



Enterprise and entrepreneurship education:

Guidance for UK higher education providers

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About this publication

This new guidance has been developed by representatives drawn from, and acting on behalf of, the enterprise education community, with support from the Quality Assurance Agency for Higher Education (QAA). It is intended to be of practical help to those working with students in higher education to foster their skills in enterprise and entrepreneurship.

The guidance acknowledges that, currently, provision for enterprise and entrepreneurship education is structured differently across different providers - some providers offer stand-alone degree programmes in the subject area, while others offer parts of awards, and others still offer training and development as part of careers education and preparation for employment. It also recognises that students may gain practical skills and experience through participation in extra-curricular schemes, such as membership of student societies or participation in 'start-up' schemes. The guidance is not prescriptive about how provision should be structured or delivered; rather, it offers a point of reference that may be helpful for all educators, whether they are subject specialists or part of an enterprise-specific delivery team. The emphasis in the guidance is however on curricular rather than extra-curricular learning.

Membership of the group that worked with QAA to develop the guidance is given in **Appendix 1** and a background to each organisation is provided in **Appendix 2**.

QAA publishes the UK Quality Code for Higher Education (the Quality Code), which covers a range of matters to do with the design and delivery of undergraduate and postgraduate provision and the management of students' academic experiences.¹ The Quality Code sets out expectations that all providers of UK higher education are required to meet and is used explicitly as a part of QAA review processes. This guidance is intended to complement the Quality Code but it does not form part of it.

This guidance is intended primarily for higher education providers in England, Wales and Northern Ireland but providers in Scotland may also find it of interest and help.

¹ The UK Quality Code for Higher Education is available at: www.qaa.ac.uk/assuringstandardsandquality/quality-code.

Introduction

This guidance reflects current thinking in enterprise and entrepreneurship education. It is intended to illuminate contemporary best practice in order to inform, enhance and promote the development of enterprise and entrepreneurship education among higher education providers in the UK. The guidance relates primarily to undergraduate provision and assessment at Level 6; however it may also be helpful for those assessing at level 5 (including Foundation degrees) and for supporting postgraduate provision. An additional point of guidance for postgraduate provision is the Enterprise Lens on the Researcher Development Framework published by Vitae². The Enterprise Lens on the Researcher Development Framework provides an overview of the key knowledge, behaviours and attributes typically developed by researchers that can be acquired through, or used in, enterprise activities.

The guidance is not specific to any particular degree programme or subject specialism, but is instead intended to help academics, educators and practitioners who are seeking to embed enterprise and entrepreneurship across the curriculum. It should therefore be read in conjunction with the appropriate QAA Subject Benchmark Statement³.

For the purpose of this guidance, **enterprise education** is defined as the process of equipping students (or graduates) with an enhanced capacity to generate ideas and the skills to make them happen. **Entrepreneurship education** equips students with the additional knowledge, attributes and capabilities required to apply these abilities in the context of setting up a new venture or business. All of this is a prerequisite for **entrepreneurial effectiveness**, that is, the ability to function effectively as an entrepreneur or in an entrepreneurial capacity, for example within small businesses or as part of 'portfolio careers, where multiple job opportunities, part time work and personal ventures combine'⁴. Enterprise and entrepreneurship are transdisciplinary, with a strong connection to issues of employability, innovation, knowledge transfer, commercialisation, and intellectual property.

The call for a greater emphasis on enterprise and entrepreneurship education is compelling. Driven by a need for flexibility and adaptability, the labour market requires graduates with enhanced skills who can think on their feet and be innovative in a global economic environment. There is an acknowledged need, as well as a political imperative, for an infrastructure that supports and enhances enterprise development across the curriculum.⁵ The Oslo Agenda for Entrepreneurship Education in Europe (2006) calls for: better integration across subject areas, improved practice-based pedagogical tools, and better approaches to teamwork, whether internal or external (through collaboration with industry and business).⁶ Of importance for the higher education community is to offer learning opportunities that are meaningful, relevant and lead to skills that enhance lifelong learning.⁷

² Vitae (2011) *Enterprise Lens on the Researcher Development Framework*. Available at: www.vitae.ac.uk/policy-practice/1393-474341/Enterprise-lens-on-the-Researcher-Development-Framework.html.

³ www.qaa.ac.uk/AssuringStandardsAndQuality/subject-guidance/Pages/Subject-benchmark-statements.aspx

⁴ A portfolio career involves working part-time for more than one employer or client and may include running a part-time business.

⁵ Wilson, T (2011) *The Wilson Review of University Business Collaboration*, thinkpiece at: www.wilsonreview.co.uk (accessed 23 February 2012).

⁶ *The Oslo Agenda for Entrepreneurship Education in Europe* (2006), available at: http://ec.europa.eu/enterprise/policies/sme/files/support_measures/training_education/doc/oslo_agenda_final_en.pdf (accessed 23 February 2012).

⁷ Department of Business Innovation and Skills (BIS) (2011) *Learners at the Heart of the System*. White Paper, available at: <http://discuss.bis.gov.uk/hereforum/white-paper> (accessed 23 February 2012).

These national and international calls for action present challenges to the higher education sector. Educators who have spearheaded developments from the bottom up report that they have made significant progress, but that these achievements have often been made within environments that are far from conducive - they have had to be enterprising and flexible themselves.⁸ One aim of this document is therefore to empower and enable educator initiatives that result in improved curriculum and enhanced student experiences, while at the same time responding to the need for robust quality assurance mechanisms, including at the programme or course validation stage.

The guidance offers a framework for development and assessment of enterprise and entrepreneurship behaviours, attributes and skills which, taken together, contribute towards the development of an **entrepreneurial mindset** and **entrepreneurial effectiveness**.

The guidance includes advice on possible ways in which these behaviours, attributes and skills can be developed.

Further features of this guidance are as follows.

- It provides advice for educators responsible for creating or delivering an enterprise and entrepreneurship curriculum so that they can help students develop enterprising behaviours, attributes and skills as well as entrepreneurial mindsets and capabilities.
- It provides guidance for embedding enterprise and entrepreneurship within any or all subject areas, regardless of where the education is taking place.
- It is applicable at unit, module and programme level; however enterprise and entrepreneurship education should ideally be addressed at programme level and cascaded through the entire delivery.
- It is specifically designed to assist educators in higher education; therefore learning outcomes should be designed at level 4 and above.⁹

This guidance actively seeks to promote teaching and learning strategies that will:

- foster enterprising and entrepreneurial mindsets
- develop enterprising and entrepreneurial graduates
- help students develop enterprising and entrepreneurial capabilities that can be applied in a range of contexts
- encourage students to consider new venture creation and self-employment as valid graduate career options
- help students develop an awareness of intellectual assets and enhance their capacity to manage and exploit them
- enhance graduates' lifelong learning skills, personal development and self-efficacy, allowing them to contribute to economic growth and to society more generally.

And which may ultimately:

- foster an enterprising culture in society including within employment (intrapreneurship)
- increase the number of graduate start-up businesses.

⁸ IEEC Concordat (2010) available at: www.ieec.co.uk/images/stories/ieec/2010/concordat/ieec2010%20concordat.pdf (accessed 23 February 2012).

⁹ *The framework for higher education qualifications in England, Wales and Northern Ireland (FHEQ)* (2008) available at: www.qaa.ac.uk/Publications/InformationAndGuidance/Documents/FHEQ08.pdf.

Enterprise and entrepreneurship education in context

Learning about and experiencing enterprise whilst still at university can have several benefits. It gives students an alternative career option and the confidence that they can set up their own business or social enterprise. Enterprise skills will also be useful to those in employment, or those who will become self-employed and work on a freelance or consultancy basis, helping develop a 'can-do' confidence, a creative questioning, and a willingness to take risks - important to provide readiness for a rapidly changing economy, and to enable individuals to manage workplace uncertainty and flexible working patterns and careers¹⁰. Enterprising skills such as team working and the ability to demonstrate initiative and original thought, alongside self-discipline in starting tasks and completing them to deadline, are essential attributes that have been identified by employers as priority issues¹¹. Although many of the policy drivers described in this section are concerned with employability and the broader UK economy, enterprise and entrepreneurship education can provide highly engaging learning opportunities, particularly when related to the programme of study chosen by the student; developing enterprising abilities can enrich both students' educational experience and their career prospects, especially within micro and small enterprises.

