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Enterprising individuals from an entrepreneurial university: entrepreneurship programmes in non-business and business schools

ABSTRACT

The Finnish university sector is undergoing major changes in order to increase capacity and add value in society. As a result the role of entrepreneurship programmes is becoming more prevalent. This article presents four different approaches to organising entrepreneurship programmes in business and non-business schools: entrepreneurship 1) as a research field, 2) as an integrated and synthetic subject in business schools and 3) as an add-on subject, and 4) embedded entrepreneurship studies in non-business disciplines. Irrespective of how the studies are organised they need to be based on solid academic research, which is the essence of any university education. We argue that developing an entrepreneurship programme at the university level is not limited to incorporating a marginal new subject and may mean completely restructuring the whole university – the organisational structures, the processes, the assessment methods, the direction and the resource-allocation mechanisms. This change calls for the creation of an entrepreneurial university. The Schumpeterian idea of entrepreneurs who create new combinations and foster creative destruction is also applicable to the university sector.

Key words: *Entrepreneurship education, universities, business disciplines, non-business disciplines*

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1. INTRODUCTION

Universities have long been considered important in the production of scholarship and new ideas, and for the training of elites, and recently also in the development of economic progress. There seems to be a consensus on the changing role of the university. However, whether this change is for the better or for the worse is a more ambiguous question. On the one hand, it is argued that the importance placed on knowledge in our society has increased the opportunities for universities to engage with society and to obtain a more diversified funding base, and hence to hold a more autonomous and stronger position than ever before. On the other hand, it is suggested that the changes will weaken the role of the university as a critic of society and a seeker of the truth as the selection of research topics will be based on the interests of stakeholders and not on the researcher's thirst for knowledge. Nevertheless, the role has changed before and will continue to do so in the context of changing cultural, social and economic values. (Rinne – Koivula 2005; Shattock 2005)

The current Government Programme in Finland emphasises the role of research, development and innovation activities as well as entrepreneurship in securing international competitiveness (Government Programme... 2007), and universities are requested to embrace this goal in some way. It is suggested that this could mean their transformation into entrepreneurial entities. There are many definitions of an entrepreneurial university, but it generally refers to entrepreneurial action, structures and attitudes within the university (Rinne – Koivula 2005). It could be perceived of as an institutional characteristic – an institution wanting to foster enterprising individuals (Gibb 2005) and to change and take risks (Barnett 2005), and through the faculty and staff as academic entrepreneurs operating within the university and capable of innovating and sustaining technology transfer from it (Shattock 2005). Here we apply the concept in the institutional and educational sense: the way the university is able to create and foster the development of enterprising individuals and to aspire to change.

According to the Global Entrepreneurship Monitor (Pukkinen et al. 2007; Stenholm et al. 2008), Finland lacks, in particular, a high-growth entrepreneurship culture as well as the individual entrepreneurial qualities and business skills needed in successful entrepreneurship. Finnish universities as integral parts of national innovation and entrepreneurship systems have their crucial role to play here. Universities have been demonstrated to have a role in overall economic growth in terms of encouraging the establishment of firms (Kirchhoff et al. 2007). They are not only potential sources of new knowledge-intensive ideas and innovations, but may also provide the business knowledge, skills and competences that entrepreneurship demands. They can therefore make a contribution by encouraging students to become innovative and growth-oriented business-minded individuals capable of acting entrepreneurially.

There are other reasons and not only the above policy agenda that have caused Finnish universities to launch entrepreneurship programmes. Firstly, the traditional employers of university graduates, i.e. the public sector and large firms, are reducing their employment opportunities at least in proportion to the continuing increase in the number of graduates. This suggests that employment in small firms and as entrepreneurs is a more common career alternative. Secondly, waged work nowadays is considered to require a greater amount of independence, initiative and creativity, features commonly connected to entrepreneurship. Therefore the step towards it is no longer considered an obstacle: it is rather a question of building a career and earning your living by integrating waged work and entrepreneurship. (Nurmi – Paasio 2007; Akola et al. 2007; Paasio et al. 2005) Finally, the third task or pillar has pushed universities into fostering entrepreneurship and exploiting new innovations. The launching of entrepreneurship studies is considered to be one way of reaching this goal. Graduate entrepreneurship is thus high on the political and educational agenda, but according to a recent review, entrepreneurship is still relatively marginal in Finnish universities (Paasio et al. 2005).

