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Education For Work in the Primary Curriculum: Relevance and Realism for Teachers and Student Teachers

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Abstract

Preparing young people to be responsible, economically functional contributors to their communities and societies is one aspect of the task for teachers within the remit of work-related education. It is not easy to predict what work life and economic activity will be like for our young people in primary education at the present time and, in the current global economic upheaval, horizon scanning is even more fraught with difficulty. We can at least agree on some practical skills that they will need and on levels of flexibility and problem solving ability that will be necessary to support them in making informed life choices in their later-, and post-, school lives.

Many countries are developing enterprise or entrepreneurship education and extending practice into primary schools. The broader base of these aspects is more applicable in the primary school than the more subject-specific and often training-based vocational education. A cross-curricular approach is often adopted in primary schools particularly where there is already curricular emphasis on a general education. This requires that teachers and student teachers learn how to devise cross-curricular themes and learning objectives in order to provide relevant contexts for learning.

The downside of this approach can be that teachers may not have acquired sufficient knowledge and critical awareness of relevant subjects. Economic literacy, financial capability, political and social awareness and a highly developed sense of values, would be invaluable attributes. Not every generally trained primary teacher however has sufficient expertise in all of these areas.

This paper argues that teachers and teacher educators will need to approach the curriculum for the twenty-first century by both *separating* (acquiring individual subject knowledge) and *integrating* (developing cross-curricular pedagogies) aspects of education for work within the broader curriculum.

Keywords: education for work, teacher education, primary curriculum

Introduction – work-related purposes of education

Among the range of purposes of school education there are two in particular that are closely linked and that relate predominantly to education's connection with the world of work. There is the student centred imperative to prepare young people to be able to make informed choices about engaging with careers, career development and their prospects of making themselves economically self-sufficient in their post-school lives. At the same time governments depend on education to provide sufficient numbers of economically viable and socially adaptable workers in order to ensure sustainable and competitive advancement in world markets (Wolf, 2005; Winch, 2000). Subject specific and vocationally based work-related education can be located in secondary education, particularly in the later stages when some career related choices may have been made and some level of subject specialism has taken place. In primary education and early years of secondary education different arrangements are more appropriate. Young people need an early start to developing their knowledge of, and dispositions towards, establishing their role as participative citizens in their local, national and, indeed, global communities. Recognising this, many countries have made provision for work-related education in their primary school curricula and practice can include enterprise education, entrepreneurship education, economic and financial literacy, education/business links and general awareness raising of aspects of career and work-life skills.

Work-related aspects of primary curricula

Jobs focus

In the primary classroom there is excellent scope for introducing knowledge and awareness of those occupations that will be recognisable and make sense to young children. For example, for younger children topics such as 'People Who Help Us' allow investigation of a range of adult work roles from school related service jobs such as school cafeteria worker and lollipop person, through related services such as police, fire service and medical personnel, to wider roles in the community that the youngest of children will come across in, for example, shops or home services. These can be explored at the earliest stages. Throughout primary education, work-related connections can be made to provide realistic contexts for learning in many areas of the curriculum. Mathematics learning in particular can benefit from the contextualising of topics in relation to work specific activities e.g. the building trade, architecture and banking. Education business links can be established with benefits to be had from gaining real experience from visits between school and work places and local businesses are often involved in such projects providing further awareness of adult occupations. There are resources available for supporting teachers in setting up small-scale business or other cooperative and challenging undertakings that require pupils to explore and take on roles from business. These activities are often grouped under the heading of enterprise education.

