Quality in Higher Education

Revisiting Key Skills: A Practical Framework for Higher Education

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ABSTRACT *This paper proposes a practical framework for key skills that can be used or adapted for use in any discipline at university level. The paper begins by reviewing the arguments for and against integrating key skills into higher education. Although the skills agenda has been widely criticised on several fronts, this paper argues that key skills need not threaten the notion of a liberal education. Rather, it argues that revisiting the issue of key skills in university curricula can enhance content learning by promoting experiential and active learning innovations. Finally, it examines some of the issues relating to implementation of such a framework.*

> "In this life, we want nothing but Facts, sir; nothing but Facts!" The speaker, and the schoolmaster, and the third grown person present, all backed a little, and swept with their eyes the inclined plane of little vessels then and there arranged in order, ready to have imperial gallons of facts poured into them until they were full to the brim.
>
> *Hard Times*, Charles Dickens, 1854

Hard Times opens in a classroom, a nightmare vision that serves as a microcosm of the wider cruelties of the age. In the book, Thomas Gradgrind's vision of education was as a factory. For him, the sole purpose of schooling was to manufacture future workers, with no imagination or aspirations beyond the drudgery of the industrial workplaces for which they were destined. The proponents of the so-called skills agenda are sometimes characterised as harbouring a similar nightmare vision of what higher education is, and what it is for. If we were to replace the word 'facts' with the word 'skills' in the passage above, then it echoes the debate around the efforts to make graduates more employable, or at least the attempt to equip them with the skills employers say they want.

This paper reviews the arguments of those who express concerns with the employability or skills agenda and will question the claims made by those opposed to this agenda. It will argue that while many of the criticisms of the skills agenda have some validity, the world in which graduates are expected to compete for jobs and then function as entry-level staff does

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not allow them the luxury of such a debate. Graduates must be able to demonstrate that they possess skills that employers value. More specifically, graduates need to be able to identify where in their undergraduate studies they learned those skills. This paper thus surveys the key skills literature and proposes a framework for key skills that can be used or adapted to any higher education context, and which moves incrementally between entry to university level and a notion of graduateness.

The context of key skills in higher education

The first issue that arises relates to the nomenclature: the terms core skills, generic skills, personal skills and employability skills are often used interchangeably, along with capabilities and competencies. However, although the employability and skills agendas are often equated, they are not necessarily identical. The skills agenda might be seen as part of the employability agenda but it might also be seen within the agenda of widening access to higher education, in helping students to develop the skills needed to be successful with their courses. These various terms are used in higher education in Britain and around the world (Holmes, 2001). This focus on skills has been especially pronounced in the British context since the publication in 1997 of The Report of the National Committee of Inquiry into Higher Education, chaired by Sir Ron Dearing, which proposed an agenda for the development of British higher education for the forthcoming 20 years (NCIHE, 1997). Henceforth, this paper will follow Dearing's use of the term 'key skills', although the scope of the discussion will include embracing the academic and employability uses of such skills.

Over the past 20 years or so, in the British context in particular, there has been a focus on the development of generic skills for graduates. This has been prompted in part by calls from employers, who look to higher education as a major provider of highly able and skilled people and who say that higher education needs to become more relevant to business needs (CBI, 2003). Another driver for the development of a more skilled graduate workforce has been successive governments who seek to produce graduates prepared for the world of work they will enter. Proponents of the skills agenda in industry and government argue that changes are needed in the focus of university learning and teaching to prepare graduates for employment and for lifelong learning in the face of fast-moving changes in knowledge. This position is taken by its proponents as a matter of common sense. Indeed, many universities have had key skills frameworks now for many years. On the other side of the argument, however, there is a body of literature critical of the skills agenda.

