



Entrepreneurship and Enterprise Education in Schools and Colleges: Insights from UK Practice

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Abstract. The Paper pragmatically reviews progress in the field of Schools and Colleges Enterprise and Entrepreneurship Education in the UK since the 1980s. It utilises a substantial degree of experiential knowledge based largely upon the work of the Enterprise Education Unit at the Durham University Business School from 1985 through to the early years of this century. It examines some of the key issues confronted from this experience which still appear to be highly relevant including:

- the policy rationale for the initiatives in this area
- the most appropriate enterprise/entrepreneurial concept to be derived from this rationale
- the related desired outcomes from the process and associated inputs
- the pedagogical challenges linked to this
- teacher skills and ownership related to embedding enterprise in the curriculum
- the relationship of the concept to wider educational goals and practice (raised in any embedding process)
- where in the curriculum enterprise should be placed and how it might be integrated
- the possibility of progression from primary to secondary to further to higher education
- whether the models should be different for different groups of students in the system
- possible forms of evaluation and modes of assessment.

It concludes with a proposal as to how to deal with some of the more contentious issues relating to the embedding of Entrepreneurship/Enterprise Education in the school and college system.

Keywords: schools enterprise education, curriculum development, outcomes from enterprise education, progression, evaluation.

1. Introduction

This paper is essentially pragmatic. It seeks to address a number of key issues that seem to be largely unresolved in the field of enterprise and entrepreneurship education, not only in Europe but in many other parts of the world. The context will be that of the schools and vocational college sector, mainly excluding higher education (although many of the issues raised also relate to this sector – Gibb 2005). The content of the paper is substantially influenced by experience gained in the field at Durham University over the past 20 years and owes much to the work of the Enterprise Education Unit there¹ (Annex 1). Its main focus is upon

factors influencing the embedding of entrepreneurship/enterprise education in the school/college curriculum. The issues raised are also drawn from the author's engagement with recent UK and international initiatives. These include, in particular, a contribution to the UK Review of Enterprise Education chaired by Howard Davies (2002) and engagement with the work of Enterprise Insight, a national initiative in the UK aimed at bringing together all the key stakeholders to celebrate and develop a wide range of enterprise related initiatives (www.enterpriseinsight.com). In addition there has been valuable international experience in developed and developing countries (which will be referred to in the text); and also from work as adviser to the recently established UK National Council for Graduate Entrepreneurship (www.ncge.org.uk). Although much of the paper relates to education practice and policy in the UK as a whole it must be noted that the devolved governments of Wales and Scotland have their own education policies and programmes in the field of entrepreneurship and enterprise.² Much of the more detailed discussion of schools' curriculum is therefore in an English context.

The key issues to be reviewed are:

- the policy rationale for the initiatives in this area
- the enterprise/entrepreneurial concept to be derived from this rationale
- the related desired outcomes from the process and associated inputs
- the pedagogical challenges linked to this
- teacher skills and ownership
- the relationship of the concept to wider educational goals and practice
- where in the curriculum it should be placed and how it might be integrated

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1. The author would particularly like to acknowledge the work of the staff of the Enterprise Education Unit at Durham and in particular the Director Mrs Judi Cotton (jc.cotton@btinternet.com) under whose guidance most of the outcomes described in Annex 1 were delivered.
 2. For example the Scottish 'Determined to Succeed Programme' focuses upon four key areas of 'Successful Learning, Confident Individuals, Responsible Contributors and Effective Citizens'. The focus appears to very broadly upon personal and interpersonal skills development in general. In Wales there is a progression through all levels of education under the ACRO Model (Attitude, Creativity, Relationships and Organisation). This again is a broad personal development approach but with considerable emphasis upon application. Contacts ; Scotland; Angela Jackson, Centre for Studies in Enterprise – University of Strathclyde; Sue Morgan Enterprise Education Manager, Welsh Assembly Government.

- the possibility of progression from primary to secondary to further to higher education
- gateways into the curriculum. Whether the models should be different for different groups of students in the system
- and, evaluation and modes of assessment.

Overall it is hoped that the reader will be left with a view as to the importance of the relationship between these issues, if entrepreneurship/enterprise education is to be truly embedded in the education system.

The author has dealt with certain of the issues in a number of papers (Gibb 1993, Gibb and Cotton 1998, Gibb 2002, 2005a, 2005 b) and the arguments therein will not be rehearsed at length. This paper seeks to add value by following through the logic of the role and process of enterprise/entrepreneurship education as set out above. Academic literature has not thrown a great deal of light on many of the above issues in the schools context, leaving practitioners somewhat isolated from exposure to conceptual questions about their activity (Kyro and Carrier 2005, Pittaway and Cope 2007). It has been argued elsewhere (Gibb in Kyro et al 2005b) that because of this lack of debate there has been much loose thinking on the subject with the result that there is a veritable pot-pourri of activity delivered under the enterprise/entrepreneurship umbrella (Warwick 2001). A great deal of the literature seems to deconstruct (peel away layers of the onion) rather than build the basis for a stronger conceptual and pragmatic frame (Gibb 2005b).

The paper deals with each of the above issues in turn and concludes with a number of suggestions for moving the agenda forward.

2. The Policy Rationale

There have been growing number of UK and international official publications focusing upon entrepreneurship education. The European Union has debated it extensively (European Commission 2002, 2006a, 2006b, 2006c) along with several other international agencies (OECD 1989, ETF 1996, ILO 2004, UNESCO – Salzano 2006, UNIDO 2007). While the impetus for policy engagement with enterprise/entrepreneurship³ education has grown considerably

3. A clear, and useful, distinction can be made in the English language between the words 'Entrepreneur' and 'Enterprising person'. See the main text later. It is the author's experience that when teachers in schools are asked to describe the 'enterprising person' they provide a list of behaviours, attributes and skills that largely duplicate those that are associated in the literature with the entrepreneur. In this text 'enterprise' refers to the personal demonstration of the behaviours described in Annex 2. The Entrepreneur demonstrates these behaviours in the context of setting up and developing a venture

over the past two decades the rationale for engagement has substantially shifted over time. In the 1980s in Europe it was heavily focused upon employment creation via self employment and small firm growth.⁴ Over the past decade the official policy emphasis has changed to that of the contribution that enterprise and entrepreneurship might make to international competitiveness, facilitating a response to the social and economic uncertainties and complexities resulting from globalisation (EU 2006a). A major manifestation of this is the pressure from business on the education system to provide a workforce that is more flexible, creative, opportunity-seeking, achievement oriented and capable of taking initiatives (Davies 2002). These pressures derive from the restructuring of business organisations in the 1980s-90s and the pursuit of the lean is mean and networked models of flexible organisation design (Ghoshal and Gratton 2002). The associated impact of these changes on labour markets, with the growth of contract and portfolio employment, frequent job changes necessitating geographical, social, job and occupational mobility has underpinned the argument for the creation of a more entrepreneurial workforce capable of self direction and imbued with the notion of life long learning (EU 1996). Against this backcloth there have also been pressures for governments to place greater emphasis upon the ability of individuals to prepare their own response to the flexible labour market rather than look to public support, reflected in changes in pension provisions, social security systems, healthcare and education (Rajan et al. 1997, Grimshaw et.al. 2000)

Overall therefore the emerging policy thrust behind entrepreneurship/enterprise education can be summarised as preparing young people for a life world of greater uncertainty and complexity in both work, social and consumer contexts with enhanced pressures to see and take opportunities on the basis of individual initiative (Gibb 2005). The European Commission's articulation of this concern, is broadly that of giving 'young people the personal management skills that will serve them well in their lives ahead' (Enterprise Europe Online 2006). This policy focus provides a challenge to the development of an enterprise/entrepreneurship concept appropriate to establishing these desired outcomes as well as the choice of the most effective inputs. Yet, as will be shown below, in these areas there remains not inconsiderable confusion.

3. The Concept

The current policy-led interest in enterprise/entrepreneurship education is therefore not narrowly focused on new venture creation and entrepreneurial

4. Durham's first programme of schools' Enterprise education in 1985 was, for example, sponsored by British Steel in partnership with government and focused upon areas of steel company rationalisation and closure (Annex 1). The aim was to provide a stronger future base for local economic development and employment.

business growth but upon the development of the enterprising person in the wider sense of an individual being equipped to cope with the new world of globalisation. The conceptual emphasis is consequently upon a model of development of personal enterprising or entrepreneurial skills in the population as a whole, applicable to the design and performance of all kinds of organisations, rather than solely upon those likely to be persuaded to start or grow a business. The notion of the 'enterprising person – one demonstrating initiative, seeking and exploiting opportunities, being autonomous yet capable of inspiring others with strong orientation to achievement and a capacity for networking effectively to achieve goals in all walks of life has been discussed extensively by the present author elsewhere (Gibb in Kyro et al 2005) and 2007). The distinction between this typology of the 'enterprising person' and that of the entrepreneur (applying enterprise to business) is easy to make in the English language but more difficult in many other tongues.

The distinction is not however recent. It formed the basis for the schools education programme design work at Durham from the mid-1980s onward. The main reason for this was a search for a model that could be embedded in the educational system rather than introduced as an external add-on. To this was added the simple pragmatic reason that the notion of teaching children to be entrepreneurial in the conventional business sense was found to be ideologically anathema to most teachers against a background of Thatcherite 1980's politics, whereas the notion of the enterprising child was taken by them to closely aligned with the broad objectives of education (Gibb 1993).

This stance does not at all abandon the notion that entrepreneurship is centrally concerned with the way that individuals and organisations innovate, create and implement new ideas and ways of doing things, respond proactively to the environment, and thus provoke change involving various degrees of uncertainty and complexity as in the traditional Schumpeterian sense (Schumpeter 1934, Landstrom 1998, Gibb 2006). It merely provides for a much wider context (than business) for these activities.