Throughout the 1980s universities were encouraged to participate in programmes that would raise students of enterprise and assist them to start their own business¹² but during the 1990s engagement declined. In 1997, Dearing's National Committee of Inquiry into Higher Education¹³ revitalised the call, recommending that universities consider the scope for encouraging entrepreneurship through innovative approaches to programme design. By 2000 business and entrepreneurial development had been listed by Universities UK as one of four strategic goals for British universities.¹⁴ The UK Government introduced a significant third funding stream to English higher education institutions, with the aim of stimulating universities to reach out to business and the community, called the Higher Education Innovation Fund. The broad aim of this initiative was to add value to society and the economy through the transfer of knowledge and presented an opportunity for higher education institutions to contribute to the development of entrepreneurial and enterprising staff, students, and graduates.

In 2008, the Department of Business, Enterprise and Regulatory Reform reported on the Government's renewed strategy and vision to make the UK the most enterprising economy in the world and the best place to start and grow a business.¹⁵ It laid out a new enterprise policy framework around five separate but interlinked themes as key enablers for the country's enterprise performance: culture of enterprise, knowledge and skills, access to finance, regulatory framework, and business innovation. The report highlighted the need for enterprise education from primary to tertiary education, the Government's vision of inspiring an enterprising approach among students and graduates, and the promotion of innovation

¹⁰ Hannon, P (2006) Teaching Pigeons to Dance: Sense and Meaning in Entrepreneurship Education, *Education + Training*, Special Issue on Entrepreneurship Education edited by Matlay H, 48(5), 296-308

¹¹ CBI, *Boosting Employability Skills*. www.cbi.org.uk/business-issues/education-and-skills/in-focus/employability

¹² Kirby, D (2006) *Entrepreneurship Education and Incubators: Pre Incubators, Incubators and Science Parks as Enterprise Laboratories*, National Council of Graduate Entrepreneurship, Working Paper 004/2006, NGCE, Birmingham

¹³ Dearing, R (1997) *Higher Education in the Learning Society: The National Committee of Enquiry into Higher Education*. <https://bei.leeds.ac.uk/Partners/NCIHE/>

¹⁴ Universities UK (2000) A Forward Look: Highlights of our Corporate Plan 2001-2004 www.universitiesuk.ac.uk/Publications/Documents/CorpPlan2.pdf

¹⁵ BERR (2008) *Enterprise: Unlocking the UK's Talent*. <http://www.berr.gov.uk/files/file44992.pdf>

as a core driver for enterprise. Indeed, engagement in entrepreneurial learning at university has been shown to influence entrepreneurial intent,¹⁶ and actual business start-up.¹⁷

The current Government laid out a similar vision in July 2010 during their first year of office¹⁸. Here the need for an enterprising culture - in which everyone with talent is inspired to take up the challenge of turning their ideas into successful enterprises - and the need for enterprise education was reiterated. The drive for enterprise education within higher education was an important element of the 2011 White Paper for Higher Education 'Students at the Heart of the System',¹⁹ and universities' commitment to student entrepreneurship was praised in a further 2011 report by HEFCE.²⁰ The need for enterprise education and entrepreneurship opportunities for students in higher education - including postgraduate research students - was highlighted in the 2012 Wilson Review of Business-University Collaboration²¹ commissioned as part of the 2011 White Paper.¹⁹ Beyond the UK, EU policy has also stressed the need for entrepreneurship education and university engagement in the drive for economic growth.^{22,23} Similar statements have been made by the UN²⁴ and the World Economic Forum.²⁵

Parallel with the increasing calls for enterprise education in the 2000s, student numbers in UK higher education went through a large expansion, justified by the Government on economic grounds and assumptions about a future knowledge-based economy.²⁶ In 2008 and 2009, predictions were of a significant shortfall in the number of graduate jobs available for students when they finished their degrees.²⁷ The situation improved in 2010²⁸ but with level growth and uncertain economic times ahead, it is not clear if the improvement will

¹⁶ Greene, F.J and Saridakis, G (2007), Understanding the Factors Influencing Graduate Entrepreneurship. *National Council of Graduate Entrepreneurship, Research Report 001/2007*, NCGE: Birmingham

¹⁷ Blackford, B, Sebora, T, and Whitehill, T (2009) The Effects of Collegiate Entrepreneurship Education on Post-Graduation Startup of New Ventures: A First Look, *International Review of Entrepreneurship*, Vol. 7, No. 3, pp 1-26

¹⁸ BIS (2010) *Strategy for Sustainable Growth*, available at: www.bis.gov.uk/assets/biscore/corporate/docs/s/10-1058-strategy-for-sustainable-growth

¹⁹ BIS (2011) *Students at the Heart of the System*, available at: www.bis.gov.uk/assets/biscore/higher-education/docs/h/11-944-higher-education-students-at-heart-of-system.pdf

²⁰ HEFCE (2011) *Opportunity, choice, and excellence in Higher Education*, available at: www.hefce.ac.uk/aboutus/stratplan/Strategystatement.pdf

²¹ Wilson, T (2012) *A Review of Business-University Collaboration*. Department for Business, Innovation & Skills

²² European Commission (2006) *Implementing the Community Lisbon Programme: Fostering Entrepreneurial Mindsets Through Education and Learning*, available at: <http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2006:0033:FIN:en:PDF>

²³ European Commission (2008) *Entrepreneurship in Higher Education, Especially in Non-Business Studies: Report of the Expert Group*, available at: http://ec.europa.eu/enterprise/policies/sme/files/support_measures/training_education/entr_highed_en.pdf

²⁴ UNCTAD (2010) *The importance of entrepreneurship*, available at: www.unctad.org/templates/Page.asp?intItemID=4320&lang=1

²⁵ World Economic Forum (2009) *Educating the Next Wave of Entrepreneurs: Unlocking entrepreneurial capabilities to meet the global challenges of the 21st Century*, Report of the Global Education Initiative, Switzerland.

²⁶ Holden R, Jameson S, and Walmsley A (2007) New Graduate employment within SMEs: still in the dark? *Journal of Small Business and Enterprise Development* Vol. 14, No 2, pp. 211-227

²⁷ High Fliers Research (2009) *The Graduate Market in 2009: Annual Review of Graduate Vacancies and Starting Salaries at Britain's Leading Employers*, available at: www.highfliers.co.uk/download/GraduateMarket09.pdf

²⁸ High Fliers Research (2011). *The Graduate Market in 2011*, available at: www.highfliers.co.uk/download/GMUpdate11.pdf.

continue. The loss of public sector graduate jobs is likely to be particularly acute meaning that graduates will require higher levels of skills in business and enterprise to compete in the changing job market, or to create self-employment opportunities and employment for others.²⁹

The European Directorate General for Enterprise and Industry's report, *Effects and Impact of Entrepreneurship Programmes in Higher Education*³⁰ presents results that clearly indicate that entrepreneurship education in higher education makes a difference. It has impact on intention, competence and employability and generally benefits society and the economy. The report underlines the importance of developing effective educational capacity across all disciplines.

Within a higher education setting, the fostering of enterprise and entrepreneurship has traditionally sat in business schools and focused on financial gain, but this is changing dramatically. Many graduates from areas such as the creative arts become self-employed, and graduates from many of the professional areas may well go on to run their own practices. Interest in social enterprise is increasing with schemes such as HECFE and UnLtd's higher education support programme promoting social entrepreneurship to staff and students at higher education institutions in their area of influence. The Institute for Small Business and Entrepreneurship argued in 2004 that there was a need to develop programmes tailored to the specific needs of target markets, rather than providing generic courses. They recommended this should include all facets of enterprise and entrepreneurship education: curriculum based, extra-curricular activity for students, and university-based business start-up support for students and graduates.

The nature of enterprise and entrepreneurship education

Enterprise and entrepreneurship education manifests itself in many ways; there is no single model that describes its delivery across higher education providers. However it is clear that it is most effective where there is distinct institutional leadership for enterprise and entrepreneurship, as shown in the concept of 'The Entrepreneurial University'³¹. Education is one important contributor to the 'ecosystem' of interdependent activities which create an entrepreneurial culture supporting student and staff entrepreneurship on campus.

Enterprise and entrepreneurship education may be:

- managed by a central unit
- embedded in the curriculum by subject specialist educators
- embedded in the curriculum under another name such as 'professional studies' or 'personal marketing skills'
- delivered through a careers service
- led or supported through facilities such as incubators, boot camps and extra-curricular clubs and societies.