The arguments against key skills

Some commentators argue that the pressure for effective delivery of key skills in higher education seems as yet to have had little impact, partly because of academics' scepticism, and in part because the skills demanded lack clarity, consistency and a recognisable theoretical base (Bennett *et al.*, 1999). Some higher educational institutions are unable or unwilling to tailor their programmes to the specific demands of the workplace, while others go to great lengths to interweave their courses with time spent in real or simulated work environments, particularly in courses that are on the vocational end of the spectrum, such as those that carry a professional as well as an academic qualification (Candy & Crebert, 1991). One problem with trying to equip graduates with the skills they will need in the workplace is that even graduates in the same field may find themselves working in very different

settings: a law graduate for example may end up working in a large city law firm, in a country practice, the civil service, in academia and so on. Each of these different jobs carries varied opportunities for continuing professional development and training (Candy & Crebert, 1991). An associated point relates to whether such skills are in fact transferable or whether they are context specific. It cannot necessarily be assumed that transfer of a skill from one context to another will automatically take place, although transfer is essential if key skills development is to be worthwhile.

More fundamentally, the notion of teaching employability skills during a degree meets with reluctance from some academics who resist the idea of such direct usefulness of an undergraduate education and who do not believe it is a part of their role to provide skills for employment (Bennett *et al.*, 1999). Others imagine there to be a broad antithesis between skills on the one hand and knowledge and understanding on the other. In this critique, skills are associated with a training model and with an instrumental value. This is unfavourably compared to 'real' education, and the intrinsic value of a liberal education (Bridges, 1993). Some academics have expressed fears that this increasing emphasis on employability threatens other developmental outcomes, which can be characterised as passion, wisdom, enjoyment and self-actualisation (Knight, 2001).

A perhaps more powerful critique of the skills agenda is put forward by Morley (2001) who argues that 'employability is a decontextualised signifier in so far as it overlooks how social structures such as gender, race, social class and disability interact with labour market opportunities' (p. 132). For her, employability discourses tend to confirm rather than challenge patterns of disadvantage. Even with the necessary entry qualifications, people from the lower three of the five socio-economic groups are only 70% as likely to enter university as people from the top two social groups. So the (élite) universities are already selecting the most employable young people and thus employability indicators are misleading. Similarly, male graduates are more likely to enter professional and managerial occupations, and female graduates more likely to be in secretarial or clerical occupations. There is also evidence that major employers shortlist students (increasingly online) on the basis of prior educational achievement or degree classification rather than employability skills, and that as a result students from high status universities may do better in finding employment.

Arguably, the problems that many academics seem to have with the notion of promoting the acquisition of skills or employability may be partly cultural. There is a particularly (Western) European squeamishness about preparing graduates for the world of 'trade', while in Central/Eastern Europe, 'work-force training' is negatively associated with communism (Sadlak, 1995). This disdain for industry is evident in much of British academia. In other countries, the US in particular, there seems less reluctance to explicitly acknowledge that very few undergraduates desire the life and career choices of an academic. Put bluntly, the vast majority of students around the world go to university with the prime, perhaps even sole, aim of enhancing their career prospects. In Canada, (Wright, 2001), and Australia (Candy & Crebert, 1991) there seems less of a debate about key skills.

There is also a political aspect to the critique of the skills agenda, which argues that capitalist forces are anti-intellectual. 'Do universities exist simply to meet the needs of modern capitalism and are students being constructed solely as future workers, rather than fully rounded citizens?' asks Morley (2001, p. 132). This resistance to the idea of education solely for the needs of industrial capitalism evokes Gradgrind's 'little vessels … ready to have imperial gallons of facts poured into them'. Need there be such a tension between the needs of the workplace (or more precisely the needs of graduates entering the workplace) and what we might think of as a liberal education that produces 'fully rounded citizens'? This

paper will argue that key skills do not necessarily threaten the notion of a liberal education; in fact they can enhance content learning through encouraging innovation in teaching and curriculum design.

The arguments for key skills

Historically, European universities had their roots in vocationalism, in that the role of medieval universities was to prepare students for specific vocations such as the Church, law and medicine (Cobban, 1975). Then, in the eighteenth and nineteenth centuries, particularly in the British context, the public schools began to emphasise the classics. The concept of a liberal education developed, which was seen as a preparation for élite careers in government or administration. Despite the fact that for most British secondary school pupils the grammar school model was not relevant to their vocational choices, there developed in Britain a prejudice against vocational and technical education (Drew, 1998).