Knowledge, as a basis in theory for 'practising' behaviours in education may therefore simply be regarded as providing the cognitive input to a range of different contexts. It will be argued that it is the pedagogical design that is the key to the enterprise process. It follows that the knowledge context in enterprise/entrepreneurship education may be in any subject area. In the UK it has been possible to design pedagogies to encourage enterprising behaviour within the context of delivery of such standard National Curriculum subjects as, English, Mathematics, Geography, History, Science and so on (Gibb, 1993, DUBS 1999 – Annex 1). In a business context, for example in setting up a new venture, the knowledge base will be derived from the immediate tasks and 'need to know' learning requirement (Gibb 1993). Yet, as has been argued elsewhere, it is the *process* of knowledge delivery in this context that helps the student to feel the 'life world' of the entrepreneur (Gibb 2002). It is quite possible to teach a new

venture programme without the participants really feeling what it is like to be entrepreneurial.

If the above argument is accepted then a suggested definition of entrepreneurship/enterprise, in an educational context, might be as follows:

‘Behaviours, skills and attributes applied individually and/or collectively to help individuals and organisations of all kinds, to create, cope with and enjoy change and innovation involving higher levels of uncertainty and complexity as a means of achieving personal fulfilment and organisation effectiveness’. Enterprise education is the process by which these behaviours are practised and supported.

This definition embraces behaviours, attributes and skills exhibited in organisations and contexts of all kinds including that of the family and community. It may embody elements of learning *for* the pursuit of some task, learning *through* a particular pedagogy designed to stimulate entrepreneurial behaviour and learning *about* (the pure cognitive element).

4. Desired Outcomes and Associated Inputs

Although the above conceptualisation appears to be one now widely accepted in Europe, in practice it is difficult to link it with clear, targeted outcomes. In the UK the influential Howard Davies report (Davies 2002) led the government to the commitment that every child in secondary school should experience at least one week of ‘Enterprise Education’. This was defined in outcome terms under three headings:

Developing Enterprising Capability – defined in terms of ability to cope with uncertainty, respond to change, find new ways of doing things, undertake risk/reward assessments and to act upon the above in both domestic and working life. Associated knowledge, skills, attitudes, and qualities were then identified.

Financial Literacy – defined in terms of ability to become an informed consumer of financial services and to manage one’s own finances. This implies knowledge of money, credit and investment, skills relating to budgeting, financial planning and personal risk management and attitude development focused upon taking responsibility for financial decisions, personal and business.

Economics and Business Understanding – defined as the process of enquiry into the context of business focused upon the notions that resources are scarce and therefore choices must be made between alternative uses. This implies knowledge of economic concepts of markets, company efficiencies, prices and growth, skills related to decision making and economic judgment, initiating hypotheses and applying theory to practice. Also development of attitudes towards concern for

economic affairs, the responsible use of resources and challenges of business responsibility to the community and the environment are proposed.

It is difficult to see how many of these recommendations link tightly with the notion of the entrepreneurial/enterprising person, notwithstanding that all of this has to be delivered in one week? The European Commission, while embracing a wider concept (European Commission 2006) also seems unclear in its linking of concept with practice for example in its urging of programmes of work experience and training for employment which may have little to do with creating enterprising outcomes as embodied in the definition above. Both the EU and UK notions therefore embrace knowledge contexts of economics and industrial understanding without clarification as to how these should be taught in order to contribute to developing the enterprising person or indeed the entrepreneur. That is not to argue that these suggested inputs are not desirable. There is, however, little acknowledgement of the role of the pedagogical processes by which enterprise might be developed in pursuit of this knowledge base and little acknowledgement of the challenges involved (see below).

One approach to clarification is to infer outcomes from inputs. In the UK there are a great many programme offers including: Young Enterprise (a derivative of the US Junior Achievement); Economic Awareness, Understanding Industry, Understanding Business, Work Experience, IT skills, Interpersonal Skills, Financial Literacy and Career Planning. Outcomes from such a broad portfolio can therefore be inferred as extensive, but they are not clearly spelt out and indeed not all are easy to relate precisely to the Howard Davies recommendations endorsed by the UK government. The EU publication of Best Practices (EU 2005) is similarly diffuse. A recent study of the assessment of Enterprise Education in Schools in England found that:

....schools were working towards a variety of different enterprise capability outcomes and often included other skills and attitudes in addition to those listed in the DfES (government) definition of enterprise capability.....

(National Foundation for Education Research 2007)

Notwithstanding the difficulty of matching inputs to desired outcomes, it is also possible to argue that within some programmes, which are heavily endorsed, outcomes are not clearly established and therefore there is no well designed basis for assessment. A classical case is that of Young Enterprise which simulates the start up process but does so within arguably a rather more corporate model of establishing teams and responsibilities for functional components – focused upon the business plan.

Altogether therefore, while there is much rhetoric about developing entrepreneurial attitudes and mindsets, there is little evidence provided as to how precisely these are to be enhanced. It has been argued by the author elsewhere

(Gibb 2002) that if the overall policy objective is to help young people to cope with uncertainty and complexity and indeed enjoy it then a number of key components are missing or not transparently targeted including:

- feeling the life world of the entrepreneurial person (Annex 2)
- creating real empathy with the values of the entrepreneur (Annex 2)
- being able to see problems as opportunities
- seeing pursuit of ‘making things happen’ as a process of identifying related networks of people who need to be persuaded/influenced
- making intuitive judgments on the basis of limited information
- constant practicing of a range of entrepreneurial behaviours (Annex 2)
- having clear mental map models (frames of reference) as to how to develop a business or organisation through stages from raw idea to survival (see Gibb 1987)
- interpreting different task environments and the contingent need for entrepreneurial behaviour (Namen and Slaven 1993)
- having a clear frame of reference as to how to appraise an opportunity.

It is clear from the body of research into learning⁵ that coherent structures of knowledge and meaning vary with individuals and are influenced by social and cultural factors. The ways things are done in a community, the values that influence the search for understanding and the nature of the activities engaged in, influence the learning potential. In the context of the entrepreneurial ‘life-world’ it can be argued that there is a need to base educational approaches upon understanding of entrepreneurial:

- ways of thinking
- ways of learning
- ways of doing
- ways of communicating

5. See for example Branston, Brown and Cocking (1999) ‘How People Learn’ US National Research Council.

- ways of organising
- ways of feeling about things.

It is these components which arguably underpin the concept of the entrepreneurial expertise in thinking and learning (Branston et al, op.cit. Chapter 2). A somewhat speculative attempt at setting out key components of the challenge as above is given in Annex 3. Such a scenario, if accepted, provides a framework for evaluating the impact of any existing initiatives. It can be used for example to assess the impact of established programmes such as Junior Achievement and Young Enterprise. It also presents a challenge to forms of assessment (see below).

5. The Pedagogical Challenge

Some examples of how some of the entrepreneurial ‘ways of’ might be taught are displayed in Annex 4. It was recognised, at an early stage in the Durham development of schools and college approaches to enterprise, that the major challenge to embedding enterprise in the curriculum was (as noted earlier) that of methods of teaching of any subject in any context. It was for this reason that much attention was paid to the development of enterprising approaches to major subjects in the UK National Curriculum, for example History, English, Science and Technology at GCSE level – age 15/16 (Annex 1). This was undertaken by a process of groups of teachers working in these subjects being brought together to explore the potential for teaching the existing National Curriculum using a range of more enterprising pedagogies.

Such an approach was loosely targeted on some of the outcomes identified above but was only in reality a small step in this direction, given the constraints imposed by the UK formal timetable, national curriculum and examination systems. Moreover such ‘enterprising’ approaches that were developed were not tightly assessed against the criteria set out above. There was merely a loose assumption as to the direction of the effort: and the pedagogies introduced were limited in scope. In many ways they were aimed more substantially at connecting the curriculum to issues outside in the ‘real world’. Learning from this extensive experience, however, led to the notion that one of the most critical barriers to moving closer to the ‘entrepreneurial’ process and outcomes, noted above, was time. Traditionally lessons in the UK education system are in slots of 35 minutes. This was largely inadequate to allow:

- learning by a process of repeated doing

- repeated practice and small group work aimed at developing enterprising behaviours
- greater ownership of learning to be given to participants
- the building up of motivation to learn under pressure
- the opportunity to move outside the classroom to work with external organisations to create something (rather than observe) and gain insight into the ‘community of practice’
- and, most importantly, experimentation with a wider range of pedagogies.

The importance of experience and practice in building the structure of the mind and the impact on the structure of the brain is now somewhat established (Kandal 2006 ch. 17) but the organisation of the curriculum in schools into small delivery slots arguably limits this.

*Exhibit 1: Some Pedagogical Tools for Enterprise/Entrepreneurship Education*⁶

Class Questioning and Personal experiences)	
Lectures	Anecdotes
Workshops	Cases
Brainstorming	Drama
Drawings	Audits/investigations
Games	Critical incidents
Projects	Consulting
Simulations/role play	Debates
Presentations/teaching	Quiz’s
Panels	Negotiations
Personal (ity) tests	Networking exercises
Video (interactive)	Newspaper clippings
Guests	Visits
Thematic Aperception Tests	Log books
Interviews/Report writing	

6. Drawn largely from experience and observation of teacher practice. Also those pedagogies enhancing scope for simulation of key aspects of the ‘life world’ of entrepreneurs. See also the list of entrepreneurial pedagogies developed as a basis for the National Council for Graduate Entrepreneurship (NCGE) and Enterprise Educators’ UK (EEUK) International Entrepreneurship Educators Programme (IEEP). Contact NCGE at www.ncge.org.uk

The key to entrepreneurial learning as described above is very careful linkage of pedagogy with enterprising outcome. Each of the pedagogies shown above in Exhibit 1 can be linked with such outcomes. For example drama creates capacity to be creative, builds teamwork, demands empathy, builds capacity and confidence in individuals to perform, and importantly, in an academic context underlines the subjectivity and emotional underpinning of all knowledge. Debating builds capacity to persuade, construct argument, have empathy with other points of view and make intuitive judgment in instant response to messages. Drawings stimulate creativity and innovation in thinking and empower with the notion of self-expression and wide range of feelings. A brief summary of a range of pedagogies and their suggested application is given in Annex 5.

