

Enterprise Learning

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Preface

‘Capitalism is dead. Long live Reed’ jested the Sunday Times on the 23rd of May 1994. Six years later, 23rd April 2000, the Observer declared ‘Peoplism, as Alec Reed defines it, is an economic state where individuals own and carry round with them the most important factor of production: brainpower.’

Alec Reed CBE is the founder and Chairman of Reed Executive plc. He is a fellow of three leading professional bodies representing accountancy, personnel and marketing. As Professor of Innovation at Royal Holloway, University of London, he has helped create a unique course for undergraduates called Leadership, Innovation and Enterprise Studies (LIES). He is also visiting Professor of Enterprise at London Guildhall University, where he has played a pivotal role in the development of the BA in Business Enterprise (BABE).

Building on his academic interests, he has established the Academy of Enterprise. This non-profit organisation aims to promote enterprise and creativity across the nation, particularly through Higher Education.

Working together for the first time, the Smith Institute, Demos and the EPI, in conjunction with the Academy, have undertaken research into Alec Reed’s concept of ‘Peoplism’ and the potential impact, both good and bad, it will have across the whole of society.

Foreword

What is Peoplism?

The idea that technology could put the human race out of a job has been a recurring theme in social commentary and science fiction. In fact, the technological transformation of the last two decades has made talented people the key to economic success as never before.

Information and communications technology (ICT) has vastly increased the potential productivity of an individual worker. ICT has made many routine tasks easy. More importantly, it has vastly increased our ability to carry out complex work based on the sharing and manipulation of knowledge and ideas - to innovate and create.

At the same time, labour saving technology has pushed down the relative cost of manufactures, and we spend an ever-increasing proportion of our income on services. Even when we buy products, much of their value now lies in their intangible rather than physical properties: when we buy a band's music the CD is incidental; when we buy a mobile phone, we are buying access to a host of electronic services.

Fixed assets are not the key to thriving in this environment. Organisations must now focus on building up a range of intangible assets: unique technologies and working methods, popular brands, a loyal customer base. In turn, the development of these intangibles depends entirely on maintaining a creative and enterprising workforce, from strategists drawing on information from around the globe, to front-line staff sharing their ideas for service improvement through

a company intranet. Such people are now the most important resource of any organisation, and finding them, developing them and holding on to them becomes its most important challenge.

This is not easy, however, since human resources are perhaps the most intangible of all assets. This is because, unlike brands and patents, they cannot be owned.

As enterprising people become increasingly central to the creation of value, power is shifting perceptibly from employers and shareholders to many of 'their' workers. This is most obviously the case for the high-earning stars of the millennial labour market: IT contractors, boardroom executives, dot.com entrepreneurs. But in a less dramatic fashion, this trend is affecting workers at many levels. More and more employers are placing staff retention and development at the heart of their business strategies, and workers in some sectors are benefiting from higher pay, flexible benefit packages, continuous learning opportunities and family-friendly working patterns.

The context for this shift is a global market, in which capital is highly mobile and elite workers are increasingly so. It is also an intensely competitive environment, in which organisations are quick to outsource any non-core function and constantly require teams and individuals to demonstrate their utility. In this world, winners can take a lot, but losers have few places to hide. Many organisations offer opportunities, but few (outside the public sector) now offer protection. Traditional support structures - the extended family, local communities, trade unions, corporate career ladders - have been badly eroded.

At the same time as it is empowering many people, the rising premium on human talent is therefore excluding others: those whose skills are outdated, who have been let down by inadequate education services, whose neighbourhoods are locked in a self-reinforcing cycle of deprivation, or who do not have the nous needed to navigate through an increasingly structureless labour market. Providing new forms of support for these people will be a primary role of government in the coming decades.

Nevertheless, the empowerment of talent is real. Individuals whose skills are in high demand and for whom a change of employer is

always an option are exercising increasing control over the wealth they create.

The defining characteristic of capitalism was that the principal means of production (in today's language, the sources of value creation) were privately owned. Machinery was scarce and coveted; most of the people required to operate it were easy to replace.

But the mobilisation and control of capital is losing its status as the main source of competitive advantage and economic power. In the emerging order, the most important driver of value creation is the enterprise and creativity of individuals, assets which only the individuals themselves can own. That order could better be described, therefore, not as capitalism but as 'Peoplism'.

The Peoplism Project

The trends described above have been examined by several commentators. They have also been given a number of labels, none of which quite does justice to the potential depth of this transformation. 'New economy' is too static; given the current pace of economic change, the new economy is already old. 'Knowledge economy' fails to capture the importance of enterprise and creativity, without which knowledge contains precious little value; indeed, thanks to the development of ICT, the cost and exclusivity of knowledge is diminishing rapidly.

More importantly, much of the existing analysis has been conducted at a general level. This work has been very valuable in setting some of the terms of the debate. But the advent of Peoplism (a term coined by Reed's founder and chairman Alec Reed) raises a wide range of specific issues for individuals, private organisations and government. To understand these and develop appropriate responses, a great deal of detailed work needs to be done.

The Peoplism Project has been set up by the Academy of Enterprise to contribute to that work. The project is a joint venture between the Academy and a number of other organisation, including Demos, the Employment Policy Institute and the Smith Institute. The issues which it is addressing fall into three broad areas:

Peoplism and the labour market

Over the last two decades flexible forms of working - temporary and part-time jobs, and self-employment - have become more common. The typical worker may still have a full-time, permanent contract, but even for the permanent employee the world of work has changed significantly; with the delayering of corporate hierarchies and the erosion of fixed career paths, most employees now need some of the survival skills of the self-employed. To those with highly marketable skills and valuable networks, this less structured environment offers autonomy, variety and opportunity. But others will struggle to manage the uncertainty which it brings, or are already excluded. Government has a crucial role to play in providing support to the latter, but we still have a great deal to learn about how this can most effectively be done.

Learning in the Peoplist age

As human ability becomes the key to economic success, skill development becomes one of the most important tasks for government, organisations and individual learners. We need to become a learning society in order both to raise our productivity, and to ensure that the benefits are shared around. The UK government has prioritised education, but the foci of the debate seem somewhat dated: the three Rs, academic qualifications and the rapid expansion of a university sector which is slow to change. The enterprise economy is creating most demand for generic, transferable skills such as communication and problem-solving; for the education system to develop such attributes more effectively will take radical change to what is taught and to how it is taught. We also need educational institutions that encourage individuals to take control of their own development, and to keep on learning.

