

National Council for Graduate Entrepreneurship

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Towards the Entrepreneurial University

Entrepreneurship Education as a lever for change

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Extended Executive Summary

1. This paper addresses the issue of development of effective policies for the promotion of entrepreneurship in the Higher Education (HE) sector in the UK. The context is that of major current initiatives which are focusing upon the development of appropriate programmes for the teaching of entrepreneurship and their role in facilitating university engagement with the community. There is particular concern for the role of entrepreneurship in stimulating technology transfer and commercialisation of academic research.

2. Two key issues are identified. The first is that of the most appropriate concept of entrepreneurship to be adopted. The second is that of what capacities will need to be developed, what changes will need to be made and how they may be best facilitated if the impact of current initiatives is to be sustainable.

3. The need for a clarification of the concept of entrepreneurship is paramount. The paper shows that the present model, considerably influenced by the economist's tradition and the largely corporate business school approach is exclusively business management focused. It is argued that this is largely, but not wholly, an inappropriate model for a number of reasons:

- The association in this model of entrepreneurship with high levels of innovation, technology, scale and growth. This means denial of the fact that many self-employed persons and independent small and medium businesses exhibit high levels of entrepreneurial behaviour but do not wish to grow. Moreover, it creates an image that entrepreneurship is difficult to attain and therefore is only for an exceptional few
- The centrality of the business plan which is the wrong metaphor for entrepreneurship. While very useful, business plans were not invented by entrepreneurs but by banks, accountants and other professional service providers and reflect the culture of their world. There is little evidence to indicate a strong relationship between business planning of this kind and success and a growing body of evidence to demonstrate that it is the capacity to get into the market place and adjust flexibly to what is learned there and in particular to customer needs, while thinking strategically, that is of paramount importance.
- The business management focus considerably weakens the potential of the entrepreneurship model being valued in a non-business context, for example in public services such as health, education, social services, local government and police. When it is applied to these contexts it is dominated by business management functional teaching.
- Business schools, who currently dominate entrepreneurship teaching and research, compartmentalise knowledge into functional boxes. These boxes dictate the organisation of the schools and consequently the delivery of knowledge and the value they give to it. The essence of entrepreneurship is, in contrast, holistic management and the constant capacity to 'feel' the organisation as an integrated whole. Entrepreneurial learning is acquired on a 'how to' and 'need to know' basis dominated by processes of 'doing', solving problems, grasping opportunities, copying from others, mistake making and experiment. Most of the learning derives from managing relationships with stakeholders (customers, suppliers, banks, accountants, competitors, regulators and so on). Existing courses do not, by and large, organise knowledge around these processes and the academic research processes tend to shape explicit knowledge on a functional basis as that is the route to publication.
- Existing models, in the main, do not teach how to learn from stakeholders and importantly how to manage relationships on the basis of trust, personal judgment and

'know who'- all of which are major entrepreneurial ingredients. The entrepreneurial firm is a highly porous learning organisation capable of harvesting knowledge from all stakeholders external to, and within, the organisation.

- The traditional model makes little space for exposure to tacit knowledge and the insights into the community of practice that this brings (how things are really done). The world of the entrepreneur is one that values tacit knowledge and the heuristics of judgment and intuitive decision making.
- The existing models are not strongly focused upon pedagogy designed to carefully nurture entrepreneurial behaviours. Only a very limited pedagogical range is currently applied, mainly cases, lectures, projects and visits with some skills training (for example presentations). Entrepreneurial behaviours, skills and attributes, nurtured by well designed pedagogies and exposure to experience are essential components of being able to 'feel' what it is like to be entrepreneurial and are key to the creation of entrepreneurial values.
- The culture of the organisations, particularly business schools, in which entrepreneurship is taught, is essentially derived from a corporate model which values order, formality, transparency, control, accountability, information processing, planning, rational decision making, clear demarcation, responsibilities and definitions. This contrasts substantially with the informal, personal relationship, trust building, intuitive decision making, somewhat overlapping and chaotic 'feeling' world of the entrepreneur. An alien culture stands in the way of creating empathy with entrepreneurial values.
- The focus upon new venture creation and the use of projects, while evident in most programmes and highly valuable, may not always constitute an entrepreneurial experience. The new venture process has great potential as a means for the development of entrepreneurial behaviours but, in practice, does not always seem to attach learning closely to the processes of the venture development (see Annex 6). Similarly, projects can be a highly entrepreneurial learning process but are not always organised as such, being more akin to research projects or application of functional management tools.
- The context is most often that of the 'market model'. This excludes understanding of entrepreneurial behaviour in very different contexts and dangerously can lead to the assumption that it is only market conditions that create entrepreneurship.

4. The above model, with its dominant emphasis upon business, will be more difficult to accept in Higher Education. It may exacerbate fears of threat to traditional academic values, in particular the pursuit of knowledge for its own sake, the channeling of research monies into commercial projects and the threat to publication and IP rights on concepts.

5. An alternate model is therefore proposed which is designed to address most of the issues identified above. This is based upon a view that the role of entrepreneurship in society, and perhaps the major reason for its current political popularity, is that it provides an opportunity for individuals and organisations of all kinds and in all walks of life to cope with, provoke, and perhaps enjoy, an increasingly complex and uncertain world. In this model it is shown that the propensity to behave entrepreneurially is not exclusive to certain individuals but may be more dominantly displayed by some rather than others. Different individuals will have a different mix of capacities for demonstrating and acquiring entrepreneurial behaviours, skills and attributes. These behaviours can be practiced, developed and learned to some degree and certain environments, particularly that of running ones own business, will stimulate them.

6. Dominant characteristics of the alternate model are:

- That entrepreneurship is needed to cope with, enjoy and perhaps create uncertainty and complexity.
- That the growing need for entrepreneurship arises largely from the complexities and uncertainties created by globalisation impacting on organisations and individuals of all kinds and in all contexts. It should be understood that individuals may be affected in their work, family, community and consumer life.
- That entrepreneurship education should therefore focus upon the understanding and development of entrepreneurial behaviours, skills and attributes in different contexts.
- Entrepreneurship is portrayed as open to all and not exclusively the domain of the high flying growth seeking businessperson
- Exploration of the need for, and role of, entrepreneurial behaviours in all kinds of different contexts, public and private, organisational and individual, by a process of examining the nature of change, the sources of complexity and uncertainty and the appropriate entrepreneurial response. Business is therefore just one (but very important) context.
- A strong focus upon instilling empathy with entrepreneurial values and 'ways of doing, feeling, seeing, communicating, organising and learning things'.
- The development of capacity for strategic thinking and scenario planning and the making of intuitive decisions based upon judgement with limited information.
- A strong emphasis upon employing a wide range of pedagogies aimed at stimulating entrepreneurial behaviours and developing skills and attributes.
- Creating understanding of, and empathy with, the 'way of life' of the entrepreneur and how to live, day by day, with uncertainty and complexity.
- Maximising the opportunity for experiential learning and engagement in the 'community of practice'. In particular creating space for learning by doing and re-doing. Projects will need to be designed to stimulate entrepreneurial behaviours and assessed accordingly.
- Finding innovative modes of assessment and accreditation.
- Developing understanding of, and building knowledge around, the processes of organisation development from start, to survival, growth and internationalisation. This will demand a focus upon the dynamics of change, the nature of problems and opportunities that arise and how to anticipate them. This will also require an holistic approach to the management of organisations and the integration of knowledge. The academic approach will be one that builds concepts around problems and experience.
- Creating capacity for relationship learning, network management, building know-who and managing on the basis of trust-based personal relationships. The Business Plan becomes an important component of relationship management leading to understanding that different stakeholders need 'plans' with different emphasis (a venture capitalist or angel is looking for different things than a banker).
- Creating capacity to design entrepreneurial organisations of all kinds in different contexts and understand how to operate them successfully.
- Focus strongly upon processes of opportunity seeking, evaluation and opportunity grasping in different contexts including business.
- Creating opportunities for participants (students) to explore what the above means for their own personal and career development.

7. It is argued that the alternate model will support the HE sector in building relationships with stakeholders and will also sit more comfortably alongside traditional university values. It will nevertheless demand considerable changes in pedagogy and the appropriate training of staff. More importantly if the model is to achieve its goal of supporting the role of the university in the technology transfer process a number of more fundamental changes will be needed including;

- Changes in rewards and status systems to encourage those who engage, and have high credibility, with the business and wider stakeholder community
- Greater equality of status and career paths to those who focus upon research and development as opposed to solely research and publication.
- Flexible staffing and appointment arrangements (including professorships of practice, adjunct professors, fellowship secondments for members of the stakeholder community, visiting entrepreneur teaching fellowships and so on)
- More joint R & D arrangements with small firms as well as larger corporations.
- Re-orientation of the contract with the student to embrace a more clearly defined element of personal and career development in particular commitment to preparation of students for life long learning
- Creating stronger mechanisms for ongoing social interaction between academics and students and entrepreneurs.
- Ensuring that where science and technology parks exist in 'partnership' with the university they are filled with companies that have ongoing deep relationships with the university rather than those who readily fill space with attractive names.

8. To meet the above goals three alternative organisation models for HE entrepreneurship education are suggested. The optimum Fully Integrated model, see Exhibit 6, would have the following characteristics:

- University wide application of entrepreneurship teaching.
- Joined with office of technology transfer.
- Innovative pedagogical support for every department.
- Life long learning approach in all departments.
- All Departments and subjects covered.
- Professorial status for Research and Development excellence.
- 'Development' Sabbaticals for staff wishing to commercialise IP.
- Professors of Practice, Adjunct Professors, Visiting Development Fellows.
- Entrepreneur teams invited in to harvest ideas.
- Social integration of entrepreneurs and status awarded to them.
- Entrepreneurship as an office of the VC.
- All activities academic led but in partnership with external stakeholders.
- Research and development activity rewarded in all departments.
- Active stakeholder participation with university staff in joint ventures.
- Open approach to intellectual property and investment in university ventures.
- Staff of departments trained to develop and offer entrepreneurship courses

9. If this model should prove difficult to achieve, an Intermediate Model, more adjacent to the university but still led by it might include:

- A specialist centre, university owned but adjacent to the university
- Headed by university professor
- Programme and pedagogical development
- Development of specialist entrepreneurship programme offer to all departments – some department staff training
- Offers of staff training
- Centre established as stakeholder partnership
- Staff appointments open to external stakeholders.
- Harvesting departmental staff who wish to engage in entrepreneurship
- Joint ventures and programmes with science park and technology transfer processes

- Engagement with panels of entrepreneurs to encourage linking with departments to harness technology
 - Links to business support services and venture capitalists
10. If it proves impossible to engage substantially the university then a more External Business Services Support model might be a compromise embracing:
- A specialist centre, stakeholder owned but with university participation.
 - Headed by business executive.
 - Located alongside technology transfer or science park activity.
 - Training programme offers to departments.
 - Counselling and business support services offer to university staff and students.
 - Promotions and other activities.
 - Joint ventures with science parks and technology transfer agents.
 - Engagement with the entrepreneurial and stakeholder community.
 - Partnerships with interested academic staff
11. If the broad arguments in this paper are accepted then the following actions are suggested:
- (i) The NGCE should clarify the concept of entrepreneurship (and its rationale) that it wishes to promote. It is recommended that:
 - *This should be set out in a paper to be circulated for debate to all key stakeholders.*
 - (ii) If the entrepreneurship concept in this paper were to be adopted (or a modification thereof) then there needs to be a process for development of a full entrepreneurship curricula and pedagogy along the lines laid out in the 'alternate' model above. It is recommended that:
 - *A group of academics, entrepreneurs and others with experience of designing entrepreneurial organisations and entrepreneurial pedagogy are assembled to develop a full curricula and pedagogy.*
 - *This initiative be led by Professor Hannon located in an independent institute or adjacent to a suitable institution – carefully selected for its track record in innovation in management learning. The University of Lancaster could be one possible location. The Centres of Excellence in Teaching and Learning (CETL) 'Entrepreneurship'¹ would be key stakeholder members and participants.*
 - *This activity should build from existing models of curriculum in an evolutionary as opposed to revolutionary manner but nevertheless with a firm commitment to move from the traditional highly business dominated model to an 'alternate' one as identified above.*
 - (iii) A national teachers programme network is established aimed particularly at the staff of university departments other than business schools. It is recommended that:
 - *This network builds upon the best of existing experience, knowledge of which is already available to the NCGE.*

¹ There are three awarded CETLs in this category: Nottingham University; Leeds Metropolitan University; and the White Rose Consortium – the Universities of Leeds, Sheffield and York. The CETLs were announced in early 2005 and are funded for 5 years by the UK Government.