The goal of the current structural changes within the Finnish university system is, on the one hand, to increase international academic excellence, and on the other hand to create stronger and more effective university entities in order to foster the international competitiveness of the country. The latter goal in particular encompasses the reinforcement of entrepreneurship and innovation perspectives within universities. It is therefore relevant to assess the extent to which universities can include entrepreneurship studies in their curricula. It has also been suggested that we need to know more about what entrepreneurship or enterprise education 'is' in practice when implemented, and that we need a systematic view in order to be able to identify the contextual factors, the inputs into the system, the educational processes, and finally the outputs (Pittaway – Cope 2007). In order to accommodate this need we will focus in particular on elucidating a role for enterprise education in a university setting, specifically in a business and a non-business school setting, establishing what it means and assessing the related challenges.

The aim of this study is to consider different options for organising university entrepreneurship programmes in non-business and business schools. We start by clarifying the objectives and audiences for such programmes, and offer different organisational options based on the diverse needs of the students. Our analysis is based on previous research on entrepreneurship programmes in Finnish universities (Paasio et al. 2005), as well as on our own field-generated knowledge as entrepreneurship educators. We argue that, like entrepreneurship as a phenomenon (Steyart – Katz 2004), entrepreneurship programmes are also connected to the social, cultural and economic contexts in which they are organised (Hytti 2008). Similar discussion on the particular European contexts for enterprise education is on the increase (see e.g., Fayolle – Kyrö 2008). Hence, it is not possible to offer any universal or generic models of entrepreneurship programmes.

The framework is meant to map not only existing practices but also potential or foreseen developments in the field. As such it is a conceptual tool for identifying and weighing the different options. Here, we elaborate these identified options, and conclude by discussing the implications of the study for the structural development of Finnish universities.

In illustrating the different options we aim to steer clear of the self-evident: entrepreneurship studies have the potential of being much more than a single (marginalised) subject within the larger university setting. Embedded entrepreneurship studies incorporate content (entrepreneurship), pedagogies stimulating entrepreneurial behaviours, skills and attributes, as well as their integration into other university disciplines during the delivery process, and finally the reinvention of the university itself as an entrepreneurial institution. However, more (longitudinal) research endeavours are needed to follow the process and generate new information on the outcomes of enterprise education and of the entrepreneurial university.

2. OBJECTIVES AND AUDIENCES FOR ENTREPRENEURSHIP PROGRAMMES

The different aims and objectives of enterprise education have been widely discussed and range from increasing the knowledge base of participants, improving their entrepreneurial skills and behaviour in life, and finally to providing participants with the relevant set of skills and competences for establishing a new start-up or managing an existing firm. Understanding these different objectives and applying this in the design of enterprise education programmes is considered to be the key in developing effective entrepreneurship programmes. (Hynes 1996; Hytti – O’Gorman 2004; Blenker et al. 2006) Entrepreneurship education cannot be separated from the social, cultural and economic context in which it takes place (Hytti 2008), and these contextual arrangements are discussed next.

The university is interesting as a context in itself. The challenge lies in crafting an appropriate identity for entrepreneurship education at universities. Entrepreneurship is often associated with practice and everyday activity, and is characterised by its unique, subjective and integrating nature. On the other hand, university education is based on academic research and knowledge, and is characterised by a general, functionally specialised and objectively rational aim to develop the theoretical and critical thinking of students (Hytti 2004; Blenker et al. 2006). How best to combine these approaches, which seem highly different from each other, without destroying the nature of either is the key question.