The above considerations have led to experimentation with the development of units of one week duration involving children coming out of school into specially designed premises provided by an entrepreneur and focusing for whole week periods upon particular outcomes, for example, network utilisation, personal enterprise development, opportunity identification, starting and developing an organisation from an idea (Cotton et al. 2006).

6. Teacher Ownership and Skills

It was noted above that in the Durham schools enterprise education approach the development work (the conversion of concepts into practical application within the formal curriculum) in each of the many projects shown in Annex 1, was placed firmly with teachers supported by an academic team.⁷ There were several reasons for this. First, that teachers are closest to the ultimate customers, the students. They understand their capacities to learn, are aware of the constraints and opportunities in the classroom and the dictates of the broader curriculum. Second, as noted above, it was deemed important that they should own the new curriculum and that it should be embedded in the school and not just be an extra-curricula activity. Third, teachers are trained education professionals unlike many of the externals offering some of the programmes listed above. They therefore have developed and honed teacher skills appropriate to the task. Fourth, if

7. This was an approach practiced during all of the materials developed over a decade or so and listed in Annex 1. The teachers involved in each case were carefully selected in liaison with sponsors and heads of schools and colleges on the criteria that they were teaching the relevant part of the National Curriculum or targeted course, were regarded as high performing in so doing, were interested and motivated to give time and energy to the project and were regarded as having sound writing skills. The process of engagement involved initial workshops to discuss the concepts and outcomes targeted, experiments/innovations in the classroom with a range of concepts over time, further workshops to feed forward on ideas, successes and failures, a review of the pedagogical change potential and draft outline developed and the establishment of a small writing team to formalise the material, working with Durham staff. A 'manual' was then produced and used for programmes of teacher development with sponsor support.

successful they will see opportunity for expanding the work with other groups and in other parts of the curriculum. Finally, as the aim was to insert ‘enterprise’ within a wide variety of different curriculum contexts, teachers needed to be absolutely familiar with teaching the part of the curriculum addressed and could see the ‘enterprise’ approach as a means of enhancing the existing performance of their pupils.

Such an approach does not at all exclude external contributors, only that the school is placed firmly in charge of the programme. The issue of teacher training and development does however arise. The dominant teacher role is that of facilitator demanding innovative teaching methods and a willingness to experiment with enterprising modes of learning as in Exhibit 2 below.

*Exhibit 2: Enterprising modes of Learning*⁸

- Experiential/action oriented
- Self determined
- Tutor as facilitator
- Tutor in joint learning situation
- Learning linked to need for action
- Student generation of knowledge
- Learning objectives negotiated/discussed
- Sessions flexible
- Personal development focus
- Problem solving
- Problem into concept focus
- Competence development orientated
- Repeated practice
- Mistakes as a basis for practice

(see Gibb 1993)

8. Those approaches to learning designed to stimulate ownership by the learner, the taking of initiatives, experimentation, and learning from failure, experiment and practice with the use of learning.

7. Links with Broader Educational Goals

A key issue in developing teacher ownership, noted earlier, is the degree to which the profession sees entrepreneurship/enterprise education as central to wider educational goals. The reason for the focus at Durham on the concept of the enterprising person, was explained above. Most teachers did not see creating capacity to set up one's own company as being a major goal of education. In contrast they see stimulating the enterprising person as being central to their role in education. The ideological barriers to a business oriented approach have been explored in great depth (Ma 2000) confirming that a focus upon personal enterprising behaviour in any context will not be seen as hostile to broader educational goals at all levels of education. It has been argued by the author (Gibb 2002) that, even in the higher education context, this broader notion is also not at all alien to the traditional 'Idea' of a university with its accent upon the 'imaginative use of knowledge' (Newman 1852).

The broader stance taken also assists in moving enterprise education away from the debate on vocationalism in education which has long aroused controversy (Hager and Hyland 2003). The notion of teaching 'for' something as opposed to 'about' seems to create problems not least in the teaching of entrepreneurship in British universities (Levie 2003). This is despite the growth of vocationally oriented degrees and the fact that some of the oldest university subjects, medicine and law, are very precisely vocational (although an attempt is sometimes made to address this apparent anomaly by making a distinction between professions and vocations).

A major barrier to the development of enterprise in education is its apparent conflict with the examination and testing philosophy currently dominant in the UK education system and elsewhere, in all subjects. It is difficult to find room for experiment with a host of different pedagogies in a culture of teaching children to pass exams. This is a point widely embraced in reviews of the way the individuals learn (Bransford, Brown and Cocking 1999). There remains a wide-ranging debate about this, although, by and large, the teaching profession is hostile to a rigorous programme of teaching to examination results (visit the UK teacher union website, www.teacherunion.org.uk). Many educationalists would indeed argue that this process is antipathetic to the notion of education. Notwithstanding this debate, in practice there are major barriers to experimentation with enterprising modes of learning and indeed to taking children out of the classroom for long periods of time as noted above in the Durham experiment above (Cotton op.cit.). Yet there is much educational literature to support the view that enterprising modes of learning are central to sound transfer of knowledge and embeddedness of this knowledge in the form of mental maps to be called upon in learning in the future and in the application and interpretation of new knowledge (Mantzavenos et al 2003).

In the UK there are also quite contradictory official stances relating to the delivery of education. Much official support has been given to the view that what has been pejoratively labelled ‘trendy’ teaching methods (embodying many of the enterprising pedagogies listed above) has resulted in poor educational results, measured in examination terms (Curtis 2008). Yet at the same time the official view is also that the education system should be delivering ‘highly enterprising persons’. This confusion in thinking does not seem to be widely recognised.

A further barrier, however, in general is the dominant prejudice in UK school education curriculum development, noted by some educational philosophers (White 2006), in favour of traditional mainstream science and liberal subjects and against creative subjects such as music, art and drama. Yet the latter are those very subjects likely to stimulate development of many of the enterprising characteristics noted above and indeed constitute key pedagogical elements in enterprise education.

At the root of the issue is the notion of the educational contract. In the UK the nature of this contract seems to change as the child progresses through the education system. At Primary school the contract appears to be more strongly focused upon personal development and child-centred learning, although the testing culture is steadily encroaching. In this climate, enterprise education is easily built into the contract provided that it is of the wider variety noted above. In Secondary education the contract increasingly changes to that of preparation for subject centred examinations, performance in SATS⁹ tests and eventual specialisation. The personal development aspect of the child is arguably weakened in favour of an instrumentation approach – the child as a vehicle for the transmission and regurgitation of knowledge. In the further education and vocational sector the emphasis shifts towards a stronger focus upon preparation for the world of work within a ‘profession’ or ‘craft’ context. The personal development element is stronger but in a more focused context. In higher education the accent is upon delivery of disciplinary based education and research based upon explicit and academically defined knowledge. The contract for personal development is diminished in favour of the pursuit of knowledge and the acquisition of a degree. There is some support for the view that contracts are seen by teachers at various levels of the educational system in this way but that when ideological barriers are explored/removed (surrounding the notion of entrepreneurship) then they are highly supportive of enterprising modes of learning (Ma 2000).

9. National tests in the English system carried out at regular intervals designed to measure child and school performance.

8. Place in the Curriculum and Its Integration

How this issue might be addressed is a function of the model adopted. Borrowing from the experience at Durham there would appear to be a range of (overlapping) choices.

What might be labelled the *Pure Enterprise Pedagogy Model* developed at Durham focuses upon *how* any subject might be taught more enterprisingly. It therefore begs the question of how a subject can lend itself to identifying opportunities for the *use of knowledge*, solving problems creatively, involving action modes of learning, demanding initiative, discovery and experimentation as a means of personal development. Its introduction demands solely that teachers explore in detail the curriculum in pursuit of pedagogical innovation. Such an approach demands a school-wide commitment to the principle and is not easily achieved particularly in a climate where teachers are appraised essentially on examination results and other tests and are under heavy time pressure which may favour rote learning orientations. Although no detailed research has been undertaken it is unlikely that the Durham National Curriculum focused material, set out in Annex 1, has been widely used. This may in part also be a function of limited resources for marketing and, in particular, ongoing teacher training.

Motivation for change and use of enterprising approaches seems to be stronger in schools' subject areas with elements of vocation, societal awareness or skill development, for example, Information Technology, Business Studies, Civics, and Economics and Industrial Understanding. In these subjects it is easier to take an approach which might be labelled a *Work and Society Related Model*. ('You can Make it', 'Tomorrows World of Work', 'Make it in Britain' and 'Active Environmental Learning' are good examples of this in the Durham material – Annex 1). Here students are asked to engage with 'real world' issues involving project elements of discovery and demanding initiative. In all of these cases, material content is designed to be integrated into the school curriculum and may be used on a 'pick and mix' basis by teachers of different subjects.

It is in the context of vocational education that what might be labelled a purer '*Self Employment New Venture Model*' emerges. In Europe at any one time approximately one in every 12 persons in the labour force will be self employed. The probability of experience of self-employment is much higher than this among those who have undertaken vocational training in a particular skill. Moving in and out of self-employment for those trained in a vocation is not an uncommon experience. 'Working for Myself' was developed as part of the Durham portfolio to meet this need. The emphasis in this material is upon addressing a series of questions which craftsmen may ask themselves beginning with 'Will my Skill make a Business' rather than the conventional new venture formula. It nevertheless follows through the stages of development of the start up concept from birth to survival (Gibb 1987). Such a programme is designed to be an intrinsic component of all vocational education courses. Fitting it into the

curriculum is therefore not a major problem as most vocational courses have business studies elements. In transition economies the programme has replaced subjects such as economics.¹⁰

Finally, particularly in Primary and Secondary education, where curriculum space can be found, there is the option of an '*Entrepreneurial Project-based Simulation Model*' (see, for example, 'Primary Enterprise' and 'Enterprise – an Educational Resource for 14 to 19 year olds' in Annex 1). These constitute a simulation of the start-up process of: finding an idea, evaluating it, identifying resources via a plan and implementing it (on a project based cycle) but not exclusively in a business context.

