

## Entrepreneurial Learning: Practice as a Source for Learning and Business Success

Henk J. Schout and Saskia J.M. Harkema

Centre for Innovation & Entrepreneurship, The Hague University of Applied Sciences  
The Hague, The Netherlands

[h.j.schout@hhs.nl](mailto:h.j.schout@hhs.nl), [s.j.m.harkema@hhs.nl](mailto:s.j.m.harkema@hhs.nl)

### Abstract

Entrepreneurship stands high on the political European agenda. Its meaning is twofold: entrepreneurship as a career opportunity, or as a competency. Following the statement made in Europe, national governments have defined an urgent need to stimulate entrepreneurial talent and motivate students to become entrepreneurs to start and develop new businesses that will generate employment and create economic and social wealth.

Developing entrepreneurship education and training initiatives is one way of helping to achieve this goal. According to the European commission (2008), the teaching of entrepreneurship is not yet sufficiently integrated in higher education institutions' curricula. So the real challenge is to build campus-wide, inter-disciplinary approaches, making entrepreneurship education accessible to all students. At The Hague University of Applied Sciences we develop programs to stimulate entrepreneurship. The question is: to what extent do these programs contribute towards the development of entrepreneurial competencies, in other words: can entrepreneurship be taught? And furthermore, to what extent do the programs contribute to the success of new start-ups by students that followed our programs?

Over the last five years time more than 200 students have taken part in three different electives developed in our centre. Some of the findings of our research are that students indeed develop entrepreneurial competencies (Harkema & Schout, 2008). This can partly be attributed to the pedagogical concept underlying the programs. The next step is to determine whether the acquired competencies developed in the program among students that have set up their own business, help them in their business and are accountable for their business success. In this paper we report on the preliminary findings of our research among a sample group of alumni that have followed different programs and set up their own business.

**Keywords:** entrepreneurship, education, practice, business success

### Innovation and entrepreneurship

Since the Lisbon Council, entrepreneurship has taken centre stage in Europe. In line with these developments the European Commission (2005) adopted the following definition of entrepreneurship: *'Entrepreneurship is the ability to put ideas into action. It encompasses creativity, innovation and risk taking, as well as the ability to plan and conduct projects to realize objectives'*.

In a more recent report the European Commission (2010) is targeting priorities of smart, sustainable and inclusive growth. The Commission is putting forward seven flagship initiatives to catalyse progress under each priority theme. Among these are the "Innovation Union" and "Youth on the Move" to improve framework conditions for research and innovation so as to ensure that innovative ideas can be turned into products and services that create growth and jobs and to enhance the performance of education systems and to facilitate the entry of young people to the labour market.

With these priorities in mind it becomes apparent that national governments are investing in entrepreneurial behaviour and paying attention to stimulating innovation. In a survey carried out by the Dutch Ministry of Economic Affairs a picture emerges of The Netherlands as lagging behind when it comes to starting a company, whereby start-ups of students coming directly from an educational institution score even worse (Van der Sijde *et al*, 2008).

In their turn educational institutes should stimulate, rather than constrain entrepreneurial and innovative behaviour. It is a challenge to change the self-concept and self-esteem of students (Heikkilä, 2006) as well as their behaviour and give them tools to have a fair chance of becoming an entrepreneur or an intrapreneur at an existing firm.

The Centre for Innovation & Entrepreneurship of The Hague University of Applied Sciences, has taken up this challenge. In our view the need for continuous change and renewal (innovation) as the central issue in entrepreneurship does not only relate to timely deployment of new technological applications, it also requires rethinking and reworking internal processes – the innovation of strategy, policy, marketing and distribution, the organisation and its management. Consequently, entrepreneurship and innovation are not regarded as the exclusive responsibility of the independent entrepreneur. Equal demands need to be met by individual employees in larger organisations.