In a certain cultural context or within a single educational setting the expectations and level of preparedness of the audience influence what is feasible and/or sensible. For example, if the audience is highly motivated by entrepreneurship as a career alternative then it makes sense to

provide relevant courses and programmes that offer them the skills and capabilities required to start and manage firms. On the other hand, if this demand is not there, if the students shun the idea of a career as an entrepreneur, then the main focus should be elsewhere, such as on raising awareness, providing more information about entrepreneurship, or acquiring the entrepreneurial skills and behaviour needed in any employment setting. (Hytti – O’Gorman 2004; Hytti 2008)

The motivations of the students may be dependent on their university discipline. In this article we will use the divide between business and non-business disciplines: the students in these disciplines represent highly different audiences for entrepreneurship studies. On the evidence of a longitudinal study of entrepreneurial attitudes and intentions among students at the Turku School of Economics, we are able to make the following statements. Like almost all Finns currently, the students at the university have positive attitudes towards entrepreneurship: they admire it and the entrepreneurs. However, they find it difficult to identify themselves as entrepreneurs, i.e., they do not perceive entrepreneurship as something for them, possibly because they are not familiar with many entrepreneurs with an academic education, or at least who graduated from the business school. (Paasio et al. 2004; Hytti – Kuopusjärvi 2004) They may have pre-selected a corporate career in a large multi-national company as the reason for enrolling in a business school, and hence working as an entrepreneur, or even as a manager or expert in a small firm, may seem like a distant prospect. The business students also identify themselves as experts on different business processes (marketing, accounting, management), and generally feel that they lack the potential to develop a viable business idea. Becoming an entrepreneur is portrayed merely as an option in order to avoid unemployment, or as a hobby if they inherit or win a lot of money in the weekly lottery. (Paasio et al. 2004) Hence, only a fraction of them seriously consider an entrepreneurial career as an option at least in the short term. Nevertheless, in Finland as in many other countries, the business school or business department is the traditional home base of entrepreneurship programmes in the university sector (Nurmi – Paasio 2007; Paasio et al. 2005). Many researchers are of the opinion that business schools are not capable of promoting entrepreneurial competence, and they may even destroy it altogether: the education is considered to support a basically positivistic philosophy. It is suggested that this inability is rooted in the focus on the development of analytical competence and skills, and in the idea that the sufficient collection of information will facilitate the making of rational decisions from various options. (Gibb 2002; Blenker et al. 2006)

At least until recently the provision of business studies for non-business students has been quite limited in Finland (Paasio et al. 2005). Hence, entrepreneurship courses are considerably more attractive to non-business students within universities than in business schools. However, there are some signs that the reasons for enrolling on entrepreneurship courses are connected to the students’ desire to learn about business in general, and not particularly about entrepreneur-

ship. A single entrepreneurship course may be their only chance to familiarise themselves with the world of business, which is considered important as many students in non-business faculties believe they will be employed in firms, or perceive that some understanding of the business reality will be useful. (Heinonen – Vento-Vierikko et al. 2006)

In sum, there are several contextual elements to be considered in relation to entrepreneurship studies: the objectives set for the programmes that are interrelated to the university setting as a particular platform for the studies, together with the different disciplines and the expectations of the students.

3. OPTIONS FOR ORGANISING UNIVERSITY ENTREPRENEURSHIP PROGRAMMES

A recent review of entrepreneurship programmes and other activities related to entrepreneurship in all of the 21 Finnish universities revealed that they all offer entrepreneurship studies. However, the supply and activities are very heterogeneous. Entrepreneurship may be taken as a major subject in all of the three Schools of Economics, and in two multi-faculty universities in Kuopio and Jyväskylä, where entrepreneurship studies fall within the economics or business departments. The above study also brought to light an interesting controversy: the multi-faculty universities perceive entrepreneurship studies as something for the schools of economics and technology. However, in the school of economics the take up of such studies is fairly low so they reach only a fraction of the students. It is difficult to establish the relationship between arts and entrepreneurship in the arts academic establishments despite the fact that most of the graduates become self-employed or enter into entrepreneurship themselves. Despite this reluctance to embrace entrepreneurship, it is nevertheless considered something of growing strategic importance. (Nurmi – Paasio 2007; Paasio et al. 2005) The programmes ‘nest’, in particular, in business schools in Finland but without much success, at least in terms of student enrolment. Therefore it is relevant to consider how the audience for and objectives of the entrepreneurship programmes might affect their delivery.

