Entrepreneurial Learning and Learning Strategies of the First Year Business Students in Higher Education

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THIS QUALITATIVE STUDY EXAMINED entrepreneurial learning and learning strategies of international business students in Finland. The main aims of the study were to find out what the business students learn in terms of entrepreneurship and what strategies they use in their learning during the first year studies. In terms of generic competences, the findings indicated that the most common learning outcomes are the learning competences as well as the communication and social competences. The learning outcomes of subject-specific competences are not only the acquisition of the knowledge of business operations and entrepreneurship, but also different kinds of skills for entrepreneurship. Further, the most commonly used learning strategies are different cognitive strategies, yet also metacognitive learning strategies are used by the first year students.

INTRODUCTION

Often, entrepreneurial learning concerns knowledge, skills, abilities and attitudes of actual or potential entrepreneurs (e.g. Erikson 2003), yet there are multiple meanings in what different scholars mean by entrepreneurial learning. Entrepreneurial learning can be related to the learning of current entrepreneurs (Cope and Watts 2000; Minniti and Bygrave 2001; Politis 2005; Ravasi and Turati 2005; Sullivan 2000; Taylor and Thorpe 2004) or even to portfolio entrepreneurs (Huovinen and Tihula 2008). Further, entrepreneurial learning can also be related to people whose careers have included significant entrepreneurial attainment (Rae 2005). All in all, entrepreneurial learning concerns the development of entrepreneurial capabilities through life and work

(Rae and Carswell 2001; Gibb 2005). However, recent research has concentrated more and more on entrepreneurial learning in higher education and then it refers to the entrepreneurial learning of undergraduate, graduate or postgraduate students (e. g. Leskinen 1999; Paajanen 2001; Ristimäki 2004).

Even though entrepreneurship education has been stimulated and supported in many ways in formal education during the recent years, yet there are also scholars who claim that the present educational system at the university level cannot develop students' motivations, competences and skills related to innovations and entrepreneurship. In addition, there is a claim for the need for didactic changes, pedagogic changes and contextual changes (Blenker et al. 2008, 50; Kirby 2004, 510). In any case universities are faced with the challenge of finding innovative ways of teaching entrepreneurship whilst retaining rigorous academic standards of measurement and assessment.

This study explored the entrepreneurial learning of the first year international business students in a university of applied sciences in Finland. The aim was to understand what the students learn in terms of entrepreneurship as well as what strategies they use in their learning. In this study the concept of entrepreneurial learning includes enterprising competences of any potential individual, as well as entrepreneurial skills and competences which are required in owning and running a business. The study was implemented by self-assessment tasks in which the students were encouraged to recall and describe their most significant learning experiences related to entrepreneurial learning during their first year.

RESEARCH TOPICS AND QUESTIONS

Outcomes of Entrepreneurial Learning in Higher Education

The goals of entrepreneurship education can differ: (1) establishing a company or improving the management of s m e's, (2) increasing the knowledge related to entrepreneurship and business operations, and (3) increasing the use of entrepreneurial methods (Paajanen 2001; Paasio and Nurmi 2006). It is also important to note that entrepreneurship can be channelled through other means than starting a business. Entrepreneurial behaviour and intrapreneurship without business owner-

ship relations offers a definition of entrepreneurship which suits well as the basis for entrepreneurship education in the schools according to their curricula. Therefore entrepreneurship education in higher education does not mean a straightforward aim to contribute to the development of the amount of enterprises, but to the individuals' entrepreneurial behaviour or activity as well (Gibb 2005; Ristimäki 2004).

However, reflecting the complexity of entrepreneurship education, Frank (2007) introduces the objectives of the learning outcomes of the National Council for Graduate Entrepreneurship which aim at raising the profile of entrepreneurship and promoting the option of starting a business as a career amongst students and graduates in the UK. Their learning objectives have been categorised according to three different types of learning outcomes: Values, attitudes, and approaches, Generic competences and Business related competences. Further, each of them includes sub-items and their sub-themes which are aimed to be learnt. In other words, the learning outcomes can include values and attitudes, generic competences and subject-specific competences related to business.

