

Our studies abroad, our personal experience from executive functions within the Danish university system, and our experience as teachers and as researchers indicate that to meet the requirements associated with their new role, the universities will be facing a series of challenges and possibilities which will have far-reaching consequences for the university community – internally within the academic disciplines and externally in university interaction with the surrounding society. It has frequently been necessary to establish new organisational structures and to implement new criteria of success with respect to performance evaluation of either university or individual employee as measured against the new, more outward and practice-related role of the university.

Our studies further indicate that educating and teaching for and not just about entrepreneurship should include different theories and methodology from the ones ordinarily applied. Traditional management theory and micro economic models might even constitute a barrier for new thinking and change and, hence, for the basis of the implementation of entrepreneurial action.

As to decisions concerning pedagogy forms, the personality developing dimension of university education should, according to research in "Entrepreneurship Education", be pursued much more consciously. Education and teaching could advantageously be seen as a process, inspired by didactic and pedagogical theories and models, consciously aimed at integrating objectives, context and target group. This puts considerable professional and pedagogical demands on the teacher, and also presupposes a capacity for working practice-oriented and academically at the same time.

On the basis of our studies and our experience, we believe that the "new" university role may be concluded to present a series of new possibilities, but also a series of new challenges. Challenges that the universities have as

Det centrale

Arbejde som
center

coaching

eller
and
ful
små

custom made teaching

lærere

In table 1, the four university communities are compiled with respect to context and application of pedagogical and didactic principles.

Table 1. Four European university communities.

| The four university communities | | | | |
|---|--|--|--|--|
| | TWENTE UNIVERSITY (NL) | ROSTOCK UNIVERSITY (D) | UCE BIRMINGHAM (UK) | SSES (S) |
| | Technical university | Multifaculty | Multifaculty | Centre |
| The context of the entrepreneurship education | The entrepreneurial university Faculties of natural sciences and technique Business School | Objective: to become an entrepreneurial university Separate centre associated with (ROXI / IBEC) | Business School and/or Centre activities (ERDC) Network partner in: Mercia Institute Of Enterprise 9 universities | Founded by 4 universities/schools Networks/shared resource pool Privately financed |
| Pedagogical and didactic principles and methods | -coaching -short-term scholarships -project jobs -interdisciplinary courses -business plan -project-based subjects -student incubators | -simulation plays -structured subjects -business plans -holistic approach -personal development -entrepreneurial competence and behaviour | -ideas laboratory -thesis as business plan -general courses in economics -business plan competitions -the network/as a market for exchange of courses etc. | -guest teachers international/global approach -business plan competitions -action, diversity and imagination -panel debates -group work -etc. |

mark

In the following we shall present an itemised review of some of the challenges faced by the four European university communities. Challenges and issues constituting an inspirational element in the construction of our frame of reference.

Mesterker
akademie, smv^{le}
kerz

1.2.2. Entrepreneurship teaching –didactics and pedagogy.

- Does entrepreneurship education require a special pedagogy or special didactics? And does this constitute specific requirements to the organisation of the educational community?
- Should entrepreneurship education and teaching take place with special considerations for context? *Jep's edge de ngy*
- How is the so-called multifaculty entrepreneurial university established where entrepreneurship education has a wider behavioural aim than simply that of creating new businesses?
- Does teaching *in* entrepreneurship – as opposed to teaching *about* entrepreneurship – presuppose specific forms of pedagogy and didactics?
- Should entrepreneurship teaching be regarded as a pedagogical process encompassing professional as well as personality developing elements? *Jep's*

14

- Should development of expedient entrepreneurship educational programmes be based on integrated ideas comprising: objectives, target group and context?
- Should the concept of diversity enter into the planning and implementation of entrepreneurship teaching as a significant pedagogical possibility and challenge?
- Would the high university ratio of specialisation and the frequently lacking interdisciplinary and pedagogical competence constitute a barrier for entrepreneurship teaching at university level?

Studies of the four university communities support our literature-based hypothesis that the development of education and teaching in and not just about entrepreneurship would be most advantageous when carried out as an element of a forceful interaction between institutions of research and education and the business community.

Thus, this increased interest in the role and significance of the universities in the socioeconomic development and their contribution to the stimulation of welfare is not a purely Danish phenomenon. It might be said that, in Denmark, we have been inspired by a development already under way in the countries we usually compare with; countries, however, with whom we are also in competition on the global markets. It is therefore necessary that Denmark, too, take a stance in this development (see box 3).

Box 3.

From political quarters there is a conviction that these expectations to the new role of the universities presuppose innovative thinking and a comprehensive organisational and managerial restructuring in research as in university communities – in general and at the individual university. The Commission points out some key issues as potential barriers for this development by raising following questions (Communication from Commission – The role of the universities in the Europe of Knowledge, Brussels 2003):

Thus a memorandum from the European Commission states that “Europe needs excellence in its universities, to optimise the processes which underpin the knowledge society and meet the target, set out by the European Council in Lisbon, of becoming the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion.” (Communication from Commission – The role of the universities in the Europe of Knowledge, Brussels, 2003). The Commission is targeted towards a continuous follow-up on universities’ compliance with this, to many extended, entrepreneurial role.