²⁹ Rae, D, Martin, L, Antcliff, V, and Hannon, P (2012) Enterprise and entrepreneurship in English higher education: 2010 and beyond, *Journal of Small Business and Enterprise Development*, Vol. 19 Iss: 3, pp.380 - 401

³⁰ European Commission (2012) *Effects and Impact of Entrepreneurship Programmes in Higher Education*, Directorate-general for Enterprise and Industry/European Commission. Brussels

³¹ Gibb, A (2005) *Towards the Entrepreneurial University, Entrepreneurship Education as a lever for change*. A Policy Paper for the National Council for Graduate Entrepreneurship (NCGE) UK.

In the context of extra-curricular activities, some institutions offer summer schools or events that are led by staff or students. Many actively support start-up activities and deliver mentoring support beyond graduation. Knowledge transfer partnerships offer real-life opportunities. Students can also gain practical experience through external bodies such as Students in Free Enterprise, an international not-for-profit organisation that works with leaders in both business and education to develop socially responsible entrepreneurs.³² Shell Livewire, a community that offers networking, advice and a chance to win monthly and annual 'grand ideas' awards, is another example of extra-curricular engagement.³³

Participation in extra-curricular activities may in some cases be formally recognised and recorded, for example through reference to the Personal Development Process (PDP) and use of transcripts, as well as the Higher Education Achievement Record (HEAR).

There are also stand-alone degree programmes (including master's degree programmes) in some institutions. These may involve actual business start-up as an integral requirement.

Progress to date is, however, set against a background where educators may find it difficult to find formal teacher training - although new courses to tackle this shortfall are emerging. Learning environments that encourage the development of creativity and innovation together with business acumen are rare, even though combining these elements is a key aspect of enterprise education. The fragmented landscape for delivery is paralleled by inconsistencies and instabilities in third-stream funding, which impacts on the sustainability of many enterprise initiatives.

Enterprise and entrepreneurship receives regular media coverage, raising public awareness of its importance. Schools and colleges are also developing provision, meaning the higher education sector needs to prepare for new kinds of student.

In 2005, a seminal report by Professor Allan Gibb, *Towards the Entrepreneurial University: Entrepreneurship Education as a Lever for Change*, put forward a framework for establishing learning outcomes in enterprise education together with suggestions for action.³⁴ Gibb called for better engagement with entrepreneurial staff leaders, noting the attendant challenges in terms of staff training, assessment, and formal recognition of appropriate skills.

This guidance builds on Gibb's pioneering work and offers a new point of reference for educators. It is intended to add coherence to what is currently delivered, with the goal of enhancing students' experiences of enterprise and entrepreneurship education and providing a unifying framework for standards.

This new guidance offers a framework for higher education providers in England, Wales and Northern Ireland, which may also be found helpful by readers in Scotland. Readers in Ireland may wish to be aware of the development of new guidelines for enterprise and entrepreneurship education by the Higher Education and Training Awards Council³⁵. Readers in Scotland may wish to be aware of the possible development of a new framework for enterprise education in Scotland, led by Scotland's Colleges and being taken forward by Create - Highland Centre for Enterprise and Innovation³⁶.

³² www.sife.org

³³ www.shell-livewire.org

³⁴ Gibb, A (2005) *Towards the Entrepreneurial University, Entrepreneurship Education as a lever for change*. Policy Paper for the National Council for Graduate Entrepreneurship (NCGE) UK.

³⁵ www.hetac.ie/

³⁶ www.createhighland.com/Home.aspx.

Definitions and distinctions

The following definitions and distinctions may help educators to identify new opportunities and evaluate existing practice. Learning often takes place within institutions without bearing the label of 'enterprise'. More important than labels are the approaches taken and the behaviours, attributes and skills developed. The definitions are offered with the expectation that they will be applied in conjunction with subject expertise, customs and practices.

Enterprise

Enterprise is defined here as the application of creative ideas and innovations to practical situations. This is a generic concept that can be applied across all areas of education.

It combines creativity, ideas development and problem solving with expression, communication and practical action. This definition is distinct from the generic use of the word in reference to a project or business venture.

Enterprise education aims to produce graduates with the mindset and skills to come up with original ideas in response to identified needs and shortfalls, and the ability to act on them. In short, having an idea and making it happen. Enterprise skills include taking the initiative, intuitive decision making, making things happen, networking, identifying opportunities, creative problem solving, innovating, strategic thinking, and personal effectiveness. Enterprise education extends beyond knowledge acquisition to a wide range of emotional, intellectual, social, and practical skills.

Entrepreneurship

Entrepreneurship is defined as the application of enterprise skills specifically to creating and growing organisations in order to identify and build on opportunities.

Entrepreneurship education focuses on the development and application of an enterprising mindset and skills in the specific contexts of setting up a new venture, developing and growing an existing business, or designing an entrepreneurial organisation.

Entrepreneurship education aims to produce graduates who are capable of identifying opportunities and developing ventures, through setting up new businesses or developing and growing part of an existing venture. It focuses on encouraging students to apply enterprising skills and attributes to a range of different contexts, including new or existing businesses, charities, non-governmental organisations, the public sector, and social enterprises.³⁷

The application of entrepreneurial skills within an existing, corporate or public sector organisation is termed '**intrapreneurship**'. Both entrepreneurs and intrapreneurs require enterprise skills and behaviours as well as business knowledge, behaviours and skills that are specific to the particular context.

³⁷ Social enterprises can be defined as organisations, bodies or individuals driven by social or cultural values as opposed to financial gain or profit. Typically, a social enterprise will seek to become financially sustainable in order to respond to the social needs of its target audience(s), but does not consider financial gain to be its primary goal.

Employability and enterprise

As employability has become a mainstream concern in higher education, the relationship with enterprise and entrepreneurship is frequently discussed. There is unquestionably an overlap between the broad set of skills which contribute to graduate employability and the characteristics of enterprise described above, but they are not identical. Enterprise education can enhance careers education³⁸ and student employability by enabling students to be more opportunity-focussed, self-aware and attuned to the business environment, for example.³⁹ Entrepreneurship is part of a wide range of enterprising graduate career options which include freelancing, portfolio careers, and running a part-time business.

Who is an entrepreneur and who is a business owner?

It is helpful to make an additional distinction between entrepreneurs (or intrapreneurs) and owners (or managers) of small businesses. These categories are not mutually exclusive - many business owners are also entrepreneurs - but the concepts are distinctive.

An individual running his or her own business may wish to retain strong control and be resistant to changing structures and approaches. An entrepreneur demonstrates enterprising approaches and attributes, such as creativity, vision, responsiveness to opportunity, and ambition for business growth, which are distinct from business skills and knowledge. An intrapreneur may exhibit the same characteristics as the entrepreneur, exploiting opportunities on behalf of the business owner or manager and helping to grow the business through application of enterprise skills.

Learning 'for' and learning 'about'

There is a debate concerning the distinction between study of the topic (learning 'about') and learning how to do or be (learning 'for').

'About' courses are intended to help students to assimilate and reflect upon existing knowledge and resources that enhance their understanding of a topic or theme, for example, venture creation and business growth strategies. They tend to draw upon a more traditional pedagogy involving lectures and set texts to explore the theoretical underpinnings of enterprise and entrepreneurship. Students may learn how enterprise and entrepreneurship has evolved as a discipline and be able to critically evaluate the relevant literature.

'For' courses focus on creating enterprising mindsets in graduates and help them to discover what it is to be enterprising, as well as offering insights into being an entrepreneur. These courses are normally delivered via experiential learning opportunities that engage and enhance the student's abilities and skills, set within a meaningful and relevant context. They challenge the student to think about the future and visualise opportunities. Learners will typically be engaged in scenarios that challenge their thinking and make explicit the need for

³⁸ Two additional points of reference that may be found helpful in the context of careers education and development are Chapter B4 of the UK Quality Code: www.qaa.ac.uk/Publications/InformationAndGuidance/Pages/quality-code-B4.aspx and a careers education benchmark statement published by AGCAS: www.agcas.org.uk/agcas_resources/33-Careers-Education-Benchmark-Statement

³⁹ Rae, (2007) "Connecting enterprise and graduate employability: Challenges to the higher education culture and curriculum?", *Education + Training*, Vol. 49 Iss: 8/9, pp.605 - 619

creativity and innovation. As with all academic disciplines, practice should be underpinned by theory, so an ideal combination is to include learning both 'about' and 'for' within the curriculum.