Enterprise and entrepreneurship

Enterprise education in the UK has an interesting background, arising as it does from a business interpretation that was repositioned to suit the purposes of the Conservative Government of the nineteen-eighties and early nineteen-nineties. Norman Fairclough

claimed that the terms 'enterprise' and 'enterprise culture' were "semantically engineered" at the time (Fairclough, 1991). Enterprise discourse may have originated in political speeches directed at business, but it was quickly taken up by the media, by education sectors and by training agencies for other service sectors (Fagan, 2006). In many instances the word was used to imply entrepreneurship with qualities highlighted such as 'innovator', 'promoter', 'risk taker', 'desire to create', 'willingness to take responsibility', so that the emphasis placed on enterprise is the business sense. In later speeches the interpretation was more overtly related to enterprise as a personal quality. This was subtly insinuated rather than stated in the speeches, thus building an understanding that widened the openings for use of the word enterprise in a variety of contexts. The word retained but developed its business connection and meanwhile was given enhanced acceptability by emphasising its reference to general personal qualities. This was very useful in a political sense for a government that was intent on promoting a free market economy.

The pursuit of enterprise, particularly in education, has often been conflated with attempts to encourage more entrepreneurial aspirations in young people's considerations of their future work roles and indeed to boost the number of entrepreneurs supporting a nation's economy. The encouragement of entrepreneurial activity and dispositions is a central aim of neoliberalism as David Hursh (2007: 115) observes with "neoliberalism perceives of and promotes the individual as an autonomous entrepreneur responsible for his or her self, progress and position." In school education there are good reasons for building entrepreneurship related education into the curriculum. One is that political changes to the way in which society operates demand different responses from school education in preparing young people for their economic roles and another is that we cannot afford to be left behind, or allow our school students to be unprepared, in the highly competitive business markets that now exist. Schools would be failing their pupils if they did not acknowledge these shifting conditions and did not try to provide support. If this is accepted by policy makers and teachers, the next question is how best to address entrepreneurship in the curriculum. In the primary and early secondary stages, there are programmes available to Scottish teachers and pupils, but these are mostly of the project or topic variety that can be slotted into existing curricula. At these earlier stages of education, however, it can be invaluable to embed the development of entrepreneurial behaviours, attributes and skills into the wider curriculum. Allan Gibb (1993) has commented on this approach:

The challenge is to allow young people to experience and feel the concept rather than just learn about it in the conventional sense. (This) leads to emphasis on a pedagogy that encourages learning: by doing; by exchange; by copying; (and learning from the experience); by experimentation; by risk taking and 'positive' mistake making; by creative problem solving; by feedback through social interaction; by dramatisation and role playing; by close exposure to role models; and, in particular, interaction with the outside/adult world. (Gibb, 1993)

Using these methods would indicate that teachers were themselves being creative and enterprising in devising learning contexts for pupils. It could be put into the wider category of enterprise education with less focus on the growing of business and entrepreneurial aspects. This is the way in which a motivational and creatively thinking teacher would organise learning experiences for pupils in any area of the curriculum, in any case, although often this kind of teaching has been stifled by the demands of accountability and performativity. An enterprising teacher will be able to take the risk of handing more control to pupils in order to give them more ownership of their own learning. But some would argue for more focussed entrepreneurial teaching at the earlier stages. The UK government has backed calls for more

entrepreneurial learning in schools and Black et al (2003) view this as "essential for economic growth on a national level" and that it would involve "developing pupils' 'world view' to promote entrepreneurship as a viable career option". This would require that school pupils should be able to consider enterprise and entrepreneurship as integral to their perspective on how the world operates so that it would be realistic for them to consider themselves as participants. There would need to be:

. . . a shift in understanding from enterprise skills and capabilities conceived of as generic, to their being conceived of as task, process and context specific. The value of this shift in understanding brings a new focus to enterprise education. (Black et al, 2003:5)

Looking at the factors that define entrepreneurship and support the development of attitudes and dispositions, which would encourage individuals to be entrepreneurial, Binks and Vale (1990) comment on educational factors, which should first be in place. For entrepreneurship leading to practical developments that have real influence on economic conditions, the suggested requirements for individuals are 'problem solving, ingenuity and motivation'. The education system is cited as the "immediate mechanism through which the twin aspects of creativity and problem solving can be approached." (Binks & Vale, 1990:131). Moves away from didactic teaching to more active and flexible learning experiences are important for this. Binks and Vale also suggest that there is a need for teachers to be well informed themselves in order to be able to devise appropriate contexts for learning.