Organisations, institutions and Peoplism

The limited company developed as a vehicle for mobilising capital; in future, firms may have to reinvent themselves as vehicles for mobilising and developing people. Indeed, the growing influence of workers

may seriously undermine the distinction between employers and employees, in favour of new forms of partnership. The implications of these trends for company and employment law are unclear, but the conventions which underpin the work of accountants have already been challenged by the efforts of companies to report on the value of their intangible assets. Public agencies may prove slower to respond to the changing labour market, but are already faced with the problem of how to draw more talented people to the public sector. The grey area between the public and private sectors may widen as a result.

This paper, *Enterprise Learning*, by Matthew Horne at Demos, falls into the second of these areas. It argues that the education system needs to do more to develop the generic qualities which are at a premium in the Peoplist economy: enterprise, creativity, problem solving and self-management. In order to identify the types of learning activity which will help students to become enterprising, it examines some of the most interesting current practice in business, vocational and project-based education.

Although some valuable examples are drawn from business start-up training, the scope of the paper is far wider. Matthew Horne argues that, although only a minority of us may want to be entrepreneurs, we all face a growing need to be enterprising. It follows that, regardless of the content of our learning, we need to rethink radically the process by which we learn and the environment in which we do it.

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1. Introduction

The world of work is changing. In advanced industrial economies, careers and labour market opportunities are taking on a shape and character that is fundamentally different from those presented to school leavers a generation ago. The economy has shifted towards knowledge-intensive, service based industries, in which patterns of employment are more flexible and individuals must learn to thrive in a more fluid, unpredictable environment. At every level of achievement, from the high status forms of 'pure' knowledge work to lower-skilled jobs in service industries, a new set of skills and attitudes is required to support the specific knowledge and technical skills that our education system currently provides.

This Argument puts the case for *enterprise learning* as an essential component of all students' preparation for adult life. It reviews existing models of business and enterprise-related learning, and analyses the lessons they offer for curriculum reform and the extension of broader enterprise learning opportunities to school-age students.

It argues that the traditional definition of entrepreneurship is out of date. Instead, we should focus on preparing a much larger section of the school population to thrive in a broader 'enterprise culture', using information, skills and contacts to create new economic opportunities and meet other people's needs in innovative ways.

The central shift in meeting this challenge is from an exclusive focus on *what* people learn, to a much greater emphasis on *how* they learn it.

Existing provision in schools, further education and some universities offers much of value in meeting this challenge. But simply extending what already exists will not suffice. Instead the school system needs to adopt enterprise learning as a way of delivering each of the subjects in the school curriculum. Such an approach develops a set of enterprise skills irrespective of the learner's age or ability. Enterprise learning is best understood as a combination of an independent learning environment and an enterprise process. Policy should focus on strengthening the place of this learning process in all forms of education provision, and on developing the infrastructure and assessment systems that support it.

The rest of this chapter reviews changes in the economy and labour market which have made enterprise skills more important. It then sets out the argument developed in the rest of the paper. Chapters 2,3 and 4 examine existing models of business, vocational and enterprise learning. Chapter 5 details the components of the preferred generic model of enterprise learning and Chapter 6 sets out conclusions and policy recommendations.

The flexible economy

Knowledge and ideas have become the primary source of economic productivity.¹

As a result, in all sectors of the economy human capital is taking on a new significance. In the past, much employment depended on a stable and limited set of competencies. Now all workers have to adapt to a more fluid economic environment. Flexible patterns of work and activity have become more important across every sector, creating new demands on individuals.

Growth sectors in manufacturing in the western industrial societies have been those where the introduction of high-tech machinery and plant has reduced the total demand for labour, but increased the market price for highly skilled labour. Much of the value of high-tech industries now depends on the 'weightless' value created by marketing, branding, advertising and market knowledge. The growth of service

sector employment, which produces many of these non-material sources of value, has risen to 60–70 per cent of total employment in the EU and the US.²

This economic transition has been accompanied by a rapid increase in flexible patterns of work. The number of part time workers grew by 28 per cent between 1984 and 1999 to 6.9 million in the UK, accounting for 25 per cent of all employees.³ The proportion of part-time workers in the UK is the second highest in Europe.⁴

Between 1984 and 1999 the number of workers with more than one job rose by 56 per cent to 1.3 million, almost 5 per cent of those in employment in the UK.⁵ Self-employment grew by 11 per cent between 1984 and 1999. Having peaked at 3 million in 1990, it has now stabilised at 2.5-2.6 million or 12.6 per cent of those in full time employment.⁶ Self-employment has grown faster than overall employment in banking, finance, insurance, and ‘other services’; however in construction, manufacturing, transport, communication, agriculture, fishing, public administration, education, health, distribution, hotel and catering, it has contracted at a faster rate than overall employment in those sectors.⁷ In the UK, self-employment remains predominantly male, by a ratio of 3:1.⁸ The UK represents the European median level of self-employment with a greater proportion than France or Germany but half the level found in Italy, Portugal and Greece.⁹

Between 1980 and 1999, the number of VAT registered enterprises grew by 54 per cent to 3.7 million.¹⁰ In 1998 there were over 186,000 registrations, which is equivalent to 40 registrations per 10,000 adults; up from 36 per 10,000 adults in 1994.¹¹ The number of companies registering each year increased by 46.3 per cent between 1984 and 1998.¹² Most of this growth has been in small companies with one or no employees. In 1994 only 11 per cent of UK enterprises had more than five employees and two-thirds of enterprises had none.¹³

Between 1984 and 1999 the number of temporary workers grew by 23 per cent to 6.9 per cent of the total workforce in the UK, or 1.6 million employees.¹⁴ Temporary employment agencies now employ three times as many people as they did in the 1980s. Manpower is now the largest employer in the US, employing more people than General

Figure 1. Labour market growth in the UK

	<i>As a percentage of total employment in 1999</i>	<i>Growth rate since 1984</i>
Self employment	13%	11%
Temporary	6%	23%
Part time	26%	27%
Second jobs	5%	56%

Motors,¹⁵ and is part of the \$60 billion per annum temp industry. One in seven professional employees were working on a temporary contract in 1996.¹⁶ This professional sector of temporary employment is growing twice as fast as other more poorly paid sectors of temporary employment. In the US, the number of independent contractors grew by 70 per cent during the 1990s, with over half categorised as managerial, professional, speciality or sales.¹⁷

The table above summarises the latest UK data on growth areas of the labour market.¹⁸

These data show that between a quarter and a third of total employment in the UK is in one of these flexible forms. The Economic Policy Institute estimates that there are 30 million workers in the US employed on a temporary, leased, contracted, part time, or 'non-standard' basis.¹⁹ Growth rates in most of these forms of employment are considerably higher than the growth in total employment as a whole, so we can expect their share of jobs to increase steadily.

