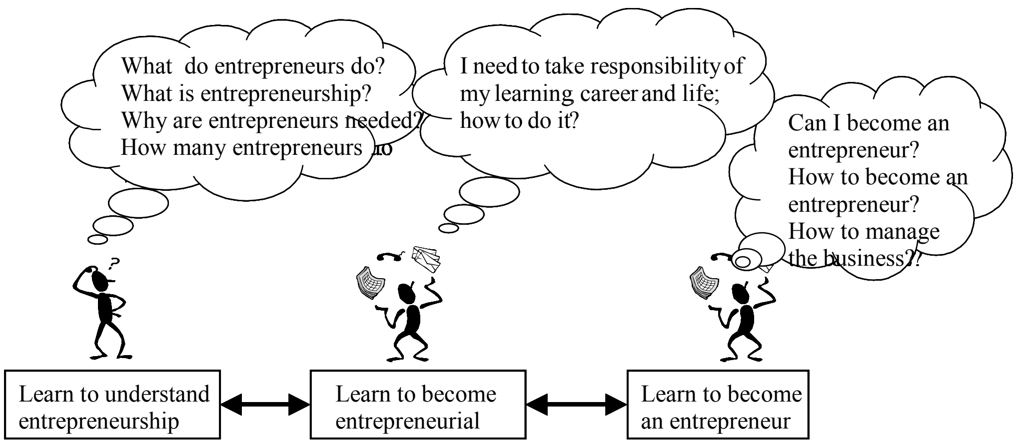
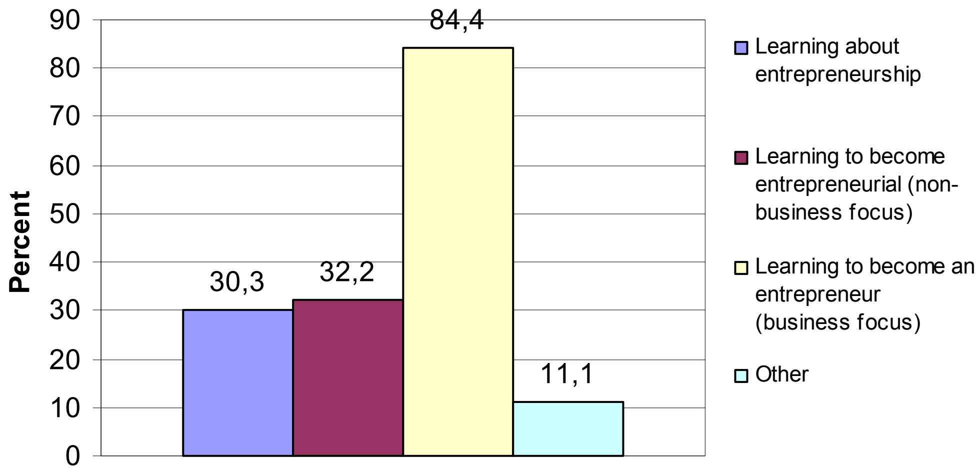


Figure 6 Aims of enterprise education

The evaluation reports were also categorised according to the aims of the evaluated training programmes. The programmes with a business focus (teaching/coaching participants to become entrepreneurs) was the most frequently evaluated programme type in our sample. (see Figure 7).



Multiple answers possible

Figure 7 Aims of enterprise education

However, the evaluated programmes had also other aims: learning about entrepreneurship and learning to become entrepreneurial in about 30 % of the evaluations. More specific aims for the evaluated programmes were also reported, such as:

- Creating new innovative co-operation models between enterprises and schools in ways beneficial to both parties
- Finding out the suitability of apprenticeship as a form of entrepreneurshipt training.

3.2 Objectives and measures for the evaluation studies

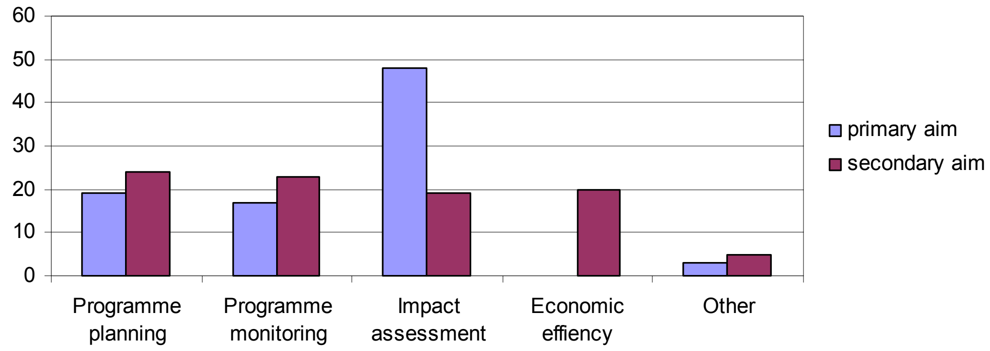
Based on our literature search there are different needs for evaluations based on the phase in the policy-making process, and the objectives set for the evaluation. There is no one set of possible uses for evaluations but a multitude of potential uses. Diamond and Spence (1983) acknowledge four basic types of questions for evaluation research:

1. Programme planning questions
2. Programme monitoring questions
3. Impact assessment questions
4. Economic efficiency questions

A really wide-ranging approach to evaluation would involve aspects of all four types of research activity although, for obvious reasons, many evaluations only concentrate on a selection. Many researchers call for a step-by-step approach to evaluation, see e.g. Storey (2000). This approach stresses the point that it makes sense first to check that the programme has been executed as specified before measuring the impact, and then by the same logic to analyse first that there has been an impact before measuring effectiveness. (Diamond and Spence 1983)

In the literature survey, we classified the aims of the evaluations based on the Diamond and Spence’s (1983) types of questions for evaluation research. As can be seen in Multiple answers possible.

Figure 8, *impact assessment* was the primary aim of the evaluations in 48 out of the 90 studies analysed. *Programme planning* questions and *programme monitoring* questions were almost equally frequent, in 40 % (26 out of 90) of the evaluations the aim was either programme planning or monitoring.



Multiple answers possible.

Figure 8 Primary and secondary objectives of evaluation

We also looked at the secondary aims of evaluation based on the same classification (more than one aim was possible in this case). The most frequent secondary objectives in evaluations were programme planning and monitoring. There were not, however, great differences between various categories when looking at the secondary aims of evaluations. On the other hand, there were also some differences in the primary objective of evaluation across the partner countries (see Table 8).

Table 8 Primary objective of evaluation by countries

Primary aim of evaluation	COUNTRY						Total
	Austria	Finland	Germany	Ireland	Norway	Spain	
programme planning	5	6	5	0	0	3	19
programme monitoring	0	4	0	5	4	4	17
impact assessment	8	8	2	13	11	6	48
other	1	1	0	1	0	0	3
Total	14	19	7	19	15	13	87

3 missing values/cases, Pearson Chi-Square 0,019

In all of the other countries except Germany impact assessment was the most common primary aim of evaluation in the studies analysed here. Programme monitoring was not a primary aim in any of the Austrian or German studies analysed. In Germany the most common primary aim of evaluation was programme planning, where as in Norway and Ireland programme planning was not regarded as the primary aim of evaluation in any of the evaluation studies. Next, we will review these aims for the evaluation studies in depth.

3.2.1 Programme planning

Programmes and other economic or social interventions are normally developed out of a particular policy, which is translated into a less generalised, but often not too specific goal or objective. A programme is then usually planned around these general goals identifying the intervention methods, the interested parties and the budget. (Diamond – Spence 1983, 1-2) This calls for evaluative procedures when aiming at identifying the appropriate methods, parties and budget. Hence, the focus is on assisting in *programme planning*. The idea is that it is possible – and necessary – to evaluate the process, not only the outcome.

Programme planning is of course crucial also for evaluating the programme impact (3.2.3, p. 41). If the programme is not carried out successfully according to the aims, it is less likely that the impacts of the programme will be successful either.

