Abstract

The overall objective of this article is to provide a review of the main issues to be considered in the introduction of the 'entrepreneurship' concept into the educational curriculum. The context is that of the renewed political interest in this issue across Europe. The issues that are reviewed include: what is entrepreneurship in an educational context; what it is not - some sources of confusion and why they matter; why the issue is of growing importance; entrepreneurship in the education establishment context, in the 'classroom' and in the teacher; the importance of clarifying objectives and desirable outcomes; the needs of different groups; gateways into the curriculum; assessment and accreditation; and finally the role of business and the community.

Entrepreneurship is defined in terms of sets of behaviours, attributes and skills that allow individuals and groups to create change and innovation, cope with and even enjoy higher levels of uncertainty and complexity. It is argued that the necessary knowledge base is largely a function of the context of these behaviours. Entrepreneurship is not seen as being synonymous with being 'business-like' in the formal administrative sense. Nor should it be taken to be synonymous with core skills or transferable personal skills. It is more than both. Failure to clarify this can lead to many confusions.

The argument is pursued that higher levels of individual and organisational entrepreneurship will be required in the general. Entrepreneurial approaches in the classroom will demand high levels of teacher competence. Entrepreneurship education can have different goals and outcomes. Key areas are set out, ranging from new venture creation to development of personal entrepreneurial skills. The various gateways into the curriculum are described and issues relating to progression are explored. The importance of considering the needs of different groups is underlined. Existing models can be used as a basis for initiatives but their entrepreneurial component will have to be very carefully considered.

Finally the role of business and the community is briefly explored in particular the responsibilities relating to the use of 'external' mentors/teachers and the need for them to have a background in entrepreneurship and a capacity to 'teach' in an entrepreneurial fashion.

Introduction

Over the past two decades there has been a growing debate about how well educational systems prepare young people for adult life in general and 'enterprise' in the world of work.
in particular. This debate recognises the need for societies, organisations and individual citizens to improve their capacity to cope with an increasingly competitive, uncertain and complex world involving higher rates of innovation and change. While the concept of ‘enterprise’ is ambiguous enough to embrace a wide range of educational initiatives covering industry awareness, business management, new venture creation and the development of personal and social skill among others, there is an increasing awareness of entrepreneurship as a distinct educational challenge that needs to be addressed.

This need raises several major issues for educational systems. The most important is that of how to define and operationalise the ‘entrepreneurship’ concept in an educational context. Secondly, in an area of much confusion, there is a need to be quite clear as to underlying rationale for intervention in education in this respect. Thirdly, there is a need to consider what entrepreneurial educational initiatives mean for the organisation of schools colleges and universities and for teacher competence. There needs to be greater intellectual understanding of then concept and its importance and relevance to mainstream education if is to become embedded within the standard curriculum as opposed to being an ‘add-on’ in certain classes.

Finally there is a range of questions relevant to the ‘process’ of developing entrepreneurial initiatives in education institutions. These include: how to establish clear objectives and targets; how to distinguish between the needs of different groups within the education system; how to make decisions as to where entrepreneurship might fit into the curriculum at different levels (primary, secondary, further and higher education); deciding how to assess and accredit entrepreneurship education; and how to establish the most effective links between the business community and education in this respect. This article will briefly address each of these issues.

**Concept into practice**

There has been academic debate about the notion of entrepreneurship for several centuries and still there is little agreement. Much of the academic contribution seems more concerned with identifying further researchable questions than with meeting the needs of practitioners. There is almost universal agreement, however, that entrepreneurship is centrally concerned with the way that individuals and organisations 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. In the educational context it is the *behaviours* associated with entrepreneurship that are important. These behaviours, widely associated with the more generic notion of an ‘enterprising person’ are spelt out in the next page. Underpinning these behaviours are *certain skills* and *attributes*. There has been much academic debate about whether the attributes can be developed in individuals or are the product of genetics. The weight of opinion supports the notion that they can be influenced considerably. Knowledge is a contextual element in ‘developing’ behaviours in education. For example it is possible to encourage entrepreneurial behaviour within the context of the standard curriculum subjects such as language and literature, mathematics, geography, history, science and so on. It is also possible to address it within a more specific business education context, for example via the task of creating a new venture where the knowledge base will be substantially related to the process of venture start-up and the associated tasks and learning requirements. It is important to recognise that, in taking this approach, skills in themselves will also have a knowledge context relating to the task in hand.
Accepting the above view, entrepreneurship/enterprise can therefore be defined as follows for educational purposes:

‘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’

It is important to note that this definition embraces organisations of all kinds. It is not solely a function of business activity. There are social entrepreneurs, educational entrepreneurs, religious entrepreneurs and entrepreneurs in a range of non-governmental organisations.