Being able to act and learn in enterprising ways will become more important to all these workers. But it will be just as important in more traditional jobs as well. Large organisations have been restructured, making flexibility and creativity more important. Occupational change means that many workers have to learn faster, and are less likely to take predictable, linear steps through a single career path. In this sense, enterprise learning matters for everybody.

The new world of work

These general changes mask significant differences across different sectors and occupations. For high value professionals, a more flexible work environment might mean more clients, the need to update knowledge faster, and greater geographical mobility. For an unskilled school-leaver looking for employment in the retail or service industries, it might mean less job protection, imposed flexibility in working hours, and higher likelihood of temporary contracts. But despite the diversity of experience and opportunity offered by the new world of work, some common characteristics stand out.

The first is that individuals must live with higher exposure to risk. Greater flexibility means that employers are more likely to pass on risk to individuals, leaving them to cope with the consequences of a sudden downturn or a shift of industry focus. The security of long-term contracts and linear career structures is no longer available for many. Most will have to work under conditions of increasing uncertainty.

Second, employability and earning power will increasingly depend on initiative and enterprise, whatever kind of work we are in. Even employees of large corporations and bureaucracies are increasingly expected to act as ‘intrapreneurs’, running enterprise units within much larger networks of activity and organisation. Individuals are increasingly expected to seek out their own opportunities and actively create value, rather than reliably following rules and routines set by others. In many ways, we will have to act more as if we are self-employed, responding rapidly to changes in our environment, generating new ideas and managing a wide range of external relationships.

The new enterprise culture

These are fundamental changes that should be reflected in the way that education prepares people for working life. To thrive, workers must be enterprising and become increasingly ‘self reliant, pioneering, adventurous, daring, go ahead, progressive, opportunist, ambitious people who organise ideas into action on their own initiative.’²⁰

This broad concept of enterprise differs from the traditional model of entrepreneurship, which is concerned only with the setting up and running of a business enterprise. The skills, knowledge and attitudes of the new enterprise culture are far broader than entrepreneurship; they are called for at work and in family, social and civic life, where enterprising responses to new challenges and opportunities are also increasingly important. Irrespective of social background or intellectual ability, individuals will not just need a certain set of enterprise skills, they will also need to develop enterprising strategies that help them to manage the increasing uncertainties of life.

Policy so far

The UK government is already committed to creating 'a broadly-based entrepreneurial culture'.²¹ Its current policy framework seeks to promote links between education and business through grants and tax relief to encourage specific kinds of activity: pupil and school staff mentoring by local employees, employee volunteering, business donations to schools; and a link between the needs of local employers and the school curriculum.

The government also aims to 'develop skills and attributes essential to entrepreneurship'²² through an online guide for teachers on how to set up entrepreneurial projects within the national curriculum. These will consist in successful exemplar case studies of enterprise projects in schools. It has also announced its intention to 'expand the Young Enterprise scheme into Higher Education'²³ providing support for graduates seeking to learn how to set up a business.

It intends to improve support to entrepreneurs through its Small Business Service and Business Links, which connects potential entrepreneurs to business training providers. It also plans to 'fund up to eight new enterprise centres in universities',²⁴ which will seek to turn research into profitable business opportunities. These moves seek to build on existing activity, but are narrowly focused on teaching entrepreneurship; the skills and knowledge directly involved in founding and running your own business.

The rest of this pamphlet will argue that a set of measures that promotes entrepreneurship rather than a broader concept of enterprise, is too narrowly focused on individuals thinking of starting their own business and workers in the small business sector. A far-reaching set of changes to the school curriculum and assessment frameworks is needed in order to ensure that the potential of a much wider group of learners is realised.

The government's aim should be to design a comprehensive education system not only for the next generation of high-flying entrepreneurs, but also an education system that will equip everybody with the tools required to be enterprising workers.

Education and enterprise: existing models

There are three broad areas of activity within the mainstream education system that provide opportunities and lessons for developing an education system appropriate to the new enterprise culture.

The first is conventional business education (chapter 2), where provision focuses explicitly on the skills and knowledge required to set up and run a business. From business education we can identify an enterprise process that demonstrates the necessary stages of setting up and running an business. This is based on a generic enterprise process with a wider application than setting up a business.

The second is vocational education (chapter 3), which provides individuals with technical competencies in work-related areas from catering to electrical engineering. Much of the learning occurs through project-based assignments which simulate the work environment. This type of learning environment, in which students have far more independence than in more traditional forms of learning, has lessons for non-vocational education.

The third: the approach which on balance we favour, is enterprise learning (chapter 4). This model has features in common with the other two: the generic enterprise process and an independent learning environment. However, it successfully combines these with the factual and theoretical knowledge of the traditional curriculum.

The key strength of the enterprise learning approach is that it is applicable across nearly all areas of the curriculum and can be used by a wide range of students. It is a way of learning that can be applied with equal success to electrical engineering, entrepreneurship, music or chemistry. By adopting this way of learning every pupil will have the opportunity to develop generic skills which the new enterprise culture demands.

There are three components to enterprise learning: the enterprise environment, the enterprise process and a set of enterprise skills. The first, the *enterprise environment* reflects the kind of environment in which students will live and work as adults. It gives students a degree of independence from teachers, and encourages them to set up and run their own projects. They are also held responsible for the performance of these projects, which are assessed against agreed criteria.

These pupil-run projects are organised according to the different stages of the *enterprise process*. The process can be summarised as follows:

- identifying a need or a want
- generating ideas about how to meet this need
- project planning and organising the use of resources
- implementing the plan
- gathering information about the success of the project
- reflecting on the lessons which can be learned from the project.