- *This programme is also targeted at staff of the business service community engaged in work with universities, staff engaged with HE technology transfer processes and careers advisors.*
- *It engages the major existing players identified at the beginning of the full paper.*

- (iv) High level staff of the HE sector need to be engaged in small, possibly regional workshops, expertly facilitated. It is recommended that these should be carefully targeted upon:
- *The potential for achieving some of the conditions identified in paragraphs 5.9.- 5.11. and Exhibit 6 in the paper.*
 - *the minimum model that needs to be developed for sustainable outcomes are to be achieved*
 - *identifying the kinds of external support needed to achieve these outcomes*

The results of these workshops should be written up into a policy paper.

- (v) Discussions should be held with the Higher Education Funding Council (HEFC) as to the types of incentives that might be provided to bring about the kinds of change identified in paragraphs 5.9.to 5.11. in the paper (para.7above). It is recommended that:
- *A short paper is written setting out these conditions and the rationale for them as a background to the meeting.*
- (vi) It is of critical importance that those who fund developments in this field are absolutely clear as to the underpinning concepts they wish to establish and the links these have with other initiatives and policy goals. It is recommended that:
- *A small work group be set up with the key national stakeholders engaged in the major initiatives identified in the full paper, plus Enterprise Insight with the aim to achieve a strong measure of agreement on the entrepreneurship concept to be promoted.*
 - *The aim should also be to explore what needs to be done to develop a consensus in the various approaches now being taken.*
- (vii) In the long run there is a need to find a suitable home for the research and development of educational and training material exclusively devoted to the field of entrepreneurship and the development of entrepreneurial organisations. Such material and approaches would be of benefit to a wide range of organisations in the management and indeed business services field. Left to the business schools it is likely that the concept will continue to drift. Such a move will ensure that the efforts of the NCGE will be sustainable in the long run. It is recommended that
- *a short portfolio document is drawn up setting out the terms of reference for the creation of a national entrepreneurship institute.*
 - *this is circulated to key private and public stakeholders.*
 - *views are taken as to how this might best be funded and located.*

Entrepreneurship Education as a lever for change

1. Introduction

1.1. This paper addresses the issue of development of effective policies for the promotion of entrepreneurship in the Higher Education (HE) sector. The context is that of major initiatives currently being undertaken in the UK which focus both upon the development of appropriate programmes for the teaching of entrepreneurship and its role in enhancing the contribution of the university to engagement with the community. There is particular concern for the role of entrepreneurship education in stimulating technology transfer and commercialisation of academic research.

1.2. There is a similar political interest in most of the countries of Europe, and beyond. This is frequently embraced under the banner of creating an enterprise culture (usually as part of a 'competitiveness' agenda). The European Union (EU) has made a firm policy commitment in this respect (Enterprise Europe 2005), has commissioned a number of major studies and reviews (European Commission 2002) and is currently supporting many initiatives. There is also a renewed interest in entrepreneurship education in the USA, involving a re-examination of the concept and its links with education at all levels (see <www.entre-ed.org> and below). Some useful lessons to be drawn from this experience are noted below.

1.3. In the UK, there are several major policy initiatives. The Science Enterprise Challenge Fund and Centres have created a base for the development and delivery of entrepreneurship programmes in universities aligned with the goal of enhanced exploitation of science-based intellectual property. The Higher Education Innovation Fund has provided another incentive for activity and programme development but with a wider remit. Centres of Excellence for Teaching and Learning in Entrepreneurship have more recently been established in the Universities of Nottingham, Leeds Metropolitan and the White Rose Consortium of Leeds, Sheffield and York. The Higher Education Academy has undertaken a pilot project to explore the ways in which entrepreneurship can be introduced into the HE curricula: and the National Endowment for Science Technology and the Arts (NESTA) also has a major interest in this area. Leading the way in the broader education field is the 'Enterprise Insight' campaign engaging all the major business associations, the government, regional development agencies and the education sector with the overall objective of stimulating an enterprise culture. The National Council for Graduate Entrepreneurship (NGCE) arguably sits astride these initiatives with its objectives of bringing together the best of experience in this field, promoting good practice and stimulating innovation.

1.4. This paper aims to contribute to the work of the NCGE by addressing two key issues. The first is that of the most appropriate concept of entrepreneurship to be adopted if the goal is to enhance the capacity and motivation of the HE sector to engage with the entrepreneurial community and, in particular, maximise the potential for technology transfer. It is currently unclear as to whether there is any agreement at all on the concept to be taught in respect of the various initiatives described above. Without a strong measure of agreement it will be difficult to fund coherent development and assess progress over time. Moreover the concept has to be linked with a clear view as to how it will help achieve other policy objectives, particularly those related to competitiveness and responses to the pressures of globalisation. Any concept in the HE context will also need to minimise key concerns of the HE sector that its traditional values will be undermined by entrepreneurial programme development.

1.5. The second issue is that of what capacities will need to be developed, what changes will need to be made and how they may be best facilitated if the impact of current initiatives is to be sustainable.

1.6. This paper is based upon a presentation to a NCGE International Conference in January 2005 and draws upon previous papers of the author, as well as other literature (wider references can be found by consulting earlier articles). The paper is divided into several parts. Section 2 focuses upon the need for clarification of the entrepreneurship concept. Section 3 uses a previous analysis of initiatives across Europe and North America (Gibb 2002a) and a number of more up-to-date studies in order to construct a 'revealed preference' model of how an entrepreneur is perceived by the education community. This is derived from what is being taught under this label by HE institutions – mainly, but not exclusively, by business schools. It is shown that what is being delivered is substantially a business-based model, underpinned largely by traditional notions of entrepreneurship drawn mainly from the economics literature. It is argued that this constitutes an inadequate response to current education policy needs.

1.7. Section 4 considers how an alternate model of entrepreneurship might serve to overcome some of the barriers to acceptance of entrepreneurship education and indeed facilitate the HE sector's engagement with the wider stakeholder environment. It is argued that there is little real threat to traditional university values in this model but that there will be a need for change. These changes are then set out. In particular the 'managerialist' models of university management and operations, alongside the prevailing emphasis on rewarding research and publication, rather than research and development, will need to be addressed. Teaching will need to focus more upon entrepreneurial pedagogy with a stronger and more holistic, integrated approach to knowledge.

1.8. Section 5 outlines different models for integrating entrepreneurship into the university.

1.9. Section 6 presents a summary, conclusions and recommendations.

1.10. Illustrations of several points are given in Annexes.

2. The Entrepreneurship Concept

2.1. It is now widely accepted that entrepreneurship can be taught and developed, provided that the right kind of environment is created (Gibb 2000b). It is also, however, increasingly acknowledged that progress in developing and building coherent concepts of entrepreneurship has been slow despite the enormous growth in the academic literature over the past decade (Welsch and Maltarich 2004 and Steyaert and Hjorth 2003). There are several possible explanations for this. First, is that of failure to integrate fully the different traditional social science disciplinary perspectives. Economic, sociological, psychological and anthropological explanations still sit alongside each other and compete for explanation. Second, is that business schools have captured the phenomenon and have attempted to deal with it within the conventional (and largely corporate business) ways in which they have organised explicit knowledge. The pressure has therefore been for entrepreneurship to fit within (or add value to) established management functional paradigms as a condition of it becoming academically respectable. It has been argued by the author that substantial change would be required in traditional business school norms of behaviour and ways of organising and delivering knowledge for sustainable progress to be made in the field (Gibb 1996) and that progress might best be achieved if entrepreneurship is taken out of the business school context in higher education

(Gibb 2002a). The arguments of this author in this respect join a growing body of heavyweight criticism of the way that management education in general is organised and delivered in business schools and its value in theory and practice (see for example, recent works of Mintzberg (2004) and Ghoshal (2005).

2.3. Third, and perhaps the most fundamental of possible explanations of barriers to progress in developing the concept, lies in the way that academe has brought together knowledge in this area. The main journals of publication have not been particularly coherent in building, incrementally, knowledge around levels of agreement in concepts (Vesper 2004, Steyaert and Hjorth 2003 ch 1). Moreover, many of the 'review' articles focus upon seeking to make sense of the past, by attempting to draw together different perspectives, without any major imperative in this process to give meaning to the solution of real world policy or management problems. Such procedures have variously been described as seeking to assemble an elephant from individual parts which have been studied in depth but never with respect to the whole: or peeling successive layers from an onion only to find nothing in the middle (Stevenson 2004). Perhaps an even more appropriate analogy would be that of seeking to assemble a jigsaw picture from parts of different puzzles.

2.4. The focus of this paper is therefore on what purposes the entrepreneurial concept needs to serve to be of practical value for educational policy making.

2.5. With this objective, a number of key questions of concept need to be addressed as follows:

- Is entrepreneurship solely to be seen as a business phenomenon or has it wider contextual relevance?
- If it is confined to business, is it best taught in the context of small (independent) business initiation and development or is it really about high tech new venturing and business growth in both an independent and corporate business context?
- To what degree should it focus upon the development of personal entrepreneurial behaviours, attributes and skills (set out in Annex 2) as opposed to the 'role' of the entrepreneur as innovator etc. (often difficult to pin down in practice). A useful distinction can be made in the English language between the 'enterprising person' (one who pursues entrepreneurial behaviours in many different contexts) and the 'entrepreneur' – practicing these behaviours in a business context (Gibb 1993). The fact that such a distinction is not easy to make in many other languages has constrained wider international discussion.

2.6. Answers to these questions are arguably essential before a number of other important issues can be addressed, for example, the contribution of entrepreneurship education to:

- the goal of stimulation of an 'enterprise culture' in society (itself a term in need of consensus definition)
- the policy goal of improving competitiveness through higher levels of innovation in the economy.
- Other, more specific, areas of policy concern and initiative, for example, stimulating the exploitation of intellectual property in universities; the preparation of graduates for a career in the global labour market, the desire to equip graduates with the capacity for lifelong learning (a major focus of EU policy), and the need to ensure that there is a ready supply of graduate-level jobs as the proportion of young people attending university expands.