Moving on to the entrepreneurship studies in the degree programme of the target organisation of this study, they include both entrepreneurial skills and business skills. Entrepreneurship is seen in the degree programme as a phenomenon to be learnt and to be taught; entrepreneurship as a thing to be learnt requires of the student both theory knowledge and, in particular, applying this knowledge in practice. Entrepreneurship as a phenomenon to be taught refers to the learning of the field-related content in study modules and to active guiding of the student during the learning process. Learning is regarded as interactive and based on the constructive learning concept, but in the early stages of studying, when knowledge structures and meanings are constructed, learning is also based on the cognitive learning concept. The annual theme of the first year studies of the programme is 'Introduction to Business.' Based on that, the first-year learning objectives of generic competences are mainly aimed at learning competences, ethical competences, communication and social competences as well as international competences. In terms of subject-specific competences, the learning outcomes are related to the orientation to business

operations and entrepreneurship as well as the business environment.

In order to conclude this section, it is worth summarising that the learning of entrepreneurial competences includes various skills, knowledge, values and attitudes during the whole study programme. In order [88] to understand how these competences are achieved in the beginning of the programme, this study focused on the first year of the programme, and the first research question was formulated as follows: 'What are the main outcomes of entrepreneurial learning of business students during their first year?'

Various Learning Strategies

Students utilize different ways and means to assist in the acquisition, storage, retrieval and use of information to accomplish a study assignment. Specific patterns of learning activities can be called learning strategies (Vermetten, Lodewijks, and Vermunt 1999, 1). Often, these learning strategies are connected to a certain learning situation and to the task involved (Ruohotie and Nokelainen 2000, 155). The use of learning strategies is personal and habitual and they are also related to the context (Vermetten, Lodewijks, and Vermunt 1999, 1). It can be concluded that the learning strategies can be a potential mediator in the relationship between students' interests and their academic achievements (Soric and Palekcic 2009), and that motivation and self-regulated learning are associated with success in school, and self-regulation is a good predictor for academic achievements (Kuyper, van der Werf, and Lubbers 2000, 181; Scholoemer and Brenan 2006, 81; Lan 1996, 106; Huang 2008, 529).

Although there are various learning strategies introduced by different scholars, there is disagreement among scholars on what learning strategies are exactly and how many of them exist, how they should be defined and categorised. Nevertheless, a number of scholars have agreed on three main categories of learning strategies: cognitive strategies, meta-cognitive strategies, and resource management strategies. (e. g. Pintrich and McKeachie 2000, 40; Soric and Palekcic 2009, 551; Clayton, Blumberg, and Auld 2010, 351).

There seems to be a common pattern of the first year students' learning strategies in higher education. According to Vermunt and Vermetten (2004, 367) various research findings concerning the first

year students in higher education have repeatedly confirmed an internal structure of learning in different countries. Very similar patterns have existed in those studies; i. e. a meaning-directed learning pattern, a reproduction directed learning pattern, an undirected learning pattern, and an application-directed learning pattern.   [89]

In the target organisation of the study the students are actively encouraged into an independent, self-directed and target-oriented mode of working in their studies. Attention is paid to responsibility, assuring presentation skills, self-expression in writing, and good cooperation abilities. Therefore, with regard to the previous theories and research findings as well as the learning practices of the target organisation, the second research question of this study was formulated as follows: 'What strategies do business students demonstrate to use in their most significant learning experiences of the first year?'

METHODOLOGY

The participants of the study were one group of the first year international business students who were taking an entrepreneurship course at the end of the second semester in a business management degree programme in a university of applied sciences in Finland. During the course multiple meanings of entrepreneurship had been discussed and the students were expected to have a basic understanding of the topic.

The method for data collection was a self-assessment task in which the students were encouraged to recall and describe their most significant learning experiences which relate to entrepreneurship, entrepreneurial behaviour, skills and knowledge during their first year studies. They were asked to write an essay of about one or two pages and describe the learning situations in as much detail as possible. Eventually 18 essays were written and an average essay included two pages of text.

