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An exploration of the term
‘Commercial awareness’:
What it means to employers and
students

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Executive summary

Research and anecdotal evidence provides that many graduate employers require students to have some enterprise-related (and value-adding) employability skills. “Commercial awareness” is often quoted as one such skill, seen to be in short supply. This research reports upon a pilot study exploring views, perceptions and understandings of the term commercial awareness. It draws upon data from a number of sources: research and practitioner-based literature, interviews with graduate employers, and interviews/discussions with current University students.

Employers’ definition/perception of Commercial Awareness

- A variety of definitions and understandings of the term ‘Commercial awareness’ were collected by the researchers.
- For most employers, a commercially aware graduate is one who also has some thought or consideration for the business environment in which they work.
- Effective and commercially aware graduates have an understanding of the customer and their desires or wants – they appreciate the ‘bottom line’ or value added by the graduate to the employer.
- Many graduate employers put forward that the successful operation of their business enterprise depended on employees (and graduates) developing their business or commercial awareness skills.

Employers’ perception of the role of HE in developing this attribute

- Universities could play a role in developing commercial awareness in students.
- The development of provision that enabled students to gain an understanding of the ‘real’ business world formed the core of a number of suggestions from employers.
- A number of responses related to this theme suggested that Universities should help to prepare students more effectively for the world of work by offering practical, work-focused support.

Students’ definition/perception of Commercial Awareness

- A range of definitions of ‘Commercial Awareness’ were collected by the researchers.
- Students required more encouragement (and suggestions of descriptors for commercial awareness than employers) in order to formulate meaningful definitions and understandings of the term.
- Upon exploration, most student respondent groups agreed that commercial awareness was a useful and important skill for graduates to possess.

Student perception of the role of HE in developing this attribute

- Some students drew parallels between commercially aware students/graduates and enterprising students/graduates. Activities and provision designed to develop enterprise skills (on University programmes of study) could equally develop commercial awareness skills.
- A number of students put forward that knowledge, understanding and business skills could be developed through more options for work-placement or internships whilst at University.

Conclusions

- Generally, employers have a narrow interpretation of Commercial Awareness. It relates to how the business operates and how graduates can add value to the core activities of the business.
- Students interpret the term more broadly and indicate that it embraces the employer definition but also includes the ability to effectively use generic and transferable skills. For some students, a commercially aware graduate is one who has an enterprising or entrepreneurial approach to their work – seeking to use the skills they have gained and developed at University in value-adding, innovative, and creative ways.

Introduction and literature review

Recent research has examined the growth in interest of University graduates who are employment ready upon leaving University (Harvey and Mason, 1990; Duckett, Garratt, and Lowe, 1999; Harvey, 2000; Bowers-Brown and Harvey, 2004). Research and anecdotal evidence provides that many graduate employers require students to have some enterprise-related (and value-adding) employability skills. "Commercial awareness" is often quoted as one such skill, seen to be in short supply. This research reports upon a pilot study conducted to explore how effective Universities are at developing such 'commercial awareness' skills. The research also examined what employers meant by commercial awareness and how their perceptions of this skill set match those of the students. The findings from this work will inform the broader debate around enterprise and entrepreneurship in and around higher education. At a practical level, it will also inform the planning and development of skill development activities and materials within University programmes of study.

This research project seeks to explore a number of the issues and themes raised by the literature and through primary research in relation to the emerging topic of 'commercial awareness'.

Commercial awareness is an amorphous term with no clear-cut definition in the research or practitioner-based literature. However, proxy indicators of its core content have been more widely discussed and debated. Indeed, the Enterprise in Higher Education initiative, in the 1980s identified a developing need for graduates to be resourceful and flexible when they entered the world of work post their University studies (Kirkby and Mullen, 1990). Entrepreneurial skills and related abilities were viewed as integral to the Enterprise in Higher Education initiative whose initial impetus came via a joint statement issued by the National Advisory Board and the University Grants Committee in 1984. This document stressed the perceived importance of developing transferable and personal skills within students studying at HE level. Based upon this, the initiative had three core features:

1. embedding the development of these skills within the curriculum,
2. ensuring the curriculum related to the world of work; and
3. ensuring that all students of HEIs involved were affected by the initiative (Elton, 1991).

Whilst the initiative drew on what could be termed 'entrepreneurial' attributes it was not intended to create student entrepreneurs but rather to develop the skills and abilities to cope with emerging work and employment opportunities and challenges (Kirkby, 1989).

In Kirby and Mullen's work, useful and employability focused skills were effectively developed through students undertaking focused action learning projects in the workplace during their degree programme. Such work placements are now popular approaches designed to acclimatise students to eventual employment. However then, as now, for such activities to add maximum value to student learning and development, they should be incorporated fully into the degree programme curriculum. At present, they are often seen as an add-on to a structured degree programme. Moreover, work examining graduate recruitment from the perspective of students, recruiters and Universities found that recruiters felt that students entering the labour market lacked personal transferable skills such as teamworking, decision-making and general commercial awareness (Nagi and Bagley, 1999). However, the lack of business and commercial awareness skill is not merely restricted to University graduates. The effective transfer of research outputs to operational and business benefit is something that academics are not generally good at. Ankers and Brennan suggest that they (academics) are unable to respond quickly, tend not to be driven by business need, and do not have the commercial awareness needed to effectively spin-out their research (Ankers and Brennan, 2002). In a recent survey of the early career paths of graduates from a number of Yorkshire Universities (Wilkinson, 2006) respondents were asked to choose, from a pre-defined list of thirteen skills, the skills they possessed which they considered most important to them. It is interesting to note that of those respondents who identified 'Commercial Awareness' as their most important skill area, they earned, on average, more than others in 2006 (see Figure 1 below).