The behaviours most commonly associated with the entrepreneur in the literature are shown in Exhibit 1. In general they paint the image of the active person who gets things done, thinks strategically on his/her feet and harnesses resources imaginatively.

Exhibit 1

Entrepreneurial Behaviours

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

Back up these behaviours are a number of attributes which, it is argued, can be developed, although undoubtedly nature endowed some individuals with more, and different, mixes of these than others. They support the notion of an individual or team wanting to achieve, and be capable of driving, change through new ideas and innovations rather than sitting back and responding to events.

Exhibit 2

Entrepreneurial Attributes

- achievement orientation and ambition
- self confidence and self belief
- perseverance
- high internal locus of control (autonomy)
- action orientation
- preference for learning by doing
- hardworking
- determination
- creativity.
Unlike attributes, it is possible to assert with more authority that the skills commonly associated with entrepreneurship can be developed. These skills are tightly tied to entrepreneurial attributes and support the pursuit of behaviours as identified in Exhibit 3.

Exhibit 3

Entrepreneurial Skills

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

Entrepreneurship is different from business.

It is very important not to confuse entrepreneurship with just being ‘business-like’ or indeed ‘professional’ in the administrative management sense. Such confusion is dangerous. Many of the mechanisms and associated values and beliefs of corporate and administrative management are the antithesis of entrepreneurship (see the left-hand side of Exhibit 4 below). Yet at times they are brought into the educational curriculum, and sometimes educational management systems, under the entrepreneurship label.

Exhibit 4*

Values in Organisation Design

<table>
<thead>
<tr>
<th>Government/corporate (looking for)</th>
<th>entrepreneurial small business (as being)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order</td>
<td>Untidy</td>
</tr>
<tr>
<td>Formality</td>
<td>Informal</td>
</tr>
<tr>
<td>Accountability</td>
<td>Trusting</td>
</tr>
<tr>
<td>Information</td>
<td>Observing</td>
</tr>
<tr>
<td>clear demarcation</td>
<td>Overlapping</td>
</tr>
<tr>
<td>Planning</td>
<td>Intuitive</td>
</tr>
<tr>
<td>Corporate strategy</td>
<td>‘Tactically strategic’</td>
</tr>
<tr>
<td>control measures</td>
<td>‘I do it my way’</td>
</tr>
<tr>
<td>formal standards</td>
<td>Personally observed</td>
</tr>
<tr>
<td>Transparency</td>
<td>Ambiguous</td>
</tr>
<tr>
<td>Functional expertise</td>
<td>Holistic</td>
</tr>
<tr>
<td>Systems</td>
<td>‘Feely’</td>
</tr>
<tr>
<td>Positional authority</td>
<td>Owner managed</td>
</tr>
<tr>
<td>Formal performance appraisal</td>
<td>Customer/network exposed</td>
</tr>
</tbody>
</table>

* Adapted from (Gibb 2000)
The entrepreneurial organisation, particularly when it is small, can be characterised as closer to the right hand side of the table. Large organisations have been dramatically downsizing and decentralising over the past decade or so in search for flexibility associated with being more to the right. Young people in the future are more likely to find themselves working in organisations closer to the entrepreneurial mode.

In the developing country context it can be argued that the two columns in the table characterise the divide between the ‘modern’ corporate and bureaucratic sector and culture and the massive informal sector of micro business. The divide is clearly evident through Asia, Africa and Latin America and is unfortunately now manifesting itself in the transition economies. The lack of real empathy between the two sides means that building relationships based upon trust is difficult and without this the emergence of a dynamic entrepreneurial and independently owned middle business sector is almost impossible.

In the transition economies, it is the absence of an entrepreneurial culture among the stakeholder environment of banks, professional services, government, regulatory authorities and the education sector that prevents the legitimisation of entrepreneurial activity. The result is the channelling of most of the emergent individual entrepreneurial behaviour into the informal sector or criminal activity.

Education underpins culture. The lesson that needs to be taken from the above argument is that entrepreneurship education is for everyone not just the small business entrepreneur. Unless this is accepted then the emerging independent business sector will always face substantial barriers to growth, and entrepreneurial energy will be siphoned off into deviancy.

In the educational and management context it is important to understand that entrepreneurship is embodied in sets of values and beliefs relating to ways of doing, seeing, feeling evaluating and communicating things. This is reflected in turn in ways of organising things and, importantly for education, ways of learning things.