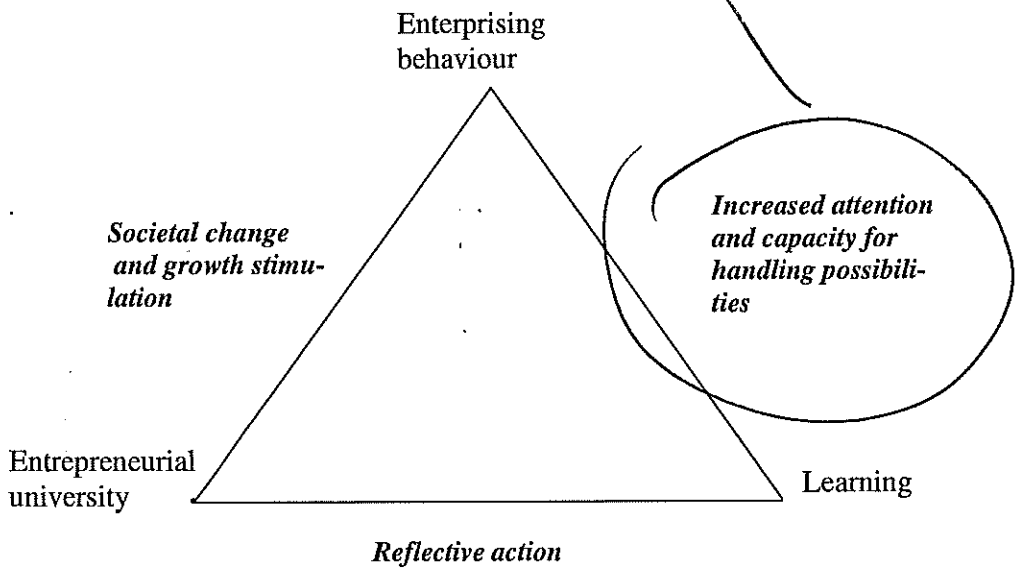
- How to achieve adequate and sustainable incomes for universities and to ensure that funds are spent most efficiently?
- How to ensure autonomy and professionalism in academic as well as managerial affairs?
- How to concentrate enough resources on excellence, and create the conditions within which universities can attain and develop excellence?
- How to make universities contribute better to local and regional needs and strategies?
- How to establish closer co-operation between universities and enterprises to ensure better dissemination and exploitation of new knowledge in the economy and society at large?

Master

*Fa nuv entreprenerer med
med ivellag*

Walter - 8 spool en
 tray or eye John pa
 JV - He men John re
 possible by all

Figure 3. The new perspective on the role of the universities, on learning and learning objectives.



Thus, entrepreneurship has been declared the most significant driver in the future development of material societal welfare, and perhaps of immaterial as well. Businesses, organisations and the individual person should be motivated for – and develop competence in – perceiving new possibilities through reflective action and hence participate in the creation of change and growth in society. This capacity and inclination for change and innovation is thus conceived as an important human trait. A trait which in international research has come to be known as “enterprising behaviour”. We shall subsequently return to this key concept. Similarly, “the entrepreneurial university” and “learning” are concepts which shall be discussed in the next chapters.

1.4. ENTREPRENEURSHIP EDUCATION – KEY INTERPRETATIONS, CONCEPTS AND THEORIES.

Walter

A survey of several research contributions is of little avail in the explication of how the concepts entrepreneur and entrepreneurship should be construed. In addition to this lacking clarification, there are also highly differing opinions as to the research form needed: either for purposes of a comprehension of the background for enterprising behaviour – or for purposes of developing suitable normative theories and models applicable for the entrepreneur in his implementation of an entrepreneurial decision and action. We shall return to these key issues in chapter 3. Thus, after thirty

er faktisk, derfor er der en mulighed for at
an opportunity how strange it may sound.
for esger har med ved til "obviously"

years of intensive study of the phenomenon, the research community still spends much energy on the definition of concepts as entrepreneurship and enterprising behaviour. This only goes to show the complexity of the area as well as the process, and that this could and should be examined from several different frames of understanding. This multifarious approach appears to be a prerequisite where the desire is to include both environmental factors and personal relations in potential and established entrepreneurs and their network – i.e. where there is a desire to clarify and understand the motivation for the implementation of an entrepreneurial action.

This inadequacy pertaining to the definition of the entrepreneurship concept also entails a frequent misapplication of resources allocated commercial and educational initiative aimed at promoting entrepreneurship.

This lacking clarity with respect to the concepts entrepreneurship and entrepreneurial competence has also resulted in some confusion within the subject field and theoretical domain of entrepreneurship education. And, subsequently, this has resulted in many and varied bids for what should be taught and how teaching and learning processes should proceed. The importance for researchers to try to establish a better understanding of the different correlations between entrepreneurial actions and learning processes is a frequently stressed issue (Garavan 1994.1: 4; Gibb 2002: 238; Kyrö & Carrier 2005; Bechard & Toulouse 1998). We shall discuss learning and learning processes in chapter 4 where, on the basis of various pedagogical and didactic theories, we shall attempt to suggest some feasible means to the development of entrepreneurship education -and teaching at university level.