Entrepreneurial effectiveness

Both enterprise and entrepreneurship education focus on equipping students and graduates to develop their overall effectiveness beyond the educational setting. Entrepreneurial effectiveness is developed through a combination of:

- enterprise awareness
- entrepreneurial mindset
- entrepreneurial capability.

Entrepreneurial effectiveness can be defined as the ability to behave in enterprising and entrepreneurial ways. This is achieved through the development of enhanced awareness, mindset and capabilities to enable learners to perform effectively in taking up opportunities and achieving desired results.

Effective performance means adapting and applying the mindset and capabilities to the relevant context, and exercising judgements about the optimal actions to take within set environments.

The student learning experience

This section looks at the student learning experience in relation to the range of enterprise-related activities that exist on-campus and the range of possible experiences that can contribute to the development of entrepreneurial effectiveness. An essential feature of enterprise and entrepreneurship education is that it supports and leads to entrepreneurial action of some kind, now or in the future. The education team may comprise of academics, practitioners and other support staff with appropriate and relevant experience.

Practical opportunities for gaining experience can be created either within the curriculum or through optional extra-curricular activity that complements learning within the curriculum. Such activities are normally not formally assessed. This guidance primarily addresses curricular learning, but it recognises the value of extra-curricular activities as providing important opportunities for access, networking, practical experience and support for student enterprise. Extra-curricular learning in isolation, however, may not provide a student with sufficient knowledge and skills to create and sustain their own successful venture or to flourish as an intrapreneur within a small business.

One challenge for higher education providers is to make students aware of the learning opportunities for enterprise that are available beyond the taught learning environment. If enterprise is embedded into the curriculum, it can springboard interest toward extra-curricular support.

Effective awareness-raising of extra-curricular opportunities through marketing, student engagement and communication are important. Some institutions have excellent approaches and engage students widely in a variety of different ways. For example, some use software to track those who engage in one activity and then make them aware of other opportunities that may be of interest. Student enterprise societies are increasingly effective in creating student-centred activities.

Developing entrepreneurial effectiveness

The ultimate goal of enterprise and entrepreneurship education is to develop entrepreneurial effectiveness. Students will attain entrepreneurial effectiveness to different degrees, and in differing ways, based on a wide range of variables such as their personality, prior learning, motivation, ability, and context.

Multidisciplinary approaches and mixed pedagogies are likely to be appropriate. This allows students to achieve a balance of skills and knowledge related to the three contributory aspects: enterprise awareness, entrepreneurial mindset, and entrepreneurial capability.

Figure 1 illustrates the key stages in the path towards developing entrepreneurial effectiveness.

- **Enterprise awareness:** understanding 'what enterprise means to me'.
- Developing an entrepreneurial mindset: participating in enterprising learning and activities.
- Developing entrepreneurial capability: developing capability and confidence through guided experience and practice.
- Entrepreneurial effectiveness: independent self-direction progressing individual goals and approaches.

The figure illustrates how both curricular and extra-curricular learning contribute to the development of enterprise awareness, an entrepreneurial mindset, capability, and overall effectiveness. Students often do not approach their learning in a linear fashion; rather their journey may pass through different stages in an iterative fashion and may engage with different stages simultaneously. Individual students' journeys are likely to have diverse starting points and transition points into the future.

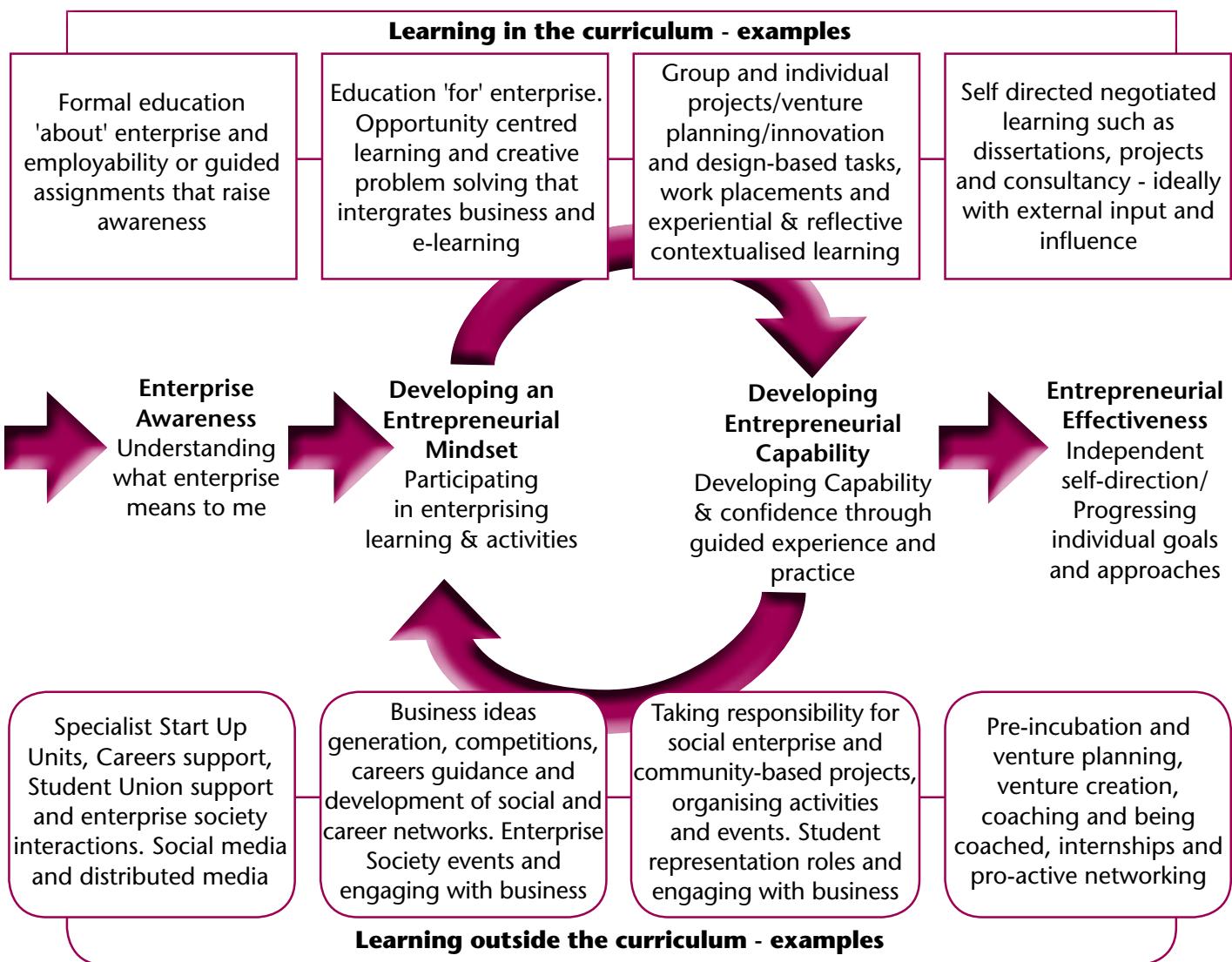


Figure 1: Developing entrepreneurial effectiveness

The activities in the boxes in Figure 1 against each stage of the typical student journey are examples only; in reality, the curricular and extra-curricular activities available will vary widely. Further guidance is given below on the types of learning activities that providers might consider within the four key stages of developing entrepreneurial effectiveness.

Enterprise awareness

Students acquire enterprise awareness when, through learning and intellectual development, they develop knowledge, understanding and awareness of enterprising and entrepreneurial activities and their significance in relation to the wider world. Understanding the scale and role of small firms in an industry, or social enterprises in a locality, are examples of this, as

are understanding the value of ideas and their protection through intellectual property management strategies.

Curricular activities may include introductory teaching 'about' enterprise in society, by looking at key theories and ideas on how the discipline has evolved, and considering enterprise in terms of employability skills (especially within small businesses). Such teaching typically takes place in the first year of undergraduate study. At this stage, opportunities for interaction with external enterprises may be premature or challenging; well-designed simulations through scenarios that the educator incrementally manages and develops may be more beneficial.

Extra-curricular activities are optional and are likely to be tailored to a broad student audience across all programmes of study. Students' Unions, societies, start-up centres, and careers services can be active in promoting self-employment as a viable career option.

In formally assessed curricular work, learning outcomes tend to be very broad, although they may highlight particular themes such as social enterprise. Students initially may be passive receivers of information, although it should be emphasised that this phase is also an opportunity for them to engage more actively as participants in enterprise activities, especially when they are seen as enjoyable and include social networking and career-developing events.