All of the above approaches have been designed to be embedded in the curriculum. They have been developed by teachers, for teachers, according to the principles outlined earlier. This is not to deny the value of programmes such as Young Enterprise which are extra-curriculum and have achieved wide penetration in schools education. Extra-curriculum programmes do not, by and large, beg major questions about the timetable slot and do not make heavy demands on conventional school time and teacher resource. They are thus easier to introduce. What needs to be questioned, however, is the degree to which such programmes meet some of the outcomes identified above and whether they are the best vehicles for reaching the policy goals noted earlier.

9. Progression and Target Groups in Enterprise Education

The wide interest in enterprise/entrepreneurial educational approaches has led to the development of a range of materials and initiatives for all levels of the education system. The Durham experience is just one small reflection of this. It can be noted that all of the materials listed in Annex 1 have been developed with support of partnerships involving business and government (national and local). Such partnerships have become gradually formalised in the UK, as political interest has grown, culminating in the creation of the Enterprise Insight Initiative, noted above, engaging chambers, industrial associations, regional development bodies, national agencies concerned with skills training, the education sector and central and local government. This has considerably stimulated interest and innovation for action in the field. A present key concern is the notion of progression through the education system.¹¹

In the UK the Enterprise Insight Initiative, now more commonly known as the Make Your Mark Campaign, is beginning to focus upon this by a process of

10. Certain of the programmes have been adapted by the same teacher focused process noted earlier in transition and so-called developing economies, for example, Hungary, Poland, Russia, Lithuania, Slovenia as well as Malaysia and Malawi.

11. As noted earlier the Welsh Assembly has a progression model from Primary through to Higher Education.

mapping the wide range of different offerings around an agreed basic set of concepts and desired outcomes. This is in recognition of the fact that without clear designation of outcomes, it is impossible to design a progression system. It also demands closer consideration of the needs of different groups as well as age ranges within the education system. It has been noted above that much of the effort hitherto in secondary education has been focused upon the older age range. But even within this age range there are different needs. It is, for example, argued that enterprise programmes will appeal more to those who are less concerned with passing exams for university entrance and are of a more vocational orientation. There is, however, in practice, little knowledge of how the 'market' for enterprise education is 'de facto' segmented, the different needs that arise and how they are met. The Durham materials do take this issue into account to some degree. The primary level material is broadly child centred and project based, the secondary material is more geared to fit into a curriculum and largely focused upon older age groups (14-19) and the vocational material more self employment oriented.

The table below provides a basic framework for progression development linking the 'models' discussed briefly above with progression.

Progression and Enterprise Models

Level of Education	Pure Enterprise Pedagogy Model	Entrepreneurial Simulation Model	Work and Society-related Model	Self Employment/ New Venture Vocational Model
Primary	A	A	C	
Secondary	A	B	C	C
Further	A	C	C	A
Higher	A	C	C	A

A = Possible across all areas

B = Possible in some subjects

C = Could possibly be fitted in to some subject areas or with some groups

This simplistic classification does not, however, deal adequately with the issue of progression. This requires a more careful consideration of what outcomes might be desirably achieved at different levels of the education system. A start might be made on this by means of the Outcomes-based approach used by the National Council for Graduate Entrepreneurship (NCGE).¹² In Annex 6 an attempt is made to explore potential outcomes at each level of the education system.

12. www.ncge.org.uk and the Annex to the Policy Paper by Gibb 'Towards the Entrepreneurial University' which is on the website.

10. Gateways into the Curriculum

Arguably, an outcomes-based approach is one means of addressing the issue of ensuring that enterprise/entrepreneurship education is truly embedded at all levels of the education system and progression carefully monitored. In the UK context the potential to develop any of the broad categories of models described above and subsequently tie these in to outcomes, will be a function of a number of factors including (among others):

- The National Curriculum and its various ‘stages’.
- The nature of the subject taught (how well, for example, it lends itself to project work and experiential learning).
- The ability, motivation and learning needs of different groups of students in the system.
- The overall mission of the education organisation and how strongly it embraces the concept of the ‘enterprising’ child.
- The ability to flexibly timetable to allow for experiential learning and practice.
- The motivation and capability of the teacher.
- The availability of materials.
- The availability of suitable forms of assessment, including peer and self assessment processes.

A ‘whole school’ approach may therefore be needed to determine the potential of the base. For example, in secondary education an appraisal of the whole curriculum would identify many gateway opportunities but would require a ‘whole school’ strategy, materials and staff development and rewards systems for implementation as well as much discussion of desired and measurable outcomes. In the further education sector, introducing various models and tying them into outcomes may prove less difficult, as it can be argued that preparing students for the world of work and adult life is at the core of the mission (for example it can be argued that every person who takes a vocational course should know how to use the skill in self employment). In higher education the potential for utilisation of all models referred to above is substantial but again is a function of institution mission and commitment as well as rewards systems and opportunities for staff development (Gibb and Hannon 2006).

In respect of all institutions one way forward is for the establishment of special units designed to work with staff on 'programme and model' development. This is already happening in many institutions (see for example the work of NICENT in Northern Ireland).¹³

11. Evaluation and Assessment

There have been several 'position' studies of entrepreneurship/enterprise education in the UK (Warwick 2001, National Foundation for Education Research 2007)). Similarly the European Commission has published a number of studies on 'best practice. (2005) and has summarised the results more recently (EU 2008). The problem with most of these studies are that they either merely describe the range of activity of what exists or are simply evaluations of the reaction and intentionality kind (the participants found the programme to be useful, interesting etc and/or they felt more inclined to start a small company at some time in the future). There is an absence of any substantial attempt to construct an evaluation hierarchy for enterprise and entrepreneurship education that clearly links inputs to learning outcomes, desired behaviour changes, organisation change potential and ultimate impact as per an established evaluation hierarchy (Hamblin 1974, Gibb 1977). This creates a barrier to the clear linkage of any programme input to desired societal outcomes and weakens the ability to make judgements as to how closely what is being undertaken links to the kinds of policy rationale for support of this activity listed at the beginning of this paper. An attempt at the construction of such a hierarchy of outcomes is given in Annex 7. Arguably the creation of such a framework would provide a stronger basis for determining priorities in the educational inputs to be provided.

The absence of measures of longer term impact is a major problem even though some programmes like Young Enterprise have been delivered for many years. There is also as yet little measure of what is 'good concept' in design of such activities. Development of sound evaluation design is also complicated by the lack of clarity as to the concept of entrepreneurship to be adopted and the anticipated outcomes from the activities pursued, as noted earlier. Even at the reaction and intentionality level of evaluation, while it is in theory possible to explore the intermediate learning result in terms of participants' real insight into the entrepreneurial world (as opposed to expressed intentionality to start a business at some time in the future), there has been no substantive attempt made (known to the author).

In this respect it can be argued that it is perfectly possible for a participant in a programme to be able to construct a business plan (often the planned outcome from a programme), cost a product or service, develop a marketing strategy etc.

13. See <http://nicent.ulster.ac.uk>

but yet have no real feeling and insight into the ways that entrepreneurs do things, learn, communicate etc as suggested in Annex 3. It is argued below that these should be the real issues to be assessed and that appropriate forms of measurement could be designed. It has been argued elsewhere (Gibb 2002), that the business plan is not a measure of entrepreneurial capacity. It remains doubtful as to whether such a concept was ever developed by an entrepreneur except as response to acquiring resource from some third party with their need for a formal piece of paper. It is more the invention of the banker, venture capitalist, business school and bureaucrat looking for information, logic and order. Yet despite the mounting evidence that more information does not make for better decision making (Dijksterhuis et al. 2006), the plan dominates teaching and is the focus of many entrepreneurship competitions and awards.

The author suggests that the key question to be addressed in an evaluation / assessment frame at the learning and behaviour level is to what degree a programme enables participants to: behave like an entrepreneur, think like an entrepreneur, feel like an entrepreneur, communicate like an entrepreneur, organise like an entrepreneur and learn like an entrepreneur. Much work needs to be done to explore these issues (set out as hypotheses based largely upon experience of working with entrepreneurs over several decades)¹⁴ in Annex 3. There is a need also to determine whether these things are measurable, both for purposes of assessment as well as evaluation.

12. Conclusion – Towards a Framework for Future Research and Development

This paper has attempted a broad review of a number of major issues in the development of enterprise and entrepreneurship education in schools and colleges and indeed across the whole spectrum of formal education. Although the focus has been primarily upon the English context it is arguably the case that the issues reviewed are of wider relevance. An attempt has been made to meet problems with suggested solutions, mainly through the Annexes. In so doing a considerable number of corners have been cut, demanding wider debate and research. It should nevertheless be clear from the argument that there are several major needs that need to be addressed.

- the need for greater agreement on concept
- the need for a greater agreement on desired outcomes
- the need to be able to measure these

14. Although they can also be supported from academic work the review of which is beyond the scope of this paper.

- the need for agreement on related materials and pedagogical approaches linked to delivery of outcomes
- the need to develop better understanding of how entrepreneurs learn to think, feel, communicate, learn and organise things.
- the need to have a framework for progression and, related to this, clear notions of where in the curriculum in schools and colleges, suitable programmes might be introduced
- the need for a comprehensive evaluation framework as a basis for setting learning objectives and for entrepreneurial modes of assessment to be developed.