We suggest that it is possible to identify four different developmental phases and/or delivery models of entrepreneurship studies in the university context. In practice they may overlap, and several models may be implemented simultaneously. In the following we present two different principles for delivering entrepreneurship programmes to business students, and two different principles for non-business students (Figure 1). The first relates to perceiving entrepreneurship studies as a research field in a business school (a). The second is the development of entrepreneurship as an integrated and synthetic subject in a business school (b). The third and the fourth take place in a non-business context: entrepreneurship as an add-on subject (c) or the embedding of entrepreneurship studies in the entrepreneurial university (d). In the following we discuss these

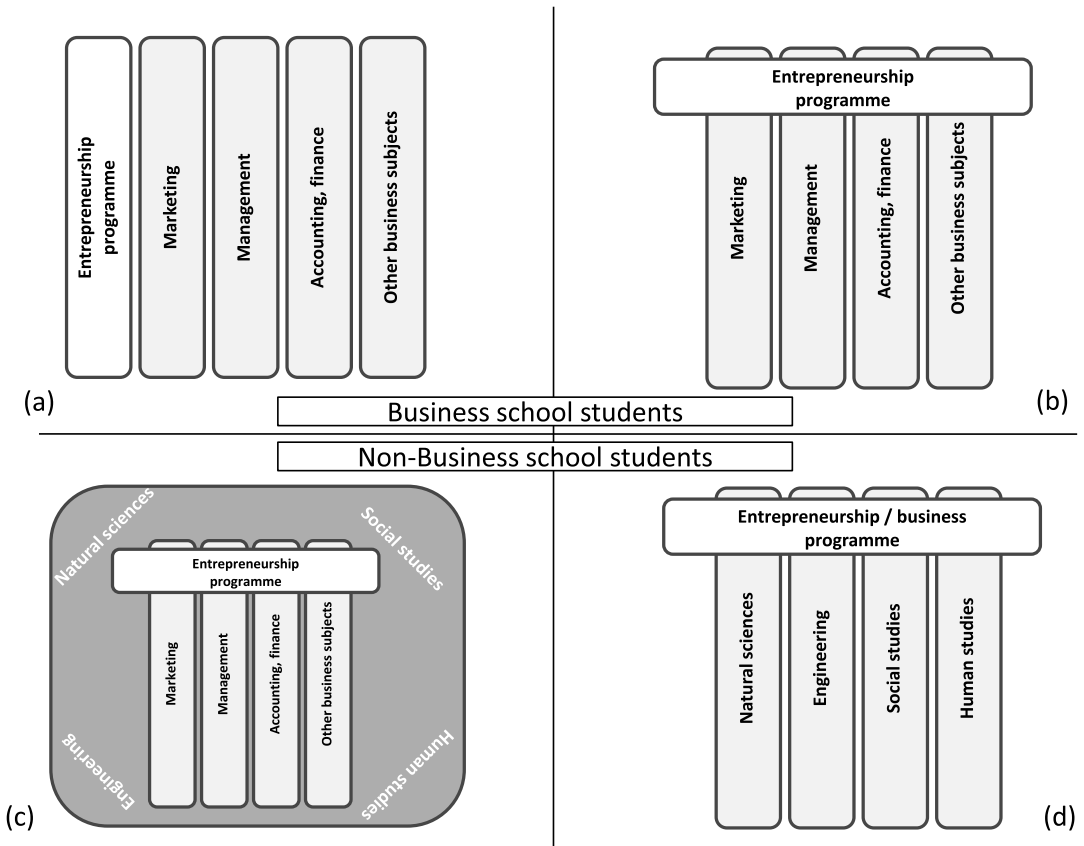


FIGURE 1. Entrepreneurship programmes for business and non-business students.

different models in detail in terms of the objectives, the scientific core, the ways of organising entrepreneurship teaching, and structural and administrative issues.