This model of a liberal education for an elite few and these prejudices against vocational education and skills persist, despite the evidence of Britain's relative economic difficulties in the global context. The British higher education system was designed for a minority, for an age when knowledge changed slowly, and when jobs were frequently 'for life', whereas in the modern world, there is mass participation in higher education, knowledge and technology advance rapidly and short contract and portfolio work is increasing (Drew, 1998).

Those companies who recruit large numbers of graduates have been complaining for many years that the graduates did not have the necessary skills to equip them for the world of work that they were entering. Traditionally, graduates used to have an extended period of graduate training, particularly in large companies. However, these days the norm is no longer for graduates to enter a large employer's graduate training programme: they must rather be 'ready to go' when they begin work. Large firms are seeking ways of reducing their core functions and often contract work out to small and medium enterprises (SME), and flexibility is increasingly a requirement of employees (Drew, 1998). So today's graduates are expected to enter the world of work and to 'hit the ground running', particularly in SMEs, which currently provide 45% of non-government graduate employment in Britain, a figure that has been expected to rise to as much as 70% (Fallows & Steven, 2000). Employers want graduate employees with the ability to develop new skills, to treat new situations as problematic and reach solutions that accomplish unfamiliar goals and who can be adaptable, critical and think laterally (Harvey *et al.*, 1997). They value those employees who can co-operate and work productively as members of a team, and where the credit for a job well done does not go to the individual employee but to the team (Candy & Crebert, 1991).

Key skills in a higher education context

The lack of a single coherent definition of key skills for use across the secondary, tertiary and higher education sector has lead to a number of problems when the concept is brought into the higher education context. One problem with defining key skills, particularly when trying to articulate what those different skills should 'look' like at different levels during the course of undergraduate studies, is that 'there is a temptation to resolve problems by defining skills in an ever-growing list of competencies' (Whitston, 1998, p. 315). Another problem is that there is a need to dovetail the different requirements and definitions into something that is workable and transparent for academics and students alike. This is the approach

taken here and this paper proposes a key skills framework for higher education that can be adapted and used in any discipline.

One starting point in devising this framework was the national key skills framework defined by the Qualifications and Curriculum Authority (QCA) (QCA 2000a, 2000b, 2001). The QCA framework comprises five key skill areas: communication; application of number; information technology; personal skills—(working with others); and personal skills (improving own learning and performance). Key skills are defined by the QCA in learning outcomes from level 1 to 5, with level 3 correlating to 'A' level or Advanced General National Vocational Qualification (GNVQ), and levels 4 and 5 correlating to 'higher level qualifications', or NVQ level 4 (comparable to final-year degree study, but not to graduation) and NVQ level 5 (comparable to professional qualifications).

The other starting point used in devising this framework was The Dearing Report (NCIHE, 1997). Dearing recommended that programme specifications have intended outcomes specified as knowledge, key skills, cognitive skills, such as an understanding of methodologies or ability in critical analysis, and subject specific skills, such as laboratory skills. For Dearing, the key skills are: communication; numeracy; information technology; and learning how to learn.

Finally, the key skills framework proposed here is also based on the so-called 'Dublin descriptors', produced by the Joint Quality Initiative (2004) and the European Qualification Framework (EQF) produced by the Commission of the European Communities (2006). The drivers behind these European-wide initiatives are to enable employers and individuals to compare qualifications across member states. These build on previous agreements in Bologna in 1999 and Berlin in 2003. The recommendation foresees that member states relate their national qualifications to the EQF by 2009. The EQF framework has eight levels of learning outcomes, with level 5 corresponding to 'first (undergraduate) cycle' qualifications culminating in Bachelor's degrees and level 6 to Master's degrees and so on.

The key skills framework proposed in this paper (see below) thus proposes a 'hybrid' of the QCA, Dearing and European conceptions of key skills. In the British context, the Quality Assurance Agency framework for academic awards specifies key skills, so that they should actually be present in all awards. While the incorporation of skills into curriculum or education has general importance for educational quality, the proposed framework could relate to quality processes and concerns by informing the development of module and programme specifications, departments' self-evaluation documents, or revalidation processes for professional bodies. It is proposed that this framework could be used to inform curriculum development across disciplines, perhaps with some adaptation. Graduate employers would expect different emphasis from graduates in different disciplines. For example, they might expect a mathematics graduate to have more developed numerical skills than a drama graduate and a drama graduate to have better communication skills than a mathematics graduate. Yet a drama graduate may have had to hold the budget for the production of a play, and the mathematics graduate may have worked on simulated projects where they were communicating with 'mock clients'. Both may have learned numerical skills, although these would be appropriate to the context of their subject. The key skills framework proposed here can help to draw out the strengths and diversity of experience that graduates often possess, although possibly without realising or being able to articulate it.