Fundamental to this learning activity is that failure must be acceptable, if individuals are to learn how to improve the way they work in the future. Learners are given the opportunity to seek success even after a series of failures.

Using the enterprise process in an independent learning environment develops a set of vital generic skills, the *enterprise skills*. These include *interpersonal skills, decision-making, and organisational skills, personal responsibility, creativity, and evaluative skills*.

The enterprise learning approach should be adopted in all areas of education. It can help to equip all learners with the generic skills needed to survive in the enterprise culture, while allowing each individual to develop knowledge of the subject matter most appropriate to their interests.

2. Business education

Business education seeks to equip young people for a future as entrepreneurs. It brings together young people with the business community to learn directly from their experience. This case study methodology has been well developed at several international business schools, notably Babson College in the US.

Learning how to set up and run a company takes place through specialised subject training. Within the Adult Education sector, business education is provided through portals such as Business Link, a Department for Trade and Industry funded company which links local training and advice services with businesses of between two and 250 employees. The training is provided by Training and Enterprise Councils (soon to become Learning and Skills Councils), which provide training in setting up a company.

In this chapter we consider three examples of business education. The first shows how Higher Education courses combine the theoretical and practical approaches to setting up a business. The second and third, the National Foundation for Teaching Entrepreneurship (NFTE) and Young Enterprise, show that business education can be achieved through setting up and running a mini-business within a supported educational setting.

Business education in universities

The University Entrepreneurship Education Programme in seven Scottish universities (Aberdeen, Glasgow Caledonian, Napier, Paisley, Robert Gordon, Stirling and Strathclyde) offered 933 optional enterprise and entrepreneurship courses in 1998. Since then, demand has continued to rise. Students studying management, marketing, or business took three quarters of the elective modules; and scientists, engineers or computer scientists took 15 per cent.²⁵

Aberdeen University offers a full time postgraduate degree course in entrepreneurship. This course looks at a wide range of aspects of the enterprise environment parts of which are summarised below:

- management strategy and decision making
- market research, market opportunities, market knowledge and marketing strategy
- ideas generation, financial services and legal requirements
- the business environment: macro economic policy and the law
- business and product development
- business plan generation.²⁶

This course can be seen as a high level qualification in business education. It is designed for people who wish to set up their own company, or contribute as an employee to the high growth of a new company. The aim of the course is to enable individuals to identify promising business opportunities with an emphasis on moneymaking careers. This is achieved through case studies of business startups, often supplemented by direct meetings with the entrepreneurs involved in case study businesses. This mode of learning can be seen as an explicit attempt to learn from other people's successes and failures. The degree is assessed by group report and by business plan submission. This is combined with a written examination and extended essay providing a mix of individual and group work, and a balance between the practical and the theoretical.²⁷

Business education at university level focuses on the first three stages of the enterprise process. Firstly, students learn to identify a market opportunity where existing suppliers do not meet the needs or wants of customers. Secondly, the students are required to use innovative and creative thinking to generate ideas, which will meet the needs of the customers. The third part of the enterprise process, as it is seen here, is the planning and preparation stage of creating a business. At this stage students draw up a business plan, which shows that they have been through the process of analysing the market and can demonstrate how the product will meet the needs of the market in a distinct way. They are then required to produce an outline of the marketing and pricing policy. Further operational details of suppliers, premises, equipment, and IT strategy are included. The financial planning requires forecasts of turnover, profit and loss, cash flow, and an analysis of the financial risks for investors. Business planning is given particular importance in business education as indicated by the inclusion of a written business plan in the assessment framework.

The implementation of business plans in a real life business environment is often outside the scope of business education courses in higher education. As a result students do not experience the crucial experiential learning involved in the running of an actual business enterprise. While students may implement their business plan after graduation, they will lack the support of educators for guidance and teaching during the implementation stage. University courses are heavily based on lectures about business success and failure, and designing a robust business plan. To stop at the planning stage of the enterprise process is to miss out on the huge learning potential of the implementation of the plans and the experience of day-to-day decision making, and problem solving.

The National Foundation for Teaching Entrepreneurship (NFTE), a US programme providing courses for secondary school students, has gone the furthest in converting approaches to business education developed in higher education into practical learning experiences for school aged students. It too focuses on the production of a business plan, which is intended to form the basis of a real and lasting business.

Business education in schools: NFTE

Babson College in the US is used as the source of curriculum content by NFTE, an international non-profit organisation based in the US that currently educates 8,000 students each year. NFTE provides a business education course to school age students, the content of which is very similar to a university-style 'mini-MBA' qualification.

In the US the NFTE programme is based in deprived inner-city areas. Fifty six per cent of the pupils are African-American and 17 per cent are Latin American.²⁸ The programme is marketed as a package designed to prevent pupils from dropping out of the education system by engaging young people with learning where the formal education system has failed.

The programme is also being piloted in England where the emphasis is on targeting the low-achieving students, encouraging them to establish community-based enterprises.²⁹ NFTE seeks to show why it can be worthwhile making an effort to learn, by linking learning to making money and integrating the different components of the curriculum into an interdisciplinary project. This project starts with the generation of business ideas and an analysis of the existing market situation; it is followed by the production of a detailed business plan, which can be implemented in a real-life market situation. The programme aims to create an on-going concern with support from NFTE to help the entrepreneurs evaluate their business needs and solve day-to-day problems.

NFTE encourages its students to develop competencies by setting up their own businesses and completing all of the work tasks necessary for their successful maintenance. The programme helps to teach pupils that if they are to succeed, they must be tenacious. The NFTE curriculum develops the following competencies in its students:

Communication skills

The students have to write business letters, and publicity material, produce business cards, use business language, give oral presentations, and a sales pitch.

Information management

The students are expected to keep business records, and keep crucial market knowledge, and contact details, on electronic organisers. They monitor the *Wall Street Journal* and conduct their own market research.

Problem solving

The whole activity of business creation and business plan design is based on problem solving in a real market situation. However, students also develop negotiation skills as creative ways of solving problems that continuously arrive as they set up and run their own business.

Understanding organisational forms and structures

Students are introduced to existing companies to learn about the supply chain, departmental organisation, and the legal frameworks of registration and taxation. The student is responsible for all parts of their own business from accounting to sales.