2.7. Lack of conceptual clarity hinders both policy and practice. An example of this occurs in respect of UK schools enterprise initiatives. Under the label of 'enterprise' in schools in the UK,

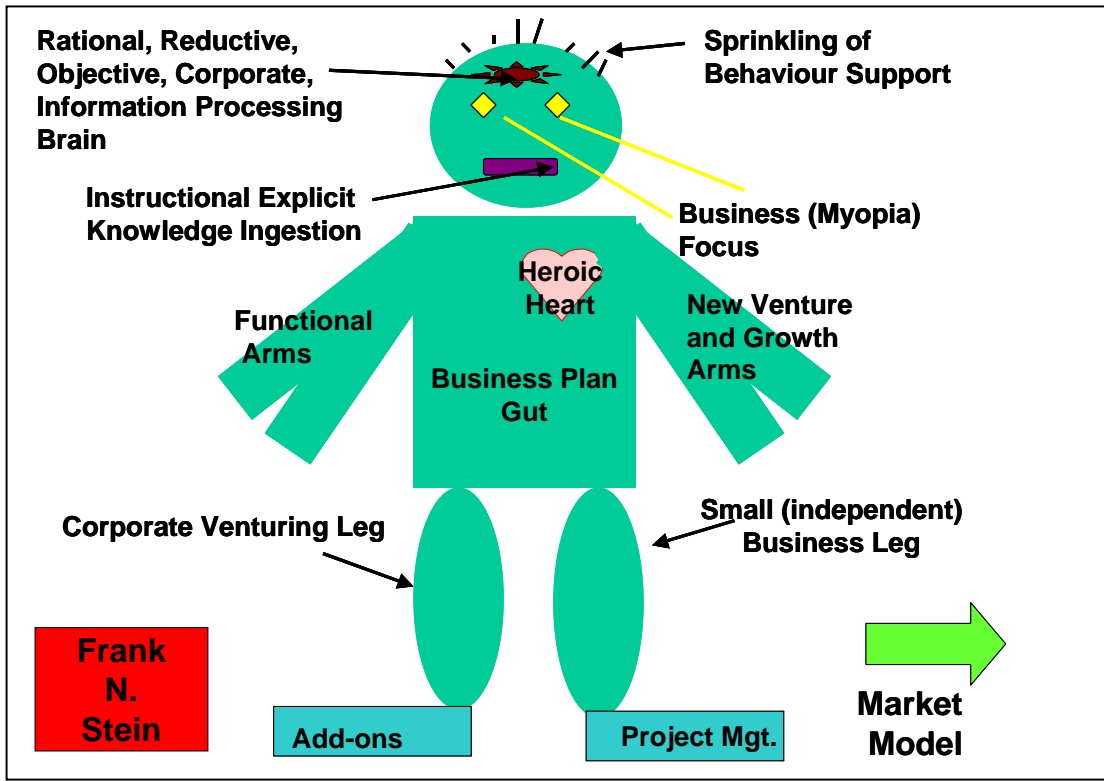
there are a wide variety of different initiatives and programmes covering such diverse areas as financial literacy, industrial understanding, economic awareness, business education, small business education, business start up and personal transferable skills (Gibb and Cotton 1998). Much of what is delivered here, although valuable in itself, has arguably little to do with entrepreneurship. That the confusion seems to be shared by key stakeholders is evidenced in some of the presentations at a recent national Enterprise Insight conference (Annex 1). For all the concerned stakeholders, local and regional authorities and agencies, entrepreneurs, banks and professional service organisations, corporate business managers, parents, non governmental agencies, and most importantly students, concept clarification is an essential first step in them, individually or collectively, taking coherent initiatives in this area.

2.8. For the HE sector, lack of clarity of the concept makes for difficulty in responding to wider policy initiatives which involve elements of entrepreneurship education. It is not always clear as to whether new policies and programmes are enhancing, compromising and/or undermining traditional tenets of university education. Confusion may harden resistance to policy initiatives and/or emasculate the motivation and capacity of institutions to create sustainable change.

3. The dominant concept of entrepreneurship – how has it been assembled?

3.1. There is no space in this paper to explore the conceptual controversy in depth. This has been done elsewhere via analysis of what is taught and how it is taught (Gibb 2002a and Gibb 2002b)). More recent reviews of what is being taught in business schools substantially bear out the conclusions from the earlier papers (efmd 2004). Exhibit 1 therefore goes directly to the point and reconstructs from the 'revealed preferences' of teachers and institutions as to what is taught in Europe and North America, a 'person model' of the concept.

Exhibit 1
The dominant model of the entrepreneur being taught?



The heroic heart

3.2. At the heart of this dominant model is the economist's Schumpeterian view of the entrepreneur as the creative force for change, the force behind new combinations of the factors of production and the creative destructor of old ways of doing things in favour of new. High levels of change and scale of activity thus become associated with entrepreneurship. Widely accepted definitions of entrepreneurship derive from this view. Stevenson (1983) in particular seeks to move the concept away from a small enterprise context in his widely accepted definition that:

'Entrepreneurship is the pursuit of opportunity beyond the resources currently controlled'

3.3. Acceptance of this view and the excitement of the notion of 'creative destruction' leads in turn to a policy focus upon larger independent firms, the so-called 'growth' businesses, or businesses with potential (existing and start-up) although, unsurprisingly, there is no proven formula for selecting such firms (DUBS 1998). Technology based firms are widely regarded as such growth businesses although the evidence does not in general support the notion of this group being major job generators. Nevertheless notions of scale and impact are persistently derived from this 'heroic' image.

3.4. In addressing the scale issue, academics have consumed forests of papers on the so-called distinction between small businessmen and entrepreneurs – the majority of the former being dismissed as 'lifestyle' businesses and not at all entrepreneurial. Casual empiricism, however, reveals that there are numerous examples of self employed people, who do not wish to grow their businesses but who are nevertheless engaged in activities that demand high levels of what is commonly recognised as entrepreneurial behaviour. It is shown below that, contrary to the

attempt to divorce small business from entrepreneurship, the 'life world' of running ones own business is such that it provides **the basic model** for design of organisations aimed at stimulating and harnessing entrepreneurial behaviour (Gibb 2000). Somewhat indicative of the confusion that reigns is that those who would most probably argue for the small business/entrepreneur distinction place small firm start-ups at the heart of the metaphor for the enterprise culture in the widely recognised Global Entrepreneurship Monitor (GEM) project.

3.5. Also seemingly behind the Schumpeterian view, as it has been interpreted, is the notion of entrepreneurship being associated with major innovation step changes in technology, process, organisation or management. Notwithstanding the difficulties of pinning down the innovation concept, and measuring it, it is arguably the case that a truly dynamic innovative organisation may engage in numerous incremental and flexible change and innovation processes, of varying intensity, over time (Harvard Business Essentials 2003).

The business plan gut.

3.6. The business plan is central to most taught entrepreneurship education programmes (efmd, 2004). Yet there is little evidence that the notion of a plan is derived from entrepreneurial practice (invented by entrepreneurs). It can be argued, to the contrary, that the emergence of the business planning model in the late 1980/90s was a function of those who were increasingly pressured to offer resources and services to small firms (banks, accountants, public authorities and business service providers). The plan emerges as the language of their culture, rather than that of the entrepreneur. There is also very ambiguous evidence as to the impact of plans on growth (see Atherton 1997 for a review, and Hannon and Atherton 1998) and a growing body of evidence to suggest that it is the ability to adapt flexibly, rapidly and strategically the product/market/service concept during the early years of the business, in response to customer and stakeholder feedback, that is the key to entrepreneurial success (Saraswathy 20091 and 2003).

3.7. The plan is an important instrument in building relationships with stakeholders and of value therefore in communication, negotiation and reflection: but it cannot be claimed that it is the key to entrepreneurial success. In the hierarchy of entrepreneurial behaviours, business planning ranks low if it appears at all. There is also extremely patchy evidence to support the view that formal planning is causally associated with improving performance in general, whether or not the company is growing (Hannon and Atherton 1998). The overall problem therefore in giving the business plan a central place is that it creates the wrong metaphor for entrepreneurship. As with all instruments, however, it depends upon how it is used: but it cannot be a substitute for, and indeed should not form a barrier to, plunging into the waters of customer/stakeholder needs and demands and learning to adapt quickly to this experience.

A (hair) sprinkling of entrepreneurial behaviours

3.8. Most observed courses in entrepreneurship (Gibb 2002a) mention the need to stimulate entrepreneurial behaviours. Very few, however, seem to set out precisely the desired behaviours to be supported and even fewer indicate clearly how it is proposed to develop them. The author has found little evidence to demonstrate a clear linkage of various pedagogies to targeted behaviours as in the (speculative) matrix in Annex 3. In most programmes the dominant teaching methods are lectures, cases, projects and entrepreneur/stakeholder presentations, which may or may not be delivered in a manner designed to stimulate entrepreneurial behaviour. The seemingly dominant case method approach can be an anti-entrepreneurial mode

of teaching if its emphasis is upon rationale analytical analysis rather than intuitive decision-making and creative experiment (Gibb 1994).

The rational, reductive and information loaded mindset

3.9. The author has argued elsewhere (Gibb 2000a) that the dominant culture of many teaching institutions, particularly business schools, within which entrepreneurship is predominantly taught (although decreasingly so) is anti-entrepreneurial. This is best summed up in Exhibit 2 below. The metaphor of the left side underpins the corporate educational paradigm in most western management schools. It can be challenged as to its appropriateness for developing managers in general, notwithstanding entrepreneurs (Mintzberg 2004): and it exudes anti- entrepreneurial values.

3.10. The values dichotomy creates relationship problems not only in business schools. Psychometric testing of bank managers, for example, will reveal that they are positioned dominantly on the left side of the diagram while entrepreneurs are more on the right. Bringing the two ‘cultures’ together is arguably the greatest challenge to improving banker/entrepreneur relationships and in general to effective entrepreneurship teaching. Much the same could be argued for most other dominant stakeholders such as customers, suppliers, bankers and public authorities and agencies, not excluding officially sponsored business advisory services. The diagram is a reminder therefore that the enterprise culture is not created solely by working with entrepreneurs².

Exhibit 2

Values in the Teaching Paradigm

<i>Government/corporate/business school (looking for)</i>	<i>Entrepreneurial and small business (as being about)</i>
Order	Untidiness
Formality	Informality
Accountability	Working on Trust
Information	Observing (seeing is believing)
Clear demarcation	Overlapping and flexibility
Planning	Intuition
Corporate strategy	Tactically strategic
Control measures	‘I do it my way’
Formal standards	Personally observed performance
Transparency	Dealing with ambiguity
Functional expertise	Holistic management
Systems	Feeling and judgment
Positional authority	Owner managed commitment
Formal performance appraisal	Customer/network feedback

* Adapted from (Gibb 2000)

² Sir Michael Bichard, former Permanent Secretary (Head) of the UK Department of Education and Science underlined this point in a recent address to the Enterprise Insight Conference when he said ‘it is impossible to foster the enterprise culture with the civil service as it is’

The business (myopia) focus

3.10. Most entrepreneurship courses are focused upon business and business concepts. Even when they are applied to non-business situations, for example, medical practitioners, schools, health services, social and community services, and even local government, it is generally business principles that are taught.

3.11. The focus upon a business model can obscure the most important issue in entrepreneurship education namely creating the ability to design organisations of all kinds to stimulate the effective use of entrepreneurial behaviour (Gibb 2000). Entrepreneurial behaviour can be, and is, pursued in the very different kinds of organisations mentioned above (police, community, health, arts, social services, schools) and is sometimes deviant - designed to circumvent the 'rules' of the organisation rather than adhere to them. Teaching business principles does not, by and large, enhance the capacity for design of entrepreneurial organisations and may indeed limit it. It can be argued for example that, in the UK, the attempt to create markets and choice in health services and a simulated autonomy in school management has been by means of application of models of corporate managerialism rather than entrepreneurship. Much the same might be argued about the new 'managerialism' in HE.

3.12. It has been noted above, that if the policy objective is to create an enterprise culture, then such a culture will have to embrace all types of organisations. Indeed it can be argued in this respect that the dominant need is to change the values and attitudes of the stakeholder and wider social community.

The delivery and ingestion of explicit knowledge

3.13. The formal education system substantially concentrates upon the delivery of explicit knowledge defined as knowledge that has been codified and thus made widely available and accessible. This contrasts with the notion of tacit (experiential) knowledge (Polanyi 1983) defined as knowledge, which can be used by individuals in decision-making but not formally codified. In reality there is no clear divide as individuals acquire knowledge through experience and may create heuristics or decision rules based upon this which may appear to be purely intuitive (Selden, Tinsley and Fletcher 2004).