Box 4:

Johannisson & Lundberg (2002) thus stress the access to professional and social networks as aspects of paramount importance in the entrepreneur's implementation of an entrepreneurial action: "Entrepreneurship is a social process, usually initiated by an alert individual who however soon enough organises a team out of her personal network to enact the emergent opportunity. That opportunity creation thus is a collective effort meaning that part of the environment is demarcated, bracketed, and sense-made to subsequently materialise as a venture. The venture is an outcome of a truly interactive learning process where both the outcome and the process itself cannot be stated beforehand. Only by recognising venturing, as a collective learning process where venture and context are co-created, will the would-be entrepreneur, i.e. the initiator of the process, gain the self-confidence needed to maintain the process."

Vigdet
Master

made
made

may be useful in connection with business start-up and development. We also believe to be able to conclude that profound research-based insight into the influential factor of an individual's personal traits, which may affect the capacity for implementing an entrepreneurial action, could be of substantial value in the planning of education and teaching in and not just about entrepreneurship.

The researcher and teacher may also choose to perceive entrepreneurship as a kind of exact science based on a series of economic and socioeconomic theory formations (Science). Or he may choose to see entrepreneurship as a kind of "art" (art versus science), where an entrepreneurial action shares many distinct traits with art forms and hence should be understood as some kind of "economic art form" Box 6:

Box 6.

Application of the "art" perspective elevates creative capacity to a key element, and it then becomes relevant to question whether the potential entrepreneur would at all need a theoretical foundation for his practical learning process. Likewise, it may be argued that "conventional" teaching methodology would be inapplicable where the objective is creative competences, skills and behaviour.

Thus Jack & Anderson (1999: 111) argues: "Moving to consider how these aspects can be taught, the science of management/ SME management is seen as teachable within a conventional pedagogic paradigm. However the art is seen as more problematic, it is experiential, founded in innovation and novelty but based on heuristic practice. As academics we cannot replicate the experiences of successful entrepreneurs, but we can use their experiences to develop theory and this theory will help to bridge the abyss between the art and the science of entrepreneurship".

One objective of theoretical inclusion could be that of providing prospective entrepreneurs with an outlook and with concrete tools for strengthening professional competence and skills in relation to the identification of business opportunities and also for evaluation thereof in a "realistic" and relevant perspective. In this connection inspiration may be obtained from socioeconomics, business economics, the Austrian School, innovation theory etc. If not reflected upon, however, the microeconomic paradigm and particularly the management theory may prove decidedly counterproductive inspiration with respect to the entrepreneur's way of thinking and acting. Thus Gibb (2002) rather bombastically argues that entrepreneurial competence cannot be promoted at business schools and that perhaps this community might even destroy it. This, for instance, in connection with the capacity for detecting new opportunities, for tackling risk

master

Schumpeter

not having such low ethics etc.
new development which is more
flexible and more dynamic etc.

and uncertainty or for having a –strong belief in one’s own ability to influence the surroundings (internal beliefs of control).

Another objective of this project is precisely the desire on our part to contribute to the establishment of a linkage between entrepreneurship research and the research focused on learning – comprising theoretical didactics, pedagogy and the science of teaching. This association has become increasingly widespread in journals and at international conferences where, previously, the two research domains – due to different research attitudes – have not been mutually beneficial. Being a fairly novel research area there are, as we have suggested, many different opinions as to how entrepreneurship teaching could and should be practiced. Apart from the academic differences we also register differences of a geographical nature with regard to the application of the concepts entrepreneurship education and enterprise education. In North American usage “entrepreneurship education” is the preferred term, whereas the concept “enterprise education” is prevalent in Great Britain and Ireland (Garavan & O’Cinneide 1994:1: 4). This is not solely a matter of geographical and linguistic nuances – it is also a matter of meaning.

Entrepreneurship education is primarily aimed at stimulating entrepreneurship in the sense of business start-up and ownership – or at developing competence for increased possibility seeking behaviour within existing firms (Intrapreneurship). In comparison, the purpose and aim of education in enterprising behaviour are more wide-ranging since this is more generally focused on the development of people with inclination and competence for venture, people exhibiting enterprising behaviour. Thus, enterprising behaviour may manifest itself in a multitude of different contexts, organisations and job specifications – not just in connection with business start-up. Since organisations may be designed to either limit, prevent or promote enterprising behaviour, it becomes important that the employee learn how to establish structures, networks and alliances that will be advantageous to the realisation of enterprising behaviour (Gibb 2002). This point of view may be compared with the previously mentioned OECD-report where one of the five drivers for societal growth is precisely the development of enterprising behaviour and drive in the public in general – and not just in relation to the establishment of own businesses.