The general media also play a role in raising awareness and initiating entrepreneurial aspirations. Enterprise education should encourage students to be critically aware of the potential influence and distortion of entrepreneurship through media stereotypes, such as the 'Dragon's Den' scenario.⁴⁰

Developing an entrepreneurial mindset

Students should be encouraged to develop self-awareness of their own enterprising and entrepreneurial qualities, as well as the motivation and self-discipline to apply these flexibly in different contexts to achieve desired results. This might include recognising themselves, for example, as a creative or resourceful person; or as someone who can translate ideas into actions; or as a person who is prepared to challenge assumptions through investigation and research.

An entrepreneurial mindset includes:

- aspects of personality and social identity
- personal ambition and goals
- personal confidence and resilience
- self-discipline and personal organisation
- understanding of one's own motivation
- ability to go beyond perceived limitations and achieve results
- tolerance of uncertainty, ambiguity, risk, and failure
- personal values: ethical, social and environmental awareness.

⁴⁰ Based on a television show where candidates compete for funding by pitching an idea to an expert panel.

Curricular activities and extra-curricular activities can become more focused than they are at the enterprise awareness stage, aiming to develop a knowledge and skills base that relates to specific areas and subject contexts. The activities can help students to develop their own entrepreneurial mindset and an awareness of their individual interests and aspirations, typically as they move into a second level of study. The learning mode is active, exploring problems and opportunities as vehicles for active learning and creative problem solving, to enable students to develop generic skills in enterprise. Business simulations can also be valuable. Activities are often group-based, especially when team-working skills are desired outcomes. Learning through action and reflection features prominently.

Entrepreneurs and business advisers who relate well to students can make important contributions both to curricular and extra-curricular elements. This helps to bring the concept of new venture creation to life, as well as getting the student started in developing personal contacts and networks. More experienced students can offer peer support to others through campus societies and other initiatives, for example through engagement in the teaching process or assisting in the evaluation of other students' progress. Alumni can also play an important role, especially if they have experience of entrepreneurship or the subject area, and can model self-presentation and communication skills. Recent alumni have potentially high impact as they are more directly connected to the educational experiences of the current cohort.

Developing entrepreneurial capability

Prior experience and learning can help students to develop a range of enterprising and related practical, social and conceptual skills. These in turn can be used to develop opportunities and achieve results.

Entrepreneurial capability can be specific to a particular discipline or context and will vary in scope and degree between different disciplines and vocational requirements. This is demonstrated, for example, when a student designs a service or product to meet an identified need, or identifies an opportunity and visualises potential actions together with their propensity for success.

Learning activities at this stage should be designed to enable students to take a lead and show greater autonomy, either individually or as part of a group, in gaining practical experience of enterprise. Some students may be reluctant to participate in group projects if they have a preference for individual assessment, but they should be encouraged to recognise that team-based performance is an essential feature of both employed and entrepreneurial work. Project work (for example, to research business start-up opportunities), or assignments to develop and design new services or media for organisations, are examples of real-life 'hands-on' skill-building activities. Relevance can be enhanced if external stakeholders such as potential clients are engaged. Structured experience in work placements and paid work can also help develop enterprising capabilities and confidence.

When students take responsibility for extra-curricular activities, for example by organising societies, sports activities, representation, or other events, this contributes to their entrepreneurial learning and may count towards awards schemes. It is important to encourage students to reflect on their experiences, and to appreciate the capabilities they are developing and how these can be applied or extended. Academic tutorials as well as careers guidance and mentoring can play a facilitatory role, especially if reflective practice enables students to 'join the dots' of past experiences and perceptions.

These activities are especially valuable as students move through their second year and into their final level of study.

Entrepreneurial effectiveness

Entrepreneurial effectiveness is likely to be achieved as the student moves toward completion of their undergraduate studies and prepares for the transition into work, self-employment, further study, or other options. Their learning is increasingly self-directed, pursuing not only academic but also career and broader life goals. Curricular work may include a dissertation or independent study. Learning needs are individual and may be best met by personalised means, such as e-learning activities, optional training sessions, and specialist seminars. Students may be crystallising entrepreneurial motivations and ideas into plans to start their own business or extend informal activity, such as freelancing or trading, into more formal options. 'Live' projects for external clients and enterprises offer extended opportunities to network and meaningfully engage with external stakeholders. This may be the start of a commercialisation opportunity.

One-to-one support such as coaching or mentoring can be highly effective in providing support and responding to emerging needs. Building confidence and reinforcement during this phase, and after graduation, is crucial. Coaching provides students with individualised support to help them identify their options and address practical obstacles. Mentoring can involve established entrepreneurs or other practitioners with specific and relevant expertise and experience. Support is centred on the needs of each individual or business venture. Business start-up support and guidance can often be accessed through enterprise centres and business incubators, where available. Online enterprise networks and off-campus support organisations can also be valuable. It is important for educators to signpost relevant opportunities to engage wherever possible.

Figure 2 provides a link to the next section on graduate outcomes of enterprising behaviours, attributes and skills by showing how these can be mapped onto the development of enterprise awareness, entrepreneurial mindset, capability and effectiveness.

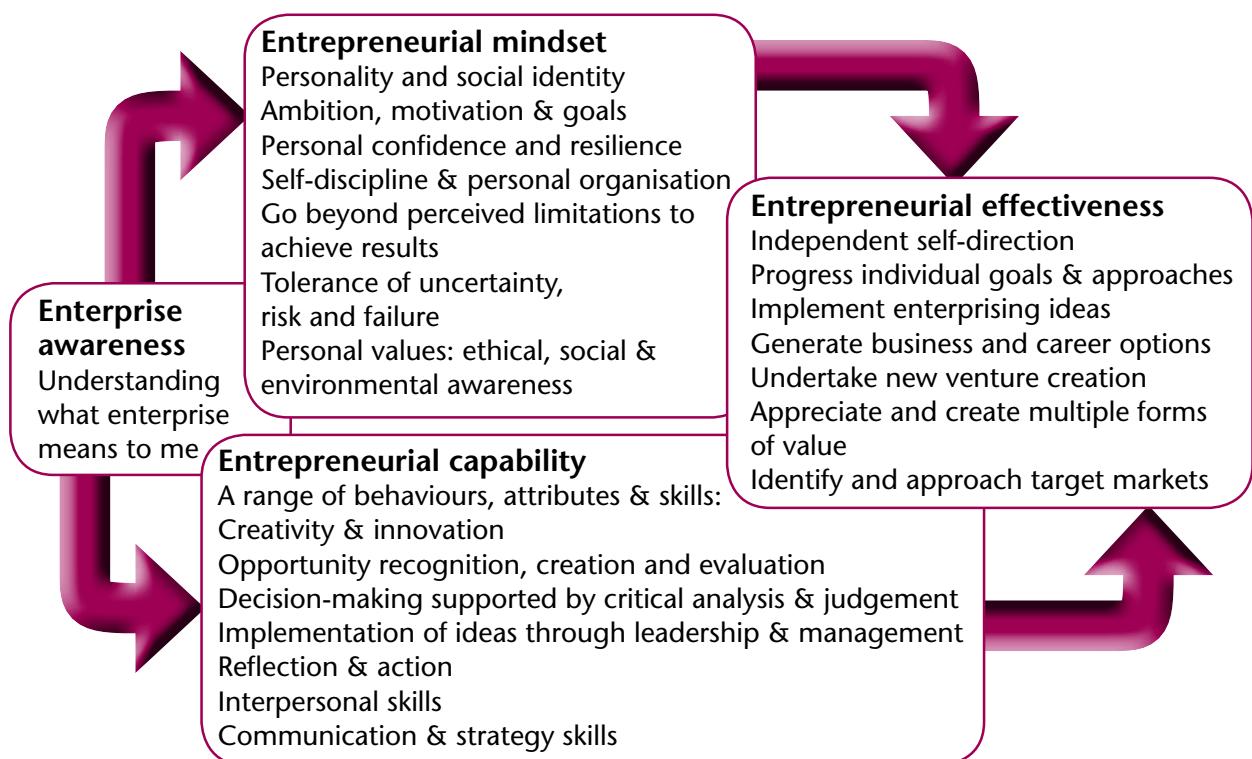


Figure 2: Connecting the development of entrepreneurial effectiveness with graduate outcomes

Graduate outcomes

This section offers a broad framework that higher education providers can use to articulate learning outcomes that can be applied across a wide range of types of delivery.