. . . . it is unlikely that teaching staff with limited horizons and an unawareness or hostility to a broader commercial and industrial world will create an atmosphere conducive to the development of creativity . . . (Binks & Vale, 1990: 131)

Allan Gibb (1993) has suggested that teachers and policy makers need to "define the 'entrepreneurship' concept in an educational context", be clear about the rationale for its inclusion in education and consider its organisational, and teachers' competence, implications. Schools should provide opportunities for the development of entrepreneurial behaviours, attributes and skills for everyone because there is now an expectation that all activities will be carried out in an innovative and creative manner. Pupils will have different requirements from entrepreneurship education depending on their personal career aspirations but every type of work can be approached in, and benefit from, an enterprising manner. Since successful entrepreneurs take risks and learn from the consequences of their undertakings, entrepreneurship education in the classroom should incorporate learning contexts that provide useful experiences for young people. In Scottish Education, enterprise and entrepreneurship education are currently being supported by a policy document entitled *Determined to Succeed: A Review of Enterprise in Education* (SEED, 2002). The combined work of Scottish policy makers and successful Scottish entrepreneurs, who have contributed financial resources to implementing its recommendations, this document seeks to encourage the enterprising and entrepreneurial aspirations in all young people.

Economic and Financial Literacy

Building enterprise and entrepreneurship education into primary school curricula would be rather groundless without awareness of economic and financial principles that underpin

notions of the world of work. Thus, young people require to be supported in developing understanding of a range of issues that they will encounter both personally and socially.

It is vital that individuals are empowered to cope with the everyday economics of earning, consuming, borrowing and saving in a world that is increasingly economically complex. The ordinary citizen in Europe today needs to understand about interest rates, loans, credit and debit cards, share-holding, pension schemes, public and private funding arrangements, and so on. Those who fail to understand are disempowered, and may find themselves financially disadvantaged. (Hutchings et al, 2002:1)

Sufficient and appropriate economics education is necessary to ensure economic socialisation. This refers to the level of understanding and development required to operate in the economic world. In primary education, many facets of economic and financial awareness can be embedded in the wider curriculum. If teachers in primary schools wish to teach economic literacy and raise economic awareness among their pupils, provided they possess such literacy and awareness themselves, they can address the concepts through many aspects of the curriculum. Aspects of money and its use can be found in the mathematics curriculum. Dealing with personal finance can be seen in both mathematics and personal and social education programmes. Management of resources, dealing with scarcity and recycling for sustainability can be located within environmental education. General aspects of business economics can be introduced into projects within enterprise education, as can a wide range of practical and personal economic issues relating to a work environment. Economic roles and responsibilities in the community can be addressed through citizenship education. An interesting study has been made by Michael Watts (2003) that explores a range of literature that provides examples of economic concepts in a variety of contexts. It is shown that, through the study of literature, and with the help of teachers who can make the relevant connections for pupils, the impact of economic factors can be powerfully illustrated. When these aspects can be identified within broader curricular areas it means therefore that they are being embedded in wider contexts and they are often addressed through guidelines rather than detailed prescription.

It is a cross-curricular and embedded approach to economics teaching that is currently being favoured in the school curriculum in Scotland. One of the aims of the new curriculum that is currently being developed in Scotland, for three to eighteen year olds, is to consider learning outcomes across curricular areas in order to ease the rigid subject demarcations currently present (SEED, 2002). The broad aims of this curriculum are to support young people in becoming successful learners, confident individuals, responsible citizens and effective contributors. This will require the expertise of teachers who can deal with such broad aims across curricular areas regardless of their subject specialism and will make all teachers responsible for embedding cross-curricular themes.