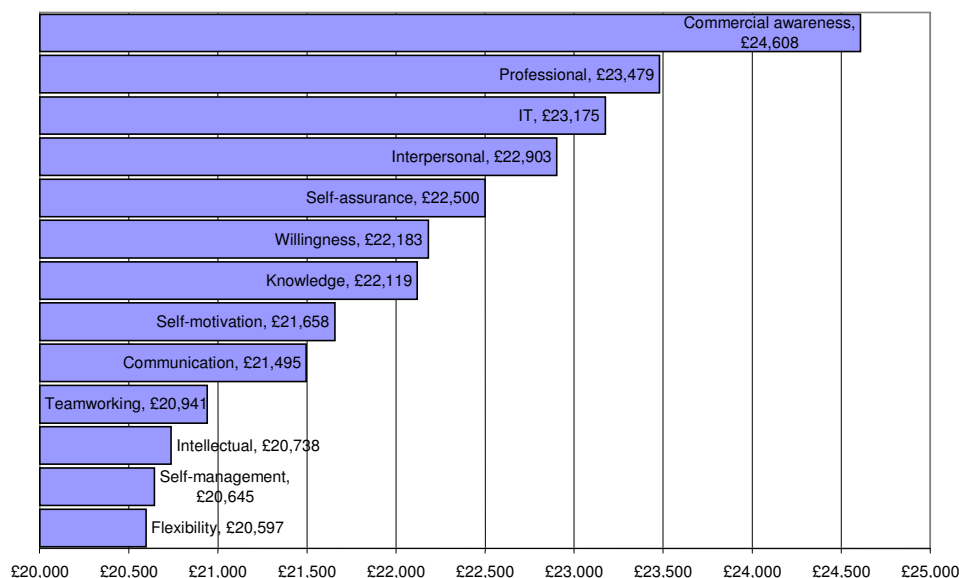


Figure 1: Average earnings by most important developed skill (2006 earnings). Source: Wilkinson, 2006

In the same work (which survey students upon graduation and again three years later), there also appears to be a strong positive correlation between salaries achieved in 2003 and 2006 for those respondents who listed 'Commercial Awareness' as their most important skill areas developed at University (see Figure 2 below). This may suggest that graduates with commercial awareness skills or attributes have a more pronounced and positive impact on their potential and actual earnings than other graduates.

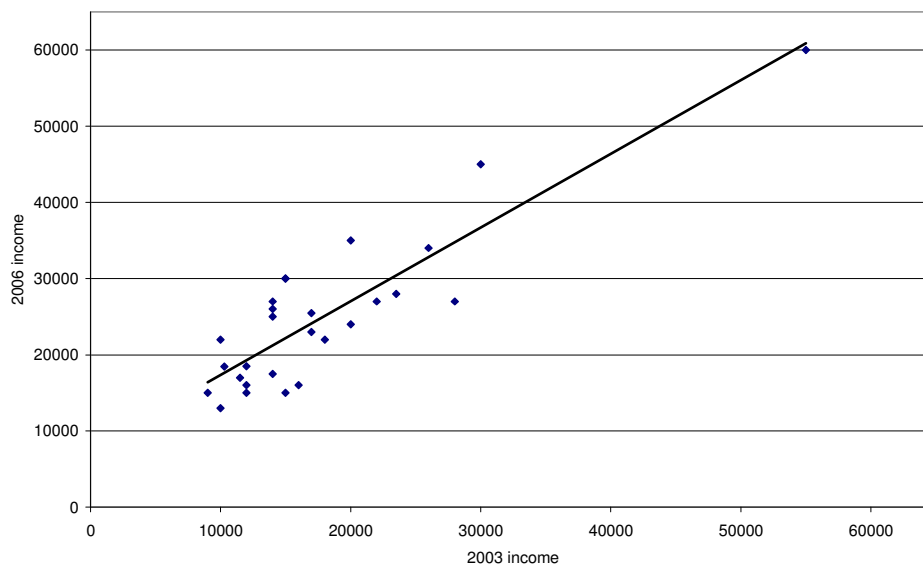


Figure 2: Income figures for respondents rating 'Commercial Awareness' as most important skill area ($r = .87$). Source: Wilkinson, 2006

More recently the term commercial awareness has gained more interest and credence in the higher education sector generally. A recent event organised through the Careers Group at the University of London sought to provide advice and guidance for HE practitioners in relation to defining the term commercial awareness and exploring how Universities can become more commercially-focused. In addition, the University of Leeds has successfully developed a programme for academic and academic related staff, including research staff, in any discipline who have an interest in commercialising the output of their research or other activities. The programme is titled: Developing commercial awareness: an introduction to academic entrepreneurship for staff of the University of Leeds and its aim is to enable participants to formulate and assess processes for identifying, protecting and exploiting ideas and knowledge that have potential commercial value.

Methodology

To explore the topic of commercial awareness, data have been sought from three sources: research and practitioner-based literature, interviews with graduate employers, and interviews/discussions with current University students.

Research/practitioner-based literature

Standard searches were conducted on a number of literature databases focusing upon the key terms of: 'commercial awareness', 'graduate recruitment', 'employability', 'work-placement', 'business skills', 'transferable skills', 'enterprise skills'. A number of relevant literature items were collected, summarised, and incorporated into a brief review of the literature (see 'Introduction and Literature Review' and Appendix 1: annotated bibliography).

Interviews with graduate employers

The University of Leeds Careers Centre has excellent links with a range of large and small graduate employers. These links were drawn upon in order to select a broad-ranging sample of typical graduate recruiters. These included: Evidence Limited, ITOMS, Creditscorer, Proctor and Gamble, Logistik, the BBC, British Telecom, Enterprise Rent-a-Car, Abcam, Accenture, Carlsberg-Tetley, Complex Systems, and Asda. Further information related to these organisations, and the identified respondent from each are provided as Appendix 2: organisations consulted.