Enterprising behaviours, attributes and skills

Behaviours

The educator's aim is to help students develop core behaviours for enterprise through learning activities that enable them to practise, exhibit and develop confidence in key areas.

Students should be able to demonstrate:

- the ability to seek out, be alert to, and identify opportunities (opportunity recognition)
- creative and innovative approaches (problem solving)
- the initiative to act on perceived opportunities while considering risk factors (taking action)
- independent responsibility for managing projects (managing autonomously)
- the ability to reflect and persevere in challenging environments in pursuit of achieving desired objectives or goals (personal awareness)
- use of social skills to build trust, relationships and networks and to communicate ideas and information (networking and communication).

Attributes

The educator's aim is to help students discover and develop personal attributes for successful enterprise, develop an awareness of these, and find opportunities to enhance them.

Students should be able to:

- recognise and achieve goals and ambitions, especially in response to challenge (goals and ambitions)
- enhance self-confidence and belief through practice of enterprising skills and behaviours (self-confidence)
- demonstrate perseverance, resilience and determination to achieve goals, especially within challenging situations (perseverance)
- recognise that they are in control of their own destiny (internal locus of control) and use this understanding effectively within enterprising situations
- take action and learn both from actions and active experimentation (action orientation)
- innovate and offer creative solutions to challenging and complex problems (innovation and creativity).

Skills

The educator's aim is to help students develop core skills for enterprise and provide opportunities for these to be practised within a range of situations to gain enhanced confidence and self-belief.

Students should be able to demonstrate the ability to:

- take creative and innovative approaches that are evidenced through multiple solutions and reflective processes (creativity and innovation)
- persuade others through informed opinion and negotiate support for ideas (persuasion and negotiation)
- manage a range of enterprise projects and situations appropriately, for example by proposing alternatives or taking a holistic approach (approach to management)
- evaluate issues and make decisions in situations of ambiguity, uncertainty and risk (decision making)
- use networking skills effectively, for example to build or validate ideas or to build support for ideas with potential colleagues or stakeholders (networking)
- recognise patterns and opportunities in complex situations and environments (opportunity recognition)
- model and propose business opportunities that take account of financial implications, legal implications and issues of intellectual property⁴¹ (financial and business literacy).

Entrepreneurial effectiveness

The educator's aim is to encourage the application of enterprising behaviours, attributes and skills within an opportunity-based context. This can be enhanced by offering opportunities to gain experience with small businesses, social enterprises, non-governmental organisations, and charities.

Students should be able to demonstrate the ability to:

- apply appropriate business generation strategies
- undertake tasks specific to new venture creation or putting an enterprising idea into action
- appreciate the multiple forms of value potentially generated through entrepreneurship
- meaningfully explain the fiscal, social, creative, environmental or other value of the products, services or ideas they generate
- identify target markets and associated value mechanisms.

It is important to note that in the context of entrepreneurial effectiveness, students' performance and approach may be effective even if the final outcome is unsuccessful or incomplete. Students should be encouraged to demonstrate appropriate reflective practice and be able to robustly justify their decision-making processes.

Delivery should include opportunities for:

- marketing, research and competitor analysis for potential opportunities
- planning and formation of a new venture, social enterprise or community organisation

⁴¹ Around raising awareness of intellectual property (IP) issues, educators are encouraged to consult their institutions' own policies for IP and to signpost these to students. There may be additional external resources and toolkits available to support educators and students with addressing these issues, which frequently will be subject-specific.

- creativity, research, development, and innovation
- securing, using and monitoring financial and other resources effectively
- learning about legal requirements including health and safety, employment law, and intellectual property rights
- innovation, change and improvement within existing organisations (to develop consultancy skills, for example)
- promotion and organisation of social, cultural and sporting events.

Thematic approaches

Enterprising behaviours, attributes and skills are highly interconnected. The following themes help to draw out essential requirements.

Creativity and innovation

Ideas led by enterprise and entrepreneurship are founded on the ability to think and act creatively.

Students should be able to:

- generate multiple ideas, concepts, proposals, solutions, or arguments independently and/or collaboratively in response to identified problems and opportunities
- think speculatively, employing both convergent and divergent approaches to arrive at appropriate solutions.

Delivery should include opportunities for:

- creative thinking
- conceptualisation
- innovation
- problem solving
- understanding the value of intellectual property.

Opportunity recognition, creation and evaluation

Enterprise and entrepreneurship rest on recognising real opportunities from a spectrum of possible ideas.

Students should be able to:

- identify, analyse and respond to relevant opportunities
- develop and produce multiple solutions to identified problems, shortfalls and similar challenges
- be flexible and adaptable, seeing alternative perspectives and offering a choice of solutions
- review and evaluate multiple solutions in contexts that anticipate and accommodate change and contain elements of ambiguity, uncertainty and risk.

Delivery should include opportunities to:

- recognise or create multiple opportunities through actively making connections
- make connections as a result of problem solving, evaluating and assessing ideas, and iterative development strategies involving critique and enactment
- develop relevant subject expertise, as well as awareness of contemporary issues, both of which should feature strongly in any strategies for recognising opportunity.

As enterprise and entrepreneurship are led by ideas, it is important for students to develop awareness of how to manage intellectual property issues.

Decision making supported by critical analysis and judgement

Enterprise and entrepreneurship, by their intrinsic association with newness, rely on an ability to make decisions; even where these must be based upon limited or unclear data. Decisions to act are made within a context of uncertainty and through iterative processes.

Students should be able to:

- source and retrieve relevant contextualised information
- evaluate information and formulate arguments, both independently and in a team
- combine analysis with intuition and intuitive decision making, drawn from subject expertise and evaluation of critical incidents.

Delivery should include opportunities to:

- research and collect evidence
- critically analyse data and other information
- intuitively make decisions under uncertainty
- use judgement to take calculated risks
- take the initiative to make things happen
- demonstrate financial literacy.

Implementation of ideas through leadership and management

Successful enterprise and entrepreneurship depends upon the ability to take action, and implement decisions, through social processes.

Students should be able to:

- manage resources in response to a problem or need, demonstrating an enthusiasm for enquiry and the motivation to sustain it.

Delivery should include opportunities for:

- leadership and social and team management within projects and other activities
- productively linking intention, context and process with outcome and dissemination, within management structures

- development and maintenance of effective relationships with audiences, clients, markets, users, and consumers, as well as with participants, co-workers, and co-creators
- evaluation of resilience and adaptability, using effectiveness in relationships as a gauge.

Reflection and action

Individuals successful in enterprise or entrepreneurship often have heightened levels of self-awareness developed through reflecting upon, and continually learning from, their actions.

Students should be able to:

- reflect upon, review and evaluate the solutions they have explored
- identify personal development needs and other changing factors through the reflective process
- evaluate their own learning and respond to identified shortfalls (skills gaps)
- show resourcefulness in seeking development guidance or mentoring from both external and internal contacts.

Delivery should include opportunities for:

- developing reflection techniques
- skills analysis
- reviewing networks
- self-development
- action planning
- use of iterative, discovery and learning processes, including learning from failure.

The experience of generating novel and associative solutions in response to perceived problems may be more meaningful and useful than the final outcome itself.

Interpersonal skills

As well as working within teams, enterprise and entrepreneurship involves the ability to build effective relationships with others. Well developed interpersonal skills form the core of relationships both within and beyond the team.

Students should be able to:

- identify and respond to stakeholder needs
- communicate enthusiasm to 'sell' new ideas, concepts or solutions
- interact with others both to build trust for long-term relations and also to 'close the deal' to make things happen.

Delivery should include opportunities for:

- building trust
- influencing
- networking

- negotiation
- stakeholder relations.

Communication and strategy skills

Successful enterprise and entrepreneurship depend upon clear and impactful communication to gather support. Clear communication and interaction with others, alongside effective planning, is a key tool for developing and implementing strategies.

Students should be able to:

- employ visualisation and flexible planning skills to interact effectively with others, articulate ideas, and present information or outputs to audiences
- draw on the views of others to inform the development or enhancement of their work
- provide research and other evidence to suggest how ideas can be taken forward over time, taking changing environments and emerging technologies and concepts into account.

Delivery should include opportunities for:

- thinking about and visualising the future, scanning the environment, planning,
- communicating, directing, and rationalising
- building relationships, building trust, influencing, networking, negotiating, and reviewing progress
- multiple forms of communication for a range of audiences including new media technologies
- learning how intellectual property and issues of confidentiality impact on communication.