The inductive content analysis of the data had the following phases. First, all the essays were read and all pieces of texts describing the learning situations were selected from the essay of each student. Some of the students had focused on and described various events or learning experiences and their main outcomes, whereas some of the students described, for example, only two or three bigger learning experiences from different perspectives. In any case, the main principle of the anal-

ysis process was that each piece of text was regarded as one learning context which had at least one learning outcome, and it was also described through which activities and how the learning had occurred.

The data were analysed from the points of view of the research questions. First, in order to analyse the learning outcomes, the first-year learning objectives of the degree programme were used as a framework (both the generic competences and business-specific competences) and the data were categorised accordingly. The learning outcomes were identified in the text, which was written either by using the student's own words verbatim or with a couple of exact 'equivalent' words, if the original description was written in a broad way. Some of the experiences were overlapping with each other; however, they were included in the analysis only once, based on what the main focus of the experience was.

Next, in order to analyse the learning strategies, the data were analysed in an inductive way as well. First, the way of learning was indentified from each piece of the texts and it was written with a couple of words. Finally, all the learning strategies were categorised according to main categories, which resulted in cognitive, meta-cognitive and resource management strategies. The findings of the learning outcomes as well as the learning strategies are reported by the categories found in the data and, in order to understand how common they were, they are also presented by the frequencies in the ranking order in the tables.

FINDINGS

The Main Outcomes of Entrepreneurial Learning of the First Year Students
The findings related to the learning outcomes are presented according to two categories which were used in the target organization of the study: generic competences and subject-specific competences. Both categories of the competences are discussed in detail, followed by selective quotations of the students' experiences and the tables to summarize the competences.

The Generic Competences
The learning competences were related to three aspects: skills for coping with disappointments and how to overcome them in studies, self-

regulated learning skills and getting familiar with the new study culture. 'As a result, I had to experience, that of course also the study in Mikkeli is something totally new which involves totally new experiences; every course, every exam, every report or essay.'

The ethical competences included five different topics: enhancement of self-confidence, time-management skills, ability to take responsibility, higher level work morale in studies and risk taking. 'The school in general has taught me responsibility and organization skills with the tasks and their dead-lines. Persistence with the longer and/or harder tasks and exams....'

The communication and social competences were related to group work skills, presentations skills, social networking skills, interview skills, and communication skills. 'I have always been a more individual person and hated it when things were done in groups. However, after doing lot of group works I have learned skills needed when working together.'

The development competences comprised three aspects: planning skills, skills for goal-achievement, and problem-solving skills. 'The first problem we had to face was that some of our group members did not show up regularly in school, so that we were not able to discuss daily assignments. Further, it was difficult to contact each other, since we did not know each other that well back then. In this situation, the rest of the group had to act since the assignments had to be done.'

The international competences included three topics: understanding of cultural differences, knowledge of international issues in business, and better communication skills in the international context. 'Studying in an international environment has been quite challenging. It has required lots of adapting and understanding. We all have different kinds of cultural backgrounds that might make it difficult to understand each other time to time.' Table 1 presents the findings related to the learning outcomes of the generic competences.

Subject-Specific Competences

In terms of the competences of *entrepreneurship and business operations*, they can be divided into three categories: knowledge, skills and attitudes. First of all, they were concerning the acquisition of theoretical knowledge of business operations and entrepreneurship. Further, they were

TABLE 1   The learning outcomes of generic competences

Generic competences/focus on learning	Frequencies
A. Learning competences	
Skills for coping with disappointments	9
Self-regulated learning skills	9
Adaptation of the new study culture	3
B. Ethical competences	
Stronger self-confidence	7
Time management skills	6
Ability to take responsibility	5
Higher work morale	1
Risk-taking skills	1
C. Communication and social competences	
Group work skills	15
Presentation skills	12
Social networking	5
Interview skills	3
Communication skills	2
D. Development competences	
Skills for planning	1
Skills for goal-achievement	1
Skills for problem-solving	1
E. Organizational and societal competences	0
F. International competences	
Understanding of cultural differences	3
Knowledge of international issues in business	1
Better language skills ⇒ better communication skills in the int. context	1

related to different kinds of knowledge of entrepreneurship, the personal process of becoming an entrepreneur, and the practical process of becoming an entrepreneur. Further, they were related to the knowledge of various business operations of a company.

