

Lessons learned from connecting doctoral studies and research on
entrepreneurship into teacher's work at University of Applied
Sciences

Tarja Römer-Paakkanen, Dr., Adjunct Professor
Jyväskylä University School of Business and Economics
& HAAGA-HELIA University of Applied Sciences, Finland
Hattulantie 2, 01630 Helsinki, Finland
tel. + 358 500 981 393, e-mail: tarja.romer-paakkanen@haaga-helia.fi

Abstract

This paper presents a doctoral study program that trains the teachers to "introduce" entrepreneurship into all teaching and training at their university. The doctoral study project connects theoretical studies and academic research with the participating teachers' practical work. We can talk about the triangulation of *doctoral studies* (= understanding of entrepreneurship theories), *research* (= entrepreneurship research and doctoral dissertations) and *practice* (= implementing theories in teaching and training of entrepreneurship). Action research methodology and constructivism as a learning and teaching paradigm are implemented in this project. At this stage of an ongoing-project, the doctoral studies have started the process towards more integrative, wider and more holistic entrepreneurship education programs and curricula.

1 Introduction

Entrepreneurship is today seen as a key competence for all, and is linked to individual's ability to turn ideas into action. Such skills and attitudes are directly linked to concepts such as creativity, sense of initiative, innovation, pro-activity, determination, independence, responsibility, risk acceptance and the ability to plan and manage projects. To promote those skills it is necessary to introduce cross-disciplinary approaches to entrepreneurship education, to integrate entrepreneurial support activities for guidance professionals and teachers/lecturers, and to embed interactive teaching. These changes will all require new models of working and new policy frameworks. Consequently, there is a wide recognition of the need for effective training, guidance and support methods for teachers and guidance professionals. It is essential that those involved in career guidance and entrepreneurship education are fully trained and supported and have access to guidance materials to improve training. In line with the increased emphasis on the importance of practical entrepreneurial skills of young people, there is a need to equip teachers with the necessary competences to deliver this type of practical learning. Higher education institutions (HEIs) in Europe have a particularly important role in supporting students in their efforts to establish and run potential high-growth companies that are built around innovation and scientific research. Ensuring that the staff at careers services of HEIs have expertise in entrepreneurship is one way of making sure that prospective and current students are informed about available enterprise support and related learning opportunities. (CEDEFOP 2011, 54, 93-96, 158).

According to the Finnish Ministry of Education the aims set for entrepreneurship education and training relate to the following points: 1) Creation of culture of entrepreneurship and nurturing the climate friendly to entrepreneurship. 2) The promotion of internal and external entrepreneurship, the creation of new business, and innovation. 3) Supporting entrepreneurs and their businesses and generating changes in businesses. The first and second of these aims apply to all pupils and students in the education system. (Ministry of Education 2004.)

The Ministry of Education has taken teachers' entrepreneurship education and training as one of the priorities. The aim in adult education and training is to ensure that teachers have the required competencies, and to develop further specialist qualifications and other continuing vocational training to meet entrepreneurs' needs. Moreover, the goal is to undertake other adult education projects relating to entrepreneurship, to assist adult education

and training centres' tasks in entrepreneurship, and to promote regional cooperation between different partners. The aim in universities of applied sciences in particular is to:

- Support teachers' in-service training,
- to disseminate experiences and results gained from piloting the postgraduate university of applied sciences degrees in the degree programme in entrepreneurship,
- to implement the proposals put forward by the committee on the development of business know-how in higher education,
- and to promote business incubator activities.

In terms of research the aim is to promote research findings utilisation, to highlight students' cooperation with the work life in writing theses and completing postgraduate projects, and to develop teacher training. (Ministry of Education 2004.)

To answer above mentioned challenges HAAGA-HELIA University of Applied Sciences and University of Jyväskylä have created a doctoral study program in entrepreneurship¹. University of Jyväskylä organizes the courses, the seminars and the supervision in Helsinki. The optional supervision is provided by "a research training group" that consist of the supervisor professors and some other researchers. The teachers that take part to the project can examine and deepen their knowledge of entrepreneurship in their doctoral dissertations and the aim is that the knowledge can be implemented to the teaching and training work "at once". Furthermore, the research problems emerge out of practice, as a result of the needs of the school, cooperating firms, the teachers and the students. The doctoral students want to promote entrepreneurship in their schools, but the target is also to strengthen the status of the organization

2Targets of the doctoral program

A group of 41 teachers and other personnel at the Haaga Polytechnic (currently the HAAGA-HELIA University of Applied Sciences), the Helsinki Business College and the Business College Helsinki-Malmi started their doctoral studies in Entrepreneurship at the University of Jyväskylä in the year 2004. Four years later in 2008 a new group of teachers joined the program and today about 35 doctoral students are still active. During these seven years we have five doctoral dissertations completed and within the next 10 months there the next four to be completed.

By training and educating the personnel and teachers we get a dynamic group of supervisors and mentors for our students. The process allows us to integrate the research into entrepreneurship education and career counseling. The entrepreneurship education and career counseling develop the university students' ability to plan and design their lives. As a result, they have the courage and the abilities to affect to their own lives and the surrounding society and they also better find their place in the society – as employees or entrepreneurs.

¹ In Finland the Universities of Applied Sciences (i.e. Polytechnics) mostly conduct R&D which is geared to the needs of business and industry and usually linked to the structure and development of the regional economy, and the Universities are responsible for scientific research and research-based higher education, including postgraduate education. Doctoral degrees are only awarded by universities. (Ministry of Education 2006b, 42).

In general the doctoral studies aim to provide the doctoral students some cognitive competencies and some special competences that are needed in academic working life (Ministry of Education 2006a, 30). The competencies are listed in table 1.

Table 1: Competencies provided by doctoral studies (Ministry of Education 2006a, 30).