In the literature that reported evaluations for programme planning questions, the evaluations frequently included a multi-partite approach: questions were addressed to students, participants and other stakeholders alike. For the programme planning purposes, it is quite customary that the participants (students, teachers, stakeholders) are directly asked questions about the programme. These questions typically centre on the different elements of a programme: *Contents* (knowledge and skills the programme aims at providing), *Methods and materials* (the way the knowledge and skills are learned/taught), *Teachers and tutors* (those responsible for teaching/facilitating learning and their relationship with the students) and *Organisation of the programme* (the process, timing, rooms and facilities). The questions included further questions about the expectations of the students for the course and a check-up if these expectations had been met, questions about the motives for attending a particular course, questions about the usefulness of the programme or satisfaction of the respondents with a course, identification of what the participants had learned and their suggestions for improving the course (See Table 9).

Table 9 Questions addressed in evaluation studies for programme planning purposes

	Motives or expectations vs. meeting of expectations	**Usefulness of the programme, satisfaction**	**Learning outcomes**	**Suggestions to improve the course**
Contents	What had the participants expected from the contents? Had these expectations been met?	Were the participants satisfied with the contents? Were they useful?	What the participants had learned from the programme? (Contents)	How to improve the contents of the programme?
Methods and materials	What had the participants expected from the methods applied? Had these expectations been met?	Were the participants satisfied with the methods and materials? Were they useful?	NA.	How to improve the methods and materials of the programme?
Teachers and tutors	What did the participants expect from the teachers? Had these been met?	Were the participants satisfied with the teachers and tutors and their role? Were they useful?	NA.	How to improve the teaching of the programme? (A need for replacement of teachers?)
Organisation of the programme	What the participants had expected organisation of the programme? Had these expectations been met?	NA	NA.	How to improve the organisation of the programme?

In some of the evaluation studies, it was considered necessary to compare the model applied against other concepts applied, such as business simulation (e.g. Junior Firm in Austria, Wallner 1997) or 'ordinary' classes (Greimel 1998). This idea could be widened to include comparisons of schools applying the same model to understand the role of the environment for the entrepreneurial intentions or attitudes.

In the qualitative expert interviews, it is no surprise that the programme promoters put much emphasis on carrying out evaluations that assist in continuously improving, adapting to changes and planning of the programmes. On the other hand, the evaluators adopted either an insider or an outsider perspective to the evaluations. They either clearly viewed the evaluations from the perspective of the programme promoters or that of the policy makers'. They identified two highly different roles for the evaluations:

- *Action research* to provide information for development of the programmes (for programme promoters)
- *Impact analysis* to provide information of the impacts of an individual programme and/or institutional framework within a region/country for promoting entrepreneurship (for the policymakers)

This dual approach can be seen from the following quote:

> *From the point of view of the evaluator: to prepare the evaluation results in a different way, so that they lead to recommendations of action. […] It would be good to have more time for the ex post evaluation in order to observe the effects for a longer time. These are the two central points: to develop standard modules for the planning and to have more time for ex post evaluations. (Austria 2).*

From the point-of-view of the different aims for the enterprise education and training, programme planning is an important aim for all the evaluations. Nevertheless, in our expert interviews when we asked the experts which measures to adopt when aiming at evaluating different kinds of programmes for different people, the measures that were suggested for programmes inducing entrepreneurial skills or learning about entrepreneurship more frequently dealt with measures that could be grouped under programme planning. Similarly, it was suggested that programmes that aim at increasing the number of start-ups should be measured for their impact (See also 3.3.). Hence, the aim for the programme is dependent on the evaluation: measuring the impact is seen to be more appropriate with regard to programmes that focus on start-ups. In programmes that aim at developing entrepreneurial skills or increasing knowledge about entrepreneurship it seems that there is not yet a clear understanding of what could be the measures and indicators to be applied in impact analyses. Hence, there is a need to develop such indicators.

3.2.2 Programme monitoring

Monitoring evaluation provides a systematic assessment of whether or not a programme is operating in conformity with its design and whether or not it is reaching the target group. If the programmes deviate from their original intentions, much care must be taken in interpreting the results from the evaluation study. (Diamond – Spence 1983, 1-2) In our review of evaluation studies monitoring was applied for example in studies investigating the current labour market situation of the participants (after the training) (Turunen 1997, Koskinen 1999, Nieminen – Suokas 1994) or that situation over a period of time (Fleming - Owusu-Ansah 2001). In addition, studies that aim at finding out who the participants on an entrepreneurship course are (Bolkesjø – Egeland 1992); or at producing information on what kind of activities have been financed or run and to which extent (Kollanus et al 2000, Veciana – Urbano 2000) contain examples of monitoring evaluations.

Based on the literature review, the monitoring studies frequently aimed at measuring and reporting the following:

- Number of participants
- Recognition of participants (who they are)
- Numbers of those returning to further training (‘satisfied customer’)
- Costs / participants (linked to economic efficiency)
- Numbers of failed students
- Strengths and weaknesses of the programme

The results can be applied to judging, for example, if a particular programme is a consolidated or an ad hoc activity based on the numbers of participants it is able to attract to attend a course (Ciudad … 2002). For example, Veciana and Urbano’s (2000) report focuses on the current status of the teaching of entrepreneurship (start-up courses) - where, when and how much. The study was carried out for supporting the planning of entrepreneurship studies in general. The outcome is that if a programme has only few activities or is able to reach only few participants it is not a core activity. Monitoring studies are needed also to assess impact, especially on the macro level. Even if a particular programme is a success, for example, 80% of the participants start-up successful businesses in a growing industry, its impact on the macro-economic level is not very strong, if there is only 1 programme organised with 15 participants. The results are important also for the positioning of a programme among other government initiatives aiming at new business creation or within the larger realm of enterprise education initiatives.

Like programme planning, also programme monitoring can be carried out irrespective of the programme aims. The financiers were interested in monitoring evaluations whereas the other experts (evaluators, programme promoters) did not emphasise this aim. This reflects the fact that monitoring alone is not very important but it is needed for carrying out programme planning and programme impact evaluations. From the financing perspective, however, it helps to keep track of the activities and expenditure.

3.2.3 Programme impact

Impact evaluation is the form most commonly thought of with regard to evaluations. Impact evaluation gauges the extent to which a programme instigates change towards the desired direction. This implies that we are not only interested in the effects, but also on their direction. (Diamond – Spence 1983, 1-2) Based on our review of the evaluation reports several attempts were made to find out whether the programmes encourage start-up activity (e.g. Mansio 1997, Blumberger 2000, Vagle 1998, Alsos – Iveland 1999, Fitzpatrick Associates 1999), the reasons that hamper it (Koskinen 1999) and, more generally, to study the impact of the programme on the individual (Lappalainen 1986), for example, by investigating the entrepreneurial abilities and their development in a programme (Grande 2001).

In the qualitative interviews carried out in the project we asked about the 'most suitable' or 'potential' measures to be applied when evaluating different kinds of programmes. This of course was a difficult question because we did not define the aims for the evaluations. This point was noted in some of the interviews:

> *"It is difficult to say this generally. Each single case has to be looked at: What measures are there, what projects are there, what plans are there? Next it can be looked at how the projects and plans can be evaluated. The next question is who evaluates with what interests. … The question is always: Who wants to know what and why in what context." (Austria 3)*

Most of the participants did, however, try to answer the question. When analysing the answers it became clear that most of the respondents understood the issue by a way of measuring the *impact* of the different programmes. Next, we will present the different measures that were suggested.