Another central aspect is the question whether entrepreneurship and development of enterprising behaviour could or should be seen as a collective or as an individual phenomenon (Johannisson & Lundberg 2002; Laukkanen 1998). The entrepreneurial process may well be instigated by an attentive individual with special qualities (alertness); but in connection with knowl-

*We shifte mal John personal pgr.
demonstr under tilgængelighed men
det passer også fint til overblik*

Waste

Her shal vi muse
mel nyuddrinnel

edge-based businesses in particular, the entrepreneur will soon have to draw on others from his personal and professional network in order to act on the given opportunity. Thus, the entrepreneurial decision-making process may be perceived as a series of more or less conscious actions with the entrepreneur utilising his professional and personal network while establishing new networks in the process (Johannisson & Lundberg 2002). It therefore seems relevant to ask whether "conventional" entrepreneurship teaching is inadequately focused on personality-developing activities consciously directed at developing increased degrees of competence synergy through the formation of professional and social networks. Many knowledge-based firms are established when two or three persons with complementary competences start up the business together. It might perhaps even be hypothesised that many knowledge-based businesses are never established – or never attain growth – exactly because the entrepreneur lacks the capacity for fusing the necessary complementary competences through the establishment of a professional and personal network.

Our literature studies suggest that it may be difficult to predict which personal and academic competences to develop in order to succeed in filling the entrepreneur role in the individual, concrete situation. This problem also presents an obstacle in the formulation of clear-cut purposes and objectives for entrepreneurship education and teaching. We nevertheless believe – through our case- and literature studies – to have found support for the following generic statements concerning the planning of educational programmes and teaching processes aimed at developing (students' entrepreneurial competence and skill:

- In general, a conscious linkage of purposes, objectives and target group should be the point of departure for the planning and implementation of learning processes, and this cohesion is considered specifically important in connection with entrepreneurship teaching. It is of paramount importance for the planning and implementation of education and teaching that there is a definite awareness as to purpose and objective – whether it be focused on teaching about or in entrepreneurship. The choice will be dependent on the target group in question.
- Planners of education and teaching in entrepreneurship may adopt an art perspective as well as a science perspective. The choice of perspective – science and/or art – will be related to the issue of purpose and objective: whether this be teaching about or in entrepreneurship.

Waste

Waste

Waste

MB!

MB.

- ment
Engelhus
Key points
learning styles
- Whether the purpose and objective of the teaching be teaching about or in entrepreneurship this should be reflected in the choice of didactic perspective and foundation (the theoretical and methodological foundation for the educational programme may e.g. be based on management and/or entrepreneurial theory). — general
 - Whether the purpose and objective of the teaching be teaching about or in entrepreneurship this should be reflected in the choice of pedagogical methodology (planning of the learning processes – teaching and/or learning).
 - The purpose and objective should exert an influence on whether the teaching would be most suitable for auditorium or practice (i.e. the planning of the university context – from “Ivory tower” to “Entrepreneurial university”).
 - The purpose, objective and target group should exert an influence on whether the teaching should be planned for purposes of supporting individual and collective teaching processes alike (from a focus on the student’s individual academic competence to further encompass development of the individual’s social, network-oriented and communicative competence).

These statements constitute the basis for the continued development of our frame of reference. This frame of reference rests on the recognition of a need for developing new areas of focus and – not least – the need for an enhanced consciousness with respect to a series of interrelated conditions pertaining to the strategic thinking in entrepreneurship education and teaching at university level.

In the exposition of the frame of reference dealt with in the next section, we intend to demonstrate the basis for our arguments through a presentation of extracts from our literature studies of authentic educational programmes from European university communities – all characterised by being consciously preoccupied with entrepreneurship education from an academic as well as a pedagogical perspective. In chapters 2, 3 and 4 the constituents of the frame of reference will be extended and analysed separately.

1.5. EXPERIENCES FROM EUROPEAN EDUCATIONAL PROGRAMMES.

Our review of various entrepreneurship education- and teaching-programmes at university level clearly demonstrates that the indecision as to what entrepreneurship actually signifies may give rise to problems with

Handwritten notes at the top of the page, including "Laukkanen 1998" and "1998/10/10".

respect to the formulation of the principal objectives of teaching or learning processes and, further, with respect to the concrete learning objectives of the teaching. In many cases there is no explicit formulation of objectives (Laukkanen 1998: 7). Several authors further conclude that research in entrepreneurship education is limited and that there is a need for increased research within this field: "Research on entrepreneurship education and training is sparse. There is a lack of accepted paradigms or theories of entrepreneurship education and training" (Laukkanen 1998: 4).

Based on our literature study it is, however, feasible to list some common traits relative to the formulation of purposes and objectives of entrepreneurship teaching (Kyrö & Carrier 2005; Bechard & Toulouse 1998). Some of these key areas will be treated in the following and, together with our case-studies, they will be an inspirational contribution to the development of the content of our completed frame of reference, where target group, context, purpose and learning objective enter as central and cohesive areas of decision. Thus, Jönsson & Jönsson (2002) argue that the development of following competences are central to the entrepreneur, and hence they are included as didactic and pedagogical key objectives of entrepreneurship educational programmes at University of Växjö, Sweden:

- The development of communication abilities
- The development of analytic abilities
- The development of the facility in problem solving processes
- The development of social interaction abilities
- The development of global perspective and awareness

Waste

As in Sweden, the Irish have several years' experience in research and, especially, teaching in entrepreneurship. The reason for this – or the result of this – is that many universities and business schools work in close cooperation with the business community see box 7 – the Limerick model.

del in US

marker

Camilla Walsh

Box 7.