Cognitive competencies:	Competencies needed in working life:	Ethical competencies:
<ul style="list-style-type: none"> - competencies to create new knowledge by using good scientific practices - competencies to develop and implement the scientific research methodology independently, analytical and critical way - in the arts field the competencies to create independently new artistic methods or high quality products or goods - competencies to continuously learning 	<ul style="list-style-type: none"> - competencies to develop own field and the neighbor fields by scientific grounds - competencies to create new approaches to the problems that arise in working life and to solve complex problems also when the knowledge is incompleted - competencies to organize and manage research projects; competencies that are useful in specialist and leading positions - competencies to work and develop the field in the international and national context 	<ul style="list-style-type: none"> -competencies to solve complex problems by obeying the ethical principles

The academic objective in the doctorate studies is to: (1) get the participants acquainted with their scientific field, (2) help them focus their research within the chosen field, (3) develop their critical and independent thinking, (4) obtain the ability to create new knowledge, (5) to form a researcher forum where they can change their experiences, develop their skills and share their knowledge and to follow the entrepreneurial learning methods. The persons taking part in the doctoral study program complete a Ph.D. in entrepreneurship or marketing at the University of Jyväskylä.

Along with these general academic skills, this project aims to produce to our organization change agents, who help the organization and its members to develop entrepreneurial spirits and attitudes. The basic practical targets of the doctoral study program are:

- 1) To promote entrepreneurial orientation and to "introduce" entrepreneurship into all teaching and training. The personnel would have a positive attitude towards entrepreneurship and entrepreneurship education.
- 2) To enhance understanding of entrepreneurship and the dynamics of small and medium-sized firms in general. The personnel would also be aware of the importance of entrepreneurship in our society.
- 3) To ensure that all the participating teachers are qualified and inspired to encourage their students to develop their business ideas and start their own businesses. The topics of doctoral theses are connected to the various R & D projects, the daily teaching or entrepreneurship education projects.
- 4) Using the experiences of this doctoral study project, we aim to create a concept for doctoral studies that can be implemented in the other Universities of Applied Sciences in Finland or in the other European countries.

Teachers are often left on their own – each making their own experiments, including various topics in entrepreneurship teaching, and finding ways of teaching entrepreneurship. In our doctoral study project, the aim is to offer the teachers a broader conceptualization of entrepreneurship and to give them a set of pedagogical tools to develop their own ways of

teaching and training the students. It is not possible to encourage people to start their own businesses by only teaching them how to write a business plan and how to manage a firm; a more comprehensive plan is needed.

The teacher education and training model of the HAAGA-HELIA University of Applied Sciences and the University of Jyväskylä is based on current research, positive attitudes towards entrepreneurship and on comprehensive understanding of entrepreneurship. According to Blenker et al. (2004), in entrepreneurship education the focus should not primarily be on external entrepreneurship (i.e. the process of creating and developing individual businesses), but rather on *developing people to express enterprising behavior*. This method allows including both those who may want to run their own businesses as well as people whose enterprising behavior may take some other form. In the latter case, the enterprising behavior may thus take place in non-economic context, other than the entrepreneurial creation of a firm.

The entrepreneurship education process is based on the teacher's and students' pre-understanding of the phenomenon of entrepreneurship. As the process goes on the literature, theories and other studies are being implemented to the practise and in the same time the understanding of entrepreneurship goes deeper. The learning and teaching paradigm implemented here is based on constructivism, which says that people construct their own understanding and knowledge of the world, through experiencing things and reflecting on those experiences. When we encounter something new, we have to reconcile it with our previous ideas and experience, maybe changing what we believe, or maybe discarding the new information as irrelevant. In any case, we are active creators of our own knowledge. To do this, we must ask questions, explore, and assess what we know. According to constructivism knowledge is not a reflection of the word that can be transferred to another environment as such but it has always first been constructed by the individual or by the social community (Kotila 2003, 14).

Figure 1 describes the entrepreneurship education process used here which has its foundation in the pre-understanding or experiences of the doctoral student in entrepreneurship. As the time goes on and literature, theories and studies are adopted and implemented in practice, the individuals move towards a deeper understanding of entrepreneurship. In the process doctoral students are not left alone but they are provided a strong personal and group guiding and supervision.

According to CEDEFOP (2005, 11) guidance refers to a range of activities that enables citizens of any age and at any point in their lives (lifelong) to identify their capacities, competences and interests, to make meaningful educational, training and occupational decisions and to manage their individual life paths in learning, work and other settings in which these capacities and competences are learned and/or used (life-wide). Guidance is provided in a range of settings: education, training, employment, community, and private. (CEDEFOP 2005, 11). In universities the typical way of guiding is seminars, where the students meet and explore the thesis and dissertations of each other's under guidance of their supervisors. Kupke (2008, 28) points out that the seminars could be more effective when implementing Peavy's sociodynamic model and giving the students some group exercises, as writing a thesis or dissertation is a process that requires continuing learning. According Kupke when working in the groups people kind of "smash in" the old approaches with the new knowledge, like in constructivism. This produces learning and empowerment for the

members of the group and they also learn to manage their own situation and process of writing the thesis or dissertation.