3.2.3.1 Start-ups, new ventures, entrepreneurs and jobs

The most popular measure suggested in the literature and in the interviews was *measuring of new start-ups*. Not surprisingly this was especially underlined in the programmes that aimed at increasing the number of new ventures and entrepreneurs but it was quite common in the other programme types as well. Even if the programme aimed at providing information and knowledge about entrepreneurship or the programme aimed at increasing enterprising skills (non-business focus), it was considered that at least in the very long run they could also be measured by using the ‘start-up measure’. This is interesting because it tells us about the (hidden) meanings and agendas that people involved in enterprise education have about the role of enterprise education. Or, alternatively, the start-up measure is suggested because it is concrete and relatively easy to measure. In this sense it could be labelled also to be a convenience measure.

However, the start-up measure alone was considered to be too limited and a processual approach was suggested to measure the different steps in the process starting from changes in skills, motivation and intentions (see also Chapter 3.2.3.2 and Figure 9, p. 44).

First, besides the start-ups it would be important to measure also the decisions of participants at a course that they will *not* start a business after the course (testing of ideas, self-critical aspect). Second, it is necessary to take into account the time factor. Often it was understood that the long-term effects are more important but also more difficult to assess. “Over more time more graduates start their own enterprise” (Fleming – Owusu-Ansah 2001). Third, it is necessary to take into account that there is a complexity of causes and effects and it is always doubtful if a particular company has been set-up as a result or despite a particular programme (see also ‘dead-weight’, paragraph 0, p. 7).

It was also emphasised that it is not enough to produce a large number of start-ups but to create successful start-ups and hence it was suggested that measures should be put in place to measure the quality of the companies, e.g. by measuring the number of sustainable start-ups (companies that are on the market 3-5 years after the start-up) or by measuring if these start-ups are entering prospering or dead-end markets, e.g. if university graduates are starting businesses mainly in the traditional service sector or in the high-tech sector (Rosa 2003). Furthermore, the number of jobs created (and the quality of these jobs) was also suggested as a measure reflecting also the question of ‘quality’ of these companies.

The comparative element is also interesting as it helps to assess what is an expected or accepted level of start-ups. In some of the interviews comparisons of results between different programmes, different regions and/or entrepreneurs of different groups were suggested, such as comparisons across different categories of entrepreneurs:

- Entrepreneurs that have participated in a programme and have been successful
- Entrepreneurs that have not participated in any programmes and have been successful
- Entrepreneurs that have participated in a programme and not been successful
- Entrepreneurs that have not participated in any programmes and have not been successful

3.2.3.2 Attitudes, perceptions, intentions (and behaviour)

There are however many programmes where the time lag is important in making it difficult to observe or to account for start-ups in the short term necessitating another measure. It seems that especially in these types of programmes, the measurement of *attitudes, perceptions and intentions* is frequently applied. The changes in attitudes, perceptions of own capabilities and possibly also intentions are applied as the measurement tools for the impacts.

In our review of evaluation studies, we could identify that the attitudes measured dealt with entrepreneurship as a general phenomenon (overall acceptance of entrepreneurship), as a personal career choice (possibly compared to other professions, such as physicians, engineers, executives e.g. through ranking) or as a teaching subject (usefulness, applicability). We have interpreted that the underlying idea with measuring attitudes, beliefs and intentions is derived (at least loosely) from the theory of planned behaviour (Fishbein and Ajzen 1975; Ajzen and Fishbein 1980). Applied to entrepreneurial behaviour the theory states that the antecedent of entrepreneurial behaviour is the intention to become an entrepreneur/entrepreneurial. This intention in turn is predicted by the extent to which a person has a positive or negative evaluation of entrepreneurial behaviour (i.e. entrepreneurship attitude), the perception of social pressure to behave entrepreneurially (i.e. subjective norm), and people’s confidence in their ability to perform various entrepreneurial activities (i.e. perceived behavioural control). The theory has been applied also to study of entrepreneurial intentionality (Figure 9).

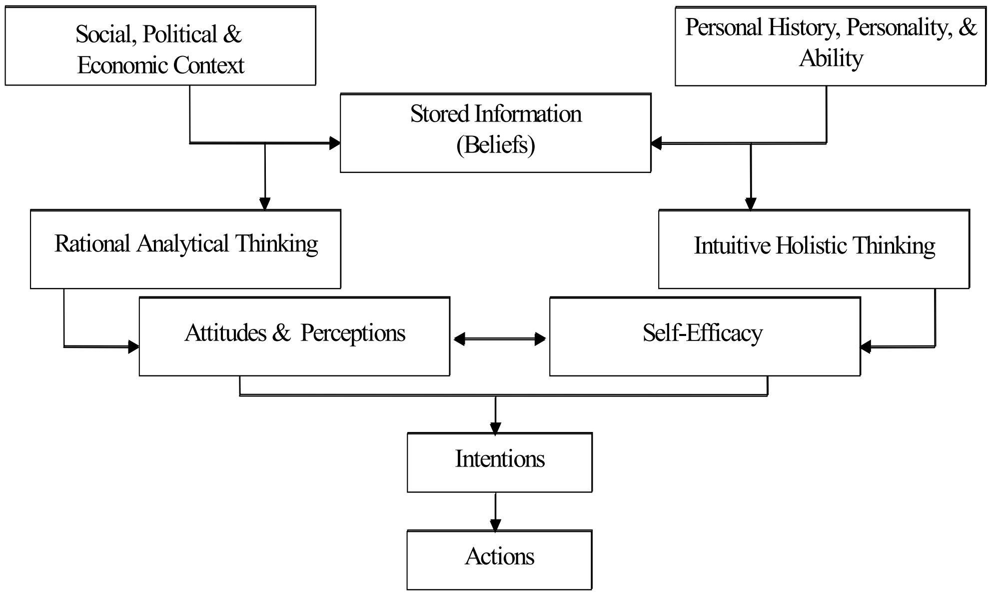


Figure 9 Context of Entrepreneurial Intentionality (Bird 1989, revised by Boyd et al 1994)

With regard to measuring the attitudes the challenge remains what is the acceptable level, when the attitudes are 'good', 'fairly good', 'neutral' – i.e. it is necessary to set a standard against with to measure the attitudes, for example, the use of another programme as a point of comparison (De Pablo Lopéz, 2001). An alternative or complementary measure is the change in the attitudes as a result of (or during) the programme. This provides a comparative approach and requires measuring the attitudes prior to and after the programme.

On the other hand, it must be noted that there are other intervening factors than just the course that may account for the changes. The third option is to apply the same survey at the same school level over time. The underlying assumption is that the student population is somewhat homogeneous in nature and the changes in attitudes change primarily due to the changes in the social and cultural environment. The above options suggest that there are different levels for the analysis of attitudes: the individual (individual attitudes), the programme level (comparisons across programmes) and the society (changes in the overall population, e.g. student population). An example of the latter type of evaluation is the worldwide Global Entrepreneurship Monitor (GEM) study that aims at measuring entrepreneurial activity by investigating the number of persons in a start-up process. The survey aims at identifying persons who have already carried out some activities within a fixed time-period to set up a firm. This is to exclude the 'wishful thinkers' who claim that they might become entrepreneurs but who have not demonstrated any activity towards this end.

The important point in the theory of planned behaviour is that there is no direct link between attitude and social norm, or the attitude and behaviour but the intention mediates the effects. For example, in Finland (Arenius - Autio 2000, Mäki – Vafidis 2000), in Spain and Puerto Rico (Veciana et al 2000) and in some other countries, the attitudes of people towards entrepreneurship are quite positive. People tend to view the entrepreneurial career as something acceptable and even desirable given that it is not a personal choice. This means that although people view the option – becoming an entrepreneur – generally viable, acceptable and desirable, it does not automatically mean that they intend to become entrepreneurs themselves. In these studies a relatively low percentage expresses that they will certainly start a new venture. Explaining the gap is quite challenging but attempts have been made for example by investigating the perceptions of feasibility of the endeavour, like, the perception if starting up a company is more difficult than ten years ago (Veciana et al 2000).