Tables 1–4 indicate how the different key skills of undergraduates can be expected to develop over the course of their studies. The levels initials follow the QAA convention of Certificate (C)—level 4, Intermediate (I)—level 5 and Honours (H)—level 6, which in a

Table 1.   Level 3 or Entry Level At admission into university, students should be able to:

Communication skills	• Read and identify the main points and ideas from documents about straightforward subjects • Understand and communicate clearly (e.g. speak and write) in English about straightforward subjects
Working with others	• Take part in discussions about straightforward topics • Work or study under supervision with some autonomy • Work co-operatively with others
Problem solving	• Understand straightforward problems and identify options for solving them • Try out identified options, using support and advice given by others • Solve routine problems using simple rules and tools • Check if the problem has been solved and describe the results
Numeracy	• Interpret numerical information appropriate to the discipline • Carry out straightforward calculations using whole numbers, simple d ecimals and percentages • Interpret the results of calculations and present findings in an appropriate format
The use of information technology	• Use a web browser to find, explore and develop relevant information • Use the basic functions of a word processing package • Send and receive electronic mail
Learning how to learn	• Use relevant information to carry out tasks • Plan how to meet short term targets • Review progress and achievements • Be aware of their personal learning preferences
Personal and professional development	• Follow a plan to meet targets and improve performance • Understand why they wish to gain a degree

'traditional' UK three-year full-time undergraduate degree would correspond to years 1–3. Non-traditional and non-UK qualifications can be mapped against the appropriate levels.

Implementation

What one might characterise as a 'professorial' approach to learning and teaching is becoming rarer across the university sector. It is now common practice for all undergraduate courses to give students the opportunity to actively participate in their courses, rather than just sit passively listening in lectures and regurgitate what they have learnt from lectures and books in written essays. At the same time, there has been a shift away from focusing purely on content, towards examining process in learning. These developments are now widely considered best educational practice, and are unconnected to the skills or employability debate. Many academics have designed a range of practices to equip students with job-related skills to ease their transition to the world of work. Amongst the innovation commonly seen in contemporary undergraduate courses that can be characterised as experiential education are: the use of problem-based learning; the use of simulations, project work, simulations of workplace environments using computer-assisted learning; dealing with 'mock' clients and so on (Candy & Crebert, 1991; Bennett *et al.*, 1999).

Table 2.   Level 4 / Certificate Level. By the end of their first year at university, students should be able to:

Communication skills	• Communicate effectively in writing in an appropriate format using a suitable structure and style and correct punctuation and grammar • Select relevant reading material from different sources, analyse it and summarise information / arguments
Working with others	• Help move discussions forward • Identify group objectives and plan what needs to be done to achieve these • Clarify responsibilities and meet obligations to others (e.g. tutors, peers, colleagues) • Exchange information on progress and agree ways of improving working with others
Problem solving	• Begin to appreciate the complexity of the issues in the discipline • Independently identify the issue and potential options for approaching / solving it • Try out options, seek feedback and support and adapt behaviour to solving problems where needed • Apply and analyse given basic methods / tools / materials and information to check if the problem has been solved • Explain and evaluate their approach
Numeracy	• Select numerical methods appropriate to the discipline and to the task • Carry out calculations involving two or more steps and numbers of any size, including the use of formulae • Select ways to present their findings, (including visual means, e.g. a graph, chart or diagram) and describe and explain their methods and results
The use of information technology	• Carry out effective simple searches and select relevant information (e.g. from subject specific databases and full text electronic journals) • Explore and develop appropriate information collected from a range of sources • Use the advanced functions of a word processing package • Observe copyright laws • Be able to reduce the risk of viruses
Learning how to learn	• Take responsibility for completion of tasks in work or study with appropriate support • Undertake simple research tasks with external guidance • Set short term targets and plan how these will be met • Review progress, identify evidence of achievements and evaluate own strengths and weaknesses
Personal and professional development	• Set goals, establish priorities and plan action to do with exploring potential careers