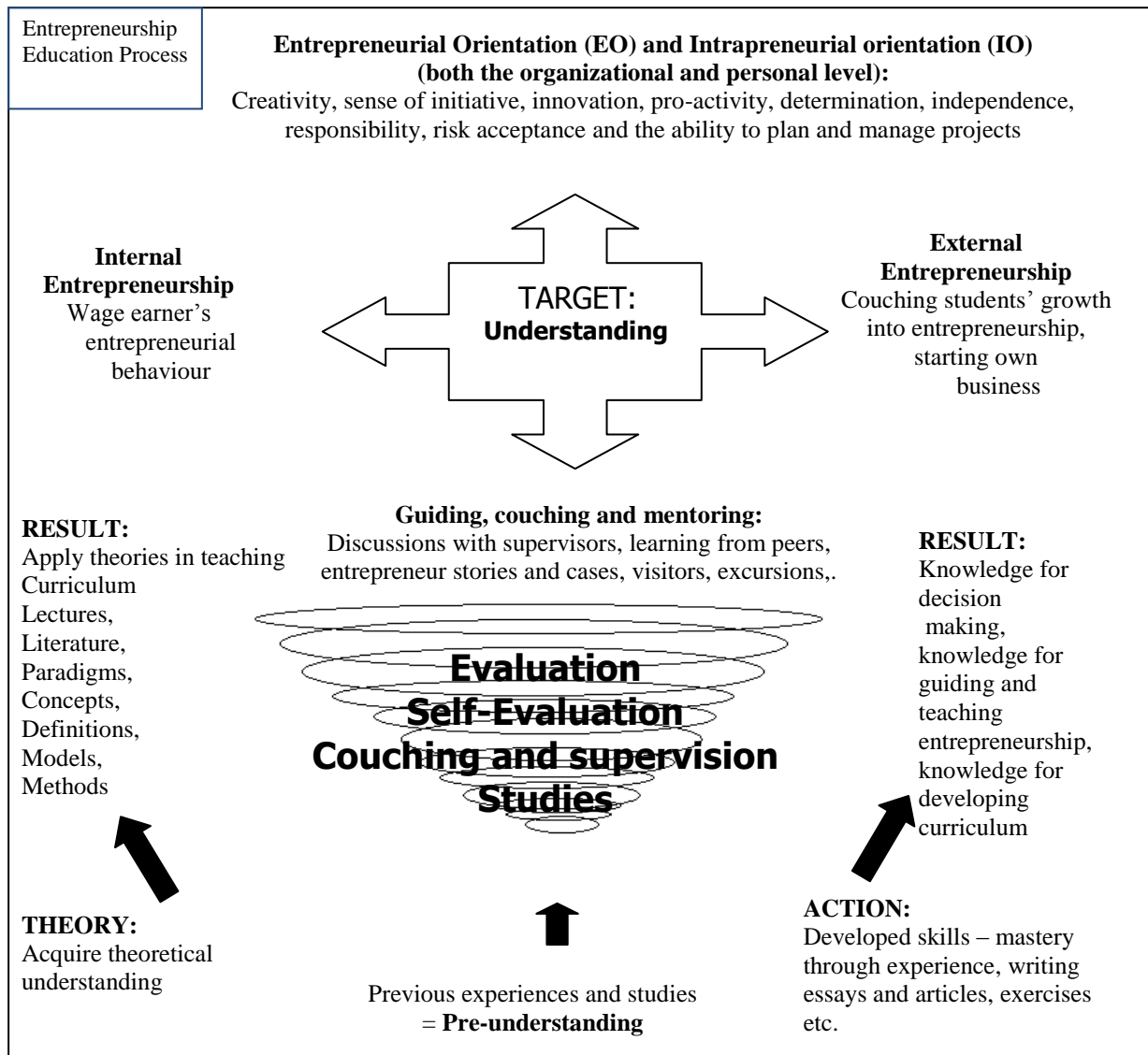


Figure 1. From pre-understanding to understanding: Exploring, learning, and absorbing entrepreneurship in the doctoral study process.

The process in Figure 1 results in *promoting the internal entrepreneurship* which means that people become more active, innovative and willing to take the initiative in their work and their lives despite the fact that they may not actually start their own businesses. Successful entrepreneurship training also produces people who really want to start businesses. It is to be hoped that within the next decade, more people would choose an entrepreneurial career. Finland needs *people who understand entrepreneurship and the dynamics of small and medium-sized firms* so that they are skilled and wise in the decision-making which influences the life of entrepreneurs.

The doctoral study process in Figure 1 also results in *Entrepreneurial Orientation (EO) on both the individual level and that of the firm level (viz. University of Applied Sciences in this*

case). Lumpkin and Dess (1996, 138) propose that EO demonstrates how firms could organize themselves to respond to a range of market changes. When one talks about changes in a school or any other educational organization context, it would be better to use the term Intrapreneurial Orientation (IO) meaning that a school pro-acts to turbulent changes by constructing a strategy to tackle the challenges and implementing it by using an IO construct.

3 Target of the paper

The main target of this paper is to investigate the experiences that the doctoral students have with connecting doctoral studies and academic research on entrepreneurship to their daily teaching, training and developing work. The research questions are:

1. How doctoral students have experienced this doctoral study program? (Doctoral studies)
2. How they have implemented the studies and research to their work at HAAGA-HELIA University of Applied Sciences? (Practice)
3. What are their experiences of the research process and the guiding in seminars and in personal supervision sessions? (Research)

In this project action research methodology is implemented, which means that I put myself as a researcher in the very environment in which the research is carried out. According to O'Brien (1998) there is a dual commitment in action research to study a system and concurrently to collaborate with members of the system in changing it in what is together regarded as a desirable direction. This type of research can also be called a participatory research or action learning.

4 Methodology

According to O'Brien (1998), action research (AR) has various names (participatory research, collaborative inquiry, emancipatory research, action learning, or contextual action research), but all these are variations on the same theme. Put simply, the AR is "learning by doing" in which a group of people *identify a problem (diagnosing), do something to resolve it (action planning and taking action), see how successful their efforts were (evaluating and specifying learning), and if not satisfied, they try again (Table 1)*. While this is the essence of the approach, there are other key attributes in the AR that differentiate it from common problem-solving activities that humans engage themselves in every day. O'Brien's (1998) definition stands: "Action research aims to contribute both to the practical and to further the goals of social science simultaneously. Thus, there is a dual commitment in action research to study a system and concurrently to collaborate with members of the system in changing it in what is together regarded as a desirable direction. Accomplishing this twin goal requires the active collaboration of researcher and client, and thus it stresses the importance of co-learning as a primary aspect of the research process." As I am a member of the supervisor team and the other leader of the project I put myself as a researcher in the very environment in which the research is carried out (cf. Syrjälä et al. 1996, 33). Action researchers typically see themselves as research experts, facilitators, and sounding boards for the members in the organisation. This requires their active involvement and interaction with the target group (Palmu 1998).