Thus Fleming (1999) states in relation to University of Limerick's educational programmes in enterprising behaviour:

"Knowledge and enterprising skills are the key to innovation led development and much modern industry in Ireland has emerged from combinations of those two factors. As a result of the increased awareness of the benefits of enterprising skills, enterprise education is being widely introduced into higher education institutions in Ireland. Its major objective is to help develop enterprising people and to inculcate an attitude of self-reliance through the process of learning. Enterprise demands imagination, lateral thinking, flexibility and energy. Preparation and cultivation of these attributes are occurring in the higher education system" (Fleming 1999: 405).

This educational programme displays a conscious effort to develop enterprising skills and to stimulate student enterprising behaviour. The supreme objective is furthermore formulated in concrete teaching objectives governing the choice of content as well as the choice of pedagogical method in the Limerick model:

The objectives of the Limerick model are (Fleming 1999: 406):

- To provide participants with an insight into the role of entrepreneur and entrepreneurial process;
- To develop the core skills and attributes necessary for entrepreneurship, such as creative problem-solving, diagnostic skills, communication and projects to induce enterprising behaviour;
- To focus participants' business vision so that they think strategically and can generate and manage business opportunities;
- To assist personal development through freedom and opportunity to practise entrepreneurship.

In conclusion of an extensive survey of six different programmes at six different universities, it is the assessment of Garavan and O'Conneide (1994.1: 4) that these programmes differ widely in practically every respect, that a generic model – a tailor-made solution – for every institution has yet to be developed, and that this will probably never happen. On this background, the two researchers conclude that there is a need for trials and research to harvest and underpin experience with various types of pedagogical models for developing enterprising behaviour and entrepreneurship. Nevertheless, the two researchers were able to deduce an array of purposes and objectives on the basis of their investigation – all more or less explicitly contained in most of the six programmes reviewed (Garavan & O'Conneide 1994.1: 5), see box 8.

Marken

Garavan & O’Cinneide (1994.2) further conclude that educational programmes developed for purposes of developing student motivation and competence for a way of life or for a labour market characterised by enterprising behaviour imposes considerable demands on teachers: “The most important conclusions that may be made with respect to the design of such programmes are: focus on specific target population, the need for balance in terms of learning strategies, and programme facilitators who has capacity to adopt a multiplicity of roles.” (Garavan & O’Cinneide 1994.2: 20).

A recurring theme in the various descriptions of entrepreneurship education is the emphasis on interaction between university and business community, and it is pointed out that, as a rule, this interaction presupposes a substantial adjustment process at many traditional universities. This fully concurs with our case-studies in and outside Denmark.

Box 8.

”The following are the most commonly cited objectives of entrepreneurship education and training programmes:

- To acquire knowledge germane to entrepreneurship
- To acquire skills in the use of techniques, in the analysis of business situations, and in synthesis of action plans
- To identify and stimulate entrepreneurial drive, talent and skills
- To undo the risk-averse bias of many analytical techniques
- To develop empathy and support for all unique aspects of entrepreneurship
- To devise attitudes towards change
- To encourage new starts-ups and other entrepreneurial ventures.”



Box 9.

Like other surveys, Laukkanen (2000: 26) concludes that implementation of an “entrepreneurial education model” is no mean feat, as it requires substantial changes in the university’s traditional outlook on its role. It presupposes that the university as institution both can and will exhibit entrepreneurial behaviour:

“Universities are learning to cultivate practices and images of pragmatism and responsiveness vis-à-vis societal concerns, at the same time without compromising their traditional values of basic research, independence or objectivity” (Laukkanen 2000: 26). “Whatever the manifestation of an entrepreneurial education, different stances seem to exist about it. For the most conservative members of the academic community, the very concept may be at least controversial, even dubious.”

(Laukkanen 2000: 27)

Our case-studies and our personal experience with the Danish university system support Laukkanen’s findings as to examples of barriers for the development of entrepreneurial attitudes in conventional university systems.

Laukkanen (2000: 27): Possible friction issues are, for example:

- generic humanistic education versus contextualized professional training
- focus on functional specialization versus building generalist or pragmatic competences
- analytic or decision-support orientation versus decision-making, personal involvement, social action
- academic objective detachment versus commitment to real-life business objectives
- ideals of equality versus acceptance of relative, occasional inequality

One prerequisite for a strengthening of entrepreneurship education at university level is that these barriers be broken down. That is the reason why this project has elected to place a relatively high focus on the aspect of context – on the optimal conditions for entrepreneurship education and teaching.

On the basis of our findings from literature and case-studies we are in complete agreement with Gibb (2002: 238) when he – on the basis of his literature studies – designates following areas as needing increased attention:

Master

Box 10.

With respect to traditional university pedagogy and didactics Jonsson & Jonsson (2002) state that:

"In traditional forms of learning the learning process usually takes its starting point in general abstractions, theories and principles. The student's task is then to use these general abstractions in concrete situations. In an entrepreneurial learning – an informed way of learning - the learning process mostly reverses, that is the learning process mostly starts with questions raised by the students about actual situations and problems".