Global contexts for primary curricula

Providing learning experiences in the primary classroom that support the work-related purposes of the curriculum requires relevant background knowledge of teachers. It is crucial that what is taught has contemporary relevance for learners. Contexts devised must be realistic and reflect or exemplify work in its current forms. It would therefore be important that teachers have knowledge of how work is changing and the social, cultural, political and economic factors that shape the nature of work. Phenomena such as globalisation, the

emergence of the knowledge economy and more recently the global financial crisis are all contributing to reconfigurations in the kinds of work that is needed and in working patterns and work lives.

Globalisation

There has been increasing use of the term globalisation in recent years. Globalisation is a contested concept that relates to phenomena of interconnectedness in dealings across the globe of which knowledge work is a predominant feature. It relates to a rise in the interdependence of governments, corporations and people, spurred by the spread of the free market economic system across the globe. Advances in new technology have brought about large-scale changes in communications and transport that have in turn made economic systems more globally connected. The acquisition of global knowledge capital and participation in both manufacturing and knowledge economies are heralding major shifts in the nature of work in these early years of the twenty-first century. Information technology is a key component of globalisation providing instantaneous access among associates across the world. Held et al (1999:94) refer to this as 'distance-shrinking' technology. This is mostly regarded as progress but there are serious concerns about the ways in which technology can carry out tasks that previously were the components of many different kinds of jobs, raising doubts about the future of work and leading frustrated individuals to antisocial behaviour and disaffection from both work and education. (Rifkin, 1996:121)

The term neoliberalism is often referred to in connection with globalisation but, although the terms are used interchangeably at times, there are different origins and developmental paths for each. Neoliberalism relates particularly to economic aspects of globalisation, is connected to freedom of commerce and has political origins that have allowed it to become the dominant discourse of economics in western nations (Olssen & Peters, 2005: 314).

“Since the late 1970s the political economy of global capitalism has radically altered conditions of life.” (Aronowitz, 2004: x). The shifting of business to far-flung parts of the globe has removed many of the steady, well-paid jobs in low, intermediate, and even some high-skill technology industries away from the traditional industrially developed countries. The hopes that these jobs could be replaced by service industry requirements and IT based jobs, as predicted by writers on ‘the end of work thesis’ such as Rifkin (1995) and Gorz (1999), have been on the whole misplaced. There are few good working-class jobs left for young people who have increasingly been encouraged to gain some credentials but not been able to use them to gain positions or advancement against mounting competition. Changes have taken place in the constitution of capitalism in a global economic environment from an economy of ‘productive labour’ to a new era where the economy is driven by the circulation of capital through the fluctuations of global markets.

. . . global repositionings also have implications for the ways that scholars theorise about the relationship between school, work, class and capital, and how we make sense of youth’s school and work identities. (Dolby & Dimitriadis, 2004: 8)

There is evidence of contemporary societies showing greater “fragmentation, pluralism and individualism” (Kumar, 1995: 121), brought about by changes in the ways in which work is organised and technology harnessed. Political, cultural and economic life is now strongly affected by changes in global flows of influence.

Ideas about, and comments on, globalisation and neoliberalism and how they are affecting education, indicate something of the extent of the changes and redirections with which educators and education policy makers now have to contend. The work-related purposes of education in this context become at the same time more specific for individual efficiency and more universal for global effectiveness. Global interconnectedness and market driven imperatives are clearly making new and different demands on work and on education such that education for work and general education both require that young people become aware of the nature of the social, political and economic contexts within which they will be required to function. This in turn has implications for educators and education policy makers and for their understanding of contexts and implications for their teaching.

Knowledge Economy

In our post-industrial, global society and economy, the all-pervasiveness of knowledge as a prized commodity has to be acknowledged. It is important in every aspect of our economic and social lives. If almost every occupation either produces knowledge or depends on the reproduction of knowledge, then clearly education must be prepared and at the forefront of development of the skills required to access and apply appropriate knowledge. Teachers possess subject knowledge and pedagogical knowledge and would find it useful in their work-related practice to have general awareness of the contemporary significance of knowledge and the knowledge economy.