Semi-structured interviews were conducted with the identified informant from each graduate recruiting organisation. At the convenience of the respondents, these were conducted variably as either face-to-face, via telephone, via email. A range of specified themes were explored through the interviews. Appendix 3: Employer questions, provides a list of the core themes covered. In essence these covered: definitions and perceptions of commercial awareness, the perceived value of a commercially aware student, commercial awareness and enterprise, suggestions for developing commercially aware students whilst at University.

Interviews/discussions/data collected from students

Data relating to the core topic of this research were collected from a range of students through a variety of approaches. Focus groups were held with four groups of aspirant entrepreneurs (totalling approximately 30 students); discussions were held with two groups of students undertaking Career Planning modules within the University of Leeds Careers Centre (totalling approximately 30 students); and essay data were examined from students who had discussed the topic of 'Commercial awareness in the biosciences' (totalling approximately 25 students). With each distinct group themes around commercial awareness were discussed or investigated. Through an iterative and developmental

process, each focus group/discussion sessions were structured around students defining for themselves what commercial awareness meant. From the various data sources a range of these or issues were investigated, these included: definitions and perceptions of commercial awareness, the perceived value of a commercially aware student, commercial awareness and enterprise, suggestions for developing commercially aware students whilst at University.

Employers definition/perception of Commercial Awareness

A variety of definitions and understandings of the term 'Commercial awareness' were collected by the researchers. Most organisational respondents could easily provide definitions with little or no prompting.

For most employers, a commercially aware graduate is one who also has some thought or consideration for the business environment in which they work. Effective and commercially aware graduates have an understanding of the customer and their desires or wants, it includes an appreciation of the 'bottom line' or value added by the graduate to the employer. An appreciation of how their actions impact upon business profits is a component part of a commercially aware employee.

Commercial awareness means understanding the market, identifying opportunities and working with limited resources to create a profit – Training and Development Graduate Employer.

The ability to actually do or initiate things ... there is a real difference between someone who has achieved something by the end of the day, and someone else who has not ... its about setting oneself targets, and having the gumph to move towards delivering them rather than making a cup of tea! – Evan Davies, Business Editor, BBC Radio 4.

Good indicators of commercial awareness by a graduate include having an understanding or awareness of the customer, and an ability to reapply knowledge for a different organisational purpose – Proctor and Gamble.

Many graduate employers put forward that the successful operation of their business enterprise depended on employees (and graduates) developing their business or commercial awareness skills. Some employers suggested that this skill often developed over time and wasn't a generally held skill that graduates possessed upon leaving University.

A number of employer respondents indicated that graduates did not generally hold, upon appointment, the focused commercial awareness skills they desired.

Any employer who wants to make a business successful needs all employees to be commercially aware – Training and Development Graduate Employer.

I expect everyone who works for me to be commercially aware! ... Its about being aware of the opportunities for making money and making sure that the business products and or services are delivered. Its about a shared understanding of what the business organisation is about – Prof Richard Williams, Entrepreneur and Pro Vice-Chancellor for Enterprise and Knowledge Transfer.

Normally there is an 'Ah ha!' moment when new graduates suddenly understand commercial awareness. At our organisation this is usually around 6 months into the job. A light bulb goes on and the graduate trainee realises that their job is not to perform some academically rigorous function, but to make us money! – Proctor and Gamble.

Employers perception of the role of HE in developing this attribute

Broadly consistent themes are emerged from the employer feedback when considering the role of Universities in developing commercial awareness. A small number of responses were localised and focused upon the specific sector/area the employing organisation was in. However, many employers identified and put forward similar points in relation to the perceived role of Universities.

When questioned, many respondents indicated that Universities could play a role in developing commercial awareness in students. The development of provision that enabled students to gain an understanding of the 'real' business world formed the core of a number of suggestions from employers. Such provision should/would allow students to develop important workplace skills including: communication, presentation, networking and negotiation. A number of responses related to this theme suggested that Universities should help to prepare students more effectively for the world of work by offering practical, work-focused support. A smaller number of employers put forward that commercial awareness (and the skills that underpin it) cannot easily be taught in a University setting, rather it is a skill and approach to employed work that develops over time.

Universities should develop programmes which embrace commercial awareness key skills – such as developing basic financial principles of how businesses actually work – Training and Development Graduate Employer.

It would be helpful for Universities to help students to think more broadly about the term 'customer'. They need not necessarily be seen in a strictly 'business' sense. For example, if a student attempts to understand what a lecturer is

looking for in a First Class paper (and they deliver this), they are being commercially aware – British Telecom.

Universities should be providing a sort of business 'toolkit' that you apply to different situations. Students learn too much about theoretical models without thinking about how they might be applied to different situations – Nick Wilson, Director, Creditscorer.

Universities can try to teach commercial awareness, but much of what makes good business sense is often innate and learnt through the job than learnt whilst at University – Proctor and Gamble.

Student definition/perception of Commercial Awareness

Students, however, required more encouragement and descriptor statements in order to formulate meaningful definitions and understandings. Of all the students participating in this research, approximately half to two thirds had difficulty providing a definition, or had not come across the term. Generally, however, students provided some similar definitions to those provided by employers – a focus on business need, the customer, and an acknowledgement of environmental factors.

It means being aware of the business environment in which employers operate ... its also concerned with knowing about industry trends and being clued-up as to what's happening in the world – Undergraduate aspirant entrepreneur, University of Bradford.

Graduates who are commercially aware follow the world's events – Undergraduate biology student, University of Leeds.

Being commercially aware means being aware of the value of things in a business – Undergraduate student, University of Leeds.

Commercial awareness is like the stuff that is printed in the Financial Times – if you read that, you'll be commercially aware – Undergraduate student, West Yorkshire University.