Table 1. Processes of action research implemented in this doctoral study project.

Diagnosing:	A lack of entrepreneurs in Finland → Entrepreneurship education and training in all school levels and especially in the higher education (HIE) is needed. → Successful entrepreneurship education and training occurs in entrepreneurial oriented organizations. → More skilled and entrepreneurially oriented teachers are needed.
Action planning:	Doctoral studies in entrepreneurship planned together with University of Jyväskylä
Taking action:	Conducting the doctoral studies and the research projects (doctoral dissertations).
Evaluating:	Examining the experiences of the doctoral students (first follow-up research) →Examining the whole process. →Calculating the number of doctoral dissertations completed. →Examining the consequences of the action
Specifying learning:	Identifying general learning of the doctoral students → developing a model of doctoral studies in entrepreneurship for UAS teachers in Finland and in European context.

The first follow-up research for the doctoral program started in June 2010 as the doctoral students were invited to focus-group interviews and some discussions with doctoral students and those who have already had their doctorate have been conducted in spring 2011. In those discussions the focus was on examining the experiences of the studies and of the whole research- and supervision process.

The research data were collected by both focus-group interviews and personal discussions with the doctoral students. In the interviews and discussions, they freely explained their own notions and thoughts and reflected their experiences with each other. According to Flick (1998: 115) a focus-group interview is an interview with a small group of people on a specific topic. Groups are typically six to eight people who participate in the interview for one-half to two hours. Focus-groups are useful especially when the research topic is new or when the aim is to find out some new ideas.

After transcribing and organizing the data the transcripts were read again as we were seeking for some major quotes, key points, and themes that emerged from the tapes or texts. The main themes that emerged were how doctoral students have experienced this doctoral study program, how they had implemented the studies and research to their work at HAAGA-HELIA. The study- and research process and the role of the supervisor team were also talked over in the discussions.

5 The principles of triangulation of doctoral studies, practice and research

This doctoral project connects theoretical studies and academic research with the participating teachers' practical work. We can talk about the triangulation of *doctoral studies* (= understanding of entrepreneurship theories), *research* (= entrepreneurship research and doctoral dissertations) and *practise* (= implementing theories in teaching and training of entrepreneurship). Figure 2 shows the triangulation. The objective is a wide understanding of entrepreneurship and the internal entrepreneurship that creates entrepreneurially orientated environment for the students.

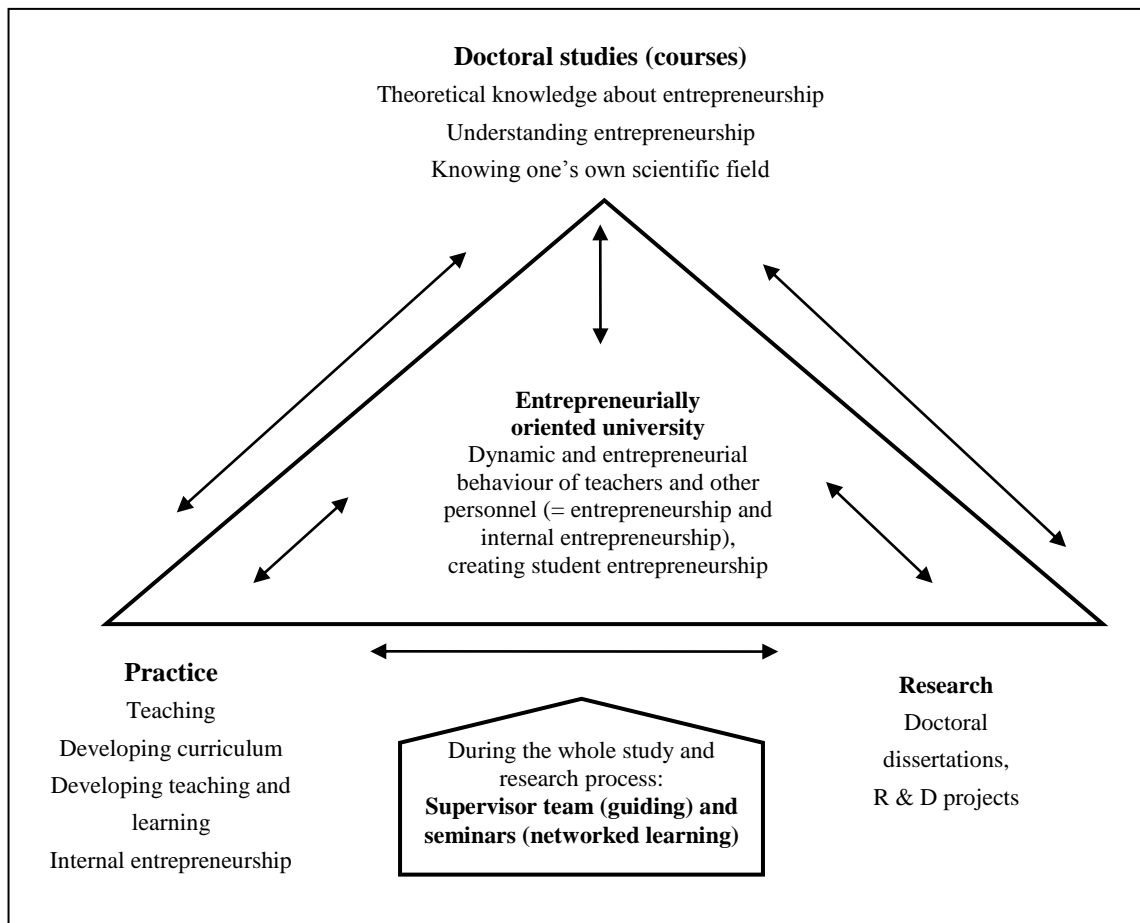


Figure 2. Triangulation of doctoral studies, practice and research

In addition to doctoral courses, the doctoral students meet in the networking seminars once a month, in which they present some problem areas of their research, discuss their topics and become familiar with the scientific way of discussing and writing. The doctoral students are encouraged to ask questions and to discuss the topics and the methodology so that all the seminar participants learn from each others too. Group dynamics and peer comments are very important.