Another potential measure that has been applied is the study of beliefs and perceptions. Beliefs and perceptions with regard to different elements of entrepreneurship were inquired: 1) Perceived knowledge of entrepreneurship, 2) Perceived understanding of entrepreneurship / intrapreneurship (what does it mean?) and 3) Perceived capabilities in acting as an entrepreneur, or teaching it as subject (linked to other subjects). The results of these studies must be interpreted with caution. First, self-confident people might be more inclined towards an entrepreneurial career. Second, it would be fairly easy to suspect that, as a general trend, people perceive their capabilities to be better than they in reality are. For example, it cannot be concluded that training and counselling for entrepreneurs should be abandoned simply because people in general feel confident about their skills and perceive their capabilities for acting in that profession to be fairly good.

In conclusion, it is possible to summarise that attitudes and beliefs are not objective measures for the (long-term) impacts of a programme. However, attitudes and beliefs are important in the sense that, firstly, they can be understood as the products of social and cultural environment and, secondly, that they can be applied as a starting point for interventions in the school or university environment (Veciana et al 2000).

3.2.3.3 Possible causes for impacts

In the impact evaluations measuring the impact (how much, to what direction) is the key element but an equally important analysis should be also the analysis of the causes for impacts. For example, it is necessary to analyse the achieved results against the aims and assess if the aims set have been realistic or over optimistic in the first place. In addition, understanding why a particular programme has been a success is important in order to be able to repeat the programme.

In addition, a necessary analysis is the assessment of the choice and selection of participants for the programme. A critical factor for the success of the programme is the selection of participants. If the participants selected possess the necessary basic skills or motivation levels, the success rate will be better (e.g. Greimel 1998). For example, it has been discovered that the participants that are more willing to learn, will actually learn better. Furthermore, if the participants do not study properly (Niittykangas et al 1986) or are absent from training (Ministry of Labour 1988), it is bound to have an effect on the effectiveness of the training per se. Interestingly, poor participation in a course does not automatically suggest that the programme per se is poor. For example, in the case of entrepreneurs and small business personnel low participation may only suggest that there is high season in their business activities and participants do not find the time to attend the course. On the other hand, developing the courses towards a more holistic approach that incorporates the learning and the business might help in this respect (Ministry of Labour 1988). This analysis might help to understand some confusing results. For example, if the analysis suggests that a programme has had an impact but on two opposite directions: negative and positive (ref: Interview Finland 4), the choice of participants with highly heterogeneous motives might help to explain the impact.

3.2.4 Increase in knowledge and development of skills

In some of the programmes – especially in those which aimed at increasing knowledge about entrepreneurship and entrepreneurship skills, the experts interviewed suggested a measure of assessment could be to assess, if the participants possess the necessary knowledge and skills e.g. to start-up a company after the programme.

The experts suggested the need for analysing business ideas. They thought that if the participants have learned to generate good business ideas and write successful business plans, they have also acquired the knowledge and skills necessary in acting as entrepreneurs. The problem with this approach is deeming who is capable of determining the quality of business ideas or business plans that goes beyond the analysis of technical matters. In addition, it was also suggested that practitioners (entrepreneurs) should be responsible for the teaching and assessing of the participants. As former or current entrepreneurs they would know what is needed from future entrepreneurs. Again, this idea reflects the idea of superior knowledge. In reality, however, ‘bad’ business ideas have sometimes turned out to be excellent and vice versa. Hence, this exercise cannot be seen as fully objective and reliable. It might be useful to perceive it as a subjective evaluation method and organise, for example, a peer or expert review of business plans. Although the experts or peers might be wrong, the exercise would in any case be useful for people learning to defend and stand behind their ideas.

Like the impact analysis, the long-term evaluations were also suggested for identifying what happens to the participants over the course of years, what do they remember and how they rate the usefulness of the experience. In addition, traditional measurement techniques were also suggested, for example measurement of improvement in understanding business through exams. At the same time critical comments were given in this respect: *“Traditional methods can be applied: but what is the meaning? Knowledge can be learned but how this is transferred into the practice?”*

3.2.5 Other measures

It seems to be highly important to develop new tools for evaluating the impact of programmes that aim at boosting entrepreneurial behaviour or learning about entrepreneurship (non-business focus). How to best evaluate the impact of these types of programmes? For example, it seems that fairly low number of existing evaluations made use of qualitative material, such as learning diaries or stories written by the students or observational material gathered in the process. This is of course also a matter of effort and costs - they require the use of highly qualitative, time-consuming research methods. In the expert interviews, however, where the approach was more future-oriented, i.e. not linked to actual evaluating practices, there were some highly innovative suggestions. For example, observation as a method was suggested especially in relation to children who may have it more difficult to verbalise their learning experiences than adults. In addition, there were suggestions to introduce visits at the workplaces to assess to what extent any elements of the programme are implemented. Furthermore, simulation games, meetings and practical experiences were suggested. For example, as a form of simulation questions such as “What would you do if?” could be helpful in simulating the entrepreneurial tasks. This experiment could be repeated twice (in the beginning and in the end), and evaluation would be based on the observation of this experiment.

In addition, in some cases the participants are asked directly about their perceptions of impacts. This may reflect two issues: first, there is a lack of operational data and an easy way out is taken or, second, the perceived impact of the participants is viewed to be a self-realising model: if the participants believe the programme to have an impact, it will, because of the way it directs their behaviour.

3.2.6 Economic efficiency

Diamond and Spencer (1986) divide *economic efficiency* studies into two slightly different approaches:

- cost-benefit analysis: measurement of costs against the monetary value of the benefits
- cost-effectiveness: measurement of costs against the qualitative achievements: progress towards goal achievement

In the original classification of Diamond – Spencer (1983) economic efficiency was identified as one of the possible aims for evaluation studies. Since it was not a topical question based on our review and analysis of literature and interviews we decided to focus on the three objectives: programme planning, monitoring and impact analyses. There were however some suggestions that this type of motive for evaluations may also be necessary. In the end, money is always a scarce resource and hence the evaluation need to take into account how much money is spent against the results achieved. In the evaluations reviewed, for example, an analysis of the money allocated / start-up with regard to the field of business (high-tech/low-tech) and employment created was considered.

> *We continuously ask for assessment of the training sessions to get immediate feedback from the participants in the programme. Is our programme in line with their expectations and needs? In addition we do semi annual studies of development of the enterprises that have been started. We analyse their accounts and balance over 5 years. This is basis for cost-benefit analysis of total programme costs and benefits to society. (Norway 1)*

> *From the view of the financing body the pilot project caused additional costs. They want to know what benefits were gained through the additional costs. (Austria 4)*

> *To assess return on investment (value for money). Continued appropriate investment to make Ireland an attractive place to work. Enterprise education expenditure is part of industrial policy-related expenditure. (Ireland 2)*

Also, few of the experts interviewed were of the opinion that measuring economic efficiency is an important aim for conducting evaluations. Cost-benefit analysis, for example, is a way of justifying the importance and good quality of the programme for the financiers. Again, linkages between the different aims for evaluation studies could be seen. Measuring economic efficiency is part of the impact assessment. The programme promoters rarely conduct this type of evaluations for themselves but for a third party: a financier.

3.2.7 Marketing and public relations purposes

In the discussion, so far, we have taken a stance that evaluation studies have a strict utility function, are conducted in order to enhance the process of learning, or to report the activities taken or to measure the impact of programmes. It is important however to acknowledge that evaluations can also be *symbolic,* i.e. they are not conducted for any of the objectively identified reasons discussed in this report so far. Some of the evaluations were carried out for marketing and public promotions purposes. Some of the programme promoters consider evaluation to be a good way of proving the results and quality of the training to other stakeholders such as (potential) clients and financiers since scientific evaluation (especially if carried by an independent party) can be seen as being objective as opposed to 'biased' marketing efforts.