Secondly, they were related to the *skills* of business operations: business planning and setting up a new business, the skills for running different business operations and general skills in entrepreneurship. The change of attitude towards entrepreneurship in a more positive direction was also included.

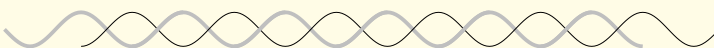In addition, the learning outcomes were related to the acquisition

TABLE 2   The learning outcomes of subject-specific competences

Subject-specific competences/focus on learning	Frequencies
A. Business operations and entrepreneurship	
Knowledge of entrepreneurship	20
Knowledge of business operations	16
Knowledge of setting up a business	4
Knowledge of entrepreneurial behaviour	2
Skills for business planning and setting up a new business	4
Skills for running different business operations	4
General skills in entrepreneurship	7
More positive attitude toward entrepreneurship	3
B. Business environment	
Theoretical knowledge of business environment	7
Practical/applied knowledge of business environment	1

of the theoretical knowledge of the *business environment* and to the applied knowledge and actual experience of getting familiar with the business environment in Finland. The following quotations illustrate all the three categories (acquisition of the knowledge and skills, and change of attitude).

Further, table 2 illustrates the learning outcomes related to all the subject-specific competences of the most significant learning experiences.

> In this school I have learned a lot of theoretical knowledge of becoming and being an entrepreneur. That is a good thing, since in order to be a professional you have to be able to manage theory and practice both. . . .
>
> I have been strongly developing my entrepreneurial skills and have successfully been able to implement them by starting a new web design company. . . .
>
> My entrepreneurial attitude has been further enhanced through the observations of incidents of successful cases. When we have had foreign lecturers who have been around the globe and are living proof of success, it provides support to the students who believe that it is possible to think outside of the box and become an entrepreneur or successful in anything one chooses to do.

TABLE 3   Summary of the learning strategies

Strategies used	Frequencies
1. Cognitive learning strategies	
A. Learning by applying knowledge in practice in inter. with other people	25
B. Learning by applying knowledge in practice independently	12
C. Learning by listening and thinking	12
D. Learning by reading	1
2. Metacognitive learning strategies	
A. Orientating oneself before starting on an assignment	2
B. Collecting relevant resource material	0
C. Integrating different theoretical viewpoints	0
D. Monitoring for comprehension	0
E. Assessing one's own progress	10
F. 'Mixed strategies' A E (3), D E (1), C D E (1), A B C D E (2)	7
3. Resource management strategies	
Resource management strategy ⇒ using external help (peer help)	1

Learning Strategies of the First Year Students

According to the findings, the students had used mostly cognitive strategies in their learning. However, metacognitive strategies and a resource management strategy were also found in the data. The findings are introduced accordingly, and the quotations of the strategies are presented to illustrate the experiences. Finally, table 3 introduces the learning strategies of the first year students.

Cognitive Learning Strategies

The cognitive learning strategies of the students consisted of four different strategies: learning by applying knowledge in practice in interaction with other people, learning by applying knowledge in practice independently, learning by listening and thinking, and learning by reading. *Learning by applying knowledge in practice in interaction with other people strategy* was the most used strategy. The students emphasised both the application of knowledge in practice and also the interactive process with other students and sometimes with teachers or local entrepreneurs. 'That was the first time I interviewed the real entrepreneur [...] in front of our group was sitting just an ordinary person and she was

willing to respond to our questions about the company, its operations, customers, management and other business-related issues.... The interview was the factor that pushed me to start thinking in a business way.'

The Learning by applying knowledge in practice independently strategy was related to the following situations: preparing and practising an oral presentation technically or mentally in order to face a difficult situation and process of the achieved knowledge in a big practical assignment. 'I took the Business Plan course. The course in itself did not teach much, but it gave us the opportunity to build a business plan. The course consisted of only a few lectures, basically the entire course was done from home, via Moodle. But it was a great learning experience to realize the many aspects of the business needed much more consideration than expected.'