3.1. Entrepreneurship as a research field (a)

The objective is to develop entrepreneurship as a research discipline within the university, and hence the entrepreneurship studies are geared to developing the research skills of the students. A further objective is to generate research knowledge that the students could apply in preparation for (external or internal) entrepreneurship, i.e., for acting as entrepreneurs. The vast majority of the programmes are delivered in business schools, which have also typically included entrepreneurship on their research agenda as it is seen to be related to business and particularly to business management (Gibb 2005). Entrepreneurship as a research and teaching field has developed alongside other business disciplines, including marketing, management, accounting and finance, and it has ‘fought’ for its position as a ‘proper’ research field with core theoretical concepts,

models and perhaps even paradigms. The researchers, like any others in a specific field, have attempted to develop a particular identity for entrepreneurship studies. It is suggested that scholars have finally won the battle for academic respectability and have established an entrepreneurship field in business schools. (Laukkanen 2000; Johnson et al. 2006) A number of universities, especially business schools, now offer entrepreneurship as a major subject, thereby allowing the possibility to conduct doctoral studies in that as in other related disciplines. In some cases it is justified to say that business schools have compartmentalised business knowledge into functional boxes that dictate the organisation of the school (into subjects and departments), and consequently the delivery of knowledge and value they give to it (Gibb 2005). However, the debate about the need for different approaches in business and entrepreneurship studies in universities continues (Gibb 2002; Blenker et al. 2006). In any case, separating entrepreneurship from other business disciplines runs the risk of diluting the holistic and synthetic nature of the phenomenon, although it may strengthen its position as a rigorous and respectable academic research field.

3.2. Entrepreneurship as an integrated and synthetic subject (b)

Entrepreneurship programmes can also be used as a tool in integrating other business subjects into the holistic idea of operating a business. The objective is to educate students for running and managing (entrepreneurial) organisations as a whole, and hence for acting as (external or internal) entrepreneurs. The close integration of industry and businesses is also emphasised within this approach (see Binks et al. 2006), and entrepreneurship is believed to give it a 'practical' flavour. It is, however, too simplistic to consider entrepreneurship merely a practice and an 'activity': it is also an academic subject among the other business disciplines (Gibb 2002). The idea of entrepreneurship as an integrated and synthetic subject allows many interesting teaching and learning approaches, i.e., ways of delivering business studies (including entrepreneurship) to students.

The research emphasises the role of the entrepreneurial process: entrepreneurship is about entrepreneurial and innovative individuals interacting with their environment, thus discovering, evaluating and exploiting opportunities (Shook et al. 2003). This notion challenges traditional, formal university teaching, which does not necessarily emphasise the real-life nature of businesses or the opportunities for students to learn through reflection-in-action (see Heinonen – Akola 2007; Jack – Anderson 1999). From the pedagogical perspective, entrepreneurship programmes may thus have something to offer to other business disciplines (see e.g., Kirby 2004).

In addition, studying a company as a whole makes it possible to build multidisciplinary (within business studies) research teams (e.g., during the Master's Thesis process) with a more holistic research agenda and questions. The analyses are not restricted to one business discipline, and company growth or venture creation, for example, are tackled from the accounting, marketing and management perspectives at the same time. This approach may enrich students' holistic

understanding of businesses without diminishing the role of any of the disciplines. In practice, this might imply breaking up the traditional departments within business schools, withdrawing small courses from different disciplines, and creating larger holistic entities in which, with the help of experts from various disciplines, students investigate particular phenomena. Despite its merits, embedding an entrepreneurial way of teaching and learning in a higher-education context has proven to be difficult as the entrepreneurial approach to teaching is considered to be the antithesis of traditional approaches (Smith et al. 2006), with their well-focused and narrow areas of knowledge and expertise, and specialised courses.