5.1 Doctoral studies

The doctoral program for teachers is a concept that not only takes into account the personal skills, requirements and objectives of the students, but it also the targets of the entire organization. The studies are tailored to needs of the HAAGA-HELIA and the courses are brought to Helsinki. The University of Jyväskylä arranges similar doctoral courses in entrepreneurship, family business and entrepreneurship education in Central Ostrobothnia University of Applied Sciences. During the six years period several doctoral like below have been arranged:

- Academic research process and research plan
- Academic writing
- Entrepreneurship and Family Business as Examined with the Views and Methods of Future Research,
- In-depth case studies in entrepreneurship and family business: Thoughts on Data Collection, Analysis, Interpretation, Conclusions, and Overall Quality when using an In-depth Case Study Approach.

- Growing up to Entrepreneurship
- Internal Entrepreneurship and Innovativeness,
- Research Paradigms in Entrepreneurship,
- Family Business and It's Governance,
- Entrepreneurial marketing,
- Networking and Inter-Firm Co-operation

The doctoral students appreciated that their employer has provided them the possibility to study at their own work place and that their academic enthusiasm has been supported by bringing also the personal supervision near and easily attainable.

- *"easy start, easy accessibility – you do not need to travel when you need some advise and supervision or when attending the courses and seminars"*
- *"without this project this it would been easy to drop out"*

Also discussions during the courses are mentioned to be important learning situations. The students told that they enjoy seeing that other doctoral students are making progress and are moving on with their research. They also feel that everyone in the group has something to give and teach to the others and also the supervisors learn in the discussions.

- *"the whole atmosphere is important ... it is important that you can freely discuss and communicate with the peers and with the supervisors"*
- *"supportive and constructive critics is important"*
- *"in guiding it would be useful also to use small groups – some of the problems and questions are common in the certain stage of the process"*
- *"in the seminar you can get peer support"*

5.2 Practice: developing teaching and learning

An essential prerequisite for entrepreneurship education is that the teachers are skilled and enthusiastic in the field. According to Laakkonen (2003, 281), dynamic Universities of Applied Sciences continuously develop, learn and create and adapt new environments. Changing the culture in schools means that the teachers and other personnel must adapt new schemas and create new meanings and contents in their own work. Along with conscious and rational elements in schools, their organizational culture also consists of subconscious and mental elements (Laakkonen 2003, 281-282).

The final aim of our doctoral study program is to create a learning environment that is more entrepreneurial which also helps the bachelor or master students to socialize into entrepreneurship. Management input, clear organizational vision, and pro-learning and research environments are key elements in this entrepreneurship education process. The doctoral project also increases teacher co-operation and discussion over entrepreneurship, as everyone in the school context encounters it in their immediate teams or when participating in various events and explorations that are part of this project. It is fair to talk about extending entrepreneurship.

Teachers must themselves feel that entrepreneurship is important and that it also is one possible opportunity to their students. The recourses, attitudes and skills of the teachers are the critical preconditions to entrepreneurship education. The teachers with personal

experiences at entrepreneurship and positive attitudes towards entrepreneurship and entrepreneurship education are the most convincing couches and guides for the entrepreneurial students. (Ristimäki 1998, 57 and 68; Römer-Paakkanen and Pekkala 2008).

An entrepreneurship teacher should understand entrepreneurship as a holistic phenomenon. It has two forms: entrepreneurship, referring to an individual's self-oriented behavior and to an organization's collective behavior. *Firstly*, a teacher should also work like an entrepreneur being creative, dynamic, risk-taking, and initiative oriented, hard-working, responsible and action motivated. *Secondly*, a teacher should possess a positive attitude towards entrepreneurship. That means appreciating market economy, business life, business, enterprises, entrepreneurs and work. *Thirdly*, a teacher should understand entrepreneurship teaching as a phenomenon giving it a holistic meaning. This approach means developing knowledge, skills and attitudes needed in business life and improving students to manage their own lives. *Fourthly*, an ideal entrepreneurship teacher must adopt modern learning paradigms. He or she should encourage students to the entrepreneurship and use learning methods appropriate for transferring entrepreneurial knowledge, skills and attitudes. Such appropriate methods activate students, favor student-orientation and emphasize social interaction. Educational programs should be geared toward integrative, wide and holistic programs. Entrepreneurship teaching should be long process, in which traditional barriers between courses and subjects are lowered. Learning situations should be flexible, changing, and multi-dimensional and involve risk-taking as well. The main focus of learning should also include action-orientation, problem-orientation, and experience-based collaboration with business life. (Paajanen 2001, 233.) Figure 3 visualizes how those who participate in the project create a culture of entrepreneurship which extends to the other parts of the schools, making it easier to include entrepreneurship into all teaching activities.