3.14. A focus solely, or largely, upon explicit knowledge as a basis for learning is likely to divorce learners from the meaning that is given and acquired in the community of practice (Wenger 2000). This is a reminder that knowledge, per se, is not learning and only becomes so when it is internalised by the individual through a process of application or thinking. It has been argued elsewhere by this author and others (Gibb 1997) that the major learning field for the entrepreneur is that of stakeholder relationships (see below) and that this learning is pursued by processes of solving problems, grasping opportunities, experimenting and making things up, making mistakes, copying and overall by 'doing'.

3.15. It is these learning capacities that need to be enhanced in entrepreneurial education. Yet even if this was to be recognised, a major problem remains that of the existing knowledge being codified in an inappropriate way. Academic work is a major source of codification. It has already been argued above that in the business management field knowledge is organised into the accepted blocks and paradigms of economics and other social sciences and perhaps most damagingly, for entrepreneurship, into the functional paradigms of corporate business education (see below, Ghoshal 2005, and Mintzberg 2004). Knowledge by and large has not been codified

in terms of how it arises from relationship learning and is often not organised around the development problems and processes of the business (see below). Finally, although there is a growing body of knowledge on networking (Perry 1999) and its importance to business success, 'know-who' is not writ large in most entrepreneurship programmes.

3.16. Finally there remains the problem of practice. Much of entrepreneurial learning takes place by processes of trial and error and subsequent incremental improvement. Yet there seems little room in much of the academic curriculum of HE for learning to do (and about) something by a process of repeated practice.

The new venture, growth and functional arms

3.17 These are the main focus of inputs in most entrepreneurship programmes and the main vehicle for the use of the business plan (Levie 1999, Mason 2000, efmd 2004). Starting a business is a highly appropriate process for the development and practice of key entrepreneurial behaviours such as opportunity seeking, evaluation and grasping, networking, initiative taking, intuitive decision making, creative problem solving and thinking and acting strategically among others. It is also a useful medium for honing entrepreneurial skills such as persuasion, presentation, negotiation and selling. It seems important therefore that the new venture programme is used for this purpose and not just for the delivery of formal management inputs in marketing, finance, operations and so on. It is perhaps best taught in a project/process management cycle (Gibb 1993)

3.18. The major difficulty that may arise when functional inputs are dominant – as they seem to be in many programmes – is that they may deny the capacity for development of the kind of holistic management that is central to the entrepreneur. Entrepreneurial managers are managers of the 'total' business and thus able constantly to 'feel' it. Entrepreneurs seek knowledge on a 'need to know', 'know how' and 'know who' basis and, in the experience of the author working with many groups of entrepreneurs, will enthusiastically embrace new knowledge when it brings forward future recognisable contextual experience to them and helps them to conceptualise and give broader meaning to their existing problems and opportunities³.

The corporate venture and small business legs

3.19. Most programmes make some attempt to address the issue of entrepreneurship in large firms. A common theme is that of intra corporate venturing including also spinouts and spin-offs often using adaptations of new venture models. Under the broader heading of intrapreneurship, there can be a focus upon leadership, innovation, changing the culture of organisations and more recently customer relationship development. Little attention seems to be paid to the wider issue of designing the entrepreneurial organisation other than in respect of examination of the 'lean is mean' subcontracting out partnership and strategic alliance management model.

3.20. A small business or family business module appears in many cases and seems to be differentiated from the broader conceptualisation of entrepreneurship (a point noted above).

³ A guiding principle in teaching entrepreneurs in the Durham University Small Business Centre – taking the metaphor from T.S.Elliot's 'Four Quartets' -was that 'they (*the entrepreneurs*) have the experience, our task is to help give greater meaning to it'

Small business management does not always appear in US classifications of entrepreneurship teaching programmes – a significant point because of the US influence internationally on what is taught in this area. From a scan of available programme offers it can be inferred that what is taught under the label of small business is often the management of conventional business functions, this time in a small business context. It is difficult to determine whether the broader aspects of exploring the relationship between the life world of the small business owner manager and entrepreneurship are covered, nor, as noted above, the concept of relationship learning, arguably highly central to small business success (Gibb 1997).

Project management and the 'add-on' feet

3.21. Most business school programmes embrace the conventional project piece of work, usually towards the end of a core plus modular course. This may be undertaken on a group or individual basis and may take the form of a case study, a somewhat disguised consultancy (with academic references) or the exploration of an academic concept in a small (often growing) business context – for example the application of Porter's strategy model (Porter 1985). A key issue here, difficult to explore purely from programme descriptions, is the degree to which the project is designed as an entrepreneurial experience for the student – likely to stimulate entrepreneurial behaviours and create empathy with the life world of the entrepreneur. The author's guess, from experience of acting as external examiner to a number of programmes and familiarisation of the work of a number of schools, is that much project work falls short of this expectation. Just as an entrepreneurship course can be taught in a non- entrepreneurial manner, so may a project experience be non-entrepreneurial.

3.22. There may be many additional special modular 'feet' upon which the programme stands including: consultancy, exporting, entrepreneurial finance (or marketing, operations), human resource management, and, increasingly, social entrepreneurship.

The 'Market' context

3.23. Most programmes begin with contextual material – definitions, data on importance, (often comparative), and overview of theories and so on. The broad context is that of the role of entrepreneur in a market economy. Yet it was noted above that there are many different contexts within which entrepreneurial concept might be explored. It is widely accepted that the need for entrepreneurial behaviour derives from levels of uncertainty and complexity in the environment. Such levels may exist for individuals and communities in all walks of life, not just in a business or indeed a market context. It may also be a mistake to assume that it is purely market exposure that stimulates effective, non-deviant entrepreneurship. On the contrary, attempts to rapidly create a market environment in many transition economies have led to major problems of entrepreneurial and indeed criminal deviance. And it can be shown that entrepreneurship has played a major role in the outstanding economic performance of China over the past 25 years despite the absence of many of the standard western market economy parameters (Gibb 2003).

Conclusion

3.24. It is for the above reasons that the author has labelled the above 'revealed preference' model as Frankensteinian. This nomenclature is not meant to denigrate the Shelley creation but only to indicate that the model has been assembled from a collection of parts which may not embrace the essence of the whole. These parts reflect the traditional approaches to

entrepreneurship, the dominance of certain disciplines in theory development and importantly what the business schools already know and the culture within which they operate. As a result the assembled model arguably represents an holistic distortion. There is an excessive emphasis upon the business plan, and upon the 'heroic' aspects of the entrepreneurial tradition which encourages a policy focus upon growth and so-called high tech start ups. The context is dominantly that of business, the culture is that of corporate business, the pedagogical range used is narrow and over-focused upon cases. There is a functional rather than a relationship/development stage organisation of the knowledge base. There is little evidence overall that project work is specifically designed to enhance the entrepreneurial capacity and disposition of students. An 'alternate' approach which addresses most of the above issues is suggested below.

4. Towards a broader conceptual model of entrepreneurship.

4.1. It has been argued above that the role of entrepreneurship in society and perhaps the major reason for its current political popularity is that it provides an opportunity for individuals and organisations to cope with, provoke, and perhaps enjoy, an increasingly complex and uncertain world. Entrepreneurial behaviours, attributes and skills as set out in Annex 2 may be stimulated by both adversities and opportunities confronting individuals as workers, consumers and indeed in family and social life.

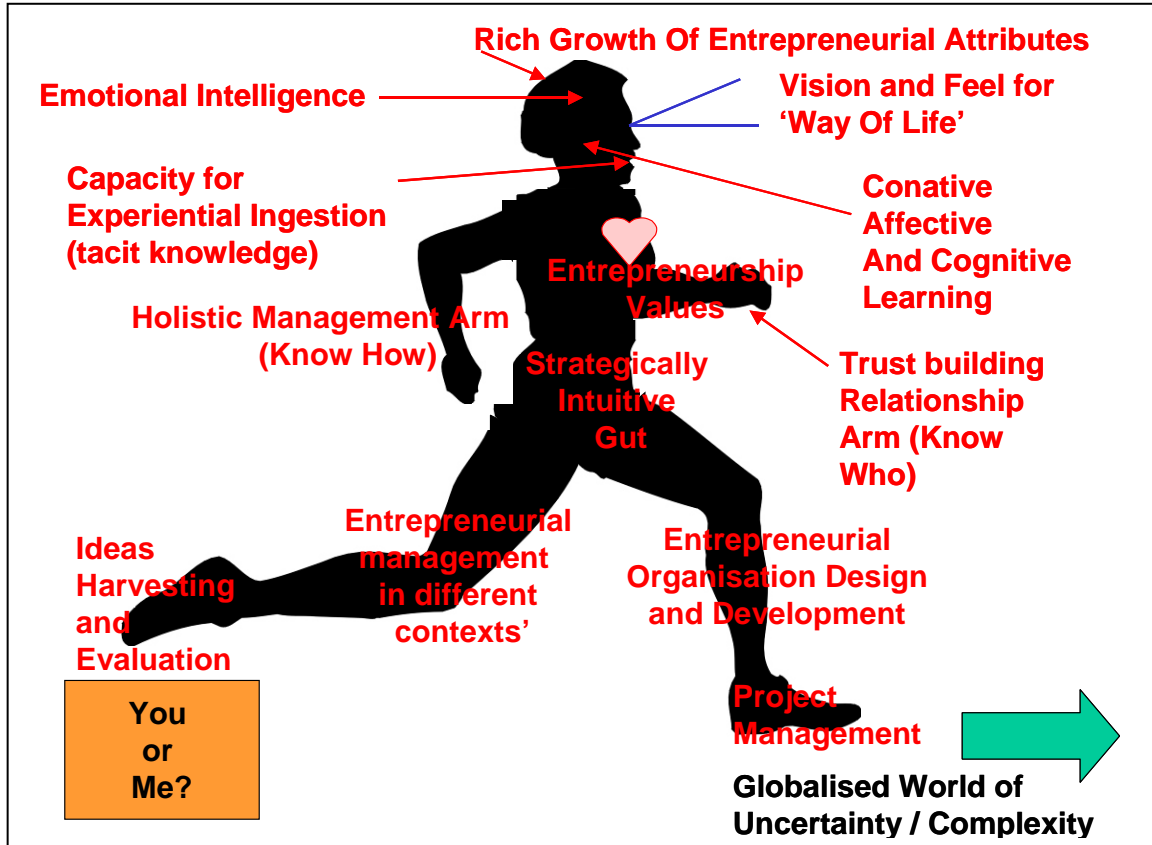
4.2. It has been shown elsewhere (Gibb 1993) that these behaviours, skills and attributes are not exclusive to certain individuals but may be more dominantly displayed by some rather than others. Different individuals will have a different mix and perhaps a different propensity to develop their capacity. It has also been argued that these behaviours can be practiced, developed and learned to some degree and that certain environments, particularly that of running one's own business will stimulate them (Gibb 2000). It follows that other environments may discourage such behaviours and/or make them deviant. A distinction has been made therefore between effective entrepreneurial behaviour (defined as meeting individual, organisational and societal goals) and deviant or ineffective entrepreneurship (as in the case of criminality or just 'beating the system' (Gibb 1999)). It is a challenge to managers of all kinds of organisations to determine the extent and nature of entrepreneurial behaviour they wish to develop in relation to the demands of the task environment in which they operate and its complexities and uncertainties. They will then be in a position to design and manage the organisation in a way that maximises its entrepreneurial potential (Gibb 2000 and 4.4 below).