3.3. Entrepreneurship as an add-on subject (c)

It is also argued that if business creation is the main aim of graduate entrepreneurship education, the business school may not be the best place for it. In terms of start-ups, the most successful entrepreneurship programmes are suggested to come from science, technology, the creative sector and engineering (Hynes 1996; Johnson et al. 2006; McKeown et al. 2006). Therefore, having established the position in a business school, the next challenge is to move into non-business schools. The goal of the education is to provide non-business students with general business competence within their given context. Due to societal changes entrepreneurship has been opened up as a relevant career choice to increasing numbers of people coming from different academic disciplines, and not primarily from business studies (Heinonen – Kovalainen et al. 2006). The need to understand some business basics is considered important for university students regardless of the discipline. Although entrepreneurship *per se* might not be explicitly considered a viable future career option, it is likely that work in the future will have more entrepreneurial characteristics than today: employment in a small or medium-sized company, contributing to innovation and opportunity recognition in any organisation, project-based employment, working as a freelancer or practising one's profession as an entrepreneur (e.g., medical doctors, lawyers, interpreters) (Akola et al. 2007). Business studies provide students with the new skills and competences they need for employment in the future, when qualified experts will also be expected to have the basic knowledge and skills for managing an organisation and understanding the core functions of a company.

Non-business students often perceive 'private-sector company issues' as entrepreneurship (see Heinonen – Vento-Vierikko et al. 2006), although they may have very little to do with entrepreneurial behaviour and processes. In fact, many university students are interested in general business studies rather than entrepreneurship *per se*. This does not, however, imply that entrepreneurship has nothing to offer non-business students: on the contrary, the programmes can integrate the different business disciplines and develop the students' business competence, and in some cases also foster entrepreneurship and the exploitation of innovations in new firms and existing

organisations alike. The boundaries between general business and entrepreneurship studies are blurred and are dependent on the objectives of the programme: whether the emphasis is on entrepreneurship as a career or as a process of developing new opportunities.

The challenge with this type of programme for non-business students is that entrepreneurship and business competence are considered add-on subjects that complement students' knowledge in other university discipline (e.g., engineering and the natural sciences). In terms of entrepreneurship and business start-ups, this implies, for example, that a business idea stemming from biotechnology is 'flavoured' with business and/or entrepreneurship competences. This type of traditional understanding of knowledge creation, so-called Mode 1, has created academic knowledge based only on the research discipline and the researcher, and its merits in terms of fostering innovations can be questioned (Nowotny et al. 2001). Only seldom is a business idea mature enough to achieve success in the market place merely after adding some business and entrepreneurship competence: in general the process is far from linear, and is a matter of multi-disciplinary development (Klofsten 2005).

In addition, there are some challenges involved in introducing entrepreneurship programmes in non-business faculties. Existing curricula have limited scope for expansion. Hence, introducing entrepreneurship courses would mean that other courses would have to be dropped. (Smith et al. 2006) Moreover, the programmes are often voluntary and hence their take-up may be relatively low: consequently their effectiveness remains limited in the university as a whole.

3.4. Embedded entrepreneurship studies – the entrepreneurial university (d)

Historically, there has been a dyadic relationship between technology, which is focused on creativity, and business or entrepreneurship, which is focused on commercialisation (Johnson et al. 2006). According to the more modern, so-called Mode 2 epistemology, new knowledge is always created in a specific context in a multidisciplinary and problem-oriented way. The multidisciplinary approach creates knowledge that goes beyond traditional academic disciplines and is thus crucial in exploiting innovations and opportunities for entrepreneurship. (Nowotny et al. 2001) This implies the value not only of integrating business studies into the entrepreneurship programme, but also integrating the entrepreneurship programme into other academic disciplines, as depicted in option d) (Figure 1). Multidisciplinary teams have a crucial role in providing a platform for different disciplines to meet and negotiate. The approach is about creating and sharing knowledge, and discovering and experimenting together, i.e., about the entrepreneurship process (see Shane – Venkataraman 2000). Most importantly, experimenting with different approaches in creating new knowledge and exploiting it is a continuous activity that fosters further (social) learning (see Rae 1999; Taylor – Thorpe 2004). We have labelled this type of programme embedded entrepreneurship studies. The objective of such studies is to create new multi-discipli-

nary knowledge and even to contribute to the development of an entrepreneurial university; a university that embraces entrepreneurial action, structures and attitudes (Rinne – Koivula 2005).