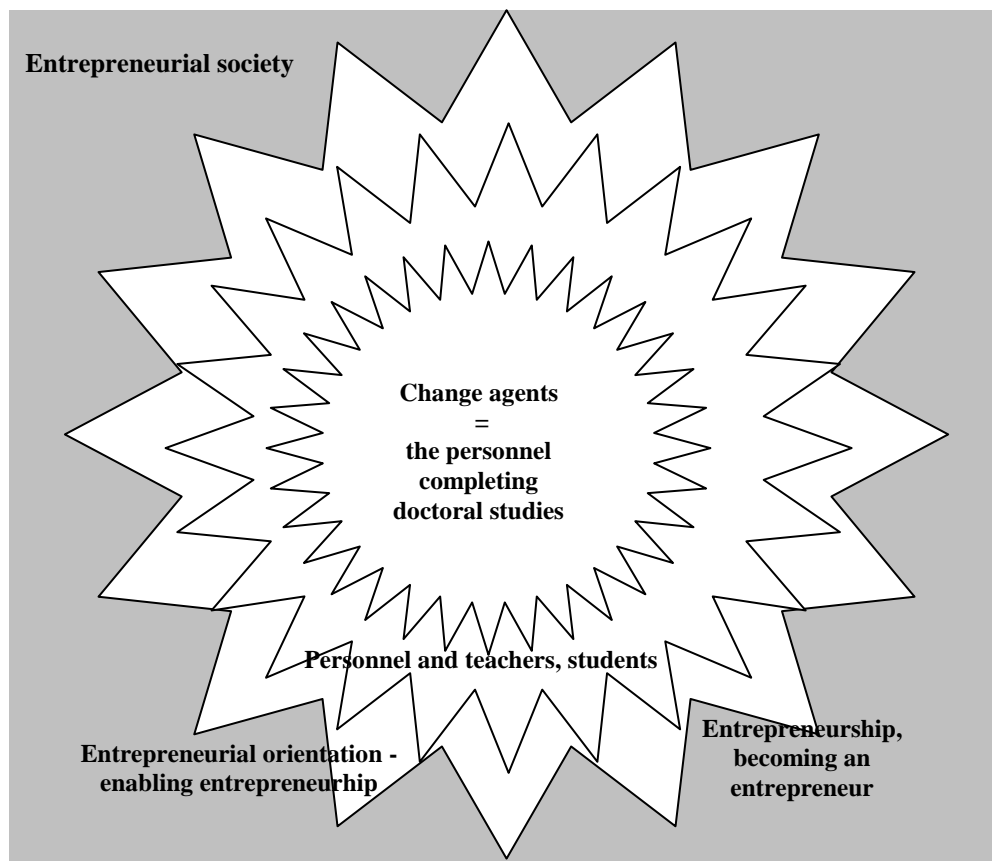


Figure 3. Extending entrepreneurship in school context

The participating teachers are now wearing the "entrepreneurial spectacles", they observe their environment and the society from the view point of entrepreneurs and small firms. After six years the program has started the process towards more integrative, wider and more holistic entrepreneurship education programs and curricula.

5.3 Research: doctoral dissertations

The research topics in the doctoral project are very heterogeneous ranging from small business entrepreneur competencies and attitudes to consumer - entrepreneur relationships and explorations in the Chinese business culture. The majority of the topics are related to either entrepreneurship education or other school. The topics can roughly be divided as follows:

- Guiding, supporting and mentoring students, career guidance etc.
- Networking
- Entrepreneurship and family entrepreneurship
- Social responsibility of entrepreneurs
- Entrepreneurship and entrepreneurship education in the context of different school levels
- Marketing and entrepreneurial marketing

The informants were really satisfied to the possibility to get a lot personal guiding and supervision during their study and research process.

According to the interviewed doctoral students the atmosphere during the supervision sessions and during the seminars is very important for their motivation and strength to continue with their studies and research.

- *"the atmosphere in the supervision sessions is very important! – it is important that the supervisor is not judging but making a constructive conversation" "the supervisors are really eager and devoted – they are positive, they really are positively supporting you"*
- *"you can always ask everything, the supervisors never give stragging answers"*
- *"in the beginning (of the research)they let a thousand flowers bloom"*

The doctoral students told that it is important, that after every supervision session they can feel that they have moved on with their own thinking. They are happy if they can get even one piece of advice or tip of a reference to help them continue their path of thinking.

- *"the supervisor can find the essential from my thinking in writing - after that I can myself catch the rest of my idea" "I have the feeling that I always get something in the supervision sessions"*
- *"regular meetings – miles stones – small steps"*
- *"it is good that it is not essential to have enormous achievements or outputs when meeting the supervisor – you are allowed to discuss small questions and event to discuss without any text"*

In the discussions the doctoral students were a little bit critical towards themselves and towards their activity in the supervision sessions:

- *"it is important to write down one's ideas and to give the supervisors something to read – and to give the supervisors also time to read the texts beforehand ... !"*

As the studies made progress the interviewees felt that they are members of academy and the meeting with supervisors became like discussions between two equal researchers. In the later stage of the dissertation process the doctoral student becomes a real specialist of his or her topic and the supervisor has no more so much to give to him or her.

- *"at some stage you start to feel that you also can give something to your supervisor – the supervisor start to learn from you ..."*

The interviewers told that the supervisors should know how to support the doctoral students but on the other hand they also hope that the supervisor can restrain and draw the lines if the novice researcher is too eager to adopt new ideas again and again. They told that the supervisor must have ability to recognize the stage of the research process and to give the researcher that kind of challenges that the novice researcher can take.

- *"you need sparring and good questions – like: How are you planning to continue from here? What are you meaning with that? etc."*
- *sometimes you have some good ideas in your head, but you have not recognized them - and the a good supervisor can realize what you are meaning or aiming to – a good way is that the supervisor knows or feels what you need ..."*
- *"the supervision changes during the process – a good supervisor can educate you and bring up your thinking – the supervisor notices when you are developing and going ahead ..."*
- *"everyone has a personal way of learning and doing ... the supervisor should take account on that some people need more time or that someone needs more discussion"*
- *"everyone can proceed in his or her own rhythm"*
- *"people in different stage of research are encouraged in different ways ..."*

6 Conclusions

Until today there are five dissertations completed, about 35 doctoral students are still active, and the next four dissertations will be completed until the end of this year. As a conclusion from the interviews can be said that all the participating doctoral students are very satisfied to the program as a whole: to the studies, to the supervision and guidance and to the knowledge, skills and competencies they have gathered during the program and during the process. The concept that has been created during the six year period is well functioning and fits to their needs and challenges when connecting their teacher's work and their private life to the challenging doctoral studies and research work. Also the employer has been satisfied to the program mixing the academic research and R&D with developing teaching and pedagogy in our university of applied science.