It is proposed on the basis of the above argument, in turn derived from experience, that progress might be achieved in relation to the above needs by consideration of the following:

Concept. Adopting the broad concept of enterprise/entrepreneurship described in the text as the one most appropriate to meet the policy goal of helping young people to cope with and enjoy uncertainty and complexity in a wide variety of different contexts. If the suggested definition of enterprise is accepted, then the educational focus becomes one of developing empathy with the life world of the entrepreneurial person with the associated opportunity to become familiar with, and practice, related enterprising behaviours. This model can be applied to a variety of different knowledge, career and life world contexts of which business and the setting up of one's own company is but one.

Outcomes. Targeted outcomes might therefore include developing understanding of, and empathy with, entrepreneurial :ways of thinking, ways of doing, ways of organising, way of feeling, ways of communicating and ways of learning as set out in Annex 3.

Measurement of learning outcomes. It seems, a priori, possible to measure and assess a range of these proposed entrepreneurial outcomes among which might be that students:

- really understand the life world of the entrepreneur and the entrepreneurial person
- understand and have empathy with his/her values
- know why people want to be self employed

- know how to network and the importance of making things happen through people
- see opportunities in problems
- have some role models that they can aspire to
- have a frame of reference for setting up an organisation
- can think of and appraise ideas
- have some initial capacity to persuade, present, negotiate, think on their feet, and
- make intuitive judgments.

A list of suggested means of measuring outcomes under the key headings of ‘Ways of Doing’, ‘Ways of Thinking’ etc. is shown in Annex 4.

Materials and pedagogical approaches to enterprise development. It has been argued above and elsewhere (Gibb 1993) that a key component of enterprise and entrepreneurship education is ‘teaching ‘through’ enterprise – namely the linkage of pedagogical method to enterprising capacity development. Some simple examples of how this might be explored are given in Annex 5.

Progression and Place in the curriculum. It was argued above that enterprise/entrepreneurship, if it is to become embedded in the curriculum, as opposed to an externally provided ‘add-on’, must accommodate the ethos of the educational contract at various levels of the education system: child centred in primary, subject centred in secondary; vocational centred in further education; and discipline centred at university. It is clear, however, that throughout all groups there is scope for exploring the teaching ‘through’ enterprise by reviewing the way that the curriculum is taught. The teaching *for* enterprise – the vocational aspect of both self-employment and exploiting enterprise within a wide range of career contexts, is probably for older age groups in selected classes in secondary education and throughout vocational and higher education. In the last-mentioned context this will require some change in the ‘contract’ that is made with the student. While no detailed answers to the challenge are given here it is possible to build upon the analysis of the work at Durham over time. Overall, the matrix set out earlier could be used to classify the wide range of pedagogical material and programmes currently available in the UK and elsewhere. It might also be used as a means to distinguish enterprise/entrepreneurship material from other

supportive, but more indirect, learning material, for example in the field of economics, industrial awareness and business.

Evaluation framework. There is strong case for establishing an agreed evaluation framework perhaps building from the model set out in Annex 7. This might not only provide a link between the various inputs and desired long term outputs but could also provide a base for exploring the total delivery system for enterprise education nationally. It might also help to establish more clearly whether the sum total of effort is truly building up layers of the onion of enterprise/entrepreneurship education.

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Annex 1

ENTERPRISE IN EDUCATION AND LEARNING

Major Publications of the Enterprise Education Unit, Small Business Centre Durham University
Business School 1985- 2003

(materials prepared under guidance by and for practicing teachers)

PURE ENTERPRISE PEDAGOGY MODELS

SECTOR	MANUAL TITLE	FOCUS	CONTENT	SPONSORS
Primary Enterprise	A Primary School Approach to Enterprise Education within the National Curriculum.	Developing enterprising teaching and learning approaches within the National Curriculum, through four themes: manufacturing, retailing, communication and the environment.	Games, worksheets, task sheets, glossaries and assessment charts.	Marks and Spencer, Gateshead and Durham Local Education Authorities.
Primary Enterprise	A Primary School approach to Enterprise Education within the National Curriculum.	A Manual for In-Service Training (INSET) of Teachers.	Ready-made INSET materials based upon workshops held nationally to introduce 'Primary Enterprise' to schools.	Marks and Spencer, Gateshead and Durham Local Education Authorities.
Secondary Enterprise	'Enterprising Educators' – Helping teachers to teach and children to learn – A School-Based Guide.	INSET resource to assist schools in delivering a broad and balanced curriculum in an enterprising style focusing on workshop sessions and classroom tasks for both teachers and pupils.	Five sections; Learning Styles, Teaching Approaches, The Whole Curriculum, An Enterprising Approach and Economic and Industrial Understanding, Case Studies.	Marks & Spencer, Gateshead, Gateshead Metropolitan Borough Council, Durham County Council, Tyneside and County Durham Training and Enterprise Councils (TECs).
Secondary Enterprise National Curriculum Subjects Series	1. 'Mathematics - An Enterprising Approach' 2. 'Science - An Enterprising Approach' 3. 'Technology - An Enterprising Approach	Resources for teachers and pupils at Key Stage 2 of the National Curriculum.	Focus on linking the curriculum to local problems and their solution. Supporting development of links between education, local business and the community.	Esso, Marks & Spencer, Girobank, Mid Glamorgan TEC and Merseyside TEC.

Secondary Enterprise National Curriculum Subject Series	1. 'An Enterprising Approach to Technology'..... 2. 'An Enterprising Approach to Mathematics'..... 3. 'An Enterprising Approach to English'..... 4. 'History - An Enterprising Approach'..... 5. 'Geography - An Enterprising Approach'	Resources for teachers and pupils at Key Stage 4 of the National Curriculum.	Supporting the development of subject based enterprising learning and providing ideas for linkages between schools and the wider community.	National Westminster Bank, County Durham TEC, The Post Office and The Northern Echo.
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ENTREPRENEURIAL PROJECT-BASED SIMULATION MODELS

SECTOR	MANUAL TITLE	FOCUS	CONTENT	SPONSORS
Primary Enterprise	Primary Enterprise – A Primary School Approach to Enterprise Education within the National Curriculum.	Aimed at developing enterprising teaching and learning approaches within the National Curriculum.	Games, worksheets, task sheets, glossaries and assessment charts through four themes: manufacturing, retailing, communication and the environment.	Marks & Spencer, Gateshead and Durham LEAs.
Secondary and Vocational Education Enterprise	'Enterprise- an educational resource for 14-19 year olds'.	A resource designed to encourage enterprise in its widest sense.	Takes pupils and teachers through the stages of running an enterprise project in any context - business, community or environmental.	British Steel (Industry) Ltd.
Secondary Enterprise	Developing Entrepreneurial Insight – A programme for secondary schools.	Aimed at simulating key aspects of the life-world of the entrepreneur.	Module 1 The Enterprising Person Module 2 The Generation of Ideas Module 3 Working with Small Businesses Module 4 Creating a New Business Module 5 Effective Networking.	Welsh Assembly Government. Piloted in partnership with Schools in Gwynnedd.

SELF EMPLOYMENT – NEW VENTURE MODELS

SECTOR	MANUAL TITLE	FOCUS	CONTENT	SPONSORS
Further Education Enterprise	'Enterprise in Vocational Education and Training - Skills Development'.	Aims to develop the student's enterprise competencies whilst still covering the established vocational curriculum objectives.	Focuses on the vocational areas of Hairdressing, Catering, Business Studies, Electronics and General Studies (non-course specific).	DfEE (formerly the Employment Department) and British Steel Industry.
Vocational Education Enterprise	'Working for Myself'	Enables participants to explore the notion of using s vocational skill in self employment in a way that provides insight into the 'way of life' of the entrepreneur.	A series of modules following the stages of getting into (particularly self employed) business beginning with 'Will my Skill Make a Business. through to birth and survival.	Unilever and EDEXEL (a UK vocational education accreditation organisation.

WORK AND SOCIETY RELATED ENTERPRISE MODELS

SECTOR	MANUAL TITLE	FOCUS	CONTENT	SPONSORS
Primary Enterprise	'You Can Make It'	Using links with manufacturing companies to support the primary school curriculum.	Seven Case studies to demonstrate the opportunities available within manufacturing to develop the curriculum especially Design and Technology, Citizenship and Links with Industry.	CBI, ICI, Merseyside EBP, BAE Systems, Education Business Partnership Link, LAWTEC and Design Council.
Primary Enterprise	'Active Environmental Learning'	Resource pack for teachers and pupils at Key Stage 2 of the National Curriculum which encourages pupils to investigate problems and seek to solve them. Aimed to promote the development of competent and informed citizens.	Five sections built around three themes: Recycling, Sound Pollution, The Natural Environment. Explores the nature and need for sustainable goals locally and globally, with scope for taking part in achieving them.	ICI Cleveland
Secondary and Further Education Enterprise	'Make It in Britain'	Resources for the Mandatory Units incorporating Core Skills in Advanced GNVQ Manufacturing.	Focuses upon the process of developing projects aimed at exploring the potential for local manufacture of 'imported' products.	British Steel, Unilever and Sunderland City TEC.