Numeracy and mathematics

Students must produce yearly statements, and keep accounts. The pupils learn about money, credit, tax and running a bank account. The students become financially literate. They also learn computation and functional numeracy.

Technical/IT skills

Not only is the curriculum accessed online, but also the students are required to use spreadsheets for their business accounts and use design software in the creation of their promotional material.³⁰

The NFTE online curriculum is a three-module curriculum designed to teach ‘the principles of entrepreneurship by providing the knowledge, techniques, and tools needed for a small business start up and financial success.’³¹ The core curriculum is matched by a business plan ‘road map’ called BizTech, which covers the essential elements of

business plan design. Specially trained teachers facilitate pupils' individual progress at differentiated rates and are trained to administer the detailed prescriptive BizTech lesson plans. Teachers are able to monitor pupil progress by accessing real time individual performance statistics.

The learning activities are provided through online training programs supported by business terminology glossaries. These accompany lectures by trained NFTE teachers and seminars with business owners or other guest speakers. Locally, the teachers organise field trips to local brokerage houses, investment firms, manufacturers, wholesalers, retailers, trade fairs, and local authority business licensing offices. The pupils are also encouraged to attend meetings with bank managers.

Of the graduates of the NFTE programme 70 per cent move into post-compulsory education, while 63 per cent of them go on to some form of employment, usually part-time enabling them to study as well as work. Participation on the programme is strongly predictive of entrepreneurial activity. Sixty-five per cent go on to run a business, while 78 per cent intend to run a business in the future. One-third of graduates generate sales on a monthly basis compared to a national figure of 1 per cent.³²

NFTE is a well-developed business education programme with a successful balance of knowledge acquisition and application within an educational setting. It shows how the content of specialist higher education courses can be re-designed to suit the needs of school age pupils. It has a strong focus on the first three stages of the enterprise process: identifying market opportunities, generating ideas and planning the business enterprise. Students learn that when operating in an uncertain environment, the business approach can provide a systematic staged process of organising work. The programme celebrates the success of its students with a business plan competition and a sales pitch competition whereby the winners from each class receive a venture capital investment ranging from £5 to £500.

The programme is designed to create real businesses that will continue after the students graduate. In this sense it is an educational and

an employment program. As a result, the programme has been very successful at motivating disadvantaged students by highlighting the direct link between their learning and making money. Whilst it is designed for creating real new businesses, it frequently fails to take the students through the final stages of managing a business, and reviewing its performance within a setting where the activity is primarily educational rather than wealth generating.

However there is a British alternative to NFTE that not only appeals to a wider range of students but also goes beyond the first three stages of the enterprise process by allowing students to implement their business plans and review the performance of the businesses at the end of the year. The businesses are not designed to create employment for the students on finishing, but instead provide them with a purely educational experience of running a business.

Business education in schools: Young Enterprise

Young Enterprise students are required to design and make their own saleable goods. This is a crucial component of the Young Enterprise scheme and provides a firm link between the school and local manufacturing industry. The Company Programme lasts for one year and is designed for fifteen to nineteen year olds. A Link Teacher connects the students with a volunteer Business Mentor who advises the students and plays the role of a company director. The students raise capital by selling shares in the company (usually to their friends, family, and teachers) and are then responsible for returning a dividend to their shareholders at the AGM should they make a profit. Pupils are provided with learning resources that enable them to generate ideas for a business proposal, create a business plan, implement the plan and manage the business activity through day-to-day problem solving. Finally the students are able to review the company's performance and report to the shareholders.³³

The role of teacher support in this learning process is one of ensuring that the students understand what they have done. It is vital that students reflect on why certain things were a success, and why others

were a failure. The teacher must ensure that the students have learned from their successes and failures in order to improve their performance in the future.

The students receive feedback from their customers, and also from an independent audience when they present their ideas at trade fairs and to judges in the Young Enterprise regional, national and international competitions. The business proposals are judged on the basis of pupil presentations and exhibitions. The Young Enterprise students are among the 20,000 pupils worldwide who are assessed in their business knowledge by a written examination accredited by the RSA and Oxford and Cambridge universities.³⁴ The pupils are asked to respond to a business case study by drawing on their own experience of setting up and running a business. The examination tests the individual's understanding of business principles, and tests their ability to transfer their own experiences from one context to another. This demonstrates not only what they have done, but also how well they understand what they have done. The emphasis remains on how the lessons they have learned can be applied to solving different problems.

This exam requires both experience and learning from experience, rather than memory-based revision of facts. According to a recent Young Enterprise survey 97 per cent of parents, 75 per cent of employers, and 66 per cent of pupils believe that the Young Enterprise programme is a valuable asset.³⁵

The company programme shows that students of all abilities, and not just those disenchanted with mainstream schooling, can benefit from a version of business education. The model of learning is based on groups of young people working together on the same project. This develops different enterprise skills to the sole-trader approach to business education, which is popular in the US. The process of setting up the business, managing it for a year, and winding it up at the final meeting with the shareholders, is the closest business education gets to using the enterprise process in its entirety.

Young Enterprise students clearly go through all six stages of the enterprise process. The first four are: identifying a market opportunity; generating ideas for products, which will meet the market demand;

producing a business plan and selling it to potential investors; and implementing the plan. Measuring the success of the enterprise with customers follows this. The final and crucial stage of the enterprise process is the review of the business's successes and failures in the report to shareholders. The Young Enterprise programme in effect compresses the life of a business into a very short time in order to provide a holistic learning experience in an educational setting.

The Young Enterprise programme does have a number of drawbacks. The voluntaristic nature of the programme's use in a school sets basic limits to its impact. Where the Company Programme is run outside of normal school lessons there is a danger that less able students will not receive enough support because the programme can be too dependent on teachers donating their own time and resources. As a result, there is a danger that it is taken up disproportionately by the most motivated and able students, to the exclusion of many others. The competitive pressure for schools to succeed in the regional and national competitions for the best Young Enterprise company could compound this.

The Company Programme is also constrained by the need to design and manufacture goods for sale, which poses a serious barrier to pupils who may not consider themselves equipped with the necessary practical or artistic skills. It would be more appropriate to the modern service sector economy if students could offer services as well as saleable goods. Furthermore, the need to make a profit is not a necessary component of running a successful enterprise.