The nature of work has changed so that there is now an emphasis on information technology and microelectronics manufacturing and a shift from labour intensive to knowledge intensive industries. Manufacturing work has been reduced to much lesser proportions in most western style economies. Economics in industrial society recognised two main factors of production namely labour and capital, but growth in technology has made knowledge an agent in economic systems so that it now joins labour and capital as a third factor and has arguably become the most important. In identifying 'theoretical knowledge' as a dimension of post-industrial society, Daniel Bell (1974) predicted the onset of the importance of knowledge as a commodity in itself. Leadbeater (1999: 36) describes knowledge as the critical factor for economies to compete and to generate wealth and wellbeing. He also remarks that what knowledge workers do is situated in 'thin air' so that "Most of us make our money from thin air: we produce nothing that can be weighed, touched or easily measured" (ibid: vii). Applications of technology have taken over most of the factory type tasks that were once carried out by massed industrial workers and what still needs to be produced manually has in many cases been relocated to countries where labour and resources are less expensive. The sorts of work activities that have been replaced by automation are wide ranging and even jobs that were historically extremely labour intensive such as agriculture have been transformed by machinery that removes the need for human intervention from the site of the action (Rifkin, 1995:109; Drucker, 1969:15). In contrast to the shrinking necessity for jobs that require hands-on labour and minimal skill there is a strong growth in the need for workers with the ability to generate ideas and apply a range of skills that are more sophisticated and cerebral rather than manual.

Nations are investigating ways of increasing and supporting the development of knowledge based innovation as matters of priority and education is being looked to as a means of increasing knowledge capital and thereby the competitive advantage of business.

. . . the shift to a knowledge economy involves a fundamental rethinking of the

traditional relationships between education, learning and work, focussing on the need for a new coalition between education and industry (Peters and Humes, 2003:5)

Peters and Humes (2003), in their editorial in the first edition of the Journal *Policy Futures in Education* consider that the new challenges for education arise from the shifting emphases on knowledge as an economic commodity.

. . . education is reconfigured as a massively undervalued form of knowledge capital that will determine the future of work, the organisation of knowledge institutions and the shape of society for years to come. (Peters and Humes, 2003:5)

The implications for teachers' knowledge are immense. It would not be possible to provide relevant or realistic contexts for learning without personal knowledge of the demands of these new ways of working.

Research and education are the 'twin-engines' of knowledge and school education is integral to nations in the race to build up successful knowledge economies that have the hallmarks of dynamic innovation, creativity and international competitiveness (Skilbeck, 2006:90). But what can schools do to participate in these changes? Many aspects of contemporary education have their roots in nineteenth century practices and ideologies, but according to Valerie Bayliss (2001:15), these will be swept aside by the requirements of the knowledge economy. There is a variety of consequences for schools arising out of the transition to the knowledge economy which will make demands on the curriculum over and above the need for literacy and numeracy as core skills. Michael Peters lists new forms of knowledge as follows:

- meta-cognitive abilities and skills - thinking about how to think and learning how to learn
- the ability to integrate formal and informal learning, declarative knowledge (or knowing *that*) and procedural knowledge (*know-how*)
- the ability to access, select and evaluate knowledge in an information soaked world
- the ability to develop and apply several forms of intelligence as suggested by Howard Gardiner and others
- the ability to work and learn effectively in teams
- the ability to create, transpose and transfer knowledge
- the ability to cope with ambiguous situations, unpredictable problems and unforeseeable circumstances
- the ability to cope with multiple careers - learning how to 're-design' oneself, locate oneself in a job market, choose and fashion the relevant education and training (Peters, 2000:3)

It is becoming necessary to alter the approaches of educational systems to ensure that there will be a wide base of knowledge workers who can understand and operate within the spectrum of abilities listed above. Indeed if nations fail to rise to the economic and

educational challenges of the knowledge economy and to make adjustments in their education systems, the resulting problems of social exclusion for those not adequately prepared will present a drain on their economies.