Another common mistake is to assume that entrepreneurial behaviours, skills and attributes are synonymous with interpersonal or transferable skills. They are not. Problem solving is very different from creative problem solving. Communication, presentation skills, numeracy and literacy underpin entrepreneurial skills but are not at all identical with them. It is perfectly possible to utilise, fully, conventional interpersonal skills in bureaucratic occupations and organisations.

Overall, a greater focus upon entrepreneurship in the education system will demand a re-examination and questioning of many existing education/industry models which claim to be entrepreneurial and are not. It is, for example, perfectly possible to have substantial work experience programmes in education that are not in the least entrepreneurial in nature. There are many ‘new venture’ programmes that are not organised in a particularly entrepreneurial manner. Individual projects may be undertaken by students, and business knowledge accumulated by this means, without any notion of the experience being entrepreneurial.
Entrepreneurship for the future

Why is the question of entrepreneurship in the education system becoming more important? The simple answer is that we are living in a society that is increasingly demanding entrepreneurial behaviours of all kinds. Most of the political and policy statements concerning the need for entrepreneurship and entrepreneurial education are wrapped up in the rhetoric of international competitiveness. But to provide more convincing arguments for a greater emphasis upon entrepreneurship demands more careful analysis and projection of the world in which the youth of tomorrow will live. We need to understand why and how individuals will be faced with higher levels of uncertainty and complexity. Space does not permit full analysis here: but the pressures for greater individual and collective entrepreneurial behaviour, in response to global pressures upon society, organisations and individuals are summarised below (see Exhibit 5 below).

Exhibit 5

Why it is important to get it right
Education and the Changing World

Global Pressures

- State repositioning
- Organisation repositioning
- Individual repositioning
- Greater uncertainty and complexity - the need for an entrepreneurial response

At the global level, many factors combine to bring much greater opportunity but also greater uncertainty including political realignments, reduced trade barriers, the greater significance of information and communication technologies, higher rates of product and technological obsolescence, wide product differentiation, international standards for business, greater opportunities for travel and personal transfer, the growth of the English language as an international medium of exchange, different lifestyle choices and the impact of massive international capital flows.

At the societal level there are many factors contributing to greater complexity and uncertainty. These include: the withdrawal of the boundaries of the state, public spending pressures and reductions, privatisation, deregulation, the creation of ‘markets’ in public services, the outsourcing of social services, more business involvement in partnerships with governments, and resulting new forms of governance including non-governmental organisations, the growing use of business methods in all walks of life, standards setting and benchmarking, the growing impact of pressure groups in society, the legitimisation of activities earlier thought of as deviant, the decline of religion, mounting concerns over the environment, the growing power of minority rights groups, and the increasing propensity to challenge issues in courts of law.
The same climate of growing complexity and uncertainty presents itself at the organisational level. Downsizing, delayering, decentralisation, re-engineering, higher levels of subcontracting, new forms of purchasing partnerships and strategic alliances are increasingly the norm world-wide. These changes are accompanied by greater capital mobility, international sourcing, spin-outs and spin-offs, the impact of software on virtual reality management, mergers/alliances and global company rationalisations, demands for greater flexibility in the workforce and the mobility of personnel, and the growth of small, professional, white collar small business linked with the increasing dominance of the human knowledge base of the company over that of physical assets.

As a reflection of everything above, the individual is faced in the work environment with greater career, rewards and job uncertainty, a greater probability of part-time and contract employment, greater pressure for geographical mobility, more pressure and wider responsibility at work and more stress. At home he/she is increasingly likely to be divorced, to be a single parent, to have multiple relationships, to be faced with a reduced public social security net and as a result with a greater imperative to make provision for own pension arrangements, take responsibility for owning things, and for managing credit. As a consumer the individual is increasingly faced with a bewildering choice of products and services about which there is growing information and with greater responsibility for choice in learning.

If these scenarios are projected into the future then it is clear there will be a demand for all kinds of entrepreneurial behaviours as set out earlier. If there is to be an educational response of value then it must be sensitive to the factors identified above and the pressures this will place upon the individual and the organisation.

**The basic educational challenge**

Much of what goes on currently in education under the label of entrepreneurship is an ‘add on’ to the curriculum sometimes ‘taught’ by visiting business mentors. If, however, entrepreneurship is really to be embedded in the education system then it must be reflected in the culture of the education institution itself, the organisation of the classroom and the ability of the teacher.