The Learning by listening and thinking strategies were all related to the intake of knowledge during the classes. Most of them were referring to the classes of visiting professors from abroad. 'I really liked the example of the teacher from Portugal, when he put a cup on a table in front of the whole class and asked everybody who wanted that cup. Some of us including me just told him that we wanted it, but only one went to the table and took it. I was really thinking of doing the same thing, but she was the first one and the only won who took the cup. It was really a very simple but easy to understand example of acting.'

The Learning by reading strategy was in the experience which was introduced as follows: 'In addition I read a couple of textbooks on accounting during my free time where, exploring case studies from the real business world, I found connections with basic theory and real business operations.'

Metacognitive Learning Strategies

Based on the findings, the following metacognitive strategies were used by the students: orientating one-self before starting on an assignment, assessing one's own progress, and using 'mixed strategies.' *The orientating oneself before starting on an assignment* – strategy was found only in one of the experiences. 'One great challenge here has been writing essays, in which I must write about myself. In my home country we are taught to

never be self-centered, self centeredness can be seen as a negative trait. We were forbidden from using "I" in an essay.'

The assessing one's own progress strategy occurred after the actual learning process and it was related to the unexpected learning outcomes: either when the outcomes had been different by nature or much better or much worse than expected. The students had assessed the learning process to some extent in order to understand the reasons for the outcomes. 'In some cases I did not do or give every time the best I could, or just did not have the courage to make 100 per cent use of my knowledge, skills and behaviour. However, afterwards I was disappointed about myself and I felt sad about the unsatisfying outcome and that I did not achieve the result I was aiming at.'

'Mixed Strategies'

The collecting relevant resource material strategy, the integrating different theoretical viewpoints strategy or the monitoring for comprehension strategy were not found as an individual strategy, but as a combination of strategies used. They are called mixed strategies and introduced next. A combination of orientating oneself before starting on an assignment and assessing one's own progress were found in three learning experiences, and monitoring for comprehension and assessing one's own progress in one learning experience. Further, one mixed strategy was used which dealt with integrating different theoretical viewpoints, monitoring for comprehension, assessing one's own progress. In addition, two learning experiences were found in which all the five strategies (orientating oneself before starting on an assignment, collecting relevant resource material, integrating different theoretical viewpoints, monitoring for comprehension, and assessing one's own progress) can be recognised.

Resource Management Strategy

One resource management strategy was found in the learning experiences. Actually it was also related to self-regulation in learning, yet the strategy for solving the situation was dealing with seeking for peer help for the study problems. The following quotation illustrates the use of strategy. 'Unfortunately, the result of some subjects in the first

period was not as good as I expected. [...] I became more flexible in my study, I set the time and rearranged my schedule for each subject that I took, I was more focused on the classes, and I learnt from friends how to study efficiently. In addition, my friend helped me in my study, she showed me how to study to get good results, and how to use time more efficiently.'

[97]

DISCUSSION AND CONCLUSION
Main Findings of the Study

The learning objectives of the first – year students are related to orientation to entrepreneurship, business operations and the environment as well as to the generic competences. According to the findings of this study, the most common learning outcomes are the learning competences as well as the communication and social competences, especially group work and presentation skills. Further, the learning outcomes of subject-specific competences are the acquisition of the knowledge of business operations and entrepreneurship, different kinds of skills for entrepreneurship and also change in the attitudes. In other words, the students have become aware of entrepreneurship as a phenomenon, but also as a potential career option for them (cf. Gibb 2005; Paajanen 2001; Ristimäki 2004).

According to the findings of this study, the most commonly used learning strategies of the first year students are different cognitive strategies, yet also metacognitive learning strategies are used to some extent. The cognitive learning strategies of the students included four different strategies. *The Learning by applying knowledge in practice in interaction with other people strategy*, was the most used strategy in which the students emphasised both the application of knowledge in practice and also the social interactive process with other people. The next commonly used learning strategies were *the Learning by applying knowledge in practice independently strategy* and *the Learning by listening and thinking strategy.* The first one was used in practicing some skills or in loosing a 'stage fear' as well as in applying knowledge from the classes in a learning assignment. The latter one refers mainly to the classes taught by visiting professors from abroad. Finally, *the Learning by reading strategy* was used only once to get further information about the topic taught during the classes. It seems

that the learning strategies used are connected to different learning situations and to the task involved in certain contexts (Ruohotie and Nokelainen 2000, 155; Vermetten, Lodewijks, and Vermunt 1999, 1).