<p>Secondary and Further Education Enterprise</p>	<p>'Make It in Britain' - Advanced GNVQ Manufacturing' (Options).</p>	<p>Resources for the Optional and Key Skill Units in Business and Engineering GNVQs.</p>	<p>Focuses upon the process of developing projects aimed at exploring the potential for local manufacture of 'imported' products.</p>	<p>ICI Cleveland, Unilever and Sunderland City TEC.</p>
<p>Secondary and Further Education Enterprise</p>	<p>'Tomorrows World of Work. Business, Society and the Individual'.</p>	<p>Developing students' understanding of the roles and responsibilities of companies and their employees in the community.</p>	<p>Materials demonstrating examples of how to deal with a range of business/societal issues in the work environment.</p>	<p>Esso, IBM, ICI, Marks and Spencer and Unilever.</p>
<p>Primary, secondary and vocational Enterprise</p>	<p>'Hand in Hand' - A Management Guide for Schools and Colleges.</p>	<p>How to link with local Small and Medium Companies.</p>	<p>Contains examples of partnership activities illustrating how primary, secondary and further education schools and colleges can work with Small and Medium sized Owner Managed Enterprises.</p>	<p>DfEE, Whitbread, Teesside TEC.</p>

Annex 2

SIMULATING KEY ASPECTS OF THE ENTREPRENEURIAL LIFE – WORLD

The Entrepreneurial Life - World

- 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

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'
- believe can 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

Some Key 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 inter-dependence
- putting things together creatively
- using judgement to take calculated risks.
- intuitive decision making
- strategic 'what if' thinking

Annex 3

ENTREPRENEURIAL ‘WAYS OF’

Ways of Doing

- Intuitively
- ‘What if’ strategy
- Jumping in
- Making it up
- Problem solving
- Opportunity seeking
- Responding to stakeholder pressure
- Through contacts
- Judgements on basis of limited data

Ways of Thinking

- Heuristic/ experiential rules
- Frames of reference
- Within thresholds of potential
- Unreasonable
- Intuitively
- Within thresholds of experience
- Pragmatic

Ways of Seeing Things

- Aggressively
- Not through checklists and plans
- Defensively v ‘Way of life’
- Through culture
- Own resource caution
- Resisting unnecessary formalisation
- Looking for value in practice

Ways of Learning

- By doing
- Copying
- From stakeholders
- Under pressure
- By experiment and mistake making
- Problem solving creatively
- Opportunity grasping
- Opportunity for repeated practice
- Need to know basis
- Know how focus
- Know who linkage

Ways of Communicating

- Verbally v written word
- Based on trust
- Word count appropriate
- Acting different parts
- Person to person – not organisation
- With feeling

Ways of Organising

- To provide organisation members with ownership, control, degrees of freedom, ability to network, responsibility to see things through, rewards linked to effort and success with clients, ability to learn from mistakes and stakeholders
- Informal and overlapping
- Held together by culture not control
- Sharing strategies
- Project based organisation

Ways of Feeling

- Through the ego
- Through ownership values
- Through family perspective
- Through high locus of control
- Through judgement of people
- Through values filter (anti bureaucracy, formality, affinity, self made aspiration)
- Valuing experience

Annex 4

POSSIBLE WAYS OF ACHIEVING MEASURABLE OUTCOMES RELATED TO ‘WAYS OF DOING’ ETC.

Ways of Doing

- Mini cases/critical incidents calling upon students to take decisions with limited data
- Following the development of frames of reference in class (the start up process – of any kind of organisation being one) judgements made as to possibility of success and reasons given (no business plans!)
- Creating a convincing argument for something with limited information – off the top of the head in a limited time space
- Giving students a particular problem and asking them to identify as many opportunities for solving it as possible – for example drugs in night clubs, nothing for young people to do in the evening in their local community
- Seeing all activities/opportunities as know who - being about identifying relevant stakeholders, empathising with their needs and points of view and developing strategies for carrying the opportunity forward. For example setting the students the objective of setting up a school disco – identifying who they need to persuade, what the pros and cons seen from each of these individuals point of view might be, deciding who best to use to persuade others etc. (possible key stakeholders being teachers, head teachers, parents, school caretakers, canteen staff, local police, local householders, possible stewards, local authorities re. noise etc.)

Ways of Communicating

- asking students to make a persuasive verbal case for something on their feet a short notice – as practiced in developing debating capacities
- exercises in telephone selling
- after inputs on emotional intelligence asking students to make assessments, for and against whether a person on a video is trustworthy
- feedback on role play of a person in very different situations (for example re. the disco exercise above how should one ‘appear’ before a head teacher, police inspector, chairman of governors, school caretaker). The enterprising person/entrepreneur is a good actor
- Practice in putting things simply using a word count appropriate to an audience – test in writing a story for a five year old child

Ways of Thinking

- use some of de Bono’s lateral thinking exercises
- ask students to construct heuristic frames of reference for making intuitive judgements of different kinds of events – for example how do you assess how to trust someone?)
- ask students to provide examples of different kinds of entrepreneurial experiences they have had selecting from a list and ask them to evaluate results (for example, have they ever tried to sell something, persuade someone to do something against their will, defend something that you really believed was right but others felt was wrong)
- explain what the use of some particular piece of knowledge might be to whom and why?

Ways of Feeling

- simple exercise to test understanding of the life world of a person (what changes in the life of a teacher who decides to become self employed?)
- exercise in understanding how strong ownership of an idea or ideology might influence the way people present and defend their actions. Using for example a craftsperson whose work is criticised in a newspaper to get the student to understand how it might feel when someone really 'owns' something yet has it threatened. Use of video or mini incident and check responses
- write a short story around a picture of two people at a table where one is trying to persuade the other to do something that he/she thinks is unethical
- Selecting two of your friends/acquaintances (using fictitious names) explain why you might trust one more than the other
- Given a list of entrepreneurial values explain why these should be so.
- Given a particular job description and two candidates one with a great deal of formal qualification and the other with a great deal of experience, how would you go about assessing the two?
- Take a family incident and get the student to explore the impact of different feelings upon the way different members of the family see the incident (I want to set up my own business says the young daughter)
- Explain why entrepreneurs do not like bureaucrats

Ways of Organizing

- explain how to design an organisation so that people can be very enterprising
- explain how to design an organisation to suppress enterprise
- explain whether you think the school/college is enterprising and why or why not
- make a drawing showing what you believe to be the culture of the school and explain it
- plan a project to determine the needs of older people in the community and how they can be met

Ways of Seeing

- students assume that have to have to create their own living and wealth by hard work and independent effort with little support. Asked to indicate how this might influence attitudes to: increased taxation, a tax on inheritance, public expenditure on subsidies to the unemployed
- Students asked to assume that they are the boss of a small firm employing 14 people many of whom have been with it for 20 years.. A government scheme is introduced to encourage every employer to train formally every member of staff, keep records of all training events and undertaking formal training needs analysis. You as an employer are asked to contribute a percentage of your labour costs in the form of a payroll tax to pay for this. If you complete all the paper work. keep records and send your workers n formal training courses you will recoup most if not all of the tax. Why should you object to this?
- students assume they have many years of experience in doing something and have been reasonably successful. An expert comes along and sets out new ways of doing things based upon objective analysis and theory. What will be your attitude to this and why?

Ways of Learning

- student wishes to start a tennis club in your local area. What does he/she need to know in order to progress the idea. How and from whom will they get to know it?
- student is thinking of setting up a local crafts and art gallery. He/she visits several galleries in other areas. What would you be looking for?
- students are lost in the mountains with minimum equipment and are faced with a night of freezing temperatures. Describe what they might do to escape or survive
- Students asked to list as many needs a possible that a sofa might meet (that might reasonably be in the mind of someone wishing to buy one)
- Students given a two page summary of an idea for a business which is full of errors and are asked without adding to the word count to amend it so that it is more plausible

Annex 5

Entrepreneurial Learning

SOME EXAMPLES OF MATERIALS AND PRACTICE SUMMARY¹⁵

How to use them in Enterprise Teaching

1. **Long cases** – *used to practice: personal decision making, innovative problem solving, understanding ways of doing things, company decision making, practice in analysis, and use of frames of reference and concepts.* Also exemplars of theory in practice. Can be used alone, or alongside/ later discussions with, real time managers. Usually accompanied by: key questions for students; case notes, teaching notes, and readings.
2. **Short cases** (2-3 pages) – for pre-preparation or for group work in class: *used to underpin key points made in a lecturette, practice frames of reference, as a basis for use of judgment in decision making with limited knowledge and underpin internalisation of knowledge* and to bring out lecture points. Usually accompanied by key questions, teacher guidance, and sometimes handouts or technical notes, readings.
3. **Critical incidents** – (1 page or OHP): *used to stimulate free thinking and brainstorming picks up an incident in an organisation for discussion. Also to underpin a point made in class and to demonstrate use of knowledge in practice.* Can be accompanied by notes indicating to teacher how might be used.
4. **Class questioning** – *used to explore the existing ways of seeing things and testing experiential knowledge simple overhead with either a question (e.g. ‘How would you determine whether an organisation thinks strategically?’) or a statement (e.g. ‘Entrepreneurs are born not made? Do you agree with that?’).* To stimulate active learning by drawing out class views and placing them in a framework for analysis. Usually followed by handout to expand on class discussion or ‘write up’ of class debate. The overhead might also include some background material (e.g. ‘You are going to begin a consulting assignment with a small engineering firm and you will begin with an interview with the owner-manager’).
5. **Anecdotes** – *used to link theory with practice: the art of good enterprise teaching. Students challenged to develop own anecdotes from experience.* Just means telling a story or giving an example (being amusing helps). Must be to the point (back up a point) and short. Can be supported by overhead but not really necessary.
6. **Lecture notes** – *used to support the main points in the lecture: not very enterprising.* Can be given out as powerpoint with key notes beforehand or after. Danger is that students don’t come to the lecture. May include readings and backup technical notes.
7. **Games** – *used to build team work, experience pressure for decision making with limited time/ knowledge, introduce elements of competition, practice what has been learned, develop entrepreneurial competences.* May be short classroom exercises (eg. As in warm up (ice breaking) sessions or ‘ball in the bucket risk taking assessment exercises) or longer exercises taking up to two days – often computerised (for example simulations of setting and running a small company, competing for a new market, managing cash flow). Longer exercise usually require a team. Often accompanied by: background notes, game rules, materials in use (e.g. spread sheets) and task sheets.
8. **Drama** – *used to create empathy, build creativity, support personal confidence and presentation skills, draw out the role of managers/ entrepreneurs as actors, encourage team building.* Supported by material on the actors role and its relevance to management, guides on writing a story board and different acting techniques that might be used. Video clips are also useful. Usually undertaken via small group work. Materials for assessment by other groups need to be prepared.