Delivery: teaching, learning and assessment

The task of the enterprise educator

The task of the enterprise educator is to:

- create learning environments that encourage entrepreneurial behaviour in students now and in the future
- design curricula with learning outcomes that relate to the enterprise agenda through increasing relevance and decreasing abstraction
- enable students to relate their learning to their subject or industry context and to personal aspirations
- continuously exploit new opportunities for enhancing the student experience
- be innovative in their approach to teaching and willing to experiment with different pedagogies to ensure appropriateness
- be a leader who is able to shape the opportunity-based learning environment
- engage external communities and find appropriate practical contexts to enhance the learning experience
- engage entrepreneurs and entrepreneurial ventures to enhance learning opportunities.

Teaching, learning and assessment

General principles

Students will have experienced certain forms of enterprise at school, at college, or elsewhere. Educators should encourage them to reflect critically on their prior learning and advance beyond it, instead of seeking out similar experiences. To illustrate this point, one common method of learning in schools and colleges involves 'Dragon's Den' type business competitions and similar scenarios: educators need to enable students to build on such exercises to develop a range of higher-level critical, creative and practical skills. Diagnostic assessment can help determine the previous skills base of students new to enterprise education.

Enterprise and entrepreneurship can be studied as an integrated or integral part of most programmes and should be embedded within the main area of study (or multiple areas of study in the case of combined programmes). The embedding of enterprise and entrepreneurship should not result in neglect of either the conceptual or applied aspects of the subject area, but rather should aim to complement the curriculum and make it relevant to students' aspirations.

Teaching, learning and assessment should be constructively aligned.⁴² Assessment methods should allow students to demonstrate the attainment of specified learning outcomes. Learning outcomes should accord with the relevant qualification descriptor in national frameworks.⁴³ There may be additional guidance at subject level in relevant subject benchmark statements. Overarching expectations are identified in the UK Quality Code for Higher Education (the Quality Code).⁴⁴ Educators may also wish to engage with their

⁴² Biggs, J (2003) *Teaching for Quality Learning at University*, Buckingham: Open University Press.

⁴³ *The framework for higher education qualifications in England, Wales and Northern Ireland* (FHEQ) (2008) available at: www.qaa.ac.uk/Publications/InformationAndGuidance/Documents/FHEQ08.pdf.

⁴⁴ www.qaa.ac.uk/assuringstandardsandquality/quality-code

relevant professional networks or community groups to share practice, or they may seek advice and guidance from the Higher Education Academy. In all cases, assessment should be valid and reliable, supported by clear, published criteria for marking and grading, so that students understand clearly what is expected of them, especially when flexibility and adaptability are key outcomes. Assessment should be accompanied by clear and timely feedback.

External contexts

Enterprise education needs to be considered within its broader 'eco structure', and external engagement with businesses and other contacts in the broader community is encouraged, including active participation in the assessment process. The educator manages and leads effective partnerships. Particularly deserving of consideration is the contribution that can be made by alumni and their extended networks, both through formal institutional strategies and through informal personal interactions. Alumni views and opinions offer rich opportunities for gaining an insight into longer-term possibilities ('longitudinal evaluation').

Developing the individual

The development of personal autonomy in enterprise and entrepreneurship education is desirable, and this should be reflected in the learning and assessment process. As an illustration, students can be required to work with incomplete information or information that is incrementally offered after a review of their initial findings. They can be required to elicit multiple solutions and to make choices based on personal reflection, both in teams and as individuals. Evaluation can take place within a carefully simulated context or a real context that addresses current themes and trends as well as incorporating external influences such as employers' perspectives. Students' developed personal views and/or evaluation of others' perspectives will help them respond to situations that they may previously have found uncomfortable.

The above assumes a shift in the relationship between educator and student. Knowledge that is continuously being 'harvested' during a project or assignment may bring new dimensions into play at any time, and both the student and the educator must be flexible and adaptable to changing scenarios. To integrate this type of real-time event into learning and assessment is to make enterprise and entrepreneurship education more real and tangible for the student. This can involve critical engagement with practitioners and external agencies.

A range of methods of learning and assessment is likely to be appropriate. Assessment in enterprise has sometimes been solely through submission of a written business plan; however, despite this having value, the method is unlikely to enable assessment of the full range of enterprise behaviours, attributes and skills, and so would usefully be complemented by other methods. Assessment of innovation and creativity, for example, can be done through tasks that require students to challenge norms and spot opportunities, and to be flexible and adaptable in situations of ambiguity and risk.

A number of activities generate outcomes that can be matched to an individual's situated learning. For example, 'learning by doing' requires the generation of multiple ideas and encourages reflective practice to elicit lessons learned; other activities useful for assessment purposes include pitches to peers and expert advisers, contextual simulations and games, and tendering and competing for advantage. Importantly, there should be no expectation of being 'absolutely right' at all times, as the student will be responding to the current 'knowns',

contexts and timing, as well as to prevalent trends and influential factors, which educators can take into account during assessment and evaluation. This again offers the advantage of making the learning more current and real to the student because it is not artificially abstracted from current events.

Students should be encouraged to draw on a wide range of intellectual resources, theoretical perspectives, and practical applications to illuminate their learning and the contexts within which it takes place. These may take the learning process beyond the direct expertise of the educator and require broader engagement. Moreover, as self-directed learning is a key element of enterprise and entrepreneurship education, informal and exploratory learning experiences can provide important opportunities for assessment. A supportive facilitator will aim to enhance learning, including self-directed learning, rather than taking the role of an expert who will facilitate 'correct' solutions and discount alternative but potentially meaningful ones. Enabling participants to do more than they could do before, and to challenge their ability to tackle and respond to problems, becomes more important than the 'right approach' or 'right answer'. The most creative solutions are usually the ones that were not foreseen.

Engaging students in peer-to-peer assessment and inviting external specialists to debate students' approaches and solutions can not only make assessment more real and relevant, it can also make it more accessible and understandable. In an ever-changing environment, what is 'right' today may not be right tomorrow; thus situating learning in a real or well simulated environment provides opportunities to assess in a way that is fit for purpose.

Developing entrepreneurial effectiveness

As students pass through the stages of enterprise awareness, entrepreneurial mindset and entrepreneurial capability to achieve entrepreneurial effectiveness, there is expected to be an associated shift in the focus of learning: from learning by transmission or passive learning to problem solving and active engagement. For example, instead of studying a past business case, students can try to predict future trends and opportunities for a business or enterprise led by their research and personal experiences.

Enterprise and entrepreneurship are dynamic and changing. Ambiguity and risk are difficult to evaluate in predictable and forecastable schedules. Shifts and changes by the educator can be effective ways to assess flexibility and adaptability, including responses to situations of ambiguity and risk. However, due regard must be given to the need for carefully aligned approaches to teaching, learning and assessment (page 23). To illustrate this point, an educator might introduce a real or simulated situation where change is taking place - perhaps a story in the media - and adapt the project brief or assignment accordingly. A new product or service entering the market might impact on the initial proposal given to students. Introduced factors may be imaginary but they should be made to feel realistic. Students will then become accustomed to accommodating these changes and ultimately perceive them to be the norm, thus becoming better prepared for the business environment. The approach needs to be clearly explained to students from the outset and carefully managed within the overall teaching, learning and assessment strategy.

In summary, within an integrated strategy of teaching, learning and assessment designed to help students develop and demonstrate entrepreneurial effectiveness, the educator may effect the following shifts of focus:

- from case studies to emerging situations
- from abstract problems to innovation
- from passive learning to active learning
- from objective analysis to subjective experience
- from text-heavy communication to multimedia communication
- from neutrality to personal perspectives
- from formal activities to authentic activities
- from fearing failure to learning from failure
- from dependency to self-reliance and resilience.

From case studies to emerging situations

Educators enable students to shift from an abstracted study of the past to developing knowledge and skills that help them adapt to changing and future environments.

Students may be asked to consider current data and opportunities for a particular business and envisage or predict future scenarios.

From abstract problems to innovation

Educators enable students to shift from critical analysis of abstract problems towards an approach based on innovative and creative thinking. This makes them better equipped to tackle future scenarios.

From passive learning to active learning

Educators enable students to shift from traditional learning, where they expect simply to 'receive' knowledge, towards situations in which they are actively involved; thus developing understanding through participation. A range of methods can be employed, for example authentic iterative assessment through discussion with employers, educators and peers, or through workshops and student 'think tanks'.