Business-idea development is not a linear and clear-cut process but is rather one with several heuristic idea-generation spirals during which the original idea is developed into a business idea through innovative thinking (Klofsten 2005; Davidsson et al. 2006). Entrepreneurship education is adopted in an integrated manner in that interdisciplinary teams and project work are encouraged (Hynes 1996). In the university setting knowledge-intensive innovations are likely to emerge as a result of an intensive process in which researchers or students from different disciplines and backgrounds participate. The programmes may be highly entrepreneurial learning processes, involving projects designed to stimulate entrepreneurial behaviours and assessed accordingly (Gibb 2005). The embedding of entrepreneurship and business studies in university studies helps students to find forums for such processes. In short, embedded entrepreneurship studies are not just one (marginal) subject within the larger university setting: they deal with the content (entrepreneurship), they apply pedagogies stimulating entrepreneurial behaviours, skills and attributes, and offer a way of integrating these with other university disciplines during the delivery process.

In practice, the challenge is that this might imply changes in university structures and traditional departments, as well as in ways of delivering entrepreneurship programmes. This is connected with the building of an entrepreneurial university focused on the understanding and development of entrepreneurial behaviours, skills and attributes in different contexts – public and private, organisational and individual (Gibb 2005).

4. DISCUSSION

The different options for organising university entrepreneurship programmes could be considered different developmental phases, or simply different models for implementation either within a business school or more widely within the whole university sector. The options are based on different interpretations of entrepreneurship and entrepreneurship education, and the different contexts (see Table 1).

As the development of scholarship through learning about entrepreneurship continues to be a task for universities, additional objectives are assigned to entrepreneurship studies. There is a demand for more university graduates to embark upon an entrepreneurial career, and thus for the development of graduate entrepreneurship, and a need for business competence in general to facilitate contribution to economic progress (Kirchhoff et al. 2007). In fact, any academic discipline or industrial sector offers a magnitude of opportunities for entrepreneurship. It is merely a matter of human imagination and our ability to conceptualise it that puts limits on entrepreneurial behaviour (Kirby 2004).

TABLE 1. A summary of the different items in relation to organising entrepreneurship studies in the university context.

	<i>Traditional perspective</i>	<i>Extended perspective</i>
<i>Objectives for enterprise education</i>	Learning about entrepreneurship	Learning to act as an (external or internal) entrepreneur
<i>Scientific core</i>	Entrepreneurship as a subject, research field	Entrepreneurship as a holistic approach in addition to the disciplinary scientific core
<i>Ways of organising entrepreneurship studies</i>	Separate subject or integrated with other business subjects	Embedded in all the subjects, departments
<i>Structural and administrative issues</i>	Influence limited to the entrepreneurship faculty (or to other business disciplines)	Across-campus activity, structural and administrative changes – entrepreneurial university?

It is possible to craft a role for entrepreneurship as a subject and research field, as well as an approach in education. Although the nature and role of the programmes vary according to the option, the ‘hard core’ of entrepreneurship, namely high-quality academic research, needs to be present in order to form the basis of the teaching and learning. This is the essence of the university programmes, as in any academic discipline. Irrespective of the delivery method, whether it is separate or integrated into other disciplines, or embedded in the whole university, the programme needs to rely on a strong research-based understanding of the phenomenon of entrepreneurship. In perceiving entrepreneurship as an integrated problem-centred approach we argue that it does not deny the value of theory and concepts, but it rather provides the bridge between them and practice – something that universities and business schools are supposed to do (Gibb 1996). This view is further emphasised as entrepreneurship researchers and educators within business schools have been accused of focusing too much on new-venture creation and small-business management, and too little on creativity and change (Kirby 2004). Therefore, it has been suggested that a shift from the analytical problem solving typical of business schools towards ‘intellectual entrepreneurship’ and the ‘crafting of relationships between sets of ideas’ is needed (Chia 1996).

This also points to the relevance of the interdisciplinary approach. Undeniably it challenges the positivistic scientific understanding of business management, and accordingly the business-school tradition of academic rigour (Gibb 2002). However, it offers opportunities to create something genuinely new and innovative, which is at the very core of the university concept. This calls for persistence and a mutual vision with other disciplines in organising the programmes. In short, it is about campus-wide approaches to entrepreneurship. There is a need for a shift in focus of

entrepreneurship teaching and research away from the narrow business orientation towards the development of the enterprising person in different contexts, of which small owner-managed businesses or corporate entrepreneurship in larger companies are only examples (Gibb 2002). The campus-wide approach may need to be supported by additional structural and administrative changes within the whole university, not just in the entrepreneurship faculty.