Focusing on economics and management, this education is, according to Jack & Anderson (1999: 112), characterised by:

"Traditional management education is positivistic, yet, entrepreneurship is anti-positivistic and entrepreneurial knowledge may be soft and personal. Furthermore new business creation must also be inductive requiring leaps of perception, and the ability to see things in a different way. Thus we see the limitations of the science of management education in dealing with the unknown ability of entrepreneurship."

This section has reported some experiences gained at a series of universities where there has been a development of various entrepreneurship educations. The following section will present a brief summary of some central areas for inclusion in the further development of our frame of reference.

1.6. FOUNDATION FOR THE FURTHER DEVELOPMENT OF A FRAME OF REFERENCE.

Our empirical and theory-based studies show that teaching aimed at developing entrepreneurial competence in students will seldom be stimulated in the existing university system or by application of conventional teaching forms. Likewise, there are indications that the traditional management approach lectured at most business schools neither has the content nor apply the pedagogy necessary for stimulating enterprising behaviour. On the contrary, there is a widespread agreement that this approach may indeed present an obstacle for the development of such competence and behaviour. Business schools in particular are traditionally highly focused on the development of analytical competence and skills. Frequently, attitudes and assumptions vis-à-vis decision-making uphold the idea that sufficient collection of information will facilitate the performance of rational decisions and rational economic choice from various options – concluding with assessments of uncertainty, reversibility and risk. In cases where this basically positivistic philosophy and method is applied a tad too unilaterally and unreflectively it might have an averse effect on motivation and talent for thinking and acting innovatively and entrepreneurially. As a rule, teaching at university level is structured in such a way that the knowledge acquired by the students is generic rather than contextualised. Most educational activities are to a great extent rooted in university and business school traditions of mediating function specialised skills that can be generalised. Predominant teaching conventions at university level further spring from a perception of mankind as an objective, rationally thinking decision-maker. In this connection it may be assumed that the knowledge with respect to e.g. basic business -and socioeconomics and legal matters necessary for the entrepreneur is “relatively easily” mediated in the classroom. Probably, some skills – such as marketing and resource provision – are in part learnable from conventional teaching. Other skills – in particular competences as e.g. the capacity for identifying new opportunities, management of change processes and networking – are not so easily taught in conventional ways.

A highly simplified interpretation of many university educations within the areas of the natural sciences and, to some extent, the social sciences as well, are traditionally aimed at creating insight and understanding based on:

- the general

Master
Master
Foster

Vigly Mark

- the functionally specialised
- the objectively rational.

Whereas an entrepreneurial action is often characterised by:

- being unique
- being integrating
- being subjective and contextual

This gives rise to following questions with respect to certain university educations:

- Are certain university educations – perhaps especially economic and technical educations – counterproductive to the establishment of innovation and entrepreneurship?
- Are we educating people with proficiency in maintaining status quo, people who do not develop their competence to act as intrapreneurs and change agents in institutionalised businesses and organisations?

There are no unequivocal answers to these questions. In certain cases the answer may, however, tend towards a – yes? Subsequently, this gives rise to a central question as to how benchmarking and incentive can and will be introduced with respect to “performance ratings” of the universities’ new role in society as explicitly value creating. Another question is whether the universities are entrepreneurial enough to be able to conform to any new kinds of short- or long-term purposes and objectives proposed by various target groups in the community. Filling this, to many universities quite unfamiliar, role will – as mentioned – entail entirely different requirements to university self-knowledge, to organisational and incentive structures as well as to didactics and pedagogy.

As previously mentioned, this project is aimed at providing clarification and problem formulation with respect to these matters. This undertaking will further explore the concepts and relations contained in the principal frame of reference presented in this chapter.

1.7. ENTREPRENEURSHIP EDUCATION AT DANISH UNIVERSITIES?

When comparing Denmark with the other European countries there is much to suggest that institutions of higher education in Denmark have played a relatively minor part with regard to stimulating or developing competence

Mark

"How can education support the development of the awareness and skills necessary for developing an entrepreneurial mindset and skills (entrepreneurship training as part of a school's curriculum, getting entrepreneurs into the classroom, apprenticeships for students to work with experienced entrepreneurs, more entrepreneurial training in universities, more MBA programmes, matching entrepreneurial training with public research programmes)?"

The answers and recommendations offered as an invitation for discussion are:

"As already discussed in the main part of this opinion, an entrepreneurial mindset cannot be taught, but can be stimulated. Currently, too few younger people consider starting and running their own business as a realistic and appealing career option.

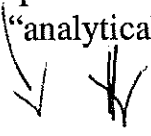
More young people need to be exposed to the concept of entrepreneurship from an early age. There also needs to be greater concentration on entrepreneurship in teaching later in the education process. This should cross-cut traditional academic disciplines rather than be merely circumscribed to business studies.

The potential for people to become entrepreneurs later in life should also be encouraged.

This sum up an array of the problems mentioned above, and adds a number of others. The discussion about whether "an entrepreneurial mindset" can be taught, or merely stimulated, will not be taken up here; for one thing because it is difficult to distinguish between teaching and stimulation. What is more interesting, is the recommendation to look into whether the traditional university set-up in itself constitutes a barrier, as the quote above advocates developments towards inter-disciplinarity beyond the general "business disciplines". Furthermore, it is pointed out that teaching entrepreneurship also belongs in the portfolio of life-long learning. The formulation of the question also gives examples of developments in which entrepreneurship education should form part of public research projects and programmes.