There is some debate about whether key skills should be embedded into the subject curriculum or should be delivered as stand-alone modules with an extra qualification attached to them. Some universities have a university-wide key skills certificate available that students can enrol onto. They then can graduate with their degree in their chosen subject and the key skills certificate. One benefit of this model may be that an already-overcrowded curriculum does not get overloaded with any more content. The problem with this model is that there are resource issues, for example who is going to teach and assess the extra certificate, particularly in universities where budgets are devolved to departmental level? In this model, the key skills are separated from the core academic content, which may lead to patchy uptake by the students. Another potential problem is that pressures of academic and paid work lead to

Table 3.   Level 5 / Intermediate Level. By the end of their second year at university, students should be able to:

Communication skills	• Communicate effectively in writing in a style appropriate to the situation (may include visual / graphic media where appropriate) • Close read and synthesise information from extended documents including abstract ideas / arguments to extract lines of reasoning • Understand, interpret and use specialist vocabulary • Make an oral presentation
Working with others	• Establish and maintain cooperative working relationships and agree ways to overcome difficulties • Plan and agree group objectives, responsibilities and working arrangements • Interact effectively and create opportunities for others to contribute to discussions; exchange information and ideas and modify responses • Review work with others, including factors that influenced the outcome • Supervise the routine work of others
Problem solving	• Explore the problem, identifying key areas • Compare and choose appropriate tools / methods for its resolution (and be able to justify that choice) • Generate solutions to specific problems in a field of work or study • Plan and implement methods, review progress and revise as necessary • Apply agreed methods to check the problem has been solved
Numeracy	• Select and use numerical information and methods appropriate to the discipline • Carry out multi-stage calculations, including use of a large data set • Explain and justify the choice of methods and the results of calculations
The use of information technology	• Search for and select appropriate information from a range of sources based on judgements of relevance and quality • Use a software package to manage references • Use a range of methods to explore, develop and exchange information
Learning how to learn	• Develop appropriate research strategies & take responsibility for learning with minimum direction • Exercise self-management within the guidelines of work or study contexts that are usually predictable, but are subject to change • Manage learning using available resources • Evaluate strengths and weaknesses, challenge received opinion and develop own criteria and judgement • Be able to evaluate and improve own work and study
Personal and professional development	• Collect, record and analyse data relating to potential occupational areas • Reflect on and record development of own career ideas

few students completing the certificate where it is offered as an add-on skills certificate (Fallows & Steven, 2000).

Although some commentators argue that 'working in' key skills into an existing programme may prove to be a distraction rather than providing a learning opportunity (Whitston, 1998), this paper argues that integrating key skills into the existing curriculum has proved to be a more practical alternative model to the stand-alone skills model used in some universities. Key skills are already present in existing curricula in various forms: in group work, presentations, use of information technology and so on. So it may be possible through group projects, presentations of their course work or diversifying assessments to teach *and assess* key skills through relatively minor changes in the existing curriculum. In the Australian context for example, a graduate skills assessment test has been developed to assess generic skills of students when they begin at university and just before they graduate