On the assumption that entrepreneurship is not per definition an innate characteristic, but that it can be taught, the Centre for Innovation & Entrepreneurship has developed various elective courses aimed at developing entrepreneurial and innovative competencies. Competencies are defined as a combination of knowledge, problem solving skills and individual attributes deployed in a situational context. The attributes and skills refer to the capability to deal with problems and solve them and in the process find solutions to achieve the defined objectives. Success in this sense is the ability to meet one's own objectives. As to the students also a number of steps were taken. Participating in the entrepreneurship electives requires motivation on behalf of the student to become active as an innovative entrepreneur. The decision to enrol has to fit with the student's personal development plan and be additional to his major programme. To this end a specially devised psychological test and an intake interview are held to identify problem areas and help set targets.

In setting up the electives we adopt a learner-centred approach. According to McCombs (1997) the focus in a learner-centred approach is on individual learners' experiences, perspectives, backgrounds, talents, interests, capacities, and needs. She defines learner-centred, from a research-based perspective, as a foundation for clarifying what is needed to create positive learning contexts to increase the likelihood that more students will experience success.

For our students we create a learning environment that facilitates the exploration of meaning. Students should be given frequent opportunities to confront new information and experiences in their search for meaning and understanding. Those opportunities should not be provided in a passive receptive form by merely giving information. New meaning and understanding should be acquired through a process of personal discovery. These methods should be tuned to the individual and adapted to the learner's own style and pace of learning.

### **Research design and preliminary findings**

Until recently, there was a notable lack of reliable data on the effects of education on innovative entrepreneurial behaviour. Therefore, we started longitudinal research to assess more precisely whether effects can be measured on the development of individual entrepreneurial competencies that can be attributed to the pedagogical approach or other aspects related to the programme.

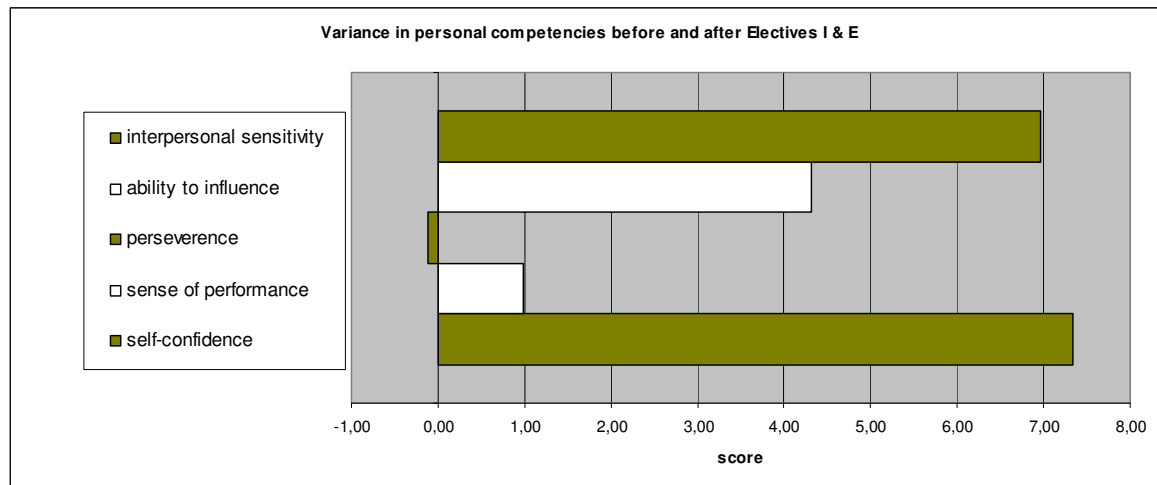
Our empirical research is both quantitative and qualitative. Students take a psychological test at the start of their first elective (feasibility study) and one on completion of the second elective (business plan). These tests are specially developed for our Centre in collaboration with locally based psychological consultant Kuiper & Partners. The tests focus on five personal characteristics:

- interpersonal sensitivity
- ability to influence
- perseverance
- sense of performance
- self-confidence

These full-day tests measure a vast amount of individual character traits such as self-esteem, sincerity, dominance, vulnerability and fear.