4.3. Defining entrepreneurship in terms of the behaviours, skills and attributes needed to respond to problems and opportunities in the wider social environment, along with recognition that this will result in different contingent forms and strengths of entrepreneurial behaviour and organisation design, demands a wider conceptual perspective than that of the economics of the market. A more suitable conceptual frame might be that of institutional theory (North 1990) with its distinction between 'institutions' (formal and informal 'ways of doing things') and organisations within which these practices may be embodied. This approach adds a critically important dimension to the evaluation of the process of market development and indeed other ways of organising exchange. The strength of this conceptual perspective lies in its appropriateness for dealing with organisations of all kinds, not just businesses. It also serves as a reminder of the importance of culture, values and behaviours, their interplay with formal regulatory frameworks and of the way that power asymmetries in society can lead to dominant bureaucratic and corporate ways of doing things.

4.4. The alternative 'model' suggested in Exhibit 3 below seeks to remedy some of the deficiencies that have been identified above. Specific aspects of the model are discussed below.

Exhibit 3

Towards an appropriate model for entrepreneurial teaching



The 'Values' heart

4.5. Perhaps the most important objective for an entrepreneurship education programme is to instil an empathy with and, perhaps, an adoption of, entrepreneurial values. It has been suggested that these are associated with the ways of doing things, organising things, feeling things, communicating things, understanding and thinking things, and learning things (Gibb 2002a). A list of entrepreneurial values (drawn from the literature) associated with 'ways of doing' and 'being' is given in Annex 4. These values are in line with the 'ways of doing things' set out in Exhibit 2 above.

The strategic gut

4.6. There is a growing body of evidence supporting the view that strategic thinking and strategic orientation are key entrepreneurial attributes (Gibb and Scott, 1985, Haahti 1989, Atherton 1997) and that, as noted above, formal planning cannot be clearly associated with business success. It is increasingly recognised in mainstream management thinking that with higher levels of uncertainty facing most organisations the concept of strategic planning is undergoing major transformation into a more flexible instrument (Courtney, Kirkland and Viguierie 1999). Notwithstanding this changing scenario, many of the difficulties in relating planning to business success are a result of weak methodology (surveys that ask simplistic questions of entrepreneurs as to whether they plan or not – without defining the term). Planning can have a range of interpretations (Hannon and Atherton 1998). It can mean a process of

annual budgeting; the planning of a particular new development project or event; a process of strategic scenario setting; or more formal generic multi-year business planning. Most entrepreneurs, formally or informally will engage in the first two categories. Many will also think strategically (Gibb and Scott 1985) without committing it to paper. Relatively few will engage in the fourth category unless they are preparing a plan for merger, resource acquisition, or sale of the company.

4.7. Strategic thinking involves a mix of: constant 'what if' analysis of events and their potential impact on the business; seeing the business through the eyes of key stakeholders; seeking to bring forward the future for the customer; constant scanning of the business environment; and clear knowledge at any one time of the state of the business and its strengths and weaknesses.

The growth of entrepreneurial attributes

4.8. As has been noted above there are a wide range of entrepreneurial behaviours, skills and attributes, needed to respond to uncertainties and complexities. Arguably these can only be developed through the use of an equally wide range of carefully tailored pedagogies as identified in Annex 3. There is a long history of simulations and game playing designed to stimulate these, much of it based upon the early work of McClelland and Winter (1969, Spencerv1983). These should be at the core of an entrepreneurial teaching programme. Drama, for example, can be used to: creatively test empathy with stakeholders in an entrepreneurial society; demonstrate also the limitations of assumptions in conventional academic work about objectivity; and test the impact of values on the delivery and interpretation of information. At the same time it can be used to build a range of personal entrepreneurial skills. Drawings can be used to develop understanding of how students see different concepts and to test how they might creatively communicate them to others. For example, the experience of the author in using such pedagogy with Chinese MBA students at the China-Europe Business School, as a means for them to articulate the concept of the 'enterprise culture' in China provided some fascinating insights.

Emotional intelligence

4.9. The importance of the management of 'feelings' is attracting considerable academic interest (Goleman, 1996, Dulewitz 2000). It is at the core of successful management of network relationships. Its focus is upon emotional self awareness, managing and harnessing emotions productively, being able to read the emotions of others and their impact on communications and actions, and having the ability to productively utilise this knowledge in management.

4.10. For the teacher and indeed researcher of entrepreneurship it seems critically important to understand how communication is affected by the feelings that lie behind the values identified earlier and how this will impact upon the 'ways of doing and seeing things'. For example it can be argued that entrepreneurs because of their values will always seek to 'externally attribute' causes when asked 'what are your main problems?' by academic researchers. It is unsurprising that the major problems that entrepreneurs report in surveys around the world are 'getting money', 'government regulation' and 'markets'.

Vision of the 'way of life'

4.11. A key challenge for the teacher is to help students understand the 'life world' of the entrepreneurial person in the entrepreneurial organisation. One way of creating this vision is to

ask students what will change in their lives if they were to become entrepreneurs. The teaching programme may subsequently seek to build capacity for them to cope with this change. This life world vision is shown in Exhibit 4

4.12. Some pedagogical ideas as to how to build this vision are shown in Annex 5. The vision is not exclusively that of a business world. To demonstrate this point students can be asked to conduct interviews with a wide range of individuals in the local society (pensioners, unemployed, policemen, doctors, social workers, teachers, nurses, local politicians, students and so on). The purpose is to explore with them the uncertainties and complexities with which face them in modern life as workers, family members, community members and consumers and to identify any entrepreneurial responses they are using to meet these challenges. This forms the input for the 'entrepreneurship in society' drama enactment process described above.

Exhibit 4

The Entrepreneurial Lifeworld

- greater freedom/independence to choose ways of doing things
- greater personal ownership of events
- more responsibility for personal assets and more risk in their disbursement
- the ego being more at risk as personal responsibility grows
- having to cope with more uncertainty on a day to day basis
- greater personal vulnerability to changes in the environment and how to live
- greater individual responsibility for shaping ones own world
- greater pressure to take initiative/make things happen in work and home life
- the need to flexibly undertake a wider range of tasks
- rewards directly linked to effort
- the need to manage a wider dependency with a range of people with 'know who'
- a social situation where work and family life are more integrated
- greater recognition of the links between personal effort and social status
- more learning by doing and responsibility for learning

Capacity for experiential digestion

4.13. The acquisition and use of experiential knowledge is an important part of entrepreneurial learning. The writings of Lave and Wenger (1991) on the importance of situated learning underline this. In pedagogical terms, in an entrepreneurial programme, the challenge is to maximize the opportunity for the 'practice in use' of acquired knowledge, simulating the learning world of the entrepreneur by the learning processes of doing, copying etc. as identified above.

4.14. This has major implications for the focus of the knowledge content of programmes and for assessment processes. Instead of being 'marked' on an assignment students may be asked to repeat work, under guidance, focusing upon areas for improvement, even where the original piece of work was a 'pass' or even better. Assessment might subsequently be based upon ability to learn from earlier deficiencies. Practice of this kind, however, takes up time normally given to more knowledge input. The challenge therefore is to pare down the more formal knowledge input to the essential components.

Conative, affective and cognitive learning

4.15. Cognitive development is the central focus of university approaches to learning with the

emphasis upon reception of knowledge, recognition, judgment and remembering. Yet it can be argued (Ruohotie and Karanen 2000) that the key to entrepreneurial teaching lays in affective and conative aspects of learning. Affective development relates to the response to a subject, the likes and dislikes and the feelings, emotions and moods. Conative development embraces the active drive to make sense of something (notions of motivation, commitment, impulse and striving). Each of these is important to the entrepreneurial learning process and seems somewhat neglected in the conventional university pedagogical approach.

4.16. It is the author's experience that course development in the university context is overwhelmingly focused upon knowledge content and associated academic concepts. The teaching methods to be used are of secondary consideration and largely left to the individual lecturer. Rarely do they seem to be linked with any notion of developing personal behaviours, skills and attributes as shown in Annex 3. One possible reason for this is that the 'contract' of the university with the student is not formally focused upon personal development but on the acquisition and testing of knowledge and accreditation thereof. Entrepreneurship education will need to address this imbalance.

The holistic management arm

4.17. The challenge for independent entrepreneurs is to manage the business as an integrated whole. As noted above, their learning focus is upon 'know how' and 'need to know' rather than functional expertise. The 'need to know' stems from the development problems and opportunities of the business (see below). The challenge to teachers is therefore to organise knowledge around organisation development processes, radically different from the conventional functional paradigms (see Annex 6 as an example of the new venture process). In relation to the survival of a business in the early years, the target might, for example, be to anticipate the problems that lead to business failure and 'bring forward' the knowledge in such a way as to enable entrepreneurs to anticipate development problems before they occur and take remedial action (see Annex 7). Such a problem-centred approach does not mean that conceptual analysis is sacrificed but only that concept is led by problem.

4.18. It does, however, mean that entrepreneurship researchers seek new ways of codifying knowledge around the development processes of business or organisations and the management challenges therein.

The trust building relationship arm

4.19. As noted above a key challenge for teachers is to enable students to 'learn to learn' from their relationships with the stakeholder environment. Creating capacity for relationship learning is arguably the key to cementing the trust based relationships upon which entrepreneurs thrive. It is also central, in a business context, to the issue of creating a level playing field for enterprise development, the limiting of formal regulation and the reduction of transactions costs. The key to this approach is to identify what the entrepreneur needs to know from each stakeholder at each stage of the organisation's development. For example in the case of a small business and key customer the main questions would be:

- what does the entrepreneur need to know about the customer organisation and its needs at each stage of the relationship over time in order to build a full and trusting relationship?
- who will this knowledge be acquired from and delivered to?
- how best might this knowledge be acquired?

From the customer perspective the same questions need to be asked namely:

- what does the customer need to know about the entrepreneur's organisation and who will they learn it from?
- how will it best be delivered, and to whom?

4.20. This knowledge-based relationship will be dynamic and change over time. Research in the UK, in the small business context, has indicated that relationship learning needs change over different stages of the business development (Durham and De Montfort Universities 1999). As noted above this dynamic is personal and changes as the actors in organisations move around. Yet it is the 'know who' (something, noted above, not highlighted in the business schools) that is the cement that holds organisational trust-based relationships together.

The 'entrepreneurial management in different contexts' leg

4.21. It has already been argued that the business context for entrepreneurial management is only one context of many. And it has been shown that the need, and scope, for 'effective' entrepreneurial behaviour is contingent on the task environment facing the organisation and individual.

4.22. In the case of a head-teacher of a school there is considerable scope for the practice of entrepreneurial behaviour. There will be numerous opportunities for engaging the school's various stakeholders (pupils, parents, teachers, governors, local authorities, feeder schools and colleges, business and the local community) in entrepreneurial initiatives for mutual benefit. Examples include developing highly active parent organisations, building international links, engagement of the local business community in many courses, fund raising, extra curricula activity, teacher secondments and so on. Opportunities to do this will, however, be contingent upon the way that the school's task environment is 'officially' structured, for example, by the freedom of the head of the school to reward the entrepreneurial initiative of its' teachers. It is clear in the UK context that enhancing the autonomy of schools has facilitated entrepreneurial behaviour in some respects but that growing central directives/guidelines to school management may work in the opposite direction.

4.23. Against this backcloth the challenge for the entrepreneurship educator is therefore to help the student to learn how to identify the opportunities in the student's task environment for the pursuit of effective entrepreneurial behaviour. Such an approach can be taken in any context. It is not the same, however, as encouraging the organisation to behave in a business-like manner although many analogies may be (carefully) borrowed.

The entrepreneurial organisation design and development leg

4.24. The above discussion of task environment and context underlines the importance of creating the capacity to design entrepreneurial organisations to meet different environments and needs. An entrepreneurial organisation can be defined as (after Gibb 1999)

'an organisation that maximises the potential for individuals within it to pursue effective entrepreneurial behaviour and initiatives leading to greater personal fulfilment and enhanced organisational performance'.

4.25. Organisational design can constrain entrepreneurial behaviour and/or force it to be deviant. It has been shown elsewhere (Gibb 1995) that the classic state controlled business model in the former communist countries was such an organisation. That did not mean that

there was an absence of entrepreneurial behaviour but that much of this was designed either to circumvent bureaucratic restrictions in order to maintain performance or was deviant, with individuals, for example, running their own business activity within the organisation.