15. These are but a few of a considerable inventory.

- 9. Drawings** – used to stimulate creative expression of a phenomenon, build confidence in projecting how person sees things, brings in feelings and emotions (e.g. groups of two make a drawing of how they see the Enterprise Culture in their country). The rest of the class is then asked to indicate how they interpret it and the group responds. Prizes can be given. The ‘show, can be followed by discussion of the meanings. Material needed are flip chart paper and Pens – variety of colours, plus means of sticking the drawings on the wall!
- 10. Brainstorming** – used to bring out ideas, stimulate creativity, demonstrate the value of ‘off the wall’ thinking and create excitement. No real materials usually required other than white boards and flip charts. But examples of the value in use of brainstorming can be provided as technical notes.
- 11. Quiz’s** – used to test the existing knowledge base of participants and provide a basis for discussion (e.g. a quiz on the importance of small business in economies). Elements of competition. For classroom use – to fit in with session learning goals.
- 12. Personality and other tests** – used to stimulate personal interest in enterprise concepts by allowing participants to profile themselves perhaps against client groups (e.g. Myers Briggs can be used to demonstrate to bankers how they differ from entrepreneurs and therefore the culture challenge). A wide range of tests are available (McLellands, Thematic Aperception Test, DUBS General Enterprising Test.) In some cases training and permission is needed for use.
- 13. Consulting** – used to practice knowledge frames of reference, support internalisation of learning, build interpersonal analytical and presentational and communication skills and create empathy with ‘real’ client groups. Useful materials include: video examples of good and bad interviewing practice, good and bad consulting reports, guide to good report writing, examples for rehearsal of rapid data analysis and problem solving in complex situations.
- 14. Projects** – use similar to consulting but often with the purpose of academic assessment. Used to develop planning, analytical, relationship, and skills and initiative and explore the value of concepts in practice. Materials needed include: guides to layout/length etc, criteria for assessment, examples letters of introduction, guides to feedback to companies.
- 15. Debates** – used to build interpersonal skills, build public speaking confidence, demonstrate the value of humour and anecdote in making a point, create fun in the classroom and group harmony and develop ability to ‘think on your feet’. Also to create understanding of other’s point of view even if one does not agree with it. An audience can be invited and of course will join in (e.g. ‘This House believes that Entrepreneurship is the domain of the small firm and not the large’). Materials will include guidance on the format and the role of the primary, secondary speakers and ‘summer-up’ as well as the chairperson. Teams can work on the brief and select their speakers.
- 16. Newspaper clippings** – used to show relevance of teaching to current issues and/or to create a ‘critical incident’ for discussion. Also to test the application of knowledge (e.g. extracts from the Treasury minister’s recent speech). May be accompanied by some notes on the main issues – so effectively the clipping is being used as case.
- 17. Presentations/Teaching** – used to develop understanding in use of knowledge, to develop personal skills, confidence, imagination, use of metaphor and the use of technologies in presentation. Also in a teaching situation to practice handling groups. Materials be delivered on presentation and teaching skills. Other action support materials are required although video recording and subsequent analysis is also most useful.
- 18. Simulations and Role Play** – used to create empathy support internalisation of knowledge, acquisition of relationship knowledge, develop acting ability in different situations. May be used as part of drama. Materials required include briefings and backgrounds on the situations confronted. In more complex situations considerable pre-reading may be needed. Also guidance as to the conduct of the simulation and the role of observers (fish bowl exercise).
- 19. Ice Breakers** – used to ‘warm up’ a group encourage mobility, social interaction and introductions. Materials are very basic. For example students are asked to identify up to three examples of entrepreneurial behaviour exhibited in past by each of the other participants (up to a limited

number in a limited time period). Rapid exchanges follow as students interview each other. One end result is that everybody can be seen to have acted entrepreneurially at some time or other.

20. Shadowing – *used to gain real insight into how others behave, Can be used as an exercise in categorising behaviours.* As the term implies it is following and tracing the activity and footsteps of a person (often an entrepreneur) over a period of time from days to weeks. In the entrepreneurial context it means undertaking this in a certain way with a certain set of objectives rather than just ‘learning the job’. A major objective in the context of entrepreneurial learning is to record entrepreneurial ways of doing things.

22. Networking exercises – *used to enable students to see how all events and planned outcomes can be seen as the result of ‘know who’.* Students are asked to plan an event, for example a school disco via a process of: first, identifying all the people they need to influence/work with to achieve the goal; second, identify, for each person or type, what they want from them, what their attitude might be, what they might object to and why, what and why they might support; plan how to communicate, build upon the positives and neutralise the negatives. Fourth, plan how they might use one set of persons (positives) to persuade the others. Fifth, the scenarios can be acted out or pursued in reality.

23. Practising Intuitive Decision Making – *used to encourage students to build simple frames of reference for decision making, simulating an entrepreneur’s experiential approach.* An exercise in building up a particular frame of reference (for example exploring – by a process of brainstorming – reasons why small firms might go out of business in the first few years). This is then used for analysis of a case or simulated interview. The overall objective when this exercise is repeated over a range of different situations, is to encourage the building of frames of reference from knowledge for rapid decision making in confronting events.

Annex 6

LINKING TESTABLE NCGE OUTCOMES TO PROGRESSION THROUGHOUT THE EDUCATION SYSTEM

	A Developed entrepreneurial behaviours, skills and attitudes	B Feels the entrepreneurial life- world	C Entrepreneurial values inculcated	D Motivated to entrepreneurial career	E Process of new venture start inculcated	F Key entrepreneurial competencies developed	G Key business development how-tos	H Networking capacity built
Primary Education (highly child-centred learning oriented)	1. Understands basic elements of opportunity identification - has developed insight into creative processes involved in opportunity realisation 2. Has practiced basic elements of negotiation and selling 3. Has developed some capacity for initiative taking	1. Has gained elements of ownership of learning by doing 2. Has learned to create under pressure of time 3. Has gained some elements of simple problem solving	1. Has developed basic notion of feeling strong ownership of idea 2. Has some insight into making things happen 3. Can associate rewards with effort	1. The basic notion of being able to create for one's own desired outcome is implanted	1. Has developed a basic understanding of the process of going from idea to plan to execution	1. Has basic elements of ability to appraise an idea 2. Can think in terms of meeting needs of others (having empathy)	1. Has some insight into seeing goods and services as benefits to customers	1. Has gained experience of working in teams

	A Developed entrepreneurial behaviours, skills and attitudes	B Feels the entrepreneurial life- world	C Entrepreneurial values inculcated	D Motivated to entrepreneurial career	E Process of new venture start inculcated	F Key entrepreneurial competencies developed	G Key business development how-tos	H Networking capacity built
Secondary Education (increasingly subject centred)	<ol style="list-style-type: none"> 1. Can describe the relevance of being entrepreneurial to very different aspects of life and career 2. Understands fully the nature of opportunity seeking and has a grasp of how opportunities arise in practice 3. Is practiced in basic negotiation skills and telephone selling 4. Has a clear view of the nature of risk and uncertainty and how it arises in different contexts 5. Is practiced in the basic elements of making decisions intuitively with limited information 6. Has enhanced feelings of autonomy 7. Understands the drivers that commit people to 'see things through' 8. Has practice in taking initiatives 	<ol style="list-style-type: none"> 1. Can clearly describe the life world of the entrepreneur 2. Has gained experience of decision making under pressure 3. Understands the nature of holistically managing a project 4. Has basic understanding and experience of seeing events as networks of personal relationships (know who) 5. Has practiced learning by doing and understands the nature and value of experience 6. Understands the issues involved in working under pressure with limited resource 	<ol style="list-style-type: none"> 1. Has clear understanding of entrepreneurial values and why they are so 2. Understands why entrepreneurs dislike bureaucracies 3. Understands the nature of trust and how to make trust - based judgments 4. Has developed stronger notion of self belief 5. Understands the relationship between rewards and effort 6. Has increased propensity towards action as a means of learning 7. Understands the relationship of freedom to entrepreneurial behaviour 8. Understands why ownership is so important to entrepreneurial behaviour 	<ol style="list-style-type: none"> 1. Understands the benefits and dis-benefits of a formal entrepreneurship career 2. Has some clear entrepreneurial role models that can personally, in attainment terms, identify with 3. Understands why and how some young people become self employed 	<ol style="list-style-type: none"> 1. Has a basic grasp of the whole process of going from idea to start up of a venture 2. Understands this in different contexts including social enterprise 3. Understands the basics of how to evaluate a new venture proposition 4. Has explored a range of options for business entry 	<ol style="list-style-type: none"> 1. Knows where to look for ideas 2. Can see problems as opportunities 3. Can appraise ideas 4. Has a basic understanding of relationship learning 5. Can see business propositions in terms of know who 6. Knows how to conduct self appraisal and see ventures through the eyes of others 7. Understands the nature of emotions in decision making 	<ol style="list-style-type: none"> 1. Understands basics of: <ul style="list-style-type: none"> - developing a product concept - pricing products - costing products - finding and profiling customers - competition analysis - business plan development - finding resources - the role of different service and professions and how to approach them 	<ol style="list-style-type: none"> 1. Can set out clearly the stakeholder network on which a business/new venture proposition will be dependent and know why his is important 2. Understands the essences of trust based relationship development 3. Understands how selected stakeholders might see a venture in very different ways