Table 4.   Level 6 / Honours Level. On graduation, students should be able to

Communication skills	• Produce detailed and coherent written communication about complex subjects in a style appropriate to the situation • Engage effectively in discussion in a professional manner • Evaluate and present outcomes using an oral presentation • Communicate information, ideas, problems and solutions to specialist and non-specialist audiences
Working with others	• Interact effectively with others in a professional manner and negotiate and manage conflict in groups • Recognise, support or take on a leadership role in a group activity • Evaluate and present outcomes from the work of a group • Review performance of others
Problem solving	• Identify the problem and set parameters • Critically analyse the problem • Use deductive and inferential reasoning • Use appropriate problem solving skills over an extended piece of work to solve problems within their field of study • Monitor and evaluate progress and adapt as necessary
Numeracy	• Use numerical skills appropriate to the discipline to accomplish a complex task • Manipulate, analyse and present numerical data, (including use of e.g. charts, diagrams and graphs) • Gather and interpret relevant data to inform judgements including reflection of relevant social, scientific or ethical issues
The use of information technology	• Select suitable IT packages to enhance their work in practice • Manage information, competently undertaking appropriate research tasks with minimum guidance • Monitor progress, evaluate and adapt IT use as necessary • Make a presentation using a software package showing integration of text, images and numbers (if appropriate)
Learning how to learn	• Take responsibility for and independently manage learning with minimal guidance using a full range of available resources • Exercise management and supervision in contexts of activities where there is unpredictable change • Reflect critically on the progress of independent work, respond to feedback and adapt as necessary • Apply own criteria of judgement to work and challenge received opinion • Articulate a personal understanding of what has been learned • Continue to undertake further study with a high degree of autonomy • Review and develop self-performance
Personal and professional development	• Prepare a curriculum vitae • Make informed decisions about career choice and applications for jobs or further study

(Australian Council for Educational Research, 1999). Well-written module specifications are useful to map where the key skills are taught (and assessed) in the existing curriculum. Current provision could be mapped against the key skills requirements and any gaps could be addressed by changing the teaching methods and assessments as appropriate. Chapple and Tolley (2000) argue that the experience of embedding key skills into the existing curricula leads to other benefits, in that it facilitates a shift towards a more student-centred view of learning, with the students required to engage more deeply with the content of their courses.

Finally, the research evidence (HEFCE, 2001) points to a number of factors which facilitate the success of key skills projects in universities: The first is that key skills projects are more likely to be successful if they have support from across the institution at all levels: senior management, academics, other university staff such as staff developers, and students. Communication, co-operation and networking within and outside the university are of vital importance. The second factor that facilitates the success of key skills programmes is to ensure that they attract the support of academics in individual departments, by tailoring the implementation of key skills to the needs and aspirations of individual departments. Ways to gain support from academics vary but include stressing the relevance of key skills to the subject curriculum, the role of key skills in promoting lifelong learning and the enhancement that key skills offer to employability. External sources of motivation can include pressures such as forthcoming internal and external subject quality reviews. Departments will start from very different levels of key skill awareness and activity.

From the students' perspective, the evidence suggests that they are more likely to take key skills seriously if they are part of the assessed mainstream curriculum, rather than stand-alone courses, and if the students can see the value of what they are learning. This will encourage the transfer of such skills from one context to another. This is more likely to happen if their teachers are in favour of key skills projects. Dissemination of findings and sharing of best practice (and of not re-inventing the wheel) within the institution as well as outside is a factor to be considered in maximising the impact of key skills projects. From an institutional level, continuing support in the shape of formal structures and resources is likely to make key skills projects more sustainable (HEFCE 2001).

Conclusion

Graduates should leave higher education better in many ways than when they entered it, and this improvement should be attributable to the undergraduate curriculum, rather than to the fact they are simply three or four years older (Knight, 2001). They need to be equipped with skills that they can use to 'sell themselves' to employers. Some academics argue that the skills agenda threatens the concept of a liberal education and devalues traditional notions of a university degree. Moreover, there is distaste amongst some in academia at the thought of a university education used solely to prepare workers for the needs of the capitalist economy, a vision of education that evokes *Hard Times'* Thomas Gradgrind. However, it has been argued here that integrating a key skills framework into existing curricula can enhance the quality of the content learning by promoting experiential, active learning approaches. This paper contributes to the debate around the skills agenda, and proposes a key skills framework that could be used to inform and structure innovations in university teaching.

Acknowledgements

References

AUSTRALIAN COUNCIL FOR EDUCATIONAL RESEARCH, 1999, 'Graduate skills assessment'. Available online at: http://www.acer.edu.au/tests/university/gsa/intro.html.

BENNETT, N., DUNNE, E. & CARRE, C., 1999, 'Patterns of core and generic skill provision in higher education', *Higher Education,* 37, pp. 71–93.

BRIDGES, D., 1993, 'Transferable skills: a philosophical perspective', *Studies in Higher Education,* 18(1), pp. 43–51.