It has long been evident from studies that maximising the contribution of entrepreneurial behaviour to organisational effectiveness requires high degrees of decentralisation and empowerment. Enterprise is the antithesis of command and control. The entrepreneurial education establishment above will need to create a climate for teaching entrepreneurship by designing itself to:

- Create and reinforce a strong sense of individual ownership, activities and outcomes
- Reinforce associated feelings of freedom and personal control to make things happen
- Maximise the opportunity for individuals to take responsibility for a wide and integrated range of tasks
- Reinforce the notion of responsibility to see things through
- Strongly focus the organisation on defining as excellence through the eyes of its key stakeholders (in the case of the school, the pupils, parents, staff, governors, feeder schools, colleges and institutions of higher education, the local community, ‘competitors’, business, church, local authorities and community associations)
• Encourage staff to develop their own stakeholder networks in line with strategy
• Link rewards to satisfying stakeholder needs and thus school excellence
• Tolerate ambiguity and allow mistakes as a basis for learning
• Encourage strategic thinking before formal planning
• Emphasise the importance of personal trust and ‘know who’ as a basis for management rather than via formal relationships
• Avoid too strict job and task demarcation and encourage informal overlap between departments and groups as a basis for developing a common culture
• Build ways of learning, on-the-job, through staff development

If the institution ‘lives’ entrepreneurship then truly it will be able to give more support to risk takers. The reward for entrepreneurial organisation is that teachers will be in a position to gain considerable insight into the phenomenon they teach.

Entrepreneurship in the classroom

The challenge in bringing entrepreneurship into the classroom is to organise the classroom around the structural characteristics identified above. The challenge is to allow young people to experience and feel the concept rather than just learn about it in the conventional sense. The leads to emphasis upon a pedagogy that encourages learning: by doing; by exchange; by copying (and learning from the experience); by experimentation; by risk taking and ‘positive’ mistake making; by creative problem solving; by feedback through social interaction; by dramatisation and role playing; by close exposure to role models; and, in particular, interaction with the outside/adult world.

Excellent teachers have always used such enterprising methods as learning vehicles. Yet ‘enterprising’ approaches are often seen to be part of ‘progressive’ and ‘trendy’ educational methods, opposed by those who look for more discipline in their classroom delivery with a greater emphasis upon ‘rote’ learning. This prejudice will need to be overcome before substantive progress can be made in entrepreneurship education.

It seems perfectly possible to combine good exam results with the development of personal entrepreneurial skills by students, and to mix progressive with more traditional methods as appropriate. This is certainly the experience of Durham University Business School in running programmes for many hundreds of teachers in the UK and across the world in the past twelve years.

The ‘excellent’ teacher will take easily to the entrepreneurial concept and will see it as central to educational objectives. The entrepreneurial teacher will be one who masters the art of: knowing how much ownership and control of learning to give to students; maximising social learning; encouraging student networking; developing motivation and commitment of students to see things through; encouraging calculated risk taking; seeking and taking up opportunities in an innovative fashion; and involving students in taking personal responsibility for the development of their learning.
The challenges ahead

If entrepreneurship education is to be taken more seriously, and become established as a fundamental part of the curriculum, then a number of additional major issues need to be addressed including: the setting of clear objectives; differentiating programmes to cater for students with different needs; maximising the gateways into the curriculum; and finding appropriate methods of assessment and accreditation.

Objectives and Outcomes

Introducing entrepreneurship into the curriculum in any institution will almost certainly mean building upon existing education/industry/community links and related programmes. In pursuing this, care will need to be taken in distinguishing between different objectives, and in determining which approaches are most relevant to the institutions environment and stakeholders. Decisions will need to be made on alternative strategies, for example whether to focus upon specialist programmes or whether to build entrepreneurship into the wider curriculum. Desired outcomes will need to be carefully considered. Some key questions are:

What are the Curriculum Objectives?

To create a capacity to start a new venture?
To provide insight into working in a small venture?
To develop ‘business’ understanding in general?
To develop personal ‘enterprising’ capabilities?

How might inputs be approached at different levels in Education?

At school?
At vocational institute?
At higher education institute?
At a business location?

The Programme Approach?

A specialist entrepreneurship programme?
Inserted into all core academic curriculum?
Introduce as extra-curricular programme?

Desired Outcome for Participants?

To have capacity to start a new venture?
To have capacity to work effectively in a small organisation?
To have capacity to work effectively in the flexible labour market?
To have the personal entrepreneurial skills to enjoy all aspects of life to the full?

In practice there can be considerable overlap and integration between the above choices. In terms of outcomes, for example, the need is to prepare young people for entering a world of work where they are more likely to become part of the increasingly flexible labour market. They will have to manage their lives in the societal, organisational and individual
contexts described earlier. At the same time most, but not all, will work in small organisations. A number, a minority, will become self-employed and or start a new venture of some kind. It is important to recognise these choices in the process of careful objective setting. It is equally important to note, however, that the outcomes set out above do not just focus upon business but upon organisational settings for work of all kinds.