> *Through evaluation, results can be verified and if programmes are successful, the client will keep coming back. (Ireland 3)*

> *As a detail, we also apply the evaluations to pick out 'testimonials' of the participants to be applied in our marketing. (Finland 2)*

> *Evaluation is also important for reporting the financiers; it is a way to justify/prove the results of the project. (Finland 5)*

> *Besides, apart from other relevant potential uses (to assess the satisfaction of the participants, their achievement, etc.), now we're trying to "sell" our know-how in other regions and it would be very useful to have a scientific study proving the adequacy and the reliability of the teaching methods. (Spain 1)*

The published evaluations are also a means of informing the participants (students, teachers) about the results of the programme and thus enhance their commitment to the training (or provider of the training) and further contribute to its success. The more committed the participants are, the better the results.

4 CONCLUSIONS

It is obvious that while the difficulty of evaluation is acknowledged, the importance of evaluation studies with regard to enterprise education and entrepreneurship training is not questioned. On the contrary, most studies point out the imperative for such studies for various reasons. At the same time the need for *development of indicators* is underlined also in this research. As yet, there is no understanding how evaluation studies could and should be conducted. It is envisaged that the use of indicators that are widely applied in the different studies and programmes would allow comparison across programmes, studies and countries.

Based on the results of this study, there are national differences between countries regarding the *evaluation culture and practices*. For example, in Finland evaluations have become an integral part of programmes and their measurement. Therefore, evaluation studies were easy to locate and get hold of, and a number of people were identified for the expert interviews. In some other countries, e.g. Germany, there was a clear lack of published material. As a result, the development of a more open and proactive attitude towards evaluation of enterprise education and entrepreneurship training is needed in Europe. The different stakeholders – evaluators, programme promoters and policy-makers – believed that evaluations are considered to be important. In some cases, however, a wish was expressed that evaluations should serve more than just an alibi function or be conducted solely for marketing purposes. Results, even if unpleasant or negative, should be taken seriously. This situation would be corrected by evaluation reports that offer also solutions, not only a thorough analysis of problems. An open environment of sharing information, publishing evaluation results and learning from them in discussions and workshops should be encouraged. Here the need for and importance of the Entreva –project is further underlined.

In the expert interviews, the lack of *financing* was considered to be an obstacle to conducting evaluation. The main message regarding financing of evaluations dealt with priorities. The key question is not primarily the lack of funding per se but rather how the money available for evaluations or programmes is spent. At the policy level the question is, if evaluations are seen necessary in the first place and if enterprise education and entrepreneurship training are considered a priority among the different evaluation studies. The individual programmes included the suggestion that evaluation should be included in the programme budget. As a result, the programme promoters need to be cautious of not spending all the money in running the programme but to allocate some of the budget for the evaluation and the financiers should make this allowance in their decisions.

It seems that the parties involved in evaluations, i.e. evaluators, programme promoters and financiers, can have very *different approaches to evaluations*, and therefore a single classification (that includes all the aims of different parties) may not be enough. This again further complicates the use of evaluation. Differing objectives for evaluations leads to evaluation reports that do not serve the needs of all the interest groups involved in the evaluation process. The programme promoters interviewed complained about the superficial level of evaluation demanded by the policy makers who are more interested in controlling the programmes than improving them. The programme promoters are keen to obtain evaluation results that support and guide them in planning and improving the programmes. Basically, there are two different focuses in evaluation studies (Table 10).

Table 10 Focuses in evaluation studies

Focus on evaluations	Target
• Individual programme(s)	• Project participants
• Institutional framework (i.e. the environment that may include 1 or more programmes, support measures etc.)	• Overall population or selected parts of it (e.g. unemployed people, university students)

For example, the General Entrepreneurship Monitor project aims at analysing the rate of entrepreneurial activity in the whole country (also Goodbody Consultants…, 2002). In the reports the aim is at monitoring the capability of the education system and the environment in general for promoting start-ups and entrepreneurial intentions. These evaluations are targeted to public at large or some selected parts of it. For the programme promoters they give an indication of the successfulness of their achievements – whether they are doing a good job or not – but do not provide them with advice and tools for improving their programmes.

Many evaluators interviewed here adopted either an insider or an outsider perspective to the objective of evaluation, which reflected their way of thinking. Some of them were even explicitly of the opinion that evaluations carried out after the completion of the programme are too superficial and not particularly useful. Hence, they promoted the more frequent use of interim evaluations where information is continuously exchanged between the evaluator and the programme promoter. From their perspective the benefit of evaluation studies came mainly from acting as a tool for continuous improvement. On the other hand, policy-makers often request information of the long-term effects and impacts of a programme or policy and some of the evaluators promoted the idea of longitudinal impact analyses to support this view. As a result, there are two main approaches for conducting evaluations:

- Action research to provide information for development of programmes (for the programme promoters) => Communicative purpose
- Impact analysis to provide information of the impacts of an individual programme and/or institutional framework within a region/country for promoting entrepreneurship (for the policymakers) => Control purpose

Planning of evaluations is a process that at least ideally starts with the planning of the programme or policy in question. Once the objectives for the programme are set it is possible to start planning the evaluation. *Timing* of evaluation is by all accounts an important decision. Usually, two complementary recommendations for evaluations were given which seem contradictory but approach the issue from the different angles described above.

- The need to carry out ex post evaluations with an extended time span
- The need to carry out interim evaluations that allow changes in programmes also while they are still running.

It is necessary to acknowledge that the different kinds of programmes for enterprise education and entrepreneurship training and the different potential reasons for carrying out the studies create a situation where it is not possible to give any ‘one size fits all’ type of recommendations for conducting evaluation studies. Hence, different results – at least on the short-term – are to be expected from the different programmes and – consequently - different issues should be measured in relation to the programmes. It seems, however, that as *an individual measure the start-up* is by far the most frequently used indicator in the existing evaluations and it was also the measure most often suggested in the expert interviews. This was, of course, especially evident in the programmes the objective of which was the promotion of start-ups and new businesses but also in other programmes with other aims: learning about entrepreneurship and learning entrepreneurial skills (Hytti et al 2002).

Thus, the programmes are highly different with differing aims but to some extent they are measured by using the same indicator (start-up). Therefore, it seems that usually the ‘hidden agenda’ behind enterprise education and entrepreneurship training is in fact the creation of start-ups. Even if children in the schools are taught entrepreneurial skills it is done under the assumption that this will result in a larger number of start-ups in the years to come. In our analysis we have, however, identified other measures that may be more realistic and usable in the short term given the different aims for the evaluations (Table 11).

Table 11 Measures applied with different aims for evaluation

Programme planning	Programme monitoring	Programme impact
• Motives for participating, expectations • Meeting of expectations • Usefulness of the programme, satisfaction • Learning outcomes • Suggestions to improve the course	• Number of participants • Recognition of participants (who) • Costs / participant • Number of failed students • Etc.	Start-ups, new ventures • Start-ups (time factor) • Non start-ups • Successful start-ups at viable markets • Comparisons
		Attitudes, perceptions, intentions • Changes in attitudes, perceptions, intentions

In the light of our analysis Diamond and Spence's (1983) classification seems still relevant and a helpful tool in organising evaluation studies. However, in our study the measuring of economic efficiency was not very topical, instead the evaluations rather aimed at monitoring the use of financing than the comparison of the results achieved to the money spent. Therefore, we have discarded the last category and conclude that the aims of evaluation (in context of enterprise education and training) can be divided into three categories (see also Table 11):

1. Planning (programme promoters mainly)
2. Monitoring (financiers mainly)
3. Impact (both)

As a result of our study, we suggest the following figure (Figure 10) as a conceptual scheme to illustrate planning of the evaluation process. First, it is necessary to understand the objectives for the programme and, second, to identify the need for the evaluation. Finally, decisions need to be taken about how, when and by whom the evaluation is conducted. In the appendices, we provide also a check-list for the planning of the evaluation processes. (Appendix 3, p. 60).