The weaknesses of business education

The Aberdeen University entrepreneurship course and the NFTE case study exemplify the approach beginning to emerge in the specialised business education sector. They show the difficulty that many education providers still have in combining specialist knowledge about creating business enterprises with the practical application of such knowledge through direct experience in real-life business contexts. The Young Enterprise approach does focus on the practical experience

of the day-to-day running of an enterprise. It is, however, limited by the narrow focus on creating a profit-making manufacturing business.

More broadly, the model of business education provides a useful contribution for future entrepreneurs, but it is not an appropriate basis for a comprehensive system with an emphasis on the broader concept of enterprise. An inclusive enterprise learning system should seek to prepare individuals for various forms of employment and not simply seek to promote self-employment, or give people detailed knowledge about running a business.

However within business education we can identify a generic enterprise process that could be applied to work and learning elsewhere. It could be applied to any risk taking project and not just a business enterprise. This generic enterprise process can be summarised as:

- identifying opportunities
- generating ideas to meet these opportunities
- developing a plan
- implementing that plan
- measuring performance of the project
- reviewing the performance.

This last stage is crucial to learning from the successes and failures of the activity.

A system is required for developing the skills of enterprising workers, rather than a small group of potential entrepreneurs. One potential route is through the current system of vocational education, with its firm focus on work orientated learning and developing individual skills.

3. Vocational education

Vocational education is available to learners from the age of fourteen upwards. Within the mainstream school system it includes the General National Vocational Qualification (GNVQ) framework of work-related courses. This framework extends into further education where students can also participate in a range of industry-accredited courses under the National Vocational Qualification framework. The emphasis in vocational education is on technical competencies required in specific occupations. Often the courses comprise of project-based assignments, which attempt to recreate the experience of the world of work.

Only 450,000 students have received full GNVQ qualifications since they were first established seven years ago. This is a relatively small percentage of the total number of students. However the take-up of these courses is rising. In 1999 there were 189,250 active GNVQ candidates. The government has clearly signalled its intent to increase the participation on these courses by boosting their status and rigour, with more external examination enabling the advanced GNVQ to be legitimately re-designated as a vocational A-level. Soon the Part 1 and Intermediate GNVQs will be re-branded as vocational GCSEs. Overall GNVQ pass rates of 55 per cent match those of other qualifications and suggest grade parity.³⁶

Students receive less teaching time than in academic courses but more guidance from their tutors on running their own assignments.

Students studying leisure and recreation could expect an assignment to organise a major event like a concert, students in hospitality and catering could be expected to plan and host a corporate dinner, while art and design students could expect to work to a commercial brief or organise an exhibition. The GNVQ courses are based on the practical application of knowledge through a student run assignment, which like any project requires planning, organisation, implementation, and review. Tutors facilitate links between the students and local businesses operating in their vocational field, fostering an understanding of enterprise at work.

Students are given discretion to choose on average half of their units of study. Students accumulate credits from these different units over time, and are assessed by the teacher on a mixture of group and individual assignment work. There is a degree of informality in the preparation for assessment, which allows the teacher to advise that further work is required before the assessment goes ahead. This develops the notion that mistakes and failures are normal in a working environment and that they need to be corrected to achieve success.

Students are encouraged to reflect on their work, and seek ways of improving it, thus learning from past mistakes until they are confident of producing a successful piece of work ready to be scrutinised by an independent assessor. Two-thirds of the qualification is based on teacher-assessed assignments with external moderation. The remaining third is based on a written examination consisting of a mix of short answer questions, responses to pre-exam material, and case studies.

Vocational qualifications have a strong emphasis on skills, and individual learners are encouraged to take responsibility for their own learning, plan their own work, and be self-organised. Often students have to conduct their own research, present their findings, work in groups, and carry out repeated reviews and self-assessment. As one would expect, there is a heavy emphasis on the practical application of skills and knowledge in a specific vocational field drawn from a list of GNVQ subjects.

The use of the enterprise process in a context which simulates work disciplines is informative. It shows how the application of knowledge

through student assignments organised according to the enterprise process, is best undertaken in an environment of independent learning. Independent learning involves student assignments which are owned and controlled by the students, and where the students are held personally responsible for meeting agreed criteria. There is less teacher instruction than traditional academic courses but more guidance, consultation, and advice. There is less of an emphasis on the teacher as a source of all knowledge and more of an emphasis on the pupil learning from a wider variety of sources with the teacher to support them. Vocational education does provide us with examples of how the enterprise environment can be adopted in a structured institutional setting like a college or school. It also shows how the enterprise environment can be integrated into an established framework of examination and assessment.

However, vocational education fails to provide a model of education for enterprise that can be used by all students, of all ages and abilities. It is too dependent on students expressing an interest in a specific career and thus has limited appeal and relevance to many students. While vocational education has a vital role to play at Key Stage 4 and 5 and beyond, it remains ultimately limited by its dependence on knowledge and skills specific to discrete industries.

Enterprise learning, by contrast, is a model which has the potential to apply the generic enterprise process and independent learning environment, to all areas of the school curriculum.

4. Enterprise learning

Enterprise learning offers a new approach to learning in all sectors of the education system. Students learn by running their own group projects according to a generic enterprise process, which is based on a business model. Groups of learners use this process in an enterprise environment where there is a degree of uncertainty created by the learner's independence from their teacher or tutor. This model of learning is not restricted to specific areas of the curriculum or certain ability ranges. Students are not necessarily running a profit making businesses, but they are running independent enterprise projects that could include putting on a show, helping elderly neighbours, creating an anthology of student poems, or measuring and forecasting the weather.³⁷

The National Centre for Education, Work and Enterprise at Strathclyde University and The Durham Foundation for SME Development have a history of offering teacher training in enterprise learning. To understand how this model of enterprise learning might apply we will review the work of the Durham Foundation.