Those who provided a definition of the term tended to appreciate the value of such skills (both for the employing organisation as well as the graduate). Whilst most comments relating to definition and value of commercial awareness related to the business enterprise, some students acknowledged that holding such a skill assisted their employment progression prospects. Upon exploration and related probing, most student respondent groups agreed that commercial awareness was a useful and an important skill for graduates to have. A number

of students put forward that commercial awareness skills were similar to those of an 'enterprising' student.

Commercially aware graduates will have learnt and developed similar skills to enterprising and entrepreneurial students. They will be at more of an advantage than students who are not commercially aware, though, because they will have refined their theoretical skills and applied them to a business context – Biology undergraduate, University of Leeds.

It's important to know what is going on in business – good skills can be useful in progressing onwards and upwards – Undergraduate student, University of Leeds.

Student perception of the role of HE in developing this attribute

Students acknowledged that if graduates were to be effective employees, and commercially aware, upon graduation then Universities had a role to play in assisting with the development of student skill and ability that made them employment ready. Some students drew parallels between commercially aware students/graduates and enterprising students/graduates. Activities and provision designed to develop enterprise skills (on University programmes of study) could equally develop commercial awareness skills.

If students are to become more business savvy and employer or job-focused, a number of students put forward that knowledge, understanding and business skills could be developed through more options for work-placement or internships whilst at University. However, some recognised that the 'value' of work-placement was perceived variably according to the core content of the student's degree programme.

I think it is good that we can participate in activities on our degree programme that target developing enterprise skills (communications, negotiation, financial or business planning etc.) These, I suppose are also skill areas that could enable a student to become commercially aware – Undergraduate biology student, University of Leeds.

If being commercially aware means knowing what a business is about, then the best way to do this is through work-experience. I put myself forward for a student placement last year – I gained a lot (in terms of personal development) from it and I'm sure that I'm now more commercially aware ... I'm not so sure that work-placement is seen as important by my degree tutors though – Undergraduate student, West Yorkshire University.

By teaching us to be enterprising, and my course does this, then you are also teaching us to become more commercially aware – Undergraduate student, West Yorkshire University.

Conclusions

Given the data collected it appears that one aspect of the conclusion may suggest that commercial awareness is effectively enterprising skills in a specific or localised context. There are some differences in understandings, definitions and perceptions according to employers and students.

Generally, employers understand commercial awareness as being rather narrow in its focus. It relates to how the business operates, how graduates can add value to it, and how they can effectively and positively impact upon its operation and profitability.

Students generally define commercial awareness more widely to embrace generic and transferable skills (often including such skill areas in their definitions as communication, networking, presentation and negotiation). As a result, many students often discuss enterprise and entrepreneurship as being similar to commercial awareness. Employers do not generally do this. In fact a number, when asked the direct question: 'are commercial awareness skills or attitudes the same as enterprise skills or attitudes' reply that commercial awareness is much more narrowly focused. It is concerned about the specific aspects to the business.

Commercial awareness does not mean the same as enterprise. Enterprise is much wider and has much more application outside of the business. I don't necessarily want enterprising students working for me, I want them to know how this business operates and how they can help it to operate more effectively – Training and Development Graduate Employer.

Students who are commercially aware come to us with skills such as a keen customer awareness and good decision-making abilities. These aren't necessarily enterprise skills, they are more tailored skills focusing upon the needs of business – Asda.

Implications

- Employers appear to have a much stricter interpretation of the term 'commercial awareness' than students. They do not seem to consider that their definitions are at variance with those put forward by students.
- Employers are not generally aware of the skills development and training activities undertaken by students – their suggestions for making students more commercially aware are already (in the main) being provided by enterprise and employability-focused Universities.
- A number of employers indicated that it was difficult for Universities to ensure graduates were commercially aware upon graduation. This may require

more promotional activities on the part of teaching and learning supporting Centres (such as the Careers Centre) to highlight the value-added of provision offered.

- Comments from both employers and some students suggested that Universities could develop more practical provision (work-based?) that allowed students to experience the 'real world'.
- Whilst some students drew parallels between commercial awareness and enterprise skills, employers saw them as distinct and separate.

Recommendations

This pilot study has revealed that there are similarities and differences between the perceptions, understandings and definitions of commercial awareness between graduate employers and University students. It is suggested that future work be carried out in order to explore and unpack some of the results of this pilot work.

Future, more extensive work, could be commissioned to explore whether all business organisations have similar definitions or understandings of commercial awareness or whether (as this work suggests – given the relatively mixed sample) there are sectoral or other differences that are present that influence or affect perceptions and attached definitions.

Students, generally, have a wider definition of commercial awareness than employer respondents. Commercial awareness and enterprise skill development, for them, are similar. Future, more extensive work could additionally explore whether there are significant discipline specific differences or similarities in understanding, perception and definition. This could then inform the development of educational interventions (by Universities) to enhance commercial awareness in University students.

Given the feedback received from students in relation to the usefulness of work-placement schemes in assisting the development of commercial awareness, future work could examine the most effective form of work-placement in developing general commercial awareness skills.

Appendix 1: Annotated bibliography

Ankers, P. & Brennan, P. 2002, "Managerial relevance in academic research: an exploratory study", *Market Intelligence & Planning*, vol. 20, no. 1, pp15-21.

Concern has been expressed by business and marketing scholars that academic research in these fields should be made more relevant to managers. In this paper the focus is on the views of marketing managers concerning the relevance of academic research to them. The empirical context of the work is business-to-business marketing. The experienced marketing practitioners interviewed knew very little about the current state of academic research in marketing, and considered that academic researchers did not understand the realities of business life and could not communicate effectively with managers. Marketing practitioners prefer to work with consultants, whom they consider understand business realities better and are more effective communicators. The paper discusses the barriers that marketing academics will have to overcome if they are to make their research more relevant to practitioners.