In sum, entrepreneurship is not a prerogative of business schools, although the academic core of the phenomenon may be heavily rooted in business studies (Figure 1a). As a research field it benefits and will be better exploited when integrated into other business (Figure 1b) or university (Figure 1c) disciplines. Finally, when all faculties are included and entrepreneurship is embedded in the university culture and pedagogies, as well as in the administrative structures and tasks, we could refer to the entrepreneurial university (Figure 1d).

5. IMPLICATIONS

The entrepreneurial university challenges traditional university education and its structures and processes. The recent discussion has been polarised around the need for change in universities to meet the changing demands of society and its various stakeholders on the one hand, and the deterioration of the traditional academic role resulting from the increasing influence of external funders on the other. We argue that it is possible to move beyond this dichotomous position, and suggest that the universities themselves need to take the responsibility so that they can *“function in an entrepreneurial fashion, but in an academic sense, not in an economic sense.”* (Rinne – Koi-vula 2005, 112). In practice this means that universities, departments and researchers cannot simply react to existing demands, but must be more proactive in orchestrating stakeholder needs. This calls for active communication and involvement with society and stakeholders in line with the third task of the university. The challenge is also connected to the internal allocation of resources, which is one of the major obstacles to the move towards an entrepreneurial university – the current aim being to maintain the status quo. There would be a need to base the resource allocation on new innovative assessment and direction modes within the university.

Currently there is a strong momentum to meet these challenges and to effect real changes in the Finnish university sector through the structural development of higher education. So far the discussion has been limited to the structures between the universities (the integration of smaller units to produce larger universities). For example, the current goal is to intensify co-operation, re-assess structures and break the boundaries between the University of Turku and Turku School of Economics, which will be merged into a new multidisciplinary university in a few years time. From our perspective, the idea of an entrepreneurial university calls for the development of a new identity and a strong organisational culture in which those working inside the university believe

(Rinne – Koivula 2005), and the implementation of related structural changes within the universities, faculties, departments and subjects. If this is to happen the need has to be identified, there has to be the willingness and competence to carry out organisational and cultural changes, and there must be a substantial epistemological ‘advance’ (Gibb 2002) in shaping the institutional environment for entrepreneurship in the Finnish university sector. This, in turn, calls for changes in evaluation and assessment methods, and a move from historical steering systems in a future-oriented outcome-based direction.

The entrepreneurial university also challenges the competence of university teachers and researchers. Traditional teaching methods based on lectures given by a single teacher will no longer be enough. (Gibb 2002) Given the need to put forward multi-disciplinary student groups, there is a similar requirement for multi-disciplinary teams of teachers who are capable of delivering learning programmes focused on problem-solving and holistic processes, and of interacting with entrepreneurial people and businesses (stakeholder engagement). An entrepreneurial university also calls for a focus on methodologies and pedagogies. There is a need to emphasise doing things differently and to build up an entrepreneurial way of thinking and behaving. The business activity may follow later. Arguably these demands call for further attention in educator development.

There is a demand and a need for entrepreneurship programmes at the university level, but we need to be creative and daring in how we build them. We argue that developing such a programme does not have to be limited to incorporating a marginal new subject into the curriculum, and it could mean restructuring the whole university and renegotiating the boundaries between universities and student enrolment in a completely new way. This requires us to be proactive towards change and risk-taking in the university (Barnett 2005).

The Schumpeterian entrepreneur is an individual who creates new combinations and fosters creative destruction. Why should we at the universities and the various departments not do the same? Acknowledging the true value and intent of any academic discipline, and courageously integrating them in different settings within the university sector, may produce enormous opportunities for the advancement of entrepreneurship and the university as a whole. The time is right, but the question is whether we will use this opportunity. Whether the entrepreneurial university is realised in practice or whether it remains a rhetorical tool remains to be seen. (Rinne – Koivula 2005) ■

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