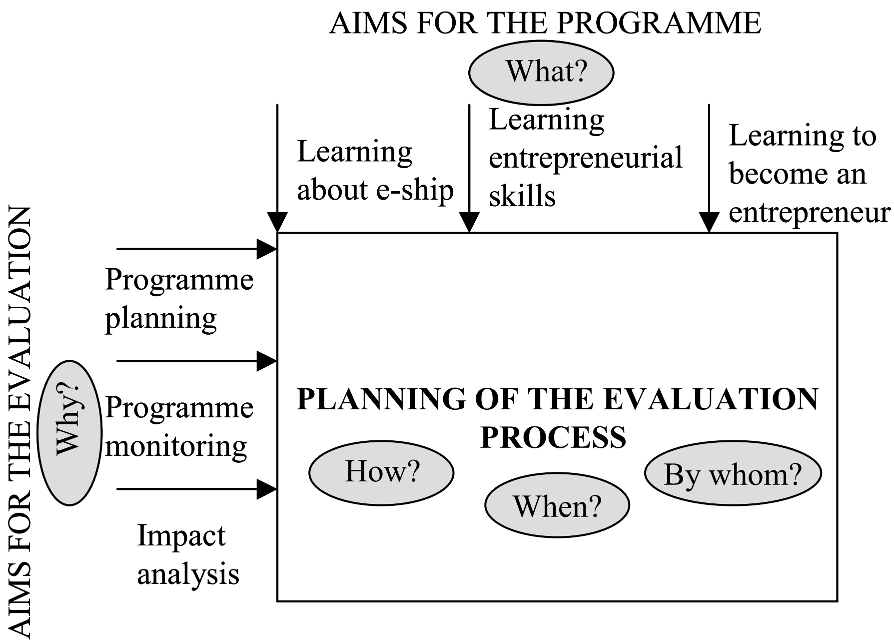


Figure 10 Planning of the evaluation process

Regarding the methods and means of carrying out evaluations it is quite obvious that more work on the potential indicators are necessary. One thing to keep in mind is that all evaluations – even those which look very objective at the outset – are subjective. The decisions needed along the process represent choices that are always more or less subjective. Learning to become entrepreneurial, learning about entrepreneurship and learning to act as an entrepreneur also largely depend on the very subjective mindset of the individual participant. The participants ask themselves questions like: '*Who am I? Who I want to be? What is entrepreneurship and what is there for me? Why should I become an entrepeneur or act in a more entrepreneurial way?*' For those responsible for the financing, promoting and running effective entrepreneurship training and enterprise education programmes it is vital to learn to know these individual considerations and processes by using more qualitative approaches to evaluation than what the current practice seems to be.

REFERENCES

Ajzen, I., – Fishbein, M. (1980) Understanding attitudes and predicting social behavior. Prentice-Hall: Englewood Cliffs, NJ, USA.

Akateeminen opetusportfolio yliopisto-opetuksen itsearvioinnissa ja meritoinnissa. (1996) Tenhula, Tytti et al. Oulun yiopisto, Korkeakoulupedagogiikan perusmateriaali; 1996, 5: Oulu, Finland.

Alsos, Gry Agnete – Iveland, Monica (1999) Ready for start-up. An evaluation of the course: Personal planning. The County Gorvernor in Nordland county: Bodø, Norway.

Arenius, Pia – Autio, Erkko (2000) Global Entrepreneurship Monitor, Finnish Executive Report. Tasapaino, Espoo.

Bird, Barbara (1989) Entrepreneurial Behavior. Scott, Foresman and Company: Glenview, Illinois.

Blumberger, Walter (2000) Wege aus der Arbeitslosigkeit. Evaluierung des Unternehmensgründungsprogrammes des Arbeitsmarktservice Österreich für den Zeitraum 1995 bis 1997. Public Employment Service Austria: Vienna, Austria.

Bolkesjø, Torjus – Egeland, Åse (1992) Entrepreneur schools and entrepreneur stipends. Norwegian Industrial and Regional Development Fund: Telemark county, Norway.

Boyd, Nancy G. – Vozikis, George S. (1994) The Influence of Self-Efficacy on the Development of Entrepreneurial Intentions and Actions. Entrepreneurship: Theory and Practice, Vol. 18, No 4, 63-78.

Ciudad Industrial del Valle del Nalón (Valnalón) (2002) Internal evaluation report. Unpublished: Langreo, Spain.

Coleman, James S. (1975) Problems of Conceptualising and Measurement in Studying Policy Impacts. In Public Policy Evaluation. Ed. by Dolbeare, Kenneth M. Sage, Beverly Hills.

Curran, James – Berney, Robert – Kuusisto, Jari (1999a) A Critical Evaluation of Industry SME Support Policies in the United Kingdom and the Republic of Ireland – Introduction to SME Support Policies and Their Evaluation. Stage One Report:

Introduction to SME Support Policies and Their Evaluation. Studies and Reports 5/1999. Ministry of Trade and Industry, Finland.

Curran, James (1999b) Lessons from Two Decades of UK Small Business Policy: Effectiveness, Constraints and Opportunities. Paper presented at the Benchmarking Seminar 19.2.1999 in Helsinki, Finland.

De Pablo López, Isidro – Casani, Fernando – Santos, Begoña – Cabezuelo, Ana (2001) La creación de Empresas en la Universidad: El caso de la Universidad Autónoma de Madrid. ACEDE – Scientific Association of Economy and Business Administration: Zaragoza, Spain.

Diamond, Derek – Spence, Nigel (1983) Regional Policy Evaluation. A Methodological Review and the Scottish Example. Gower Publishing Company Ltd: Hampshire, England.

Fishbein, M., – Ajzen, I. (1975) Belief, attitude, intention, and behavior. Addison-Wesley: Reading, MA, USA.

Fitzpatrick Associations (1999) Evaluation of the EMPLOYMENT Initiative in Ireland 1995–1999. European Union: Ireland.

Fleming, Patricia – Owusu-Ansah, Wilberforce (2001) The Impact of Entrepreneurship Education on Business Venturing: A longitudinal Survey of Irish graduates. Paper presented at the Internationalising Entrepreneurship Education and Training Conference, Dublin, Ireland.

Goodbody Economic Consultants (2002) Entrepreneurship in Ireland. Forfás, National Competitiveness Council, Enterprise Ireland, Dept. Enterprise, Trade & Employment: Ireland.

Grande, Ildefonso (2001) Características emprendedoras de los/las estudiantes de la Universidad Pública de Navarra. The Public University of Navarra and CEIN, Centre of Enterprise Innovation of Navarra: Navarra, Spain.

Greimel, Bettina (1998) Evaluation österreichischer Übungsfirmen. Eine Studie an kaufmännischen berufsbildenden Vollzeitschulen. Federal Ministry for Education, Science and Culture: Vienna, Austria.

Heinonen, Jarna and Leiwo, Kaisa (1998) Evaluation of Job Creation in SMEs: Experiences of three evaluation projects. Proceedings of the Conference on Growth and Job Creation in SMEs, January 7-9. 1998, Helsinki School of Economics and Business Administration, Small Business Center, Mikkeli.

Hietala, Kari (1997) Vaikuttavuus, vuodot ja muut evaluoinnin käsitteet. (Effectiveness, flows and other concepts of evaluations, in Finnish) ESR-julkaisuja, 1/97. Ennakointeja, Arviointeja, Selvityksiä.

Hytti, Ulla (ed.) (2002) State-of-Art of Enterprise Education in Europe – Results from the Entredu project. Written jointly with Paula Kuopusjärvi, Irma Vento-Vierikko, Arthur Schneeberger, Christine Stampfl, Colm O'Gorman, Halvor Hulaas, Judi Cotton and Keith Hermann. A publication published in the Entredu -project, Leonardo da Vinci -programme of the European Commission: Turku, Finland.

Kolb, David A. (1984) Experiential learning: experience as the source of learning and development, Englewood Cliffs, NJ : Prentice-Hall.