CANDY, P. C. & CREBERT, R. G., 1991, 'Ivory tower to concrete jungle. The difficult transition from the academy to the workplace as learning environments', *Journal of Higher Education,* 62(5), pp. 570–92.

CHAPPLE, M. & TOLLEY, H., 2000, 'Embedding key skills in a traditional university', in FALLOWS, S. & STEVEN, C. (Eds) *Integrating key skills in higher education* (London, Kogan Page).

COBBAN, A. B., 1975, *The medieval universities: their development and organisation* (London, Methuen).

COMMISSION OF THE EUROPEAN COMMUNITIES, 2006, 'Proposal for a recommendation of the European Parliament and of the Council on the establishment of the European Qualifications Framework for lifelong learning'. Available online at: http://ec.europa.eu/education/policies/educ/eqf/com_2006_0479_en.pdf.

COMMITTEE OF VICE-CHANCELLORS AND PRINCIPLES OF THE UNIVERSITIES OF THE UNITED KINGDOM (CVCP), 1998, *Skills development in higher education: full report* (London, CVCP).

CONFEDERATION OF BRITISH INDUSTRY (CBI), 2003, 'Business and higher education—promoting effective collaboration'. Available online at: http://www.cbi.org.uk/pdf/lsunibizbrief.pdf.

DREW, S., 1998, 'Key skills in higher education: background and rationale', SEDA Special no. 6 (Birmingham, Staff and Educational Development Association).

FALLOWS, S., & STEVEN, C. (Eds) 2000, *Integrating key skills in higher education* (London, Kogan Page).

HARVEY, L., MOON, S., GEALL, V. With BOWER, R., 1997, *Graduates' work: organisational change and students' attributes* (Birmingham, CRQ and AGR (supported by DfEE and CIHE)).

HIGHER EDUCATION FUNDING COUNCIL FOR ENGLAND, 2001, 'Bridging the gap: an innovations fund project'. Available online at: http://www.innovations.ac.uk/btg/projects/theme2/index.htm.

HOLMES, L., 2001, 'Reconsidering graduate employability: the "graduate identity" approach', *Quality in Higher Education,* 7(2), pp. 111–19.

JOINT QUALITY INITIATIVE, 2004, *Shared 'Dublin' descriptors for Bachelor's, Master's and Doctoral awards: a report from a Joint Quality Initiative informal group'.* Available online at: http://www.unibuc.ro/uploads_ro/35714/Dublin_Descriptors_2004Doctor.pdf

KNIGHT, P. T., 2001, 'Employability and quality', *Quality in Higher Education,* 7(2), pp. 93–5.

MORLEY, L., 2001, 'Producing new workers: quality, equality and employability in higher education', *Quality in Higher Education,* 7(2), pp. 131–8.

NATIONAL COMMITTEE OF INQUIRY INTO HIGHER EDUCATION (NCIHE), 1997, *Higher education in the learning society (The Dearing Report).* Available online at: http://www.ncl.ac.uk/ncihe/.

QUALIFICATIONS AND CURRICULUM AUTHORITY, 2000a, *Guidance on the Key Skills units: communication, application of number and information technology, levels 1–3* (London, Department of Education and Skills).

QUALIFICATIONS AND CURRICULUM AUTHORITY, 2000b, *Guidance on the Key Skills at level 4: communication, application of number and information technology* (London, Department of Education and Skills).

QUALIFICATIONS AND CURRICULUM AUTHORITY, 2001, *Guidance on the wider Key Skills: working with others, improving own learning and performance and problem solving, levels 1–4* (London, Department of Education and Skills).

SADLAK, J., 1995, 'In search of the "post-communist" university—the background and scenario of the transformation of higher education in Central and Eastern Europe', in: HÜFNER, K. (Ed.) *Higher education reform processes in Central and Eastern Europe* (pp. 43–62) (Frankfurt and Main, Peter Lang).

WHITSTON, K., 1998, 'Key skills and curriculum reform', *Studies in Higher Education,* 23(3), pp. 307–19.

WRIGHT, W. A., 2001, 'The Dalhousie career portfolio programme: a multi-faceted approach to transition to work', *Quality in Higher Education,* 7(2), pp. 149–59.