As a conclusion of six years of teachers' doctoral project, it is fair to say that entrepreneurship has become more visible in all participating educational organizations: The participating teachers are wearing the "entrepreneurial spectacles"; they observe their environment and the society from the view point of entrepreneurs and small firms. Encouraging entrepreneurship through education is possible when we create genuine opportunities and resources for teachers to learn about the field, to deepen their knowledge and understanding of it and also to allow them to adopt creative and entrepreneurial working methods. After completing the project in two years, we can evaluate the entire project and its influence on the general entrepreneurial orientation in our UAS. At this stage of our ongoing-project, we already know that the doctoral studies have started the process towards more integrative, wider and more holistic entrepreneurship education programs and curricula and the teachers are transferring their understanding and theoretic knowledge to their teaching.

According to Ristimäki (2002, 46), developing entrepreneurship education has four levels: (1) business subjects are changed to entrepreneurship, (2) there is some theoretic knowledge about entrepreneurship, (3) teaching methods support the change of behavior and action, and (4) the school socializes people to entrepreneurship.

Our experiences in this project show how entrepreneurship education process in higher education environment is not as linear as the four levels Ristimäki suggest. Rather, it is more a search and learn loop, and like a spiral process in which the levels are more inter-dependent and co-existing. Our results of the process so far could be summarized as follows:

- The fact that we have started this doctoral program is an illustration of entrepreneurial attitude and *innovative ways of working*.
- Our process has been *independent, proactive and innovative*, and we have used personnel education in order to aim for a process of change in which an organisation becomes more entrepreneurially oriented.
- This process has resulted in changes in curriculum so that studies in business administration are now carried *co-ordinated together with other subjects* (for instance marketing, communication, etc.). They form *larger topic areas that cover the starting and developing phases of small and medium-sized businesses, and personal growth towards entrepreneurship (modules within the professional studies)*.
- We are well under way in applying the teachers' theoretical knowledge and deepening the understanding of entrepreneurship in degree planning and in actual teaching. The teachers now perceive the surrounding world through "spectacles of entrepreneurship" observing it from the point of view of entrepreneurs and small and medium-sized businesses.
- As the teachers are learning more about entrepreneurship and intrapreneurship they might also themselves adopt more dynamic and pro-active ways of working.
- The schools offer pre-business incubation and business incubation services and development, and they also are planning paths for existing businesses to carry out generational changes – a service that helps to combine studies with working in own or family business.

When the results of this research project along and the idea of entrepreneurship are being implemented to all courses, entrepreneurship will become more visible in the HAAGA-HELIA and the students' willingness to become entrepreneurs is likely to increase. According to Nevanperä (2003) a long and effective entrepreneurship education is likely to have a positive effect on students' entrepreneurial attitudes. It could also be considered as a lifestyle that can be transferred to the next generation: those with family background in entrepreneurship are more likely to have a more positive approach to it than those in whose families there is no (or limited) contact with entrepreneurship. Overall, students see that there still remains room for improvement in entrepreneurship education: they see a clear need for teaching creativity, entrepreneurship, interpersonal skills and group dynamics.

A long-term social objective is to encourage more people to adopt entrepreneurship, which would fill in for those who retire or to set up businesses in new business areas in our country. Our teacher doctoral project increases teachers' knowledge of entrepreneurship, its risks and opportunities. When teachers possess a comprehensive understanding of the topic, they are able to encourage the students to adopt the field, and this in turn takes Finland closer to entrepreneurial society.

Up-to-date and factually correct information along with positive attitudes towards entrepreneurship are prerequisites in helping young people to become entrepreneurs. It is vital that students are familiar with the entire process, knowing how to set up an enterprise, design a business plan and making it grow and succeed, but above all they must know what it means on a personal level and what kinds of opportunity this career choice can offer to them and their families. Risks should also be charted and understood, but as the objective is to encourage people to adopt the field, entrepreneurship should be offered as a positive opportunity and challenge.

References

- Blenker, P., Dreisler, P., Faergemann, H.M. & Kjeldsen, J. (2004). In: Raffa, L.I.M. (eds.) (2004). *IntEnt2004. Internationalizing Entrepreneurship Education and Training Conference Proceedings. Book of Extended Abstracts and CD-Rom Papers.* 292 p. pp. 81-84.
- CEDEFOP (European Centre for the Development of Vocational Training). (2005). *Improving lifelong guidance policies and systems. Using common European reference tools.* Office for Official Publications of the European Communities. Luxembourg. 35 p. http://www2.trainingvillage.gr/etv/publication/download/panorama/4045_en.pdf (Accessed 15 June 2011)
- CEDEFOP (European Centre for the Development of Vocational Training) (2011). *Guidance supporting Europe's aspiring entrepreneurs Policy and practice to harness future potential.* RESEARCH PAPER No 14. Publications Office of the European Union, Luxembourg. 176 p. http://www.cedefop.europa.eu/EN/Files/5514_en.pdf (accessed 15 June 2011)
- Covin, J. & Slevin, P. (1991). "A Conceptual Model of Entrepreneurship as a Firm Behaviour." *Entrepreneurship Theory and Practice* 16.
- Hokkanen, S. (2001). *Innovatiivisen oppimisyhteisön profiili. Ammattikorkeakoulujen tekniikan ja liikenteen koulutusalan näkökulmasta tarkasteltuna.* Jyväskylä Studies in Business and Economics 15. Jyväskylän yliopisto. <http://www.web.ca/~robrien/papers/arfinal.html> (Accessed 20 Jan. 2002).
- Hytti, U. (ed.) (2002). *State-of-Art of Entrepreneurship Education in Europe – Results from the ENTREDU project.* Small Business Institute, Turku School of Economics and Business Administration. 65 p. Etredu.com
- Kotila, H. (2003). "Oppimiskäsitykset ammattikorkeakoulutuksessa". In: Kotila, H. (toim.) (2003), *Ammattikorkeakoulupedagogiikka.* Edita. Helsinki. 299 p. pp. 13-23.