	A Developed entrepreneurial behaviours, skills and attitudes	B Feels the entrepreneurial life- world	C Entrepreneurial values inculcated	D Motivated to entrepreneurial career	E Process of new venture start inculcated	F Key entrepreneurial Competencies developed	G Key business development how-tos	H Networking capacity built
Vocational Education (Skill based)	<p>1. Understands all entrepreneurial behaviour development in the context of self - employment (Your Skill as a Business including):</p> <ul style="list-style-type: none"> i)- opportunity seeking ii)- initiative taking iii)- owning development iv) - commitment to seeing things through v)- autonomy vi) - intuitive decision making vii) - strategic orientation vii)- negotiating viii)- selling ix) - risk taking 	<p>1. Fully understands the life world particularly in a self employed context including:</p> <ul style="list-style-type: none"> i) - living with uncertainty ii) - working under time pressure iii) - managing everything iv) - income = selling v) - cash income difference vi)- building know who vii)- learning by doing viii)- managing interdependency ix)- working flexibly and long hours 	<p>1. Fully understands and feels entrepreneurial values including:</p> <ul style="list-style-type: none"> i) - feels independence ii) - distrusts bureaucracy iii) - self made philosophy iv) - strong ownership sense v)- believes rewards = effort vi)- belief in hard work and rewards vii)- can make things happen viii)- action orientation ix) - belief in informality x)-understands importance of trust based relations xi)- belief in freedom to act - belief in the individual and community rather than state 	<p>1. Sees clearly the opportunities for using the skill in self employment</p> <p>2. Has clear role models of individuals in similar skill-based occupations</p> <p>3) Can compare and contrast with expectations of employment career</p>	<p>1. Understands all the opportunities related to their own skill in different contexts</p> <p>2. Has the capacity to go through the whole process of starting a self employed activity in particular knowing: how to; explore the ways in which the skill might be used in self employment; to make a living; find enough customers and sustain them; etc right through to birth and survival</p>	<p>1. Can see the product/ service as a set of benefits to the customer</p> <p>2. Can identify the key stakeholders with whom need to engage</p> <p>3. Can build know who trust</p> <p>4. Can assess needs to develop the business as it grows</p> <p>5. Can think strategically</p> <p>6. Can see the business through the eyes of stakeholders</p> <p>7. Has emotional awareness</p>	<p>1. Can develop a product service concept</p> <p>2. Can find, approach and sustain good customers</p> <p>3. Can appraise and learn from competition</p> <p>4. Can cost and price</p> <p>5. Can set and maintain simple operating standards as a basis for costing</p> <p>6. Can identify financing needs and know where to go for resource</p> <p>7. Can keep simple records</p> <p>8. Can deal with all the statutory and regulatory aspects of self employment</p> <p>9. Can do a simple business plan if necessary</p> <p>10. Can manage cash</p> <p>11. Can effectively use IT and the web in general in pursuit of the above</p>	<p>1. Understands fully how to use relationship management in the context of self -employment</p> <p>2. Knows how to educate stakeholders and learn from them</p> <p>3. Knows how to manage relationships</p>

	<i>A</i> Developed entrepreneurial behaviours, skills and attitudes	<i>B</i> Feels the entrepreneurial life- world	<i>C</i> Entrepreneurial values inculcated	<i>D</i> Motivated to entrepreneurial career	<i>E</i> Process of new venture start inculcated	<i>F</i> Key entrepreneurial competencies developed	<i>G</i> Key business development how-tos	<i>H</i> Networking capacity built
Higher Education (discipline centred)	<p>1. Outcomes in terms of all key entrepreneurial behaviours as above under Vocational Education</p> <p>2. Understands the relevance of these to a wide range of self employment, employment and social contexts</p>	<p>1. Fully understands the life world of the entrepreneur as set out in the Vocational section above</p> <p>2. Can relate this clearly to a wide range of different social and employment contexts</p> <p>3. Understands the sources of complexity and uncertainty in a global context that make this widely relevant</p>	<p>1. Fully understands and 'feels' entrepreneurial values as in the Vocational education section above</p> <p>2. Can relate these to a wide range of contexts</p> <p>3. Can understand the relevance in different cultural contexts</p>	<p>1. Understands the opportunities for using the knowledge/ experience gained in HE in a new venture context</p> <p>Has a clear understanding of how entrepreneurship can be applied in different organisation contexts</p> <p>3. Has clear role models relevant to discipline and context</p> <p>can compare and contrast with expectations of employment career</p>	<p>1. Has complete understanding of the process of setting up a new venture in particular how to:</p> <p>i) acquire ideas,</p> <p>ii) validate them,</p> <p>iii) decide on scale and resource,</p> <p>iv) develop a plan and negotiate resource,</p> <p>v) set up a legal entity</p> <p>vii) survive in the early years and</p> <p>viii) know how to go out of business</p> <p>2. Know how to apply this to different contexts including those relating to acquired HE disciplinary skills and knowledge.</p>	<p>1. Has the basic competencies as described above in the Vocational education section</p> <p>2. Can apply these to the stages of growth of the business</p> <p>3. Can assess business development needs and anticipate problems as the venture grows</p> <p>4. Understands and can apply all key aspects of emotional intelligence</p> <p>5. Can relate entrepreneurial competencies to the design of entrepreneurial organisations of different scale and context (public and private)</p> <p>6. Has the capacity for entrepreneurial leadership</p>	<p>1. Has the basic competencies as indicated in the Vocational education section above</p> <p>2. Can apply these to various scale of venture activities</p> <p>3. Can apply them to different contexts, for example social enterprise and larger organisations</p> <p>4. Can develop and defend a business plan of scale</p> <p>5. Has the capacity to design and use the plan as a relationship management instrument</p> <p>6. Understands fully sources of assistance and professional advice and how to select use them</p> <p>7. Can anticipate major business development and survival problems</p> <p>8. Has strong international web based management capacity</p>	<p>1. Can clearly see all venture activity in terms of networks of know who</p> <p>2. Knows how to develop these networks</p> <p>3. Knows how to strategically build networks</p> <p>4. Knows how to build relationships as the venture grows</p> <p>- knows how to</p> <p>5. Can maximise use of web-based technology in pursuit of the above in an international context</p>

Annex 7

AN EVALUATION HIERARCHY FOR ENTERPRISE/ENTREPRENEURSHIP EDUCATION

If there is to be any real integrative and embedded progressive approach through primary to higher education then there is a challenge to agree which outcomes are desirable and attainable at each level of the evaluation hierarchy and in what curricula context they might be addressed. It is clear that the potential to work up the hierarchy during the educational process will vary. For example there may be more opportunities to practice certain behaviours in primary than in secondary education. There will be more opportunity to practice behaviours, engage in ‘Operational activity’ and consider the Ultimate measurable outcomes in higher education. The importance of agreeing an evaluation hierarchy lies in that it then dictates the educational agenda and knowledge content. The example below is a speculative attempt.

Ultimate Outcome

UK society surviving and growing, materially, culturally and ethically in an entrepreneurially competitive world.

Penultimate Outcomes – Measurable?

- More balanced economy regionally and structurally – stronger independent middle business sector – removal of wide regional SME structure disparities
- More effective decentralisation and local empowerment
- More differentiation but integration and partnerships – public/private/NGOs
- More globally networked SMEs through ICT
- More quality SMEs with capacity for growth
- More social enterprises
- More flexible entrepreneurial financial services for business start and development
- Less stressed society – greater individual personal contentment – ability to cope with enjoy and create uncertainty and complexity in all aspects of the life world – as worker, consumer, family person and member of the community
- Higher levels of innovation – product/services and university spin offs/outs
- More entrepreneurially independent social sector – health, education, police etc
- Stronger ethnic minority SME sector
- Stronger independent business philanthropic sector

Operating (Organisation Change Requirement) Outcomes

Organisational

- More entrepreneurially designed organisations of all kinds
- More entrepreneurial local authorities/regional agencies
- More value chain led business development strategies – locally and globally
- Higher levels of start-ups - more individuals set up businesses or organisations of any kind
- More local entrepreneur engagement in organisations in education and in local/regional development
- Public private partnership initiatives for growing businesses/organisations
- Entrepreneurship/enterprise education embedded as a ‘progression’ element in education system from primary to university
- More autonomous financially leveraged universities and colleges including select group of entrepreneurial universities redesigned upon entrepreneurial lines – licensing, incubators, rewards, equity, etc
- Specialist centres for SME learning feeding into national education and training bodies
- More globally networked local societies

Individual/Personal

- Better personal management of debt and finances
- Better management of domestic relationships
- Better able to operate successfully in flexible labour market
- Better able to work and live successfully in different cultures
- Enhanced capacity for engagement in life long learning

Behaviour Capacity Requirement – Outcomes

Individuals and managers/workers have behavioural capacity to:

- See problems as opportunities
- Assess exploitability of opportunities
- Turn opportunities into products or services to meet needs
- Identify and build purposive relationship networks to achieve a particular set of goals
- Identify and embed themselves in the community of practice
- Develop trust based relationships
- Pursue independence and ambition via set up of a business
- Actively pursue contract/portfolio self employment type work nationally and internationally
- Maximise use of learning gateways
- Seek more mobility - geographical and occupational
- Maximise pursuit of relevant partnership activity
- Set strategic goals
- Jump into things and create purpose out of chaos
- Demonstrate strong entrepreneurial values in whatever they do
- Assess and take incremental risks
- Pursue international links and opportunities through ICT and job choice
- Design entrepreneurial organisations appropriately around the relevant task environment

Desired Learning Outcomes – Skill/Attitude Development

- Really understand the ‘way of life’ of the entrepreneur.
- Understand and feel his/her values
- Gain insight into how entrepreneurs: think; feel; communicate; prefer to organise; do things; and learn
- Know why and how people start businesses
- Admire this aspiration and themselves aspire to it
- Feel’ entrepreneur values
- Know ‘how to’ network, do deals, etc
- See business as managing sets of relationships
- Know how to learn from relationships, educate stakeholders and Strategically develop them
- To see a business plan as a flexible relationship instrument
- Make intuitive judgements/decisions
- See problems as opportunities
- Know how to evaluate an idea
- Can sell, negotiate; persuade, present, take initiatives; think strategically/creatively, network
- Have some role models that can realistically aspire to
- Have a clear frame of reference and capacity for starting a business
- Can think of some possible ideas and are excited by them
- Know how, why and when to design entrepreneurial organisations
- Know how to assess and develop trust-based relationships