In addition to these tests, semi-structured interviews are held to elicit student perceptions on the educational method and pedagogical approach and perceptions on their own development in personal ambition and commitment to create added value.

Four small groups of students were included in the research (n=51) and took the psychological tests before and after both their elective programmes. We measured the variance of the individual scores on the five personal characteristics (see Figure 1).



**Figure 1:** Variance in Personal Competencies before and after two electives Innovation & Entrepreneurship

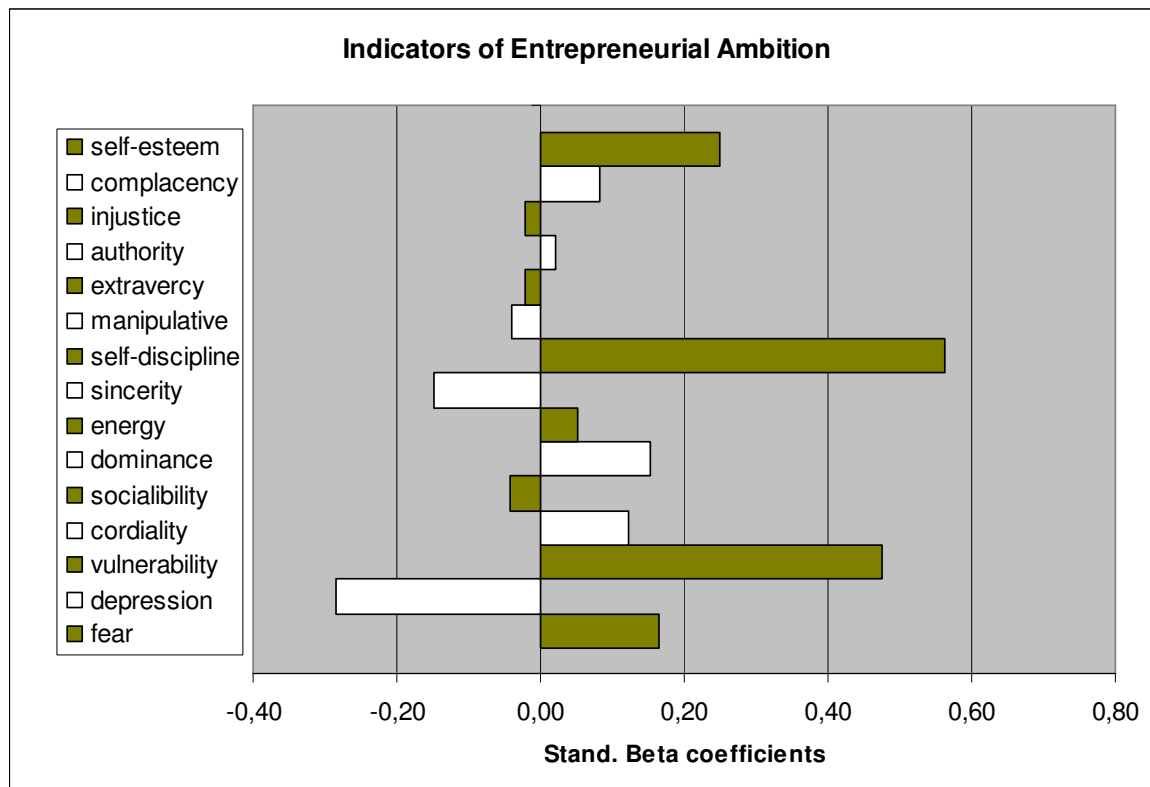
Four out of five characteristics show an increase in scores. Self-confidence and interpersonal sensitivity show a significant improvement as does the ability to influence. It is noteworthy that students show a slight decrease in perseverance.