Of particular interest is the remark that teaching entrepreneurship ought to be extended to other disciplines than business subjects and business schools. Statements to this effect have been made very forcefully by Allan Gibb, who on the same basis note (Gibb 2002) that entrepreneurship education is most effectively placed in centres that do not have too strong formalised ties with business schools and that in general education in this field is best left without too much formalisation. Better to have a looser structure in order not to strangle the "entrepreneurial spirit". Others find that business schools focus too much on an "analytical problem-solution, risk-averse ap-

Marker



proach”, and that they tend to focus mostly on large and medium-sized firms. According to Gibb the ideal is to establish education in an area with access to, and cooperation with, the “stakeholder community”, and to take part in joint ventures and incubator activities together with other stakeholders, in order to always look at your values with other stakeholders’ eyes.

2.4. LEARNING GOALS – ENTERPRISING BEHAVIOUR.

In the Anglo-Saxon world, a distinction is made between “university” and “business schools”. Gibb’s believes strongly that the universities have been presented with a challenge by the politicians, and they ought to take it on. This will imply leaving the narrow entrepreneur definition (business orientation) and will instead focus on developing “the enterprising person”, who may turn into a self-employed person owning his or her own small enterprise, i.e. “an entrepreneurial person”, or a person who is able to pursue entrepreneurship and innovation in a large enterprise (intrapreneurship), or generally be a person who exhibits “enterprising behaviour”.

Gibb is aware that the distinction between an “enterprising person” and an “entrepreneurial person” may be difficult to translate and transfer into other languages than English; he describes the former as a person whose behaviour is characterised by being creative, full of initiative, and acting on his initiatives, who is able to inspire others and capable of doing things in a different way. The other type of person “the entrepreneurial person” is very similar to the first; however with the slight difference that this person will in addition contemplate becoming self-employed, starting his own enterprise.

In the Danish language it has been suggested to use a term meaning “enterprising imagination”[‡], including characteristics such as imagination and creativity, and then to divide this term into two subcategories, depending on whether the enterprising behaviour has to do with entrepreneurship, i.e. starting your own enterprise, or with other kinds of creative activities.

Both understandings – enterprising and entrepreneurial – will be used here. We are dealing with an educational understanding which intends to promote “enterprising behaviour”, irrespective of whether this leads to a new

[‡] Quoting the former CEO of Bang and Olufsen, Anders Knutzen, who in a lecture mentioned this concept, which was formulated by the founders of Bang and Olufsen back in 1925, in what would today have been called their vision statement.

enterprise, development of an existing enterprise, or in any other way to stimulating or developing a person's inherent or acquired creative abilities.

Returning to Gibb's distinction between universities and business schools, his argument is that business-school education is about business, whereas entrepreneurship education is about "new venture management", "business planning", "growth" and "innovation". The way business schools organise their knowledge is based on specialised functions such as marketing, accounting etc. (See chap. 3 for further discussion) The issue is not moving entrepreneurship education away from business schools to new independent university centres, but to establish education in communities seeking to integrate theory and practice, and using teaching methods which have the intellectual resilience to make it possible to apply them in all sorts of university disciplines and areas.

Allan Gibb ends his article with the following policy statement: 'the challenge here is to distance the 'subject' from its heroic ideology and association with business and market liberalization philosophy. This paper has argued that there is a need for a radical Schumpeterian shift in entrepreneurship education involving 'creative destruction' and new ways of organizing knowledge and pedagogy'. Such a move would be paradoxically the 'last fling' of Schumpeter as the centrepiece for the teaching of entrepreneurship. Arguably, without such a denouement, fundamental progress will not be made' (Gibb 2002: 259).

He is not alone in this realization. In recent years, many writers have been focusing on the connection between successful entrepreneurship education, the educational context, and the pedagogics and didactics related to this field. Among others, David A. Kirby brings up this topic by asking: Entrepreneurship Education: Can Business Schools Meet the Challenge? (Kirby 2002).

The views expressed by Gibb have to a large extent formed the basis of this project's treatment of the subject. That business schools by definition are about business and organise their knowledge according to functions is self-evident, but there is nothing to prevent this type of institution from changing, and still embrace the business aspects, but also be able to organise their knowledge and practice to accommodate entrepreneurship, and in particular the development of enterprising behaviour.

This, then, is the presentation of the first foundation for the role of the universities in developing entrepreneurship educations, in which the goal is formulated as "the development of enterprising behaviour". The biggest challenge facing entrepreneurship education is no doubt the context, the

4. In apparent direct opposition to this, it is then recommended that all universities set up a "centre for entrepreneurship". The reasoning is that such a centre will be able to establish the administrative freedom needed to combine academic quality with entrepreneurial activities. This seems quite sensible, as long as it does not lead to the field being isolated. Other organisational and administrative frames are necessary as well to make it work. The danger persists, however, that isolation and special initiatives will mean that the rest of the university remains unaffected by a development which could benefit the entire organisation. As a balancing act, it might be sensible to have a special department dealing with development and new initiatives, enjoying a status as a project organisation vis-à-vis the "necessary bureaucracy". From this department, changes could then be transferred to other units.