The conditions that individual owner managers face, as shown in Exhibit 4 above, are those most likely to stimulate entrepreneurial behaviour and can be used as guidelines for the design of organisations of all kinds (Gibb 2000). These guidelines are shown in Exhibit 5 below.

Exhibit 5

Guidelines for Designing the Entrepreneurial Organisation

- Creating and reinforcing a strong sense of ownership
- Reinforcing feelings of freedom and autonomy
- Maximising opportunities for holistic management
- Tolerating ambiguity and intuitive decision making
- Developing responsibility to see things through
- Seeking to build commitment over time
- Encouraging building of relevant personal stakeholder networks
- Tying rewards to customer and stakeholder credibility
- Allowing mistakes with support for learning from them
- Supporting learning from stakeholder relationships
- Facilitating enterprising learning methods in general
- Avoiding strict demarcation and hierarchical control systems
- Allowing management overlap as a basis for learning and trust
- Encouraging strategic thinking
- Encouraging personal contact as the basis for building trust

4.26. The above Exhibit is a reminder that the independent owner-managed business is at the heart of entrepreneurship. It is also a reminder that the entrepreneurial organisation and design model can be applied to businesses and organisations at various stages of development – particularly the start-up stage, but also to the task of ‘preserving entrepreneurship as businesses grow’ (Stevenson and Jarillo-Ossi 1986). This constitutes a distinctive challenge to the entrepreneurship educator.

The ‘ideas harvesting and project management’ feet

4.27. Opportunity identification and implementation remains at the base of entrepreneurial activity and is one of the main issues to be salvaged from the conventional business paradigm, with the footnote that it can be applied to any context. The process by which needs are identified and combined into product/service concepts is central to entrepreneurial behaviour and can often be addressed within a project management format. The management of projects is an excellent vehicle for the stimulation and practice of entrepreneurial behaviour. The key to success in this respect is, however, that the process is not heavily bureaucratised or formalised but is one of discovery, experimentation, tracking back when mistakes are made and entrepreneurial learning (described recently as a process of ‘effectuation’ (Sarasvathy 2001).

For the teacher this has major implications for the way that the processes of ideas creation and development are designed and the project management cycle is pursued.

A globalisation context

4.28. A key imperative in the design of this alternate model of entrepreneurship education is to identify the sources of uncertainty and complexity that create the need for a more entrepreneurial societal response. It has been shown elsewhere (Gibb 1999) that a useful approach is to explore the impact of globalisation on society as a whole, upon the design of organisations and the life world of individuals as workers, consumers and family members. The value of this starting point is that, in general, globalisation seems to be the trigger for the policy focus upon entrepreneurship globally. A framework is presented in Annex 8, which can be used to explore sources of uncertainty/complexity in a wide range of stakeholder organisations and therefore the contingent need for organisational design and individual entrepreneurial competency development.

4.29. This approach is not necessarily purely market driven although market conditions can be a major force. Uncertainties and complexities arise in the 'life world' all kinds of organisations but not necessarily as a result of market pressures.

Conclusions

4.30. The aim in this section has been to demonstrate that it is possible to conceive of a model of entrepreneurship that is more widely based than that conventionally taught. The model has major implications for both the content and process of entrepreneurship education. Its central focus is upon the development of entrepreneurial behaviours, attributes and skills and upon the design of organisations that might utilise and stimulate these. The model recognises that the pursuit of entrepreneurial behaviours may be of value in a wide range of contexts, not purely business. It is relevant both to the organisation and to the individual as worker, consumer and family/community member. Indeed it can be argued that by focusing entrepreneurship teaching purely in a business context the importance of creating a wider stakeholder enterprise culture and therefore a generally supportive institutional environment may be unrecognised.

4.31. A central tenet of the model is that entrepreneurship is key to helping organisations and individuals cope with, enjoy and indeed create uncertainty and complexity. Its value is therefore contingent on the nature of the task environment and it is not necessarily always a desired state. Overall however, it can be shown how the current policy imperative for the creation of an 'enterprise culture' is a reflection of the pressures of globalisation. Identifying these pressures, both for individuals and organisations, is a useful starting point for the teaching of entrepreneurship.

4.32. Acceptance of the 'alternate' model demands many changes to conventional approaches with particular implications for higher education. These are discussed below.

5. The alternate model and some key policy questions

5.1. The key policy questions raised through this paper are:

- Would an 'alternate' model of entrepreneurship help the higher education sector cope better with pressures from its various stakeholders?
- Would it sit better alongside the traditional values of a university?
- What kind of pedagogical changes might be needed to underpin an alternate model?

- What kind of organisational changes might be needed to create sustainable outcomes from such an initiative particularly in respect of the achievement of other major policy objectives concerning the role of HE in society?

The section below explores each of these issues in turn and then reviews (*in italics*) how an alternate model of entrepreneurship might help to address them.

Coping with stakeholder pressures

5.2. A review of the literature (see, for example Higher Education in Europe No. 2 2004) indicates that the HE sector across Europe faces a number of pressures from the stakeholder environment. Dominant among these are concerns for the capacity of the economy to absorb the growing number of graduates into 'graduate-type' jobs. It has been argued that a degree is no longer a passport for life and indeed scarcely represents an entry ticket. This in turn is reflected in graduate choices of areas of study and the growth of vocationally oriented degrees. Yet universities have also been exposed to criticism that they traditionally disparage vocationalism – separating skills from education. There is associated pressure for the sector to pay greater attention to links with the job market, the utility of graduates in this market (with data produced on job take up and salaries commanded becoming more important in university student recruitment campaigns) and the preparation of graduates for a process of lifelong learning. The EU Bologna declaration (1999) set out this challenge clearly.

5.3. The underlying pressure for change comes from the impact of globalisation upon job markets with the emphasis upon capacity of workers to cope with many lateral and diagonal moves across sectors and occupations during career life, with uncertainty of tenure and different contract forms and in general with much greater complexity (Rajan et al. 1997). The pressure upon universities to be seen to be taking action in this respect comes not only from governments and business but increasingly from local communities. Regional agencies constantly challenge the sector to demonstrate its contribution to local economic development and seek to place them at the centre of strategies to deliver regional excellence as potential development attractors (see the edition of Local Economy Vol. 18 No. 1 2003). In the UK, central government policy has given impetus to this through several of the programmes noted at the beginning of this text.

5.4. If the above pressures and policies are to stimulate a sustainable response then they demand changes in a number of areas. Perhaps most important is that the HE institution itself becoming more of a 'learning organisation' than a 'learned organisation'. The former can be characterised as being open to learning at all levels and from all sources. It must therefore be 'porous' in its capacity to learn from relationships with all stakeholders and open to all forms of learning both tacit and explicit. It can be argued that, at present, universities are rather asymmetric learning organisations with maximum response weight being given to the key stakeholders that dictate conventional academic status, namely research funding and assessing bodies, teaching assessment organisations, providers of public funds and sources of, and channels for, student demand. Considerably less weight is afforded to other stakeholders such as local government, regional development agencies, entrepreneurs and the business community, NGOs and business and community associations.

5.5. The alternate entrepreneurship model can help address several of the above problems and issues. Its emphasis upon developing capacities to deal with uncertainty and complexity and its contextualisation in terms of dealing with pressures of globalisation will help teachers and students to come to terms with the demands of the flexible labour market and career

orientation. Its focus upon all stakeholders in society, and the identification of the sources of complexity and uncertainty they face both as individuals and organisations will likewise contribute to understanding of the importance of creating a sympathetic and entrepreneurial institutional environment, particularly at the local/regional level. Its emphasis upon the importance of designing entrepreneurial organisations of all kinds also feeds into understanding of the need for universities to adapt to the cultures of stakeholder organisations in an entrepreneurial fashion without this being necessarily associated with a pure commercial ethic. Overall it places emphasis upon the development of personal entrepreneurial capacities and the related imaginative use of knowledge rather than business driven capacities.

Entrepreneurship and traditional values

5.6. There are a number of issues relating to the business model of entrepreneurship education that sit uneasily with traditional academic convention. Perhaps most important, it can be seen to lead to evaluation of the role of academe in commercial terms and to place a premium upon relevance and utility in research rather than upon the traditional process of discovery for its own sake. The 'subject' itself is not seen to fit easily within traditional academic subject areas in social science or indeed with the functional organisation of knowledge in business education. The fact that most entrepreneurship education has emerged from business schools, lends weight to the notion that it carries with it commercial values. The schools themselves often sit uneasily alongside more traditional social science departments (Mintzberg 2004). Moreover, there are other fears concerning intellectual property and the undue influence that commercialisation may have on the direction of research, the use to which results are put and the impact upon publication.

5.7. The proposed 'alternate' model may help to relieve these tensions. In the first place it emphasises the development of personal capacities rather than business knowledge per se. It also stresses the imaginative use of knowledge and the integration of knowledge across disciplines very much in line with the views of nineteenth century philosophers who shaped considerably the notion of a university (Newman 1852). At the same time it challenges more gently the traditions of the scholarship of pure discovery and teaching with the notion of relevance and integration (Carnegie 1990). It also places the subject outside of the business school. Indeed it has been argued elsewhere by this author that business schools are largely incapable of delivering the entrepreneurial model proposed above (Gibb 2000a).

Sustainable pedagogical change needed to underpin the model

5.8. HE institutions will usually respond to financial incentives designed to build links with the wider stakeholder community. But a major issue is whether they do this in a way that leads to sustainable pedagogical and organisational culture change. In the UK case it can be argued that one major previous initiative, focused substantially upon stimulating pedagogical innovation, the Enterprise in Higher Education Programme (whereby each HE institution was given £1M to develop enterprise programmes and pedagogies) did not consistently lead to a major sustainable change (Brooks, 1991). Part of the problem is the value traditionally given to teaching 'about' entrepreneurship as opposed to 'for' entrepreneurship – the latter being seen as vocationalism. There appears to be a notion that a focus upon the practice of acquired knowledge or the acquisition of knowledge through practice denies the opportunity for academic concept although it is not clear as to why this should be so. On the contrary it can be argued that the best theory is one that is tested and works in practice. This in turn underlines the importance of the learning acquired via the process of research, development, testing and

dissemination and is a reminder as to what might be missed by a focus upon research and publication only.