Based on the findings, the metacognitive learning strategies were not so commonly used as cognitive strategies. Nevertheless, orientating oneself before starting on an assignment, assessing one's own progress, and using a 'mixed learning strategy' were the strategies used. The most common metacognitive strategy was assessing one's own progress when the outcomes were something else than expected. In other words, when the things do not go as expected, the students are able to reflect on their experiences. Nevertheless, it seems that the students were not so familiar with the metacognitive learning strategies which might, however, help them to perform better and to be persistent in their learning efforts in acquiring knowledge and skills and in monitoring their own learning progress (cf. Scholoemer and Brenan 2006, 81; Clayton, Blumberg, and Auld 2010, 351), not only then when something goes wrong.

In order to summarise the learning strategies, it can be concluded that there are some similarities between the findings of this study and the common pattern of the first year students' learning strategies in higher education introduced by Vermunt and Vermetten (2004, 367). Although the research approach was different, the existence of the dimensions of the structure can be recognised in the findings. The meaning-directed learning pattern was recognised to some extent in the findings (critical processing and thinking, self-regulation of learning processes). The reproduction – directed learning pattern was illustrated, for example, by rehearsing (applying and processing the knowledge independently) and by in – taking of knowledge during the classes. The undirected learning pattern refers to lack of regulation, ambivalent learning orientation, cooperation and stimulating education together. Interestingly, according to the findings the students valued highly cooperation with other people (e. g. group work) and the classes given by visiting professors. This might be also a sign of lack of regulation pattern and the undirected learning pattern. Nevertheless, the application-directed learning pattern was the most commonly used: process and use of knowledge was emphasised by the students. In

a way this is understandable, since the target organisation is a university of applied science. However, further studies are needed to understand these patterns better.

Limitations of the Study [99]

In order to understand the results better in their context, also the limitations of the study should be discussed. There were limitations related to the participants as well as the data. First, since the students were asked to write and describe about the most significant learning experiences, many other learning experiences might have been excluded. In other words, now the entrepreneurial learning of the students was examined through their most significant learning experiences of the first year studies only. Secondly, although the aim was not to generalise the findings of this qualitative study, but to rather explore and understand the phenomena in their context, yet the second limitation of the study was the data. It was written by the students based on their abilities and willingness to express themselves in English.

Further, multiple meanings of the concept of entrepreneurial learning were discussed during the classes before the assignment. Based on that as well as their previous experiences, the students selected by them the experiences related to their entrepreneurial learning and therefore simultaneously they defined what entrepreneurial learning means to them. Finally, in order to complete this section of the limitations, it is worth reminding that the data and the findings were related to only one international student group. Further studies could be carried out in order to understand the cultural differences and differences by gender.

Implications for the Higher Education

In spite of the limitations introduced above, several conclusions can be drawn and implications can be presented. First, the students seem to achieve the learning outcomes of the first year quite well. In fact the emphasis on the learning outcomes of the most significant learning competences was in the generic competences, which is a good starting point for their development of professional competences later. Thus it seems that the learning objectives are realistic for the first year students.

How the objectives of the rest of the study programme are achieved will remain to be seen in further studies.

The findings can be concluded so that the first year students learn best by doing: applying the received knowledge in practice in a group or independently. Further, it can be concluded that learning by reading is not used as a learning strategy. It can be explained in two ways: either this strategy is not related to the most significant learning experiences, or else the students neglect reading as a learning strategy. Although the target organisation was a university of applied sciences, it is worth emphasising that the students need theories to apply, otherwise the insight into the topics, taught during the classes, might remain too narrow.

Since self-regulated learning is associated with success and academic achievements (Huang 2008, 529; Lan 1996, 106; Kuyper, van der Werf and Lubbers 2000, 181; Scholoemer and Brenan 2006, 81), the enhancement of the self-regulated learning skills might support and facilitate the students to achieve their personal objectives better. One solution might be to teach these learning strategies to the students in an explicit way at the beginning of their degree studies, before they start their professional studies, and try to achieve more demanding academic objectives.

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