Kollanus, Timo – Mäki, Katja – Pukkinen, Tommi (2000) Koulutuksella yrittäjyyteen. Opetusministeriön yrittäjyyshankkeet rakennerahastokaudella 1995–1999. EU-Structural Funds – publication of the Ministry of Education 2/2000: Finland.

Koskinen, Mika (1999) Työttömästä yrittäjäksi – Työvoimapoliittisen yrittäjäkoulutuksen seurantatutkimus Uudellamaalla. Employment and Economic Development Centre of Uusimaa, Publication 1/99: Helsinki, Finland.

Lappalainen, Riitta (1986) Oulun yliopiston yrittäjäkoulutuksen seurantatutkimus. Koulutustarve, toteuttaminen ja vaikutukset. Research Institute of Northern Finland, University of Oulu, C 68: Oulu, Finland.

Laukkanen, Reijo (1996) Evaluaatiokulttuuri. In: Arviointi koulutus- ja tiedepolitiikassa, ed. by Reijo Laukkanen – Kirsi Stenvall. University of Tampere, Administrative Science 1996 A 9: Tampere, Finland.

Mansio, Helena (1997) Opetuksen vaikuttavuus yrittäjäksi ryhtymiseen ammattikorkeakouluissa. Mercuria Business School, Series A: 1 Researches: Vantaa, Finland.

Ministry of Labour (1988) Yrittäjäkurssien seurantatutkimus II. Työvoimapoliittisia tutkimuksia, Nro 77, Ministry of Labour: Helsinki, Finland.

Mitterauer, Lukas – Lechner, Ferdinand – Reiter, Walter (2000) UNIUN – UniversitätsabsolventInnen und Studierende entwickeln Unternehmen, Evaluation Wien. European Commission, DG V: Vienna, Austria.

Mäki, Katja – Vafidis, (2000) Yrittäjyys ja sen edistäminen Turun kauppakorkeakoululaisten näkökulmasta. Turku School of Economics and

Business Administration, Business Research and Development Centre, Series B Research Reports, B 2/2000: Turku, Finland.

Nieminen, Olavi – Suokas, Pirkko (1994) Akateemisten työttömien Oma yritys -ohjelmien seurantatutkimus. Helsinki School of Economics, Publications of the Small Business Center M-69: Helsinki, Finland.

Niittykangas, Hannu – Makkonen, Jorma – Moilanen, Raili (1986) Yrittäjäkoulutuksen vaikutukset koulutettavien asenteisiin. University of Jyväskylä: Jyväskylä, Finland.

Patton, Michael Quinn (1989) Qualitative Evaluation Methods. SAGE Publications: Newbury Park, USA.

Puhakka, Vesa (1999) Yrittäjyyskoulutusohjelmien monitahoarviointi II. Tarkastelussa kymmenen varsinaissuomalaista koulutusohjelmaa. Proceedings of the University of Vaasa, Reports 50: Vaasa, Finland.

Quality Assessment of Evaluation Reports: A Framework (1997) MEANS Handbook Nº 5, Practical advice for programme managers. European Union - Regional Policy and Cohesion. Commission of the European Communities, Evaluation Unit, Bruxelles.

Rosa, Peter (2003) "Hardly likely to make the Japanese tremble". Businesses of Recently Graduated University and College 'Entrepreneurs'. International Small Business Journal, Vol. 21, No: 4, 435–459.

Rowe, Christopher (1996) Evaluating management training and development: revisiting the basic issues. Industrial and Commercial Training, Vol. 28, No: 4, 17–23.

Sheehan, Michael – Kearns, Dan (1995) Using Kolb: Implementation and evaluation of facilitation skills. Industrial and Commercial Training, Vol. 27, No: 6, 8–14.

Storey, David (2000) Six Steps to Heaven: Evaluating the Impact of Public Policies to Support Small Business in Developed Economies. In: Blackwell Handbook of Entrepreneurship, ed. by Donald L. Sexton – Hans Landström, 176–191. Blackwell: Oxford, UK.

Turok, Ivan (1997) Evaluating European Support for Business Development: evidence from the Structural Funds in Scotland. Entrepreneurship and Regional Development. Vol. 9, No: 4.

Turunen, Hannu (1997) Yleisosaajista erikoistujiksi? Korkea-asteen ura- ja yrittäjyyskoulutuksen kehittämistutkimus. University of Joensuu, Publications of the Continuing Education Centre, Series A, No 15: Joensuu, Finland.

Vagle, Tor Sveinung (1998) Etablererskolen for kvinner i Rogaland. En spørreundersøkelse blant tidligere deltakere. Rogaland county government: Stavanger, Norway.

Veciana, J.M – Aponte, M – Urbano, D. (2000) University Student's Attitudes Towards Entrepreneurship: Two Countries Comparison. Paper presented at Entrepreneurship Summit 2000, Puerto Rico, January 28–30, 2000.

Veciana, J.M. – Urbano, D. (2000) La asignatura de Creación de Empresas en la Universidad española. ACEDE – Scientific Association of Economy and Business Administration: Oviedo, Spain.

Venetoklis, Takis (2002) Public Policy Evaluation: Introduction to Quantitative Methodologies. Government Institute for Economic Research, VATT-Research Reports 90: Helsinki, Finland.

Wallner, Josef (1997) Juniorfirmen an allgemeinbildenden höheren Schulen - eine kritische Bestandsaufnahme. Master's thesis. Department of Economic Pedagogy of the Vienna University of Economics and Business Administration: Vienna, Austria.

Appendix 1 Bibliographic Reference Form to be submitted of all identified and analysed evaluation reports

Information category	Information to be filled in	Fill in the necessary information according to the instructions
Bibliographic information	Author	
	Title of the publication	
	Type of publication (journal article, report)	
	Organisation / orderer of the study	
	City, country, year	
	Other	
Orderer / Conductor of the study	Who has ordered or conducted the study? (TICK THE APPROPRIATE)	An **internal** evaluation
		conducted by the beneficiary organisation
		commissioned by the beneficiary organisation
		An **external** evaluation ·
		conducted by an independent organisation for (academic) research purposes
		conducted or commissioned by the policy maker (financier)
		Other, please specify
		Tick the approapriate option:
	The evaluation was	compulsory
		voluntary
		Other, please specify: The evaluation was integrated into the programme budget/proposal b
Aim of the evaluation	Describe the background, goals and purpose of the study (main objectives, hypothesis and research questions addressed)	
		FREE TEXT:
		Tick the appropriate aims; more than 1 is possible
	Classification of the aims for evaluation	Programme planning questions
		Programme monitoring questions
		Impact assessment questions
		Economic efficiency questions
		Other, please describe
Aims of the enterprise / entrepreneurship education evaluated	Describe the enterprise education programme evaluated	
	Name of the programme	
	Initiation year	
	Scope (number of students, budget, ..)	
	Public / private partners responsible and/or participating	
	Funding of the programme	
	Geographic coverage of the programme	
		Tick the approapriate option:
	Educational level	Under 6 years of age: Kindergarten and infant school.
		6-12 years: Primary school and lower level of comprehensive school.
		13-19 years: Upper level of comprehensive school, colleges and secondary school.
		Higher education: Degree education in universities, colleges and at the polytechnic level.
		Adult education: E.g. training for entrepreneurs, for unemployed and further education.
		Teacher education: Training of the future teachers and teachers in the working life
		Tick the appropriate option; more than 1 is possible
	Aims of the enterprise education programme	Learning about entrepreneurship
		Learning to become entrepreneurial (non-business focus)
		Learning to become an entrepreneur (business focus)
		Other; please specify
		Tick the appropriate option; more than 1 is possible
	Description of the teaching / learning methods of the programme	Setting up a business: Real companies are set up and managed.
		Business simulation: Setting up and managing a business is simulated, also case method
		Workshops: e.g. group work, group discussions and project work.
		Games and competitions
		Individual or group counselling/mentoring
		Study visits to companies and/or entrepreneurs visit the schools
		Traditional teaching methods (lectures, taking exams and writing essays)
		Practical training: The students work for a period of time in a real company.
		Other, please specify:
Methods for evaluating the programme		The study makes use of (tick the appropriate, more than 1 choice is allowed)
	Description of the methods	Quantitative methods
		Qualitative methods
		Both qualitative and quantitative methods
		Other, please specify
	Describe the methods in detail	FREE TEXT:
		Tick the appropriate categories; more than 1 is possible

Appendix 2 An example of the Interview Template

A template to be used in collecting the results of the interviews
Background information of the respondent

Name:	
Position:	
Organisation:	
Role in enterprise education and entrepreneurship training from an evaluation point-of-view	

Questions regarding entrepreneurship education and training programmes

What are the reasons for financing entrepreneurship education and training programmes from your point-of-view (aims and objectives, expected outcomes)?
What is/are the main target group(s) for these programmes?