Durham Foundation for SME Development

Durham Foundation for SME Development (formerly Durham University Business School) produces comprehensive enterprise learning materials for schools in England and Wales. These are based on a broad

definition of enterprise as ‘a bold or difficult undertaking.’³⁸ Their definition of enterprise education is ‘groups of pupils who set up and run their own projects in a business like way as a vehicle for learning.’³⁹ Enterprise ‘cannot be taught’, it is neither ‘a subject, nor a cross-curricular theme, but a style of teaching and learning...a vehicle for delivering all curriculum subjects.’⁴⁰ Enterprise education ‘means developing the qualities needed to be an enterprising person, such as the ability to tackle problems, take initiatives, persevere, be flexible and work in teams. Secondly, and more specifically, it means taking part in small scale business and community enterprise projects designed to develop these qualities.’⁴¹

These enterprise projects need to recreate three main components of a business enterprise. The first is the essence of an owner-managed business, which is smallness, self-ownership, personal control, and autonomy. The second is the use of a holistic task structure of self-review, ideas generation, planning and implementation. The third is the creation of a learning environment, which is discovery and action orientated. To use the business enterprise model as a way of learning ‘is a vehicle for the development of the whole person; someone who knows his or her own strengths and weaknesses and who takes control of, and makes the most of his or her own life.’⁴²

Enterprise learning develops self-confidence, independence and initiative by giving the learner personal control and ownership of their work and making them accountable for the outcomes of their endeavours. This requires individuals to learn from failure and transfer knowledge across different contexts.

This is achieved through small pupil owned and controlled enterprise projects run according to ‘a project management cycle of self review; ideas development and evaluation; planning and resourcing; and implementation with feedback loops.’⁴³ This operates in an independent, experiential learning environment designed to promote the following set of enterprise skills:

- Team work is developed through experiencing working in small groups where co-operation and responsibility are necessary to meet collective aims.

- Problem solving is always an ongoing process involving trial and error and learning from previous mistakes. It requires a lot of determination as obstacles arise.
- Communication both written and verbal is developed through team work and interaction with members of outside agencies.
- Negotiating is developed through working and communicating with members of different groups.
- Planning is needed to organise the resources required and to realise the potential of the group's strengths.
- Decision making is based on past experience and learning from past mistakes after collecting all the available information to make informed and logical decisions.
- Functional literacy and functional numeracy are necessary for individuals to operate in an enterprising way in most economic and social environments.⁴⁴

Durham produces learning resources covering Key Stages 1 to 5. The Durham material seeks to teach all subject areas of the curriculum through the enterprise approach of running active learning projects. These are structured and designed according to a business model of an enterprise task structure.

Primary Enterprise sets out the stages necessary to set up and run an enterprise project, using work sheets, task sheets, and games. The projects are based around themes: manufacturing, retailing, communication and the environment. An enterprising approach to specific subjects at Key Stages 2 and 4 covers mathematics, science, technology, English, history, and geography. These materials enable subject based enterprise learning and ideas for linkages between schools and the wider community. *Enterprise- an Educational Resource for 14-19 Year Olds* provides a comprehensive introduction to running a business enterprise, a social enterprise or an environmental enterprise. *Enterprise in Vocational Education and Training* enhances both enterprise skills and competencies whilst covering set vocational objectives in hospitality and catering, business studies, hairdressing, general

studies and electronics. The material supports a whole school topic planning system, which identifies enterprise in all areas of the curriculum. This 'whole school approach avoids fragmentation, reduces staffing requirements, and avoids duplication.'⁴⁵

A Durham case study: the Muesli Project⁴⁶

This enterprise project was run using the Primary Enterprise learning resources and complementary teacher training. A year six class worked on a food project for ten weeks. The Muesli Project involved making breakfast cereals and then selling them to parents. Market research was carried out through a pupil-designed questionnaire. This followed individual research into different cereals. The pupils investigated where cereal ingredients come from and produced travel brochures for these countries of origin. The Muesli products were marketed through the pupil-designed packaging, and computer-generated logos. An advert with a musical jingle was written to promote the goods and a play was written and performed about 'Healthy Eating.' All this was done with the support and sponsorship of the Co-op, which prompted pupils to study the history of the co-operative movement in Britain. The provision of expertise and knowledge from the Co-op and other outside agencies was very important to the success of the project. Staff reported that visiting and working with these people was a key motivating factor for the pupils.

The pupils used activity worksheets from the Primary Enterprise pack to help them with their ideas development, marketing, retailing, production, and resource management. The work sheets and exercises are intended to develop attitudes and characteristics in pupils that will enable them to be enterprising in their approach to work. Throughout the project pupils used the evaluation material from Durham to undergo self-review.

Durham has been able to produce developed learning resources that provide the educational principles behind this model of enterprise learning. Much research has focused on the pedagogy, and the specific pupil activity that constitutes enterprise learning.

The enterprise learning model can be broken down into the enterprise process, the enterprise skills and the enterprise environment; these are defined in more detail in the next chapter. Elements of the process, skills and environment can be seen to varying extents in each of the case studies. What distinguishes the approach developed in Durham is the versatility with which it can be applied to any curriculum subject, for any age group of learners.

5. The components of enterprise learning

Enterprise learning is concerned primarily with *how* you learn rather than *what* you learn. Its purpose is to develop in each learner a set of generic, transferable enterprise skills that enable him or her to thrive in an uncertain world of work. Enterprise learning promotes a set of enterprise skills through setting up and running an independent enterprise project according to an enterprise process. This takes place in an enterprise environment of independent learning where work is owned and controlled by the learner.

The illustration of enterprise learning from Durham University combines all the elements of this model. However, the first three stages of the enterprise process can be seen in the NFTE programme and in the entrepreneurship course at Aberdeen. The whole generic enterprise process can be seen clearly in the Young Enterprise programme. The enterprise environment as characterised by independent learning, can be seen most clearly in the description of vocational courses at Key Stage 4. From these examples it is possible to provide a generic description of enterprise learning, which can be applied across a range of subjects, ages and abilities.

The enterprise environment: independent learning

If individuals are to take advantage of the opportunities open to them, when traditional systems of support, security, and stability, are absent,

it is necessary for them to take personal responsibility for their own actions. In order to take full responsibility for their actions at work, individuals must feel that they own their work. Providing an individual with ownership over their work requires a substantial level of choice and decision-making autonomy. This will only be meaningful if it exposes them to a degree of personal risk. They must remain highly responsive to demands placed upon them and especially to those objective criteria set by an independent audience. For example, a GCSE English class studying Shakespeare may be given an assignment to produce part of Macbeth on stage. The pupils divide themselves into groups, with the teacher's approval, and select which scenes each group will perform. They then decide who will act, direct, produce, and provide the technical support for each scene. They may organise their own auditions and rehearsals. They are however given a date for performance to an audience comprising their peers and pupils from a local primary school. While the teacher has set the students a task they have been given considerable choice in how they organise themselves. They remain independent of teacher instructions but are well aware of the responsibility placed on them to meet the deadline and the expectations of their audience.