Kupke, R-K. (2008) Opinto-ohjaus yliopistossa. Opinnäytetöiden ohjaus. Jyväskylän yliopisto. Kasvatustieteiden tiedekunta. Opettajankoulutuslaitos. Ohjausalan Koulutus- ja tutkimusyksikkö. 32 p. <http://urn.fi/URN:NBN:fi:juu-2009471371> (Accessed 16 June 2011)

Laakkonen, R. (2003). ”Muuttuva opettajuus.” In: Kotila, H. (ed.) (2003). *Ammattikorkeakoulupedagogiikka*. Edita. 299 p. pp. 273-295.

Lampikoski, T. ja Römer-Paakkanen, T. (2004). ”Guiding and Supporting Students’ Career Planning and Entrepreneurship Spirit at HAAGA-HELIA Institute University of Applied Sciences.” Research in entrepreneurship and small business. RENT XVIII. Managing Complexity and Change in SMEs Copenhagen, Denmark, November 25-26 2004. Conference Proceedings.

Lumpkin, G.T. & Dess, G.G. (1996). ”Clarifying the Entrepreneurial Orientation Construct and Linking it to Performance.” *Academy of Management Review* 21(1). Pp 135-172.

Lumpkin, G.T. (1996). *The Entrepreneurial Orientation (EO) of New Entrants: Performance Implications of Alternative Configuration of EO, Environment, and Structure*. The University of Texas at Arlington. 156 p.

Ministry of Education. (2004). *Yrittäjyyskasvatuksen linjaukset ja toimenpideohjelma*. Opetusministeriön julkaisuja 2004:18. Koulutus- ja tiedepolitiikan osasto. 24 p. Pp.14-17. http://www.minedu.fi/OPM/Julkaisut/2004/yrittajyyskasvatuksen_linjaukset_ja_toimenpideohjelma (Accessed 15 June 2011)

Ministry of Education. (2006a). *Tohtorikoulutuksen kehittäminen*. Opetusministeriön työryhmämuistioita ja selvityksiä 2006:3. Opetusministeriö. Koulutus- ja tiedepolitiikan osasto. Helsinki. 108 s. http://www.minedu.fi/OPM/Julkaisut/2006/tohtorikoulutuksen_kehittaminen (Accessed 15 June 2011)

Ministry of Education. (2006b). *Education and Science in Finland*. Ministry of Education publications 2006:15. 43 p. http://www.minedu.fi/export/sites/default/OPM/Julkaisut/2006/liitteet/eng_opm15.pdf?lang=fi (Accessed 15 June 2011)

Nevanperä, E. (2003). *Yrittäjyys Suupohjan opiskelijanuorten ajattelussa. Tutkimus Suupohjan seudun nuorisoasteen opiskelijoiden yrittäjyysnäkemyksistä sekä yrittäjyysopetuksen opetussuunnitelman kehittämissyönteistä*. Jyväskylän yliopisto. Jyväskylä Studies in Business and Economics 24. 210 p.

O'Brien, R. (2001). Um exame da abordagem metodológica da pesquisa ação [An Overview of the Methodological Approach of Action Research]. In Roberto Richardson (Ed.), *Teoria e Prática da Pesquisa Ação [Theory and Practice of Action Research]*. João Pessoa, Brazil: Universidade Federal da Paraíba. (English version) <http://www.web.ca/~robrien/papers/arfinal.html> (Accessed 15 June 2011)

Paaajanen, P. (2001). *Yrittäjyyskasvattaja. Ammattikorkeakoulun hallinnon ja kaupan alan opettajien näkemykset itsestään ja työstään yrittäjyyskasvattajana*. Jyväskylä Studies in Business and Economics 16. 276 p. Pp. 231-239.

Palmu, M. (1998). Action Research in Finland. In: Hughes, I. (Ed.) Action Research Electronic reader [online]. The University of Sydney. Available <http://www.behs.cchs.usyd.edu.au/arow/reader/palmu.htm> (Accessed 15 June 2011)

Pekkala, A. (2006). *Energiaa opintojen ohjaukseen ja yrittäjämäisyyteen*. Julkaisussa: Yrittäjyys on mahdollisuus. 125 vuotta kaupallista koulutusta. Helsinki Business College. 227 p. pp. 112-127.

Ristimäki, K. (2002). *Yrittäjyyskasvatus. Yrittäjyyttä ja kasvatusta*. TAT. Taloudellinen tiedotustoimisto. 56 p.

Römer-Paakkanen, T. (2001). ”Yrittäjyyskasvatusta korkeakouluissa. Tavoitteena aktiivinen ja yrittävä päättäjien, työntekijöiden ja yrittäjien sukupolvi.” *Aikuiskasvatus-lehti* 2/01. Pp. 142-152.

Römer-Paakkanen, T & Pekkala, A. (2008). ”Generating entrepreneurship and new learning environments from students’ free-time activities and hobbies.” *The Finnish Journal of Business Economics. Arenas of entrepreneurship education*. 3/2008. Vammala: Vammalan Kirjapaino Oy. p. 341 – 361.

Saarela-Kinnunen, M. & Eskola, J. (2001). ”Tapaus ja tutkimus = tapaustutkimus?” In: Aaltola, J. & Valli, R. (eds.). 2001. *Ikkunoita tutkimusmetodeihin I. Metodien valinta ja aineiston keruu: Virikkeitä aloittelevalle tutkijalle*. PS-kustannus. Jyväskylä. 217 p. pp. 158-169.

Syrjälä, L., Ahonen, S., Syrjäläinen, E. & Saari, S. (1996). *Ladullisen tutkimuksen työtapoja*. Kirjayhtymä. Helsinki. 185 p.

Turunen, H. (1997). *Korkea-asteen ura- ja yrittäjyyskoulutuksen kehittämistutkimus*. Joensuun yliopiston täydennyskoulutuskeskuksen julkaisuja. Sarja A, n:o 15. Joensuu. 112 p. www.arene.fi/toiminta/menneet%20tapahtumat.htm (Accessed 24 Sept. 06)