Self-confidence is perceived as the most important characteristic by 42% of the students in the research, whereas 30% of the respondents indicate that perseverance is most important. Students perceive the characteristic ability to influence as least important.

Furthermore, the student interviews indicate that from the means of support they get personal coaching is appreciated most at 83% and that results are successful at 72%.

In order to improve our pedagogical model of student-centred learning using a constructivist approach, we analysed the psychological test scores trying to elicit indicators of entrepreneurship ambition.

In a single stepwise regression analysis (PIN=.05, POUT=.10, Sig.= .095, Adj.  $R^2$ = .587) we found that self-discipline, vulnerability, self-esteem and fear are the most significant positive predictors of entrepreneurial ambition. On the other hand a sense of depression appears to be the most negative indicator of entrepreneurial ambition. Striking as a second negative indicator is a sense of sincerity (see Fig. 2).



**Figure 2: Indicators of Entrepreneurial Ambition**

Based on the outcome of our research, we suggest that coaching students in the development of these positive indicators of entrepreneurship ambition and in helping them try to overcome the negative predictors will noticeably improve their success in entrepreneurship.

### Learning and business success

A short survey among 70 alumni of the entrepreneurship elective shows that 20 have indeed started their own business. For half of those the enterprise serves as their main source of income. Ten entrepreneurs employ personnel, 7 of those have between 1-5 employees and 3 have more than 5 employees.

For those who did not start their own company the main reason was that they finished the elective before actually graduating from their major programme. This meant they spend their time graduating first, before actually taking up entrepreneurship. Twelve percent indicate they wish to start within the year, whereas 44% hope to start in 1 to 5 years.

As these alumni only started their business one or two years ago it is too soon to give an indication of business success. However, overall student satisfaction with this elective programme is high at 96,3%. This would suggest that teaching entrepreneurship through these electives is successful.

There are those that contend that entrepreneurship cannot be taught, but is mostly inherited. One of the main issues in teaching entrepreneurship is the question what competencies students need to acquire. We regard competencies as a mixture of skills, attitude and knowledge and especially focus on the problem-solving abilities of students: how do they deal with a problem they encounter?

During the introductory period most students indicate they are ill-at-ease with their newly found freedom of self-centred learning activities. They struggle with what they view as lack in direction and as a consequence they have the feeling they lose momentum. Some are insecure about what criteria are set to assess their deliverables. This shows how students are conditioned to work in an instruction-based environment.

Many students showed a lack in discipline in producing progress and status reports. This has to do with the fact that in a learner-centred approach students are responsible for their own learning trajectory. The emphasis in the programme lies on developing a personal vision on entrepreneurship and innovation. The purpose is for students to learn to reflect on their own role and take their own strengths and weaknesses as a starting point in their learning trajectory.

## References:

European Commission (2005) *Proposal for a Recommendation of the European Parliament and of the Council on key competences for lifelong learning*, Brussels

European Commission (2008) *Entrepreneurship in Higher Education, Especially in Non-Business Students*, Brussels

European Commission (2010) *EUROPE 2020 A strategy for smart, sustainable and inclusive growth*, Brussels

Harkema S.J.M., Schout H.J. (2008) "A case of incorporating student-centred learning in innovation and entrepreneurship education", *European Journal of Higher Education*, Vol. 43 (4), pp. 513-526

Heikkilä, M. (2006) *The self-concept, the self-esteem and the sense of life control as the determinants of the intrapreneurship*, Jyväskylä: University of Jyväskylä.

McCombs, B. L., & Whisler, J. S. (1997). *The learner-centred classroom and school: Strategies for increasing student motivation and achievement*. San Francisco: Jossey-Bass.

Sijde, P. van der, McGowan, P., Kirby, D. (2008) Guest editors' introduction to the special issue: The entrepreneurial spirit in higher education and academic entrepreneurship. *Industry & Higher Education*, Vol 22 (1), 3-8.