Financial crises

Knowledge work and related financial services work have suffered a crisis in recent times that is having an impact on the economic and financial realities of everyone's lives. As always, there is an onus on teachers to help young people to cope with resulting changes. Since much of the current financial crisis has arisen through economic risk taking on a massive scale built on a generation of individualism and, as we now know, imprudent financial speculation, there is a job to be done by teachers in investigating the moral implications of these practices. The speculators and banking executives responsible for taking the global economy to the brink of meltdown certainly possessed plenty of subject knowledge of economics and financial markets but their value systems did not help them to consider consequences beyond the individual acquisition of wealth and power. It is through education that we must hope to instil the moral sense in young people to make value judgements about their work-related aspirations that will help them to be self-reliant and successful members of society but who also consider the impact of their choices and actions upon the common good.

Implications of separation and integration in curriculum design

The work-related purposes of the curriculum, specified within enterprise education, but in effect present in all curricular areas, will need to be addressed by every teacher. There is a danger that we assume that aspects of the curriculum are embedded without being sure that teachers have the necessary background and awareness to be able to devise contexts for learning that do actually give sufficient emphasis to the required outcomes. Embedded aspects such as enterprise education, entrepreneurship education and education for work can be expected to be better understood, and more creatively managed, by teachers who have some background of knowledge and understanding of the subject of economics (Fagan, 2006). Teachers' levels of economic awareness should be sufficient to sustain their pupils' economic socialisation. Roland-Levy (2002) refers to this level of awareness as "naïve economics", the economics of non-specialists". This should be a minimum requirement.

A study carried out with students in their last months of initial teacher education programmes exposes a significant lack of awareness of economic contexts and dearth of economic literacy among the student teachers questioned (Fagan, 2007). There is a clear need for the inclusion of economic awareness in all teacher education programmes, perhaps most usefully related to enterprise education courses along with discussion of the importance of emphasising the economic purposes of general education (Winch, 2000). This could make a difference for those teachers who are yet to qualify but something also needs to be done to support serving teachers. CPD opportunities could be provided as part of the current broadening of access to such development for all teachers in Scotland. It would make good sense to include economic literacy in the programmes being devised to support the delivery of the current enterprise education initiative of *Determined to Succeed* (SEED, 2002). Serious consideration of the breadth of economic knowledge and skills necessary to set realistic contexts for learning in cross-curricular or embedded approaches is necessary.

Teachers and student teachers require the support of the teacher education institutions in acquiring this background and exercising the professional judgement required to apply it effectively in support of economic literacy.

Unless enterprise, entrepreneurship, economics and financial literacy are pursued as discrete curricular subjects in primary curricula, students will be presented with a range of topics and broad themes that contain the elements that teachers are able to provide. The extent to which these economics aspects are given emphasis depends entirely on the background of knowledge and understanding of the teachers devising the contexts for learning. This in turn depends on teachers having had access to and awareness of economics concepts and workplace realities in their own studies or general background of experience. This approach could be satisfactory if it were not for concerns about the general lack of such knowledge in teachers who have not had the opportunity to study economics or to develop sufficient work awareness for themselves. Relevance and realism are important but teachers need to be well placed to deliver them. In practice they have to separate and integrate at the same time. Subject knowledge is crucial, in sufficient breadth and depth, even for generalist practitioners in the primary school. Insufficient subject knowledge will deprive work related education of realism. Insufficient awareness of factors that affect working conditions and the changing nature of work will hamper attempts at relevance for learners. Cross-curricular work and embedding of key themes are popular policy approaches for primary curricula in many countries. This approach makes good sense as learning can benefit from interconnectedness and holistic approaches. Again, however, teachers require sound subject knowledge across a range of areas in order to devise realistic and relevant learning strategies. Their level of pedagogical knowledge is also crucial for cross-curricular learning, as it requires skill to ensure that sufficient subject learning can arise from the broad themes in use. Thus the separation of specific subject knowledge is required in order to allow for integration of joined up learning of linked knowledge and skills.

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