5.9. *The entrepreneurial concept described above will demand:*

- *More integration of knowledge (within faculties and departmental areas, between various social science disciplines, between fields in arts and science and between tacit and explicit knowledge)*
- *Much greater opportunity for experiential learning*
- *Greater space for the testing of explicit knowledge in practice (with more time for reflection and learning by re-doing)*
- *Greater equality of emphasis upon how things are taught with what is taught*
- *Innovation in assessment and accreditation procedures*
- *Changes in some of the basic philosophies of learning – particularly in the field of management (Mintzberg 2004 and Ghoshal 2005)*

5.10. *The proposed alternate model also demands that each cognitive input is carefully matched with pedagogy focused upon the development of appropriate entrepreneurial behaviours skills and attributes (as in Annex 3). This process is also designed to enhance the conative and affective aspects of learning.*

Sustainable organisational change needed to underpin the model and its links with wider objectives

5.11. A key issue is whether the kinds of sustainable organisational change required to meet the goals of the alternate model of entrepreneurship education will sit comfortably alongside and indeed enhance the capacity of the HE sector to meet other demands. Major among these are strengthening the engagement of HE with the business and regional development community and enhancing the capacity for commercial exploitation of intellectual property and technology transfer. Key areas of change needs have been identified by a number of writers (see Higher Education in Europe 2004) and include:

- *Changes in rewards and status systems to encourage those who engage, and have high credibility, with the business and wider stakeholder community*
- *Greater equality of status and career paths to those who focus upon research and development as opposed to solely research and publication*
- *Flexible staffing and appointment arrangements (including professorships of practice, adjunct professors, fellowship secondments for members of the stakeholder community, visiting entrepreneur teaching fellowships and so on)*
- *More joint R & D arrangements with small firms as well as larger corporations*
- *Re-orientation of the contract with the student to embrace a more clearly defined element of personal and career development in particular commitment to preparation of students for lifelong learning*
- *Creating stronger mechanisms for ongoing social interaction between academics and students and entrepreneurs*
- *Ensuring that where science and technology parks exist in 'partnership' with the university they are filled with companies that have ongoing deep relationships with the university rather than those who readily fill space with attractive names. Recent survey results indicate that the UK science park movement has had very disappointing results in this respect*
- *Truly active engagement with stakeholders in joint ventures (rather than engagement by membership of committees)*

5.12. The 'alternate' model of entrepreneurship underpins this sustainable transition process in a number of ways. It has been argued that it will demand a greater focus upon the scholasticism of integration and relevance and therefore upon the process of research and development. Through its emphasis upon learning from networks and know who it will reinforce the notion of active integration of external stakeholder representatives into the university community and according them status. This will underpin the propensity of the HE organisation to build stronger social networks with business and other networks, long regarded as the key to successful partnership in technology transfer and innovation. It will also emphasise the need for the HE organisation to become a total learning organisation via more active joint venture engagement with all stakeholders in the community. Overall it should raise the profile of entrepreneurs in both the business and wider organisational context within academe.

6. Organising for the Challenge - Models of the Entrepreneurial University

6.1. Integrating the entrepreneurship concept with the broader spectrum of university/environment activity can be approached in a number of different ways each with different degrees of embeddedness. Such models can be gleaned from experience in Europe and elsewhere (see Higher Education in Europe 2004 and the series of papers in *Universite dans la Societe* (UNISO 2004)).

6.2. The optimum model would seek to maximise the integration of entrepreneurship with the university system as a whole. Following from the arguments above, key components might be as in Exhibit 6 below.

Exhibit 6

A Fully Integrated HE entrepreneurship model

- The University-wide application of entrepreneurship teaching
- Joined with office of technology transfer
- Innovative pedagogical support for every department
- Lifelong learning approach in all departments
- All Departments and subjects covered
- Professorial status for Research and Development excellence
- 'Development' Sabbaticals for staff wishing to commercialise IP
- Professors of Practice, Adjunct Professors, Visiting Development Fellows
- Entrepreneur teams invited in to harvest ideas
- Social integration of entrepreneurs and status awarded to them
- Entrepreneurship as an office of the VC
- All activities academic led but in partnership with external stakeholders
- Research and development activity rewarded in all departments
- Active stakeholder participation with university staff in joint ventures
- Open approach to intellectual property and investment in university ventures
- Staff of departments trained to develop and offer entrepreneurship courses

6.3. An intermediate model might seek to embrace many of the aspects identified in Exhibit 6 but located adjacent to the university with organisation as characterised in Exhibit 7

Exhibit 7

An Intermediate Approach

- Specialist centre, university owned but adjacent to the university

- Headed by a university professor
- Programme and pedagogical development
- Development of specialist entrepreneurship programme offer to all departments
- Offers of staff training
- Centre established as stakeholder partnership
- Staff appointments open to external stakeholders
- Harvesting departmental staff who wish to engage in entrepreneurship
- Joint ventures and programmes with science park and technology transfer processes
- Engagement with panels of entrepreneurs to encourage linking with departments to harness technology
- Links to business support services and venture capitalists

6.4. A further model is one that is more distant from the university but embedded more in the world of the stakeholder community as in Exhibit 8.

Exhibit 8

An External Business Support Service Approach

- Specialist centre, stakeholder owned but with university participation
- Headed by business executive
- Located alongside technology transfer or science park activity
- Training programme offers to departments
- Counselling and business support services offer to university staff and students
- Promotions and other activities
- Joint ventures with science parks and technology transfer agents
- Engagement with the entrepreneurial and stakeholder community
- Partnerships with interested academic staff

6.5. The models offer different degrees of embeddedness, and different degrees of difficulty in establishment. There is little doubt that in terms of achieving the goals and sustainable organisational changes identified above that the Integrated Model is the 'ideal' type and most likely to bring about sustainable change in university practice. As such it embodies some of the key principles of entrepreneurial organisation design as identified earlier, in particular: ownership; responsibility; network relationships; commitment to see things through; rewards linked to entrepreneurial endeavour and stakeholder feedback; maximising the potential for personal trust building relationships; and overall changing of the organisation's culture. It is, however, the most difficult to achieve and will require considerable external support as discussed below.

7. Overall Summary, Conclusion and Recommendations

7.1. **Summary.** This paper has addressed the issue of appropriate policy development for the promotion of entrepreneurship education in the HE sector in the UK. Three major challenges have been identified. The first is that of agreeing upon an entrepreneurship concept that will most satisfactorily underpin the government's desire to enhance the role of the HE sector in economic and social development. The second is that of clarifying how an appropriate entrepreneurship concept might smooth the process of achieving sustainable change in the HE sector and underpin the other efforts being made to enhance the capacity of universities to engage more actively with the wider stakeholder environment particularly in the commercialisation of intellectual property. The third was to briefly consider different ways of organising entrepreneurship education in HE to maximise its sustainable impact.

7.2. *Conclusion.*

It has been concluded that the conventional business led model of entrepreneurship is inappropriate for achieving the above goals and is likely to be seen to threaten traditional university values. An alternate model has therefore been suggested which it is argued will be more acceptable and indeed will be more likely to assist in the sector's response to the pressures it is facing. In particular it defines entrepreneurship in terms of sets of behaviours, attributes and skills, the need for which is contingent upon levels of uncertainty and complexity in the task environment facing individuals and organisations. It is argued that these can be developed and may be needed by all kinds of organisations and individuals, in all walks of life, and not just those in a business environment. It has been shown that a key challenge is to design organisations of all kinds to stimulate appropriate effective entrepreneurial behaviour, where needed, and guidelines for this process have been established. It has been shown how this model could underpin the objectives of making the HE sector more responsive to the environment without threatening traditional values but that nevertheless changes will be needed in HE approaches to the organisation of knowledge and pedagogy and to relationships with staff and the environment. Finally, different organisation models have been introduced as to how the sector may respond to the challenge. By far the most sustainable, but also most difficult to achieve, is that of a fully integrated model which is owned and led by the university at the highest level.

7.3. *Recommendations*

To pursue these goals in the UK a number of actions should be taken as follows:

- (i) The NGCE should clarify the concept of entrepreneurship (and its rationale) that it wishes to promote. It is recommended that:
 - *This should be set out in a paper to be circulated for debate.*
- (ii) If the suggestions in this paper were to be adopted (or a modification thereof) then there needs to be a process for development of a full entrepreneurship curricula and pedagogy along the lines laid out in the 'alternate' model above. It is recommended that:
 - *A group of academics, entrepreneurs and others with experience of designing entrepreneurial organisations and entrepreneurial pedagogy are assembled to develop a full curricula and pedagogy.*
 - *This initiative be led by Professor Hannon and located in an independent institute or adjacent to a suitable institution – carefully selected for its track record in innovation in management learning. The University of Lancaster could be one possible location. The Centres of Entrepreneurship Learning and Teaching would be key stakeholder members and participants.*
 - *This activity should build from existing models of curriculum in an evolutionary as opposed to revolutionary manner but nevertheless with a firm commitment to move from the traditional highly business dominated model to an 'alternate' one as identified above.*
- (iii) A national teachers programme network is established aimed particularly at the staff of university departments other than business schools. It is recommended that:

- *This network builds upon the best of existing experience, knowledge of which is already available to the NCGE.*
 - *This programme is also targeted at staff of the business service community engaged in work with universities, staff engaged with HE technology transfer processes and careers advisors.*
 - *It engages the major existing players identified at the beginning of this paper.*
- (iv) High-level staff of the HE sector need to be engaged in small, possibly regional workshops, expertly facilitated. It is recommended that these should be carefully targeted upon:
- *The potential for achieving some of the conditions identified in paragraphs 5.9. - 5.11. and Exhibit 6 above.*
 - *the minimum model that needs to be developed for sustainable outcomes to be achieved*
 - *Identifying the kinds of external support needed to achieve these outcomes. The results of these workshops should be written up into a policy paper.*
- (v) Discussions should be held with the Higher Education Funding Councils for England, Northern Ireland, Scotland and Wales as to the types of incentives that might be provided to bring about the kinds of change identified in paragraphs 5.9.to 5.11. above. It is recommended that:
- *A short paper is written setting out these conditions and the rationale for them as a background to the meeting.*
- (vi) It is of critical importance that those who fund developments in this field are absolutely clear as to the underpinning concepts they wish to establish and the links these have with other initiatives and policy goals. It is recommended that:
- *A small task group be set up with the key national stakeholders engaged in the major initiatives identified earlier, including Enterprise Insight, with the aim to achieve a strong measure of agreement on the entrepreneurship concept to be promoted.*
 - *The aim should also be to explore what needs to be done to develop a consensus in the various approaches now being taken.*
- (vii) In the long run there is a need to find a suitable home for the research and development of educational and training material exclusively devoted to the field of entrepreneurship and the development of entrepreneurial organisations. Such material and approaches would be of benefit to a wide range of organisations in the management and indeed business services field. Left to the business schools it is likely that the concept will continue to drift. Such a move will ensure that the efforts of the NCGE will be sustainable in the long run. It is recommended that:
- *A short portfolio document is drawn up setting out the terms of reference for the creation of a national entrepreneurship institute.*
 - *This is circulated to key private and public stakeholders.*
 - *Views are taken as to how this might best be funded and located.*

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Annex 1

The need for clarification of the concept.
Quotes from the National Enterprise Insight Conference

THE HIGH GROWTH BUSINESS MODEL

‘Risking it all’ (*a proposed TV series on entrepreneurship*)

‘Ruthlessness of survival against the odds’

Luke Johnson

‘The US model can inform development policies anywhere in the world

.... Sustainable democratic capitalism’

Karl Schram

It (Enterprise) can be seen as:

‘business and economic understanding’

‘financial literacy’

Gordon Brown

’we need ‘to create business and business teachers’

‘a teaching profession less prejudiced against business’

Digby Jones

THE BROADER ENTREPRENEURSHIP MODEL

‘enterprise is not fundamentally about taking risks but about identifying and taking opportunities’

‘the word business is a turn off’

Kevin Steele

‘we wish to refocus upon enterprise and not just entrepreneurship’

Martin Griffiths

‘enterprise thrives on networks’

Kevin Steele

‘the challenge is to get organisations to run in an enterprising way’

George Cox

‘there is an over reliance in business upon academic skills as opposed to ‘feeling’ skills’

Martin Glen

‘we cannot possibly supervise enterprise - we have to give people ownership and control’

Martin Glen

‘we will never achieve the enterprise culture with the civil service as it is today’

Sir Michael Richard

Annex 2

List of Entrepreneurial Behaviours, Attributes and Skills (drawn from the literature)

Entrepreneurial Behaviours

- * opportunity seeking and grasping
- * taking initiatives to make things happen
- * solving problems creatively
- * managing autonomously
- * taking responsibility for, and ownership of, things
- * seeing things through
- * networking effectively to manage interdependence
- * putting things together creatively
- * using judgment to take calculated risks

Entrepreneurial Attributes

- * achievement orientation and ambition
- * self confidence and self belief
- * perseverance
- * high internal locus of control (autonomy)
- * action orientation
- * preference for learning by doing
- * hardworking
- * determination
- * creativity

Entrepreneurial Skills

- * creative problem solving
- * persuading
- * negotiating
- * selling
- * proposing
- * holistically managing business/projects/situations
- * strategic thinking
- * intuitive decision making under uncertainty
- * networking