Anonymous 2003, "Employers may raise support for graduate recruits", *Education and Training*, vol. 45, no. 7, pp. 411-416.

Abstract: Some of Britain's top employers are considering increasing their financial support for graduate recruits once universities start charging top-up fees, according to the latest Financial Time/Association of Graduate Recruiters (AGR) survey. Almost two-thirds of graduate recruiters favour plans to make degrees more vocationally based. One employer said: "Commercial awareness is a fundamental requirement for candidates wishing to fast-track into a management or leadership role. Vocational courses generally provide far greater commercial insight plus the development of specific operational skills, which make for a much smoother transition into the work environment."

Anonymous 2004, "Who Cares?", *The British Journal of Administrative Management* p. 18.

Abstract: Businesses today need a highly skilled and motivated workforce with a greater emphasis on technical skills, team-working, interpersonal skills and flexibility. This short piece discusses 'Cares' a corporate volunteering programme, which has resulted in better employee retention, increased levels of job satisfaction and, for some, promotion.

Bowers-Brown, T. & Harvey, L. 2004, "Are there too many graduates in the UK? A literature review and an analysis of graduate employability", *Industry and Higher Education*, vol. 18, no. 4, pp. 243-254.

Abstract: The recent White Paper, *The Future of Higher Education*, and the annual increase in the number of young people achieving passes at A-level (the final secondary-school examinations) have fuelled an ongoing debate on whether too many people are now entering higher education in the UK. At the centre of the 'too many graduates' argument is the issue of employability: is the nation producing enough graduates to meet the needs of the knowledge economy or is there an abundance of graduates in the workplace who do not need degrees to do their jobs? This article identifies key arguments in the increasing participation and employability debate.

Duckett, S. B., Garratt, J., & Lowe, N. D. 1999, "Key skills: what do chemistry graduates think?", *University Chemistry Education*, vol. 3, no. 1, pp. 1-7.

Abstract: We report the results of a survey in which we have tried to identify which key skills are most needed by recently employed chemistry graduates, and how well they feel they are being prepared for using these skills by their chemistry courses. Across the range of job-specific skills covered in the survey, the results show a general correlation between the extent of relevant course content and the importance of the skill to typical graduate employees. However, the results also support employer opinion that there are areas in which graduates could acquire more job-specific skills, and some suggestions are offered on approaches to exploiting more effectively the opportunities for skills development within chemistry courses.

Elton, L. 1991, 'Enterprise in higher education: work in progress - looking back over the first three years'. *Education and Training* Vol. 33, No. 2, pp5-9

Abstract: Review of the progress and outputs of the Enterprise in Higher Education initiative. Provides suggestions for policy-makers.

Gush, J. 1996, "Graduates into the retail industry: an assessment of the nature and causes of mismatches between the needs and expectations of the retail industry and its graduate employees", *International Journal of Retail and Distribution*, vol. 24, no. 9, pp. 5-12.

Abstract: Identifies the degree of satisfaction in the early employment experience of general commercial graduates in UK retailing, and examines the level and causes of dissatisfaction from both sides in the employment relationship using a gap analysis model. Concludes that

there is a difference between short- and long-term needs. Short-term needs are more easily satisfied than longer-term needs. Employers are able to select graduates with high levels of transferable skills; the graduates in turn benefit from early job responsibility and well-developed training and development programmes. The business need for accelerated performance levels induces a responding desire for rapid career progression and job fulfillment in graduates. A changing environment with resultant organizational restructuring means graduates now find career paths blocked as the needs of the business take precedence in the longer term. This can result in high levels of graduate turnover.

Gush, J. 1996, "Assessing the role of higher education in meeting the needs of the retail sector", *Education and Training*, vol. 38, no. 9, pp. 4-12.

Abstract: Aims to identify the need for graduate skills in the UK retail sector, and to assess the role that higher education currently plays and can potentially play in meeting these. Uses semi-structured interviews with managers and graduates of six of the major companies, which demonstrate transferable skills dominate their skill needs. Finds that their need for demonstrated intellect and technical skills is small, and that vocational courses/course content play a definite role, but attributes required are not directly related to specific subject knowledge. Discovers that owing to competitive market place pressures, industry increasingly expects HE to play an active role in providing required skills. Claims that a lack of consensus on the extent to which HE can be held accountable for providing these skills is apparent, and that a clearer strategy for the use of graduate skills is needed, in view of the fact that HE serves a variety of different stakeholders in society with different value systems and objectives.

Harvey, L. & Mason, S. 1996, "A quality graduate," in *The management of independent learning*, J. Tait & P. Knight, eds., Kogan Page/SEDA, London.

Abstract: For many years, employers have been concerned about the ability of graduates to work in a modern organisation. This concern pre-dates the recent rapid expansion in higher education and the concomitant concerns, expressed in some quarters, about the standards and abilities of graduates in the 1990s. The real issue is not whether graduates are better or worse in absolute terms than they were in previous decades. Rather it is the integration of new graduates into an organisation and the speed at which they can contribute effectively that has become a critical factor. The effective attributes of graduates is now more critical for several reasons. First, in a rapidly changing world there is less time for

graduates to become acclimatised to a particular setting. Increasingly graduates are expected to be able to 'hit the deck running'. Second, although many larger organisations train graduates, the growing number of small and medium firms have less resources for training and expected a more rapid return on their investment in graduates. Third, the growth of the world market means that if Britain is to remain internationally competitive then graduates will need to be versatile and flexible as well as knowledgeable. Fourth, and more fundamental in the educational context, is the shift to addressing the student perspective and the need to respond by empowering students for life-long learning through enhancing a range of skills and abilities as well as knowledge.