Students’ different needs

The above discussion of objectives, targets and outcomes is a reminder that within the education system, different student groups have different needs that might be served by entrepreneurship education. Within secondary schools there are many groups with varied needs, for example: school leavers; low academic achievers; drop-outs; high academic flyers; those who face unemployment; those heading towards higher or further education; those who, because of their personal background, are more likely to engage in family business activity; the disabled or special educational needs students; and women and ethnic minorities. Within Higher Education institutions needs will differ within different subject areas and the motivations and potential of students will vary in this respect.

There are thus different needs at primary, secondary, tertiary and higher educational levels. Primary school objectives are more likely to concentrate upon personal ‘enterprise’ development, cross curricular activity and socialisation with adults. Higher education efforts may focus more upon the ‘hard’ business end of potential for exploiting personal skills and knowledge gained, self-employment career orientation and business entrepreneurship.

Gateways into the curriculum

Entrepreneurship, as it is defined above, can find its way into a broad swathe of the curriculum. It can be introduced anywhere as part of the teaching process. Decisions about what should be included and at which level follow from consideration of desired outcomes, the needs of different groups and priorities, the dictate of the existing curriculum, notions of progression and, importantly, the degree to which entrepreneurship training is regarded as an “extra curricular” activity rather than that of an intrinsic part of the school curriculum.

Assessment and accreditation

Assessment of entrepreneurial behaviours, attributes and skills as set out earlier is a formidable task. While there is some evidence that teachers can recognise entrepreneurial behaviours, there is no common code for recognition, and no satisfactory current measurement system that allows for behaviours to be coded comparatively and weighted, thus enabling development progress over time to be monitored.

There are, however, proxies in terms of measuring and evaluating outcomes from entrepreneurial processes, such as progress in project development and completion, and ‘independent’ assessment of presentations. Some would argue that a business plan is a measure but this is not altogether a satisfactory one. One can be very entrepreneurial in producing a business plan or equally, the plan can be the result of a very formal and uninspiring process. Setting up and running a venture (real or simulated) is also another measure perhaps nearer to the mark: but assessment of the degree of entrepreneurship involved in the process and the personal development that results from this is very subjective indeed. Much work has been done in assessment of adult entrepreneurial attributes.

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but has not yet been applied to the education system. Unless more progress is made in methods of assessment, the issue of accreditation will be left on the back burner.

The way forward

Around the world, entrepreneurship and enterprise education is beginning to take hold. Programmes with these labels have appeared in the school and higher education curricula in India, Malaysia, Canada, Australia, Russia and many countries of Central and Eastern Europe; also in Latin America and across Western Europe. The US leads in innovative approaches: a visit to the EPCOT Center in Orlando, Florida provides a sharp flavour of this.

There is therefore potential, world-wide to build more entrepreneurial approaches around existing education, business and industry initiatives. Among common existing programmes that can be ‘entrepreneurially enhanced’ include those focused upon:

- Creating economic awareness among young people of all ages
- Creating a wider understanding of industry, business and management
- Developing understanding of small business and its management systems
- Introducing young people to the concept of new venture development via simulation exercises in schools
- Developing transferable skills such as communication, presentation, negotiation, problem solving as well as IT competency
- Opening gateways to better career planning
- Providing work experience for students and teachers
- Creating business partnerships between schools and colleges and individuals or groups of firms

The above list underlines the potential for the role of education/business partnering in entrepreneurship programmes. This article has argued that, if this is to be successful, great care must be taken to find clear concepts and objectives so that the challenges of entrepreneurship education are truly recognised and not confused with broader aspects of the schools industry curriculum. The business community may need to be educated to develop greater understanding of how the entrepreneurship curriculum goes beyond the classroom to the culture of the education institution, its potential impact upon the organisation of classroom activity (perhaps redefining the classroom in this process) and the competencies and development needs of teachers. The challenge is to build from existing practice to achieve a more co-ordinated approach, taking the best from different programmes. Education and business collectively will need to reflect deeply upon issues of progression.

Overall business will need to re-appraise its own competence in designing new ways of preparing young people for the entrepreneurial challenge of the 21st century as set out above. There will be a need for new kinds of partnerships between schools and business. Business mentors will need different skills and will need training and development. The
dialogue will need to proceed beyond ‘sound-bites’. Indeed without a substantial debate it may be difficult to make much progress in this particular area of facing up to the educational challenge of the 21st century.
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