The enterprise process: setting up an enterprise

In the enterprise environment, explicit rules and structure are few and often poorly defined by comparison with traditional education environments. Many rules exist tacitly that need to be discovered mainly through trial and error. The enterprise process helps students to organise their work in this uncertain environment since it requires them to implement their own responses and review their own effectiveness. The stages are:

- identifying a need or a want
- generating ideas about how to meet this need
- project planning and organising the use of resources
- implementing the plan

- gathering information about the success of the project
- reflecting on the lessons which can be learned.

This process is a generic task structure suitable for any project management system and elements of it can be found in all the examples of enterprise education considered here.

The way in which the enterprise process is applied should change as learners develop. The younger the learner, the more responsibility the teacher must take for the inception and ideas and planning of the project. As older learners become more independent they should increasingly be expected to present the teacher with an idea for a project and proposed project plan.

The enterprise skills: creating enterprising people

Working in this uncertain environment and using the enterprise task structure develops a set of enterprise skills. These equip the individual with the means of grasping the opportunities available in an enterprise economy. The enterprise skills include *interpersonal skills*: communicating, negotiating, and working with others; *decision making skills*: information handling, thinking hypothetically, and problem resolution based on previous experience; *organisational skills*: working to deadlines, and planning the use of resources in advance; *personal responsibility skills*: an understanding of those who rely upon you, and those upon whom you rely; *creativity skills*: learning how to apply knowledge in new and original ways; and *evaluative skills*: the ability to learn from failures through self- and peer-review.

What are the practical policy recommendations that this generic model of enterprise learning suggests?

6. Policy recommendations

In all forms of education a greater emphasis should be given to group based enterprise projects that follow a basic generic enterprise process. Crucially these projects are characterised by student ownership and control. Students must be held personally responsible for meeting independently fixed criteria.

All students from five to sixteen should be required to run enterprise projects during their compulsory schooling, irrespective of their ability, or which academic disciplines they are pursuing. This mode of learning should be available to students in all sectors of the school system.

For younger learners experience has shown that these enterprise projects should be cross-curricular and that most areas of the school curriculum can be delivered, at least partly, in this way. However, for older students at Key Stages 3 and 4, a specialised curriculum with specialist teaching would require each subject area to generate its own enterprise project. It would be impossible to introduce this requirement into an environment already over-burdened with the demands of the national curriculum. For this reason, the requirements of the national curriculum should be reduced to allow time in the school timetable for the setting up and running of these enterprise projects. Teachers should feel sufficiently confident and encouraged by senior managers and inspectors to extend the scope of these projects to cover a majority of work in the school timetable.

The importance of teacher training is clear; the profession needs to be equipped with the knowledge and skills necessary for this change in the way the curriculum is to be taught. Heavy investment in the research upon which teacher training for enterprise learning is based should be included in the cost of this proposal, and a rigorous assessment of the effectiveness of commercial sources of training and learning resources should be undertaken.

Enterprise learning could also create another role within the education profession. Enterprise brokers in schools would be required to foster links between the school and local businesses and community partners in support of enterprise projects with a direct commercial or community focus. They would be able to co-ordinate the disparate projects within a school, and manage a system of whole school planning to avoid duplication for teachers and repetition for students. Enterprise brokers would also take responsibility for the delivery of citizenship education in the new national curriculum. Half of the teaching time spent on citizenship should be based on enterprise projects focused on business, social, or environmental outputs. Non-profit making alternatives to a business enterprise could include providing free services to the local community, or improving the quality of the local environment in an enterprising way. Rather than being taught about the importance of the environment, or the processes of Parliament it would be more enterprising to clean up the local environment or set up a pupils' Parliament in school.

Although enterprise learning has implications for the whole curriculum, business and vocational education will continue to grow because of the increased importance of work-orientated qualifications and the role of business creation in the new enterprise culture. For pupils who are interested in business entrepreneurship at Key Stages 4 and 5 there should be the opportunity to take a business education option within the GCSE or A-level framework. This would require their school or college to organise access to facilities and teaching on or off site. The same principle applies to access to vocational courses in general, such is the value of their mode of teaching and learning to the new enterprise culture. All pupils should have the opportunity of

studying vocational courses at Key Stages 4 and 5. This would require a great many secondary schools to expand their curriculum to include vocational courses. However off site learning would have to be actively supported and encouraged through flexible timetabling and transport bursaries. Once all institutions are able to offer some vocational courses to all their students at Key Stages 4 and 5 then the government should consider requiring every student to include in their subject choice a vocational qualification.

The Key Skills, a crucial part of the national curriculum should be redefined as Enterprise Skills and be given equal importance in all subject areas of the curriculum: academic and vocational. As such there would need to be a better assessment framework for Enterprise Skills that could be used universally in all public, and national examinations. This would require a variable yet significant proportion of each public examination to be based on an assessed enterprise project, ensuring that enterprise skills were given sufficient importance by teachers and pupils alike. These enterprise assignments should be assessed in three ways, firstly by internal teacher based assessment, which would of course be subject to external moderation. Secondly by externally examined written project plans and final project reports. And thirdly by a written examination requiring students to respond to an unseen case study. They would be required to demonstrate how they would apply what they have learned from their own enterprise experiences. The remaining examination could still be based on standardised written tests. These should be offered to candidates on a modular basis allowing students the opportunity to learn from short-term failures to enable long-term success.

In the higher education sector there should be a particular emphasis on the flexible use of elective enterprise modules available to students as part of any degree course no matter what the specialist discipline. The provision of courses in business or entrepreneurship at University or business school should continue to expand in line with demand. Further education should continue to expand the participation in vocational courses through offering students a mix of academic and vocational options. This could be achieved by schools and colleges

working in partnership, offering each other's students access to specialist teaching and resources.

The new flexible economy will require that all students, irrespective of background or ability, have the skills and experience to be able to make their own success. Each part of our education system must respond to these new demands and apprentice all young people into the enterprise culture through a new way of learning and working.

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