Questions regarding evaluation studies with regard to entrepreneurship education and training in general

In your own words, what are the main reasons why you and your organisation are interested in carrying out evaluations within the field of enterprise education and entrepreneurship training?	
Could you rank the following reasons in order of importance for carrying out the evaluations from your own point-of-view?	
	RANK
1. **Programme planning** (to assist the programme co-ordinators to develop/re-direct the project/programme; aiming at identifying the appropriate methods, parties and budget in order to reach the goal)	
2. **Programme monitoring** (to conduct a systematic assessment of whether or not a programme is operating in the conformity to its design and whether or not it is reaching the target population)	
3. **Impact assessment** (to evaluate the extent to which a programme causes change in the desired direction, e.g. the number of start-ups, attitudes towards entrepreneurship)	
4. **Economic efficiency** (to aim at measuring costs against the monetary value of the benefits or cost-effectiveness that measures costs against the qualitative achievements: progress towards goal achievement)	
5. **Other?**	

Next, we would like to get your opinion of how different kinds of enterprise education and entrepreneurship programmes should be measured and evaluated.
A) First, the programmes that aim at increasing the number of start-ups. In your opinion, how these programmes should be evaluated (e.g. what should be measured, how and when)? What are the challenges?
B) Second, the programmes that aim at improving sustainability / skills of entrepreneurs. In your opinion, how these programmes should be evaluated (e.g. what should be measured,

how and when)? What are the challenges?
C) Third, the programmes that aim helping people to develop entrepreneurial skills. In your opinion, how these programmes should be evaluated (e.g. what should be measured, how and when)? What are the challenges?
D) Fourth, the programmes that aim at providing knowledge about entrepreneurship. In your opinion, how these programmes should be evaluated (e.g. what should be measured, how and when)? What are the challenges?

Questions regarding financing of evaluations

Which organisation / party in general is responsible for the financing of evaluations that you have been involved with? (E.g. own funds, national ministries, ESF, EU, private foundations, other.)
Are there any concerns about the effects on the results (IF the studies are financed by the beneficiaries themselves or attached parties)?
How would you rate the availability of funds for evaluation research? Why?
IF Problems: THEN: How the problems should be addressed? By whom?

Questions regarding promoters of enterprise education and entrepreneurship training

In your opinion, are the promoters of enterprise education and e-ship training interested in evaluation studies? (Examples or other form of justification) Possible challenges and problems?
In your opinion, are the programme promoters capable of interpreting and understanding the results from the evaluation? Possible challenges and problems?

Questions regarding competence of the researchers or organisation carrying out evaluations

In your opinion, are there enough competent that are capable of and interested in carrying out evaluation research? (Include examples or other form of justification) Possible problems and challenges?
In general, do you think that the results and recommendations from the evaluation studies are easy to understand and take into practice? (Examples or other form of justification) Possible challenges and problems?

Use of evaluation studies

In your opinion, to what extent the results of evaluation studies are used? (For improving the quality of existing or future training, for allocating resources, etc.) IF there are problems: Why evaluation studies are not used?
How the usability of evaluation studies could be improved?

Recommendations for the future

Other ideas how evaluation studies with entrepreneurship training and enterprise education could be improved towards the future? Ideas, suggestions? Any other messages or advice you would like to give to people planning, promoting, conducting or commissioning evaluation studies in the field of entrepreneurship training and enterprise education?

COMMENTS FROM THE PARTNER TO THE CO-ORDINATOR

Possible problems encountered. Questions that were difficult to understand. Other information that is useful in interpreting the results.

Appendix 3 A simplified model of planning the evaluation process

1. Set up (check) objectives for the entrepreneurship education and training programme? (Objective of the programme)
2. Why the evaluation is conducted? Is it driven by a) programme planning purposes or b) by impact analysis purpose (Objective of the evaluation)
3. Who will do it? An external evaluator or an internal researcher?
4. Timing? When the evaluation will be conducted?
5. For whom? Who will need and use the information?
6. Deciding on the methodology, measures? How the evaluation will be conducted? What information sources can be applied?
7. How will the results be used? What are the methods to learn from the evaluation results? With whom to share and discuss these learning experiences?
8. Other considerations, e.g. financing? How the evaluation will be financed?

Appendix 4 Evaluation cases

CASE 1: START UP YOUR OWN BUSINESS

You are the programme manager of a training programme “START UP YOUR OWN BUSINESS”. The programme aims at increasing the skills, attitudes and motivation for starting up a business and it is targeted to unemployed young people (20-30 years old). The programme is financed by European Social Fund and the National Ministry of Employment. This financing period is coming to its end and the financiers have requested you to conduct an internal evaluation of the programme to find out the success of the programme.

How would/will you conduct the evaluation? What measures and methods would you use and why? What kind of problems there might arise and how would you solve them?

PLEASE USE YOUR OWN EXPERIENCE AND THE ENTREVA.NET WEB TOOL AND REPORT TO ANSWER THESE QUESTIONS.

CASE 2: ENTREPRENEURSHIP STUDIES AT A UNIVERSITY BUSINESS SCHOOL

You are a researcher in an institute specialised in conducting evaluations in the field of enterprise education and training. Your organisation has been ordered an evaluation of the entrepreneurship studies at a university business school.

The aim of the studies is to help the students to learn about business and entrepreneurship in order to familiarise them to work for SMEs or other organisations and also to create a basis for potential entrepreneurial career at a later stage. The entrepreneurship studies can be studied as a minor subject i.e. they form approximately 9-22 % of the studies needed for a master’s degree. The university has ordered the evaluation to find out how to improve the entrepreneurship studies.

How would/will you conduct the evaluation? What measures and methods would you use and why? What kind of problems there might arise and how would you solve them?

PLEASE USE YOUR OWN EXPERIENCE AND THE ENTREVA.NET WEB TOOL AND REPORT TO ANSWER THESE QUESTIONS.

Evaluating and Measuring Entrepreneurship and Enterprise Education: Methods, Tools and Practices

The results of the study have been published in this report. The report provides an analysis of the existing evaluations carried out in Europe, together with the methods, tools and measurement systems. In addition, it provides some advice and ideas how to plan and execute enterprise education and training programmes supported by effective evaluative practices. The report provides answers to the following question: How to run effective evaluation studies in the context of entrepreneurship and enterprise education and training programmes?

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Project partners:

- Small Business Institute, Business Research and Development Centre, Turku School of Economics and Business Administration (Finland)
- Agderforskning AS / Agder Research Ltd (Norway)
- Faculty of Business, Dublin Institute of Technology (Ireland)
- ibw - Institut für Bildungsforschung der Wirtschaft (Austria)
- IKEI - Instituto Vasco de Estudios e Investigación (Spain)
- Pan-European Institute, Business Research and Development Centre, Turku School of Economics and Business Administration (Finland)
- University of Kassel, Institute of Industrial Science (Germany)