5. ~~Teaching processes at a university of entrepreneurial culture should focus on "action-oriented" learning.~~ It is the duty of the academic staff to plan their teaching according to principles and methods encouraging enterprising thinking and action.

6. The teaching and learning processes should offer the students opportunities to develop their entrepreneurial drive, ability, personality and professional skills to enable them to carry out various stages in the entrepreneurial process. And in this context, concepts like flexibility, leadership, team spirit and judgement are important skills to access new resources of knowledge. In a situation of ever changing markets and conditions it is necessary to develop competences in teamwork and leadership, as this rarely calls for the qualities of the "the lone wolf", but a team.

7. It is, and will always remain, the principal duty of the university to disseminate factual knowledge and encourage critical reflection – and to let that be the foundation of ideas generation and development. Just as the knowledge resources, infrastructure and international networks of the universities provide fertile soil for developing entrepreneurial ideas, concepts and initiatives.

8. For the development of entrepreneurial culture, role models are very important, for the students to take as examples and learn from. Introducing role models and a strong integration of a "pracademic" (practice/academic) understanding of practice would be a welcome innovation.

9. To make this work, a high degree of flexibility will have to be demanded of both teachers and university administration. It should be possible to use the university's infrastructure in the initial phase. Active support from the academic staff is of vital importance for implementing entrepreneurial ac-

tivities. This should be self-evident, but the enthusiasm of ardent supporters and especially interested teachers is seldom sufficient. There is a need to incorporate cultural frames for those who are not devotees of entrepreneurship. Otherwise there will not be any real entrepreneurial culture.

10. It is important to recruit the best students, and in particular the most enthusiastic and highly motivated. Students should be challenged when choosing their subject or study programme, probed as to their intentions and expectations, and given intensive support and guidance throughout the process. They should not be pushed into entrepreneurship, as the entire culture must reflect a desire to develop their drive, abilities and imagination, in short "enterprising behaviour".

2.6.5. The role of the teacher in entrepreneurship education.

This leads us to the question: what, and who, is a teacher of entrepreneurship? What does the teacher role consist of? If not dealing with this issue explicitly, it will probably be assumed that the teacher role is the traditional university teacher role. Which may be a too simplistic way of looking at it? The role of the teacher must be different, e.g. in relation to flexibility and classroom/team work. Not least will it be a demanding task to offer support and guidance to highly motivated and academically proficient students.

There is general agreement that teaching/training entrepreneurship requires a different casting of roles compared to traditional teaching where the teacher passes on the "right" knowledge to the students, and then later checks that they have learned it/can recall it.

Actually, not many have commented specifically on the role of the teacher in "the new university"; however, a few have speculated on demands and expectations.

Fiet (2000a) takes up this problem, and calls for a more deductive approach to teaching. The new roles he assumes for teachers and students are therefore not that ground-breaking. According to him, the teacher's job is to gain the acceptance of the students of the learning contract, and to determine which competences the students must acquire. The teacher is thus still to be responsible for defining the curriculum, at the overall level at least, but during the process he is to function as a coach rather than spend his time and efforts evaluating the students' performance.

All in all, the teacher's role is described as involving more coaching than ordinary classroom teaching. But it is still the responsibility of the teacher that the students learn "the right things", and he is to keep a close eye on the student's learning processes, also if the student e.g. works as an intern in a firm or on a project.

In the literature dealing with development of teaching methods, it is generally recognised that assuming new roles in connection with entrepreneurship education is not easy – and this goes for teachers as well as students.

It can be difficult for the teacher to change his or her teaching methods. Firstly, because some teachers like to be in control and feel responsible for what and how the students learn. However, often this reservation is not real as it is based on the false assumption that it is possible to control what the students think and learn – which is impossible, no matter which teaching methods are used.

Secondly, teaching in a way that involves the students more makes it necessary for the teacher to prepare for a number of different scenarios, and in the end it is more time-consuming and rarely compensated accordingly by educational institutions (Fiet 2000b, p. 110-111).

Jonsson & Jonsson (2002), too, comments on the challenges of a new role for the teacher as "it is more difficult to know your role and instead of presenting the right way, you have to go into a situation where you as a teacher present maybe a possible path, an alternative to other possible interpretations of a situation. This means that you need to be aware of what other teachers are presenting and what kind of question they are formulating. The possibility to be a solo player as teacher is reduced to a minimum".

Apart from it being difficult for the teacher to get used to the new role, the reactions of the communities can be less than forthcoming as well. The teaching reform suggested by Laukkanen (2000) is rather drastic, and it requires the university to more or less directly help establish new enterprises. This means that the teachers will have to play a much more proactive role, which will lead to new types of practical tasks and potentially risks as well. This is not very comfortable and not conducive to an academic career. But, as it is stressed, it does offer unique learning opportunities.

Studies of six European education programmes in entrepreneurship show, however, that the teachers involved did in fact take on new roles, e.g. role model, consultant or adviser (Garavan et al. 1994.1) – all roles that teachers and researchers at universities are not normally expected to play.