Annex 3 Linking Entrepreneurial Behaviours and Skills to Pedagogy

	Seeking Opportunities	Taking Initiatives/ Acting Independently	Solving Problems Creatively	Persuading/ Influencing Others	Making things happen	Dealing with uncertainty	Flexibly responding	Negotiating a deal successfully	Taking decisions confidently	Presenting confidently	Managing interdependence successfully
Lectures											
Seminars			*					*		*	*
Workshops on problems/ opportunities	**		***	*				*	**		
Critiques			*	*			*				
Cases								*		*	
Searches	*	*			*	*					*
Critical incidents			*			*	*		*		
Discussion groups			*	*				*			*
Projects	*	*	*		*	*		*	*	*	*
Presentations				**						**	
Debates				**						**	
Interviews			*	*		*	*	*			
Goldfish bowl				*			*	*			*
Simulations			*	*			*	*	*	*	*
Evaluations	**										
Mentoring each other			*	*		*	*	*			*
Interactive video							*		*		

	Seeking Opportunities	Taking Initiatives/ Acting Independently	Solving Problems Creatively	Persuading/ Influencing Others	Making things happen	Dealing with uncertainty	Flexibly responding	Negotiating a deal successfully	Taking decisions	Presenting confidently	Managing interdependence successfully
Games	*	*	*	*	*	*	*	*	*	*	*
Organising events		**		**	**	**		**	**		*
Competitions											
Audit (self) instruments											
Audit (Business) instruments											
Drawings			*	*							
Drama				*		*				*	
Investigations			*		*				*		
Role models											*
Panel observation				*				*	*		*
Topic Discussion		*		*			*			*	*
Debate		*		*							
Adventure training	*	*	*			*	*		*		*
Teaching others			*	*		*	*	*	*	*	
Counselling			*	*			*	*			

Annex 4

Entrepreneurial Values

- strong sense of independence
- distrust of bureaucracy and its values
- self made/self belief
- strong sense of ownership
- belief that rewards come with own effort
- hard work brings its rewards'
- belief in being able to make things happen
- strong action orientation
- belief in informal arrangements
- strong belief in the value of know-who and trust
- strong belief in freedom to take action
- belief in the individual and community not the state

Annex 5

Using Pedagogy to Simulate the Entrepreneurial 'Life World'

Example – The pedagogical challenge in the start-up process

1. Developing **Commitment** by:
 - focusing the programme on the participants own project.
 - setting up peer review/counselling procedures to monitor progress.
 - individual counselling on project progress
 - formal presentations of project to other participants
 - setting up independent panels for review
 - building sound links with resources
2. Developing a **strong sense of Responsibility** by:
 - exercises to develop parts of the proposal (finding customers, suppliers, negotiating with providers of resources ...)
 - encouraging development of action plans
 - setting times for completion of certain activities
3. Developing a strong sense of **Ownership** by:
 - a strong focus on the participant's project
 - exercises in defending the project in class
4. Developing capacity to cope with **Risk, Money and Social Status** by:
 - developing a plan.
 - developing 'what if' scenarios re. key assumptions in the plan
 - explore ways to reduce the financial outlay (by subcontracting etc.)
 - exercises to get participants to see stakeholder perceptions
 - discussions with existing businesses as to position in local society
5. Developing capacity to cope with **Long and Flexible Hours** by:
 - time management exercises
 - developing organisational systems
 - presentations on managing time by other entrepreneurs
 - setting systems for customer delivery schedules
 - setting aside contingency time
6. Developing a sense of **Freedom and Independence** by:
 - exercises on what it will be like to 'be on your own'
 - exploration of what responsibilities freedom will bring
 - interviews with existing entrepreneurs on what it means to them
 - review of participant personal goals and the business
7. Developing capacity to make **Decisions under Uncertainty** with **Limited Data** by:
 - exercises on making decisions with no or little hard data
 - reviewing situations where there is 'paralysis by analysis'
 - asking participants to use 'tacit' knowledge to make decisions

8. Developing ability to manage **Interdependency** on key **Stakeholders**:
 - identification of key stakeholders
 - exercises on what stakeholders are looking for and why
 - exercises on the way stakeholders learn and ways of educating them

9. Developing capacity to take **Initiatives** and be **Proactive** by:
 - exercises on who they know and how well they know them
 - exercises on the strategic development of 'know who'

11. Developing ability to cope with **Income Fluctuations and Customer Dependency** for **Rewards** by:
 - setting a clear view of what levels of personal income are targeted
 - review of what levels of turnover and margin these are based upon
 - examination of how income might vary and how they will cope
 - examination of ways of smoothing out income
 - consideration of other ways of making income in an emergency
 - consideration of role of savings

12. Developing ability to manage changes in **Social and Family** relations:
 - exercises in considering all family issues (divorce, succession, tax, etc.)
 - 'what if' scenarios on family affairs
 - exploring how other entrepreneurs plan for family issues

13. Developing capacity to manage/control **Holistic Task Structure** by:
 - exercises in clarifying exactly what participants will have to do
 - developing training focused on these needs - simulations

14. Developing capability to **Learn to Learn** as entrepreneurs by:
 - focusing on: learning by doing, mistake making, copying, problem solving, experiment, peer review, feedback from stakeholders

15. Developing capacity to cope with **Loneliness** by:
 - encouraging membership of clubs and associations
 - time management exercises
 - building links with peers and using counselors

Annex 6

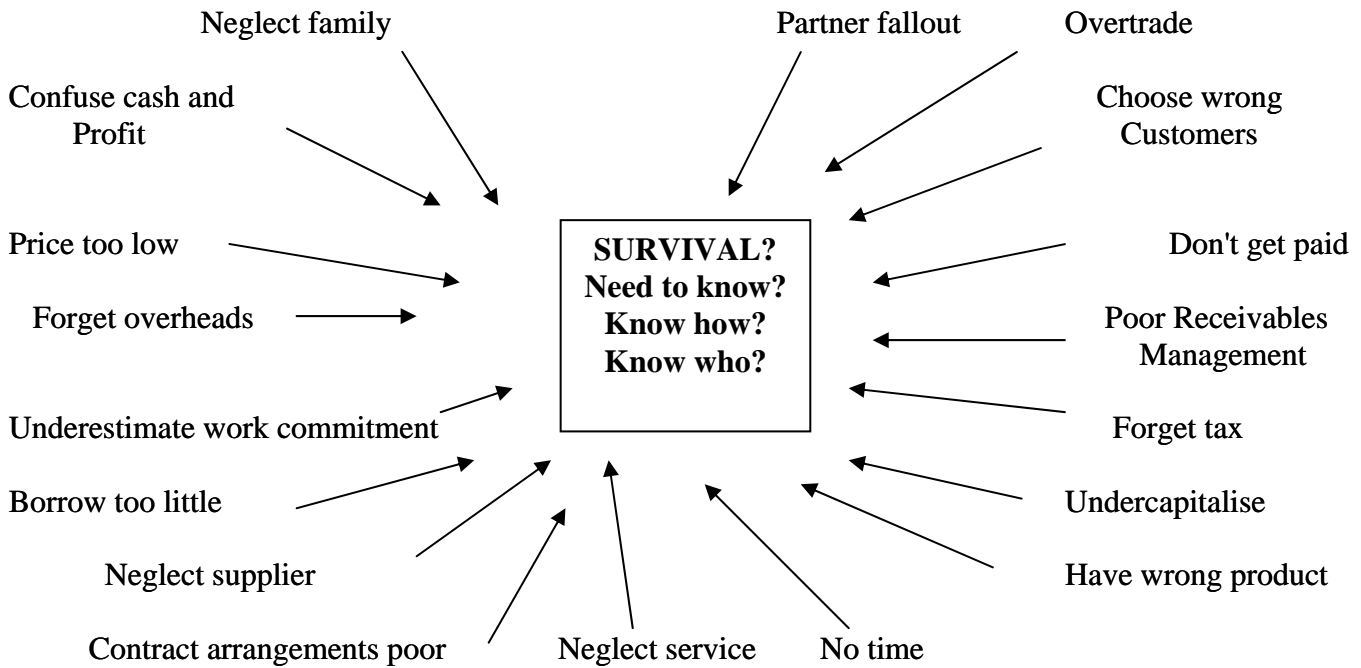
LINKING LEARNING TO NEW VENTURE PROCESS DEVELOPMENT

Personal Development: Stage, Tasks and Learning Needs		
Stage	Key Tasks	Key Learning and Development Needs
1. From idea and motivation acquisition to raw idea	<ul style="list-style-type: none"> * To find an idea * To generate an idea * To explore personal capability and motivation for self-employment 	<ul style="list-style-type: none"> * The process of idea generation and evaluation * Knowledge of sources of ideas * Understanding of the ways in which existing personal skills/knowledge might be used in self-employment * Understanding of what self-employment means * Personal insight into self-employment * Positive role image/exploration/feedback * Self-evaluation
2. From raw idea to valid idea	<ul style="list-style-type: none"> * Clarify idea * Clarify what needs it meets * Make it * See it works * See it works in operating conditions * Ensure can do it or make it to satisfactory quality * Explore customer acceptability-enough customers at the price? * Explore legality * Ensure can get into business (no insurmountable barriers) * Identify and learn from competition 	<ul style="list-style-type: none"> * What constitutes valid idea * Understanding the process of making/doing it * Technical skill to make/do it * Customer needs analysis * Customer identification * Who else does it/makes it * Idea protection * Pricing and rough costing * Ways of getting into a market * Quality standards * Competition analysis
3. From valid idea to scale of operation and resource identification	<ul style="list-style-type: none"> * Identify market as number, location, type of customers * Clarify how will reach the market (promotional) * Identify minimum desirable scale to 'make a living' * Identify physical resource requirements at that scale * Estimate additional physical resource requirements * Estimate financial requirements * Identify any additional financial requirements needed 	<ul style="list-style-type: none"> * Market research * Marketing mix (promotion etc.) (ways of reaching the customer) * Pricing * Production forecasting and process planning to set standards for utilisation, efficiency etc. * Distribution systems * Materials estimating and wastage * Estimating labour, material, capital requirements * Profit/loss and cash flow forecasting
4. From 'scale' to business plan and negotiation	<ul style="list-style-type: none"> * Develop business plan and proposal * Negotiate with customers, labour, suppliers of materials, premises, capital suppliers, land etc. to ensure orders and physical supply capability * Negotiate with banks, financiers for resources 	<ul style="list-style-type: none"> * Business plan development * Negotiation and presentation skills * Knowledge of suppliers of land, etc. * Contracts and forms of agreement * Knowledge of different ways of paying * Understanding of bankers and other sources of finance * Understand forms of assistance available
5. From negotiation to birth	<ul style="list-style-type: none"> * Complete all legal requirements for 	<ul style="list-style-type: none"> * Business incorporation

	<p>business incorporation</p> <ul style="list-style-type: none"> * Meet all statutory requirements * Set up basic business systems 	<ul style="list-style-type: none"> * Statutory obligations (tax, legal) * Business production, marketing, financial systems and control * What advisers can do * Understand how to manage people
6. From birth to survival	<ul style="list-style-type: none"> * Consolidate business systems for processing * Ensure adequate financial control (debtors, creditors, bank, etc.) * Develop market, attract and retain customers * Meet all legal obligations * Monitor and anticipate change * Maintain good relations with banks, customers, suppliers and all environment contacts * Provide effective leadership development for staff 	<ul style="list-style-type: none"> * Management control systems * Cash planning * Debtor/creditor control * Marketing * Selling skills * Environmental scanning and market research * Leadership skills * Delegation, time planning

Annex 7

From Problems To Concepts - Survival



Annex 8

Pressures Moulding the 'Entrepreneurial Society'