This paper will outline what constitute the abilities of effective graduates from the point of view of employers (based on wide-ranging research undertaken through the QHE project (Harvey, 1993; Harvey with Green, 1994)) and then explore what independent study can offer in developing these abilities. There is, of course, a basic question raised by any attempt to define a quality graduate from the point of view of employers or any other external stakeholder. Whose needs should higher education be attempting to fulfill? It may be legitimate to suggest that higher education serves its own purposes or the requirements of students and that employers should not dictate the nature of the outcome-higher education is not, after all, a training institution for employers. However, as will be demonstrated, the issue is not one of higher education providing employer fodder!

Harvey, L. 2000, "New realities: the relationship between higher education and employment", *Tertiary Education and Management*, vol. 6, pp. 3-17.

Abstract: The paper addresses one aspect of the 'New Realities' of higher education: the employer-higher education interface. It explores the development of the 'employability' agenda in higher education, examines the nature and implication of organisational change for graduates and assesses what attributes graduates will need in the next decade. Flexible organisations need flexible, and increasingly empowered employees; that in turn calls for transformative and empowering learning. The way that higher education might address this, particularly in the context of lifelong learning, is explored.

Hill, J. & Houghton, P. 2001, "A reflection on competency-based education: comments from Europe", *Journal of Management Education*, vol. 25, no. 2, pp. 146-166.

Abstract: The competency-based program at the Department of International Business and Accounting in the University of Central

Lancashire has only been in use for a relatively short period of time. It was originally created 5 years ago to address the problem of poor student performance on courses resulting from a series of contextual factors to be outlined in this article. For the first 2 years, it was run as a "skills development" module without required attendance. Results were less than desired and failure rates high, largely because students did not see its relevance to their courses or take it seriously and, as a result, failed to attend. Three years ago, the authors, two of the department's lecturers who felt very strongly about the need for competency-based training for students in both academic and job-related skills, undertook a redesign of the module to an experiential and metacognitive model that has evolved over the 3 years' delivery. First, we will provide the contextual factors that created the need for the program, including the educational situation in the United Kingdom, the competition for students, and the achievement levels of many of the students of the university. Second, we will discuss the difference between competency-based modules and the pedagogical norms in U.K. and European higher education. Then, we will outline the three main components of the design of our competency-based model: experiential learning, meta-cognition, and the management of negative affect (the emotional backlash of students to a new and demanding way of learning). Next, we move on to give the students' own views of design considerations for competency-based modules and, to conclude, our view of our experiences and an outline of some implications for educators using competency-based approaches within traditional academic programs.

Holmes, L. 2001, "Reconsidering graduate employability: the 'graduate identity' approach", *Quality in Higher Education*, vol. 7, no. 2, pp. 111-119.

Abstract: This paper attempts to elaborate a cogent alternative to the skills agenda as an approach to graduate employability. This alternative is based on two things: first, a conceptual and theoretical analysis of the nature of human behaviour; and second, the claim that situated behaviour can only be properly understood by interpreting activity as performance-of-a-kind. Such interpretation depends upon there being a set of social practices and a set of identities appropriate to the social situation. This analysis of employability leads to suggestions for undergraduate curriculum enhancement.

Kirby, D. (1989) 'Encouraging the enterprising undergraduate'. *Education and Training* Vol. 31, No. 4, pp9-10

Abstract: Discusses some of the key skills required to develop enterprise skills in undergraduates. Discusses the development and implementation of the Enterprise in Higher Education Initiative – schemes that were intended to plug the apparent skills gap within student groups by shifting the focus from employability skills, such as team work etc, to developing more of an entrepreneurial attitude.

Kirby, D. A. & Mullen, D. 1990, "Developing enterprising graduates", *Journal of European Industrial Training*, vol. 14, no. 2, pp. 27-32.

Abstract: In an era of change and uncertainty, there is a need for employees who are both resourceful and flexible. The creation of such competencies in graduates is the objective of the UK Training Agency's recent Enterprise Initiative in Higher Education. This Initiative is reviewed and the outcomes of one project, the Shell Technology Enterprise Programme, which exposes undergraduates, of any discipline, to a period of action learning in a small firm, is explored. In total, the experiences and attitudes of 75 students are examined, together with the views of their employees. The study concludes that, as described in the programme, action learning can help develop the requisite competencies in students, at the same time developing their understanding of business and management. However, to be fully effective, it needs to be incorporated into the undergraduate curriculum.

Murray, S. & Robinson, H. 2001, "Graduates into sales - employer, student and university perspectives", *Education and Training*, vol. 43, no. 3, pp. 139-144.

Abstract: Graduate employers are faced with the challenges posed by an increasingly complex graduate labour market as well as increasing graduate recruitment and retention problems. In the light of these issues this paper considers graduate attitudes and behaviour towards sales jobs, and employers' response to recruitment of graduates into sales. Results from interviews with key UK graduate employers and a survey of final year students at a Northern Business School show that there is a need for employers to enhance the status of sales and for universities to improve the employability and career management skills of students.

Nabi, G. R. & Bagley, D. 1999, "Graduates perceptions of transferable personal skills and future career preparation in the UK", *Education and Training*, vol. 41, no. 4, pp. 184-193.

Abstract: A sample of 1996 undergraduate students from the University of Central Lancashire were surveyed soon after graduation. Responses were obtained from 143 graduates of the University from an initial census of 315 (45 per cent) drawn from six departments. Although the

initial purpose of the survey was to assess the usefulness of survey methodology as a means of assessing graduates' skills development, the research also addressed a number of key questions relating to the importance and quality of graduates' generic transferable skills and competencies. Basic findings in terms of skills development are threefold: (a) graduates tend to rate the importance of particular skills more highly than their own ability in those skills, (b) graduates tend to rate their level of ability lowest in IT skills and highest in their ability to work without supervision, and (c) that there are possible differences between the views of males and females. The research has implications for undergraduates, employers and careers advisers. Furthermore, academic departments facing teaching quality assessment might find that this approach offers useful evidence for their self assessment.