From objective analysis to subjective experience

Educators enable students to shift from objective detachment towards a more holistic appreciation of a particular topic or scenario. They enable students to consider their own emotional responses to learning situations and challenges, and how this can influence their associated understanding.

From text-heavy communication to multimedia communication

Educators enable students to shift away from an emphasis on written communication and embrace a wider multimedia approach. They may employ assessments that involve students developing a range of communication styles and skills, including small group presentations and using online forums; preparing and running debates on contemporary issues; developing and presenting visual communications, such as posters; and internet communication. Students may be required to tailor these products to a range of audiences.

From neutrality to personal perspectives

Educators enable students to shift from an emphasis on neutral comment to the exploration of more personal perspectives. They also help them to develop skills pertinent to influencing and persuading others. Students develop qualities in these areas, gaining practice though, for example, group work and live projects involving feedback from different viewpoints.

From formal activities to authentic activities

Educators enable students to engage more with third parties and consider real scenarios and issues. They provide authentic assessments for students, reflecting 'real world' activities. This enables students to develop the complex attributes and skills that later enable them to pursue whatever path they choose.

From fearing failure to learning from failure

Educators encourage students to embrace failure as part of the learning process and help them develop strategies and skills to reflect on and evaluate these experiences. They may design assessments requiring students to develop multiple solutions and to reflect and review how they developed them. Students may also be asked to record their development in a learning journal or blog, perhaps prompted by questions such as 'what did you learn from the incident?' and 'what might you do differently next time?' They are encouraged to identify causal connections and find alternative routes to success.

From dependency to self-reliance and resilience

Educators encourage students to develop self-reliance and confidence, which will help them to address issues and problems in strategic ways.

Educators also place an emphasis on the development of resilience and persistence, equipping students to see their projects through to fruition.

Appendix 1: Membership of the Advisory Group

The following are the members of the QAA Graduate Enterprise and Entrepreneurship Group.

Dr Laura Bellingham (Coordinator)	The Quality Assurance Agency for Higher Education
Hushpreet Dhaliwal	The National Association of College and University Entrepreneurs
Professor Harry Matlay	Birmingham City University
Dr Joanna Mills	University of Cambridge
Dr Erica Morris	Higher Education Academy
Professor Andy Penaluna (Chair)	Swansea Metropolitan University and Enterprise Educators UK
Professor Alison Price	National Centre for Entrepreneurship in Education
Professor David Rae	University of Lincoln and Institute for Small Business and Entrepreneurship
Leigh Sear	UK Sector Skills Body for Enterprise
Dr Kelly Smith	University of Huddersfield and Enterprise Educators UK
Jonathan Slack	Formerly, Association of Business Schools
Matt Smith	The National Association of College and University Entrepreneurs
Gareth Trainer	Newcastle University and the Association of Graduate Careers Advisory Services

Appendix 2: Partner organisations

The Higher Education Academy

The Higher Education Academy (HEA) is a UK national body for enhancing learning and teaching in higher education. It works with institutions across higher education to bring about positive change in this area and improve outcomes for students. It does this by recognising and rewarding excellent teaching, bringing together people and resources to research and share best practice, and helping to shape and implement policy. Employability is a thematic priority for the HEA, through which it sustains links with the graduate enterprise agenda. Through the Business, Management, Accountancy and Finance subject centre, the HEA supported an Entrepreneurial Learning Special Interest Group (ELSIG) based at Swansea Metropolitan University. Over the past five years, the ELSIG has run a series of workshops that included introductory work on the present publication. Work around enterprise education is now being supported through the Business and Management discipline within the HEA.
www.heacademy.ac.uk

Enterprise Educators UK

Enterprise Educators UK (EEUK) is a national network of over 600 enterprise educators from around 75 higher education institutions. It is an independent, self-sustaining, membership-based organisation that evolved from the network of UK Science Enterprise Centres (UKSEC). With over 10 years' experience of running best practice events, raising members' profiles, rewarding success, and actively collaborating with other enterprising bodies, EEUK has supported its members to work with students, postgraduate researchers, academics, and the business community to build enterprise capability and support business start-up across a broad range of disciplines. EEUK are founding members of the UK Enterprise Alliance and are recognised as experts at the United Nations in Geneva. EEUK are actively helping to develop similar networks worldwide.

www.enterprise.ac.uk

The National Association of College and University Entrepreneurs

The National Association of College and University Entrepreneurs (NACUE) is a grassroots charity that stimulates student enterprise by supporting, connecting and representing enterprise societies, enterprising students, and student entrepreneurs in colleges and universities across the UK. Launched in May 2009, NACUE now engages more than 70 university enterprise societies and represents the views of over 40,000 enterprising students to policy makers in all levels of government, industry and education. NACUE's society support mechanisms have been commended by the United Nations and recognised by the World Economic Forum as 'global best practice in youth-led enterprise models'. The charity has been recognised by Real Business Magazine as one of the 'Champions of Entrepreneurial Britain'. NACUE's founder was recently awarded the Queen's Award for Enterprise Promotion for her work in building the organisation.

<http://nacue.com>

The National Centre for Entrepreneurship in Education

The National Centre for Entrepreneurship in Education (NCEE) was originally established as the National Council for Graduate Entrepreneurship in 2004. Under its new name from 2011, the Centre continues to pursue its aims of raising the profile of entrepreneurship across further and higher education, stimulating cultural change across universities and

colleges, building capacity through staff development, and supporting the choice of business start-up or new venture among students, graduates and staff. In 2007 the Centre published a report on good practice in enterprise development in UK higher education which also identified potential barriers to further development. In the same year, the Centre published the results of a survey of enterprise and entrepreneurship provision across higher education institutions, which was repeated in 2010. Between 2005 and 2007 the Council commissioned and published a framework for enterprise education, which was an early attempt at identifying graduate learning outcomes.

www.ncee.org.uk

The Association of Graduate Careers and Advisory Services

The Association of Graduate Careers and Advisory Services (AGCAS) is the professional association for higher education careers practitioners and those involved in the provision of careers and employability education, information, advice, and guidance to current or prospective students and graduates. 130 universities in the UK and Ireland are members through their careers service, and there are over 2,200 individual members. Many are actively involved in enterprise and entrepreneurship education and AGCAS provides support, training, resources, and networking opportunities for them.

www.agcas.org.uk

The Institute for Small Business and Entrepreneurship

The Institute for Small Business and Entrepreneurship (ISBE) is the longest established professional association of researchers, educators and practitioners concerned with entrepreneurship and small business in the UK. ISBE is a registered charity, governed by a Board of 24 trustees drawn from universities, small business, and enterprise organisations, and is based in London. ISBE organises a major annual research conference, which includes a theme on enterprise education. There are regional events, workshops, publications, and a research fund with an annual competition. ISBE conducted the 2010 survey of enterprise education in higher education on behalf of NCEE and actively contributes to policy, research, education and practice in all aspects of entrepreneurship and small business.

www.isbe.org.uk

SFEDI Solutions

SFEDI Solutions, part of the SFEDI Group, is the UK government-recognised standard-setting organisation for business enterprise. SFEDI Solutions works with a diverse range of organisations in the public, private and 'third' sector to provide enterprising solutions for the challenges and opportunities faced in enhancing the quality of support and learning available to small and home-based businesses. SFEDI Solutions focus on aspiring and current small business owner-managers and enterprise support professionals, enhancing networking and advocacy activity.

www.sfedisolutions.co.uk

The Association of Business Schools

The Association of Business Schools (ABS) is the representative body and authoritative voice for all the business schools of UK universities, higher education institutions, and independent management colleges, and recently celebrated its 20th Annual General Meeting. ABS undertakes reviews and responds to Government initiatives as well as leading strategic international alliances on behalf of its members. ABS also supports the reconfigured HEA

and has taken a proactive role in maintaining network activities of the former Business, Management, Accountancy and Finance subject centre (HEA-BMAF), including its annual conference. ABS representation on the HEA-BMAF Advisory Board led to its engagement in the enterprise and entrepreneurship quality debate.

www.associationofbusinessschools.org

Appendix 3: Acknowledgements

The QAA Graduate Enterprise and Entrepreneurship Group wishes to acknowledge the help and support received from delegates of the 2009, 2010 and 2011 International Entrepreneurship Educators Conferences, and from delegates of the Higher Education Academy's Business, Management, Accountancy and Finance Special Interest Group for Entrepreneurial Learning workshops. The Group also wishes to highlight the pioneering work of Professor Allan Gibb.

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