Raybould, J. & Sheedy, V. 2005, "Are graduates equipped with the right skills in the employability stakes?", *Industrial and Commercial*, vol. 37, no. 4/5, pp. 259-263.

Abstract: Purpose - To discuss employability and skills requirements for graduates from a graduate recruiter's point of view. Design/methodology/approach - To look at key graduate recruitment organisations and explain what skills programmes are available to graduates. Also looks at continued development and what employers may be able to do in the future to improve skills? Findings - There are transferable skills that employers like to see in a graduate and these can vary according to type of role; also, in general, graduates are keen to develop their skills further. There are organisations to help graduates improve these employability skills like Graduate Advantage and higher education institutions. Originality/value - Of value to employers looking to recruit graduates, who need to be aware of what types of programmes are available to graduates. It is valuable to graduates, who need to look at their own skills and improve their employability.

Rosa, P. 2003, "'Hardly likely to make the Japanese tremble': the businesses of recently graduated university and college 'entrepreneurs'", *International Small Business Journal*, vol. 21, no. 4, p. 435.

Abstract: Little has been published on the types of businesses started by graduates, and on how far they are meeting the needs of the 'knowledge driven' economy. This article re-examines and compares data from surveys conducted in the late 1980s on the entrepreneurial career aspirations and destinations of university and college graduates. Recent graduates, when left to their own devices, tend to develop small and unimaginative businesses. The nature of the

business started is significantly determined by the nature of the course taken, and is often professionally and traditionally orientated. Although targeted support improves business professionalism and performance, the improvement is relatively small, and well short of the expectations of Government that the graduates from the university sector should be producing a steady stream of high quality wealth-creating businesses.

Skinner, D., Saunders, M. N. K., & Beresford, R. 2004, "Towards a shared understanding of skill shortages: differing perceptions of training and development needs", *Education and Training*, vol. 46, no. 4, pp. 182-193.

Abstract: The question of how to develop human capabilities to meet current and future needs of organisations has become an important issue at national, organisational and individual levels. An essential ingredient is shared understanding of the skills and competences deemed necessary and/or desirable for current and future performance. Current indications in the UK are that this may not exist and that there is an incompatibility between supply and demand. This paper reports on a research project undertaken in the UK automotive sector to explore the extent and nature of the differences in perception among stakeholders relating to the skills and development needs of current and future employees. Using the template approach data were collected from those providing training and those who are consumers of training. Comparison identified competing demands and differences in expectation and attainment, particularly in relation to prospective employees, potentially resulting in dissatisfaction and disappointment for all concerned.

Westhead, P., Storey, D. J., & Martin, F. 2000, "The Shell technology programme: student outcomes", *Education and Training*, vol. 42, no. 4/5, pp. 272-281.

Abstract: Assesses the contribution of the 1994 Shell technology enterprise programme (STEP) which subsidised the employment of students in SMEs in the UK. A key issue is whether STEP students participating in the 1994 programme reported significantly superior benefits to those of students that never participated in the programme (i.e. non-STEP students). Outcomes associated with the programme were assessed over a 36-month period between 1994 and 1997. The programme had no statistically significant impact on the ability of students to obtain full-time employment positions. Similarly, the programme was not found to be statistically significantly associated with the ability of graduates to obtain full-time jobs in small firms. However, STEP students expressed a statistically significantly more "positive" attitude than non-STEP students towards self-employment or

starting their own business. Conclusions and implications for policy makers and practitioners are detailed.

Wright, M., Robbie, K., & Ennew, C. 1997, "Venture capitalists and serial entrepreneurs", *Journal of Business Venturing*, vol. 12, pp. 227-249.

Abstract: Habitual entrepreneurship is receiving growing attention, much of which has focused on entrepreneurs who have started more than one venture. This paper examines the importance of habitual entrepreneurs to the venture capital industry, with particular emphasis on those who have exited from an initial investment in the venture capitalist's portfolio, termed serial entrepreneurs. As venture capital markets mature, increasing numbers of entrepreneurs are likely to exit from their initial enterprises, creating a pool of entrepreneurs with the potential for embarking on subsequent ventures. Venture capitalists making investments may invest both in entrepreneurs starting new ventures and those who purchase a venture through a management buy-out or buy-in. On this wider basis, the paper develops a classification of types of serial venture. A number of issues are raised for venture capitalists, notably the relative attractiveness of reinvesting in exited entrepreneurs and the policy they adopt in tracking and assessing such individuals. The paper addresses venture capitalists' perspectives on investing in serial entrepreneurs based on a representative sample of 55 UK venture capitalists (a response rate of 48.7%, and a follow-up survey of those who had more extensive experience of serial entrepreneurs (23 respondents). The results of the survey show that despite a strong preference for using an entrepreneur who had played a major role in a previous venture, the extent to which exiting entrepreneurs are funded from their own portfolio again is limited, though there is more extensive use of such individuals in a consultancy capacity. In screening entrepreneurs exiting from previous ventures for subsequent investments, venture capitalists scored attributes relating to commercial awareness, experience in a particular sector, and personal ambition of the entrepreneur most highly. Venture capitalists do make extensive use of serial entrepreneurs who have exited from other venture capitalists' portfolios, primarily to lead management buy-ins. Indications from the survey are that venture capitalists rarely assess entrepreneurs formally at the time of exit and that it is unusual to maintain formal links with entrepreneurs after they have exited. These apparent shortcomings suggest that perhaps investment opportunities are being missed. Those venture capitalists preferring serial entrepreneurs generally had a larger volume of funds under investment and were rather older than those venture capitalists who do not prefer to use serial entrepreneurs, reflecting the possibility

that longer established venture capitalists have had more opportunity and experience in relation to second-time entrepreneurs. Investment appraisal factors were subject to a principal components analysis to identify underlying dimensions/relationships between them. With respect to the general investment appraisal factors, five factors were identified. Two factors were related to track record; one of these reflected ownership experience, while the other represented management experience. The third factor was related to personal attributes such as age, knowledge, and family background. The fourth factor represented links to the funding institution, and the final factor (a single variable factor) concerned financial commitment. The principal components analysis for screening factors on management buy-ins produced a single factor comprising all variables. These factors were then subject to a multivariate analysis of variance (MANOVA), with preference for use of a serial entrepreneur as the independent variable. The results suggest that there are significant differences between venture capitalists who prefer serial entrepreneurs and those who do not in respect to their business ownership experience, the length of their entrepreneurial careers, and the number of their previous ventures. The results of the study have implications for practitioners. First, the findings emphasize the importance of not considering previous venture experience in isolation but in the context of other key investment criteria. Second, the lack of strongly greater performance from serial, versus novice, entrepreneurs further emphasizes the care to be taken in assessing experienced entrepreneurs. Third, the relatively low degree of formal and rigorous post-exit assessment and monitoring by venture capitalists suggests that important opportunities to invest in experienced entrepreneurs may be missed.

Wilkinson, D. 2006. *Three years on: a survey of the early career paths of the graduates of 2002 from the Yorkshire Universities*. Leeds: Graduates Yorkshire.

A report of the findings of a longitudinal survey of the graduates from the year 2002 from Universities in the Yorkshire region, commissioned as part of the Labour Market information strand of the Graduates Yorkshire project. The purpose of the study was to ascertain the movements of first-degree graduates from the region's Higher Education Institutions.

Appendix 2: Organisations consulted

Evidence Limited

Evidence Ltd is a knowledge-based company specializing in data analysis, reports and consultancy focusing on the international research base.

Jonathan Adams, Managing Director.

ITOMS

ITOMS take on-line measurements to give real time images and data of what is going on inside pipes and vessels moving beyond point based measurement techniques to provide more comprehensive process data. Key outputs are process end-points and new process information; end user benefits are in lower production costs (through improved efficiency and better yields) and more effective process development.

Richard Williams, CEO.

Creditscorer

CreditScorer's strategic intent is to enable credit professionals to improve their credit granting and collections performance. CreditScorer has developed benchmarking and risk management products for its commercial credit customers, and undertakes bespoke scoring contracts for large commercial organisations within the UK.

Nick Wilson, CEO.

Proctor and Gamble

The P&G community consists of almost 140,000 people working in over 80 countries worldwide. What began as a small, family-operated soap and candle company now provides products and services of superior quality and value to consumers in 140 countries.

Mike Leigh, Product Development Manager, Beijing.

Logistik

Logistik are a live event management organisation. They specialise in red-carpet film premiers to orchestrating the annual Radio One Love Parade. They have been in operation since 1997 and are based in Leeds.

Richard Hill, HR Manager.

BBC

Evan Davies is the BBC Economics Editor and regularly presents business-related programmes for the BBC. He currently anchors the Radio 4 Programme – The Bottom Line.

Evan Davies, Economics Editor.

British Telecom

BT is a leading provider of communications solutions serving customers throughout the world.

Richard Gorbett, Project Management, International Division.

Enterprise Rent-a-Car

Enterprise was founded as a leasing company, over the years we've created additional services to meet our customers' growing needs. Our company has expanded its services beyond Enterprise car rental and vehicle leasing to include: Fleet Management Services, Used Car Sales, California Vanpool Services, Rent-A-Truck. Sara Varo, Graduate Recruitment, Leeds.

Abcam

Abcam is a web-based anti-body company. The idea for Abcam came early in 1998 out of a laboratory in the University of Cambridge, UK. Abcam sells the best antibodies in the world with the most comprehensive, honest and up-to-date datasheets, fast delivery and helpful customer service & technical support. Bill Campbell, Project Manager, USA.

Accenture

Accenture is a global management consulting, technology services and outsourcing company. Committed to delivering innovation, Accenture collaborates with its clients to help them become high-performance businesses and governments. Camilla Collins, Senior Consultant.

Carlsberg Tetley

Carlsberg's-Tetley's primary focus is the production, sale and marketing of beer, with secondary activities in soft drink and water production. Carlsberg's three key markets are Western Europe, Eastern Europe and Asia. The company wishes to become market leader in all markets and market segments where it operates by establishing majority shareholdings or partnerships. James Green, North of England Sales Manager.

Complex Systems

Complex Systems Associates Ltd has emerged from a network of partners that have worked together for the last 10 years on how to 'do differently'. Our focus is to apply living systems ideas to practical leadership and management in the public, private and voluntary sectors. Becky Maulby, Director

Asda

Asda is one of the country's largest supermarket retail stores with over 300 stores nationwide. It was founded as a supermarket committed to offering shoppers 'permanently low prices'. ASDA continued to grow as an independent business until 1999 when we became part of the

Wal-Mart family. It is based in Leeds.
Tanya Watkins

Appendix 3: Employer questions

Understanding “Commercial Awareness” from an Employer’s Perspective

1. What do you/your organisation understand by the phrase ‘commercially aware graduates?’
2. If graduates are commercially aware, what specific skills do they have?
3. In your opinion, do commercially aware graduates make enterprising employees?
4. What are the impacts of commercially aware graduates for your organisation?
5. What key characteristics of a commercially aware graduate are generic (i.e. transferable between employers.)
6. What do you believe are the indicators of commercial awareness?
7. Do you believe that universities should ‘teach’ commercial awareness to their undergraduates?
8. If so how could we do this, what approaches should we take and what experiences could we offer?
9. In your experience, are certain groups of students likely to be more commercially aware than others?

Other comments: