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The role of the undergraduate work placement in developing employment competences: Results from a 5 year study of employers

Abstract: There is increasing research interest into the nature of competences required to secure a graduate job. This paper examines the role of the undergraduate work placement in developing such employment competences. In order to do this we draw upon a framework of generic competences developed in a previous project by one of the authors, together with data on how these competences are valued by graduates and employers. We also draw upon a survey of employers and students who have participated in an Aston Business School work placement. The work placement year is an integral feature of Aston's undergraduate business programme and gives up to 600 students a year the experience of working with well known companies. For the past five years we have conducted a survey of these companies to assess their experience of employing our undergraduates on work placements and to examine the skills and competencies developed by students in the learning process. In this paper we compare data from both pieces of research to examine how competences developed during the undergraduate work placement contribute to the enhancement of graduate employment.

Key words: competences, competencies, work placement, employability, undergraduate business studies, work-based learning, graduate employment

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Introduction

In this age of the 'massification' of education (Gibbons et al, 1994) there is pressure from governments for universities to produce relevant and applicable knowledge which meets the labour-force requirements of the new economy. In the UK at least government policy has borne out this move from an elite education system to a system of mass education (Yorke, 2000; Elias and Purcell, 2004; Scott, 2005). For the new generation of student consumers, for whom the progression to higher education is becoming an economic decision, there is demand for universities to deliver vocational and marketable skills and to provide a pathway into employment. For individuals there is a greater emphasis for one's own 'employability', where the university and employers are stepping stones in the pursuit of lifelong learning (Moreau and Leathwood, 2006). At the same time higher education has been moving more towards a focus on competence-based learning (Gillies and Howard, 2003; James, 2002) and graduate employability increasingly requires the demonstration of hard and soft competences developed through a partnership between universities and industry (Connor and Hirsch, 2008). It is the role of the 'soft' or 'generic' competences sought by employers (rather than more job-specific 'hard' or 'technical' knowledge) which is the focus of this paper.

There is increasing research interest into the nature of competences sought by employers and the role of the university in providing them. This paper draws upon one such research project conducted by Aston Business School together with a consortium of European partners. The MISLEM project surveyed 900 employers and business graduates in four European countries, and developed a framework of soft or generic employability competences which are seen to enhance graduate employability (Andrews and Higson, 2007). This framework forms a basis for our paper.

At the same time there is considerable discussion about the role of higher education institutions (HEIs) in developing these employability competences, and of the role of practical work experience. The role of the work placement has attracted particular attention (Archer and Davison, 2005; Little and Harvey, 2006). At Aston Business School an integral feature of the

undergraduate programme is integrated work-based learning gained through an assessed work placement year. Up to 600 students a year gain the experience of working with well known companies. For the past five years we have conducted a survey of these employers to assess their experience of employing our undergraduates on work placements and to examine the skills and competences developed by students in the learning process. We therefore have 5 years of data on the development of students' soft competences during the placement year.

An interesting question which arises is 'what is the role of the work placement in developing graduate employment competences? In this paper we bring together these two pieces of research to examine how the development of soft competences developed during the undergraduate work placement contributes to the enhancement of graduate employment. First we establish an overview of the literature and present some findings about soft or generic employability competences from the MISLEM project (Andrews and Higson, 2007; 2008). We then describe the methodology used to conduct and analyse the placement survey of employers and students. We then highlight the key findings from the placement survey and compare this data with the results of the MISLEM project. We then attempt to recommend how competences developed during the placement year can contribute to graduate employability, and to draw out implications for the delivery of the undergraduate business studies curriculum. It is important to stress that this paper represents work in progress and that our conclusions are still in the process of forming.

Literature review

In recent years higher education has been moving away from the traditional knowledge-based approach towards a more competence-based learning focus (Gillies and Howard, 2003; James, 2002). This has coincided with changes in the funding of higher education and in initiatives, such as Bologna, to make higher education more relevant and more transferrable. It has also involved a move away from the demand for just technical knowledge in industry to calls for a more diverse managerial expertise (Brent et. al., 1996). In a more competitive global economy this approach has now become essential. Universities have started working with their industrial and corporate colleagues, and new forms of curriculum have developed. This focuses on ensuring that those entering the labour market have both the required technical skills and what are sometimes termed higher level 'soft' skills to apply the techniques appropriately in the workplace. Curricula have come a long way since the days when one graduate recruiter said to the authors: "your students have excellent skills and knowledge, but they do not think about them."

Thus employability competences have become part of the education agenda. This has entailed identifying with industry the competences needed by graduates, both immediately, and later in their careers, and then mapping the acquisition of these competences into the curriculum. Beinhauer and Frech's (2009) work forms part of an EU Tempus project which aims to provide tools to help HEIs develop employability competences. It is written on the premise that the essence of competence-based curriculum design is that graduates need to be able to demonstrate

a set of agreed things which they have learnt. This will be a combination of knowledge, skills and abilities (Chyung et al, 2006).

There is some discussion in the literature of whether HEIs are the right group to take responsibility for developing employability (Murray and Robinson, 2001; McHardy and Allan, 2000; Zinzer, 2003; Nicholson and Cushman, 2000), given that they may be detached from the corporate world. Watts (2006) counters this, asserting that having employability competences within the curriculum supports academic values. Connor and Hirsch (2008) suggest the most appropriate way is via collaborative work between HEIs and industry. This form of communication should replace the customer/client relationship. It is this approach which is embodied in MISLEM (Andrews and Higson, 2008), an EU-funded research project which was set up to work with employers and graduates in order to develop a set of educational performance indicators to enhance graduate employability via the undergraduate business curriculum. These form the theoretical basis of this paper.

So, what are employability competences? The Tuning project (a university-led scheme aiming to help implement the Bologna process), defines them as a dynamic combination of knowledge, understanding, skills and abilities which are obtained by a process of learning (Gonzalez and Wagenaar (2005). The International Board of Standards for Training and Performance Instruction (IBSTPI) uses the definition 'a knowledge, skills, or attitude that enables one to effectively perform the activities of a given occupation or function to the standards expected in employment.' (IBSTPI, 2005) These competences can either be generic (i.e. across all study areas) or subject specific (i.e. based in a particular discipline or sector). Woodruffe (1990) defines competence in terms of meeting performance goals at work, while Armstrong (2003) brings in the concept of knowledge transfer.

This paper concentrates on the softer, more generic transferrable skills, referred earlier in this paper as the skills of thinking and applying. Boyatzis (1982) was one of the first to describe competency in terms of personal qualities and behaviours, i.e. the softer skills. The MISLEM project found that the most important generic group of competences required was the acquisition of higher level soft skills, particularly relating to communication (Andrews and Higson, 2008). Fallows and Steven (2002) evidence employability skills which range from an ability to manage information, interact effectively with others, the ability to solve problems and prioritise. Students can learn these via carefully designed learning activities or experiences, like the one that is the subject of this paper. An essential part of the process is for students to be able to evidence that they have achieved these. This requires academics and their students to take part in different modes of learning which they may not be used to. This will probably mean learning in a less passive way, and it will certainly involve more links with industry in order to reduce the gap between the academic world and the professional arena (Beinhauer and Frech, 2009, p.14).

There is some evidence in the literature that employers are certainly more often requiring qualities over qualifications. McMillan and Weyers (2006) suggest that employers now expect as standard that all graduates have underlying technical/ discipline competences. Employers, therefore,

expect graduates to demonstrate the personal competences (soft skills) which they now often are looking for as the factor which distinguishes them from other candidates. Recruitment methods increasingly reflect this approach, with the use of selection methods which test 'all-round skills such as team-working, leadership, problem solving as well as technical abilities' (Raybould and Sheedy, 2005, p.261). This focus on soft skills is endorsed by many employers (Archer and Davison, 2008). Amongst these, soft skills communication and teamworking are rated highly by employers. The UK Commission for Employment and Skills (2009) identifies teamworking, communication, active listening, an interest in learning, problem solving, numeracy, literacy and taking criticism as the employability competences which 'make the difference between being good at a subject and being good at a job.'

All this is focussed on improving the employability of graduates, as a means of improving their competitiveness. The Dearing report for the National Committee of Inquiry into Higher Education (1997) – perhaps the seminal text on this topic for a generation in the UK – describes graduate employability as the ability to secure work suitable to the standard of education achieved. There is no one clear definition of employability, although the mention of skills and abilities seems to be a common theme, even where the perceptions of academics and employers differ. McQuaid and Lindsay (2005) reflect this by analysing a number of definitions of employability. Little (2003) defines it as 'work-readiness'.

So far this review has concentrated on the benefit of graduates in building up employability competences. The literature suggests that there are also advantages for employers. By working with HEIs to develop curricula which build up employability, employers are investing in the employability of their workforce and maximise their company's skill base, and enhances the appeal of their organisation (de Vries, Grundermann and Van Vuuren, 2001). King (2003) further suggests that employers should embrace graduates' wish to improve their employability.

The crucial role of work experience, and particularly the placement is mentioned by Archer and Davison (2005). They note the mismatch of employers' expectations on commercial awareness with graduates' abilities and the concerns at the apparent decline in numbers taking a work placement. One of the key findings of the MISLEM project (Andrews and Higson, 2008) was how crucial integrated work experience was for developing employability competences. There is much literature which confirms these findings (Ellis, 2000; Crebert et. al (2004). Harmer (2009) suggests that learning would be enhanced for all stakeholders if students experienced more of the real-life complexities or organisations as part of their degree. Murakami et. al. (2009) look at how effective placements are in developing career-related competences.

The MISLEM project identified a framework of eight generic 'soft' competences which are considered to be important to employers when assessing the employability of graduates. It then surveyed some 900 employers and business graduates in four European countries. Part of the survey asked them how they valued these key employability competences. The following table lists the eight employability competences and shows what % of graduates or employers in the MISLEM survey rated each competence as 'valuable.'

Fig. 1: Percentage of graduates and employers who felt generic employability competences are *valuable* in assisting a smooth transition from education to employment

Competency	Graduates (%)	Employers (%)
<p>Communication skills The ability to communicate clearly and concisely, using a range of verbal and written methods)</p>	94	96
<p>Team-working and Relationship Building Skills The ability to work in teams and to utilise appropriate interpersonal skills to build relationships with colleagues, team members and external stakeholders</p>	92	85
<p>Self and Time Management Skills The ability to organise oneself, one's time and one's schedule effectively in any given work-related situation.</p>	92	82
<p>Ability to see the Bigger Picture The ability to see how things are interconnected and to approach work-related issues in a strategic and innovative manner.</p>	88	74
<p>Influencing and Persuading Abilities The ability to communicate at all levels using influencing techniques and negotiation skills to positively influence others.</p>	86	78
<p>Problem-Solving Abilities The ability to analyse problems and situations in a critical and logical manner and to apply workable and logical solutions to such problems.</p>	86	75
<p>Leadership Abilities The ability to lead a team whilst taking responsibility for a task, giving direction, providing structure and assigning responsibility to others.</p>	75	60
<p>Presentation Skills The ability to prepare and deliver effective presentations to</p>	74	88

different audiences in a wide-range of circumstances.

Source: Andrews and Higson (2007)

Methodology

In this paper we are looking at the role of the undergraduate placement year in developing these competences identified in the MISLEM project.

In order to do this we draw mainly upon data drawn from our annual survey of the Aston Business School work placement taken over the past 5 years 2004-5, 2005-6, 2006-7, 2007-8 and 2008-9. In this survey we ask both employers and students about knowledge gained during the placement year. A significant part of the learning from the placement is about the softer and generic competences required to work in organisational (often office) environments. In order to elicit this data we present a list of competences for respondents to rate in terms of its importance as learning gained on the placement. The list has been taken from the National Council for Work Experience in the UK.¹

Fig. 2: Soft competences surveyed during the Aston Business School placement year

VERBAL AND WRITTEN COMMUNICATION SKILLS	How successful was the student in putting across ideas/information verbally and in writing?
LEADERSHIP	Consider the student's planning, organisation, leading, delegating and follow-up skills
INFLUENCING AND NEGOTIATING	Did the student make valid suggestions for improvements and have the ability to develop/improve ideas, successfully persuading others to put their suggestions into practice?
CUSTOMER AWARENESS	Was the student's attitude appropriate when dealing with customers (internal and external to the organisation), clients etc.
SELF DEVELOPMENT	Did the student develop their skills through their work, perhaps demonstrated in their Reflective Learning Journal? Did they actively seek out opportunities for development, training, additional tasks etc.?
MANAGING CHANGE	Did the student respond positively to change throughout the year? Did they manage

¹ This was developed as a result of a European project. Details of the project and the partners can be found at the website <http://efwe.efwe.org>

	themselves and their workload appropriately during periods of change?
CRITICAL THINKING AND PROBLEM SOLVING	Did the student demonstrate a logical approach to problem solving? Were they able to reach well-thought through resolutions?
TIME MANAGEMENT SKILLS	Did the student manage their time effectively? Was s/he able to meet deadlines?
NETWORKING SKILLS	Was the student an able networker?

In addition employers and students are given the opportunity to write open comments on the questionnaire about what they have valued about the placement. This has the advantage of allowing respondents to describe the benefit of the placement year in their own words, in addition to the above list of competences which they are prompted with in the questionnaire. We have taken these qualitative comments from the current year's student and employer survey and developed a list of further 'soft' competences which employer and students feel have been developed on the placement year.

We then take the results from the placement survey and compare them to the framework of graduate employability competences identified in the MISLEM project (Andrews and Higson, 2007). The comparison of these two sets of competence variables – one a formative diagnostic for competences developed during work-based learning, and the other a summative diagnostic for competences demonstrated by graduates already in employment – will enable us to examine the role of the undergraduate work placement in developing competences for graduate employment.

Findings from the placement survey

In this section we present the results from the survey of the Aston Business School work placement year. In the placement survey, employers are asked to rate the student in terms of their demonstration of specific competences. The following table shows the proportion of employers who rated their students as excellent or above average in these specific competences.

Fig. 3: % of employers who rated the placement student as excellent or above average in specific competences

Competency	2004-5	2005-6	2006-7	2007-8	2008-9
	%	%	%	%	%
Verbal/ written communication skills	67	65	71.4	71.5	71.5

Leadership	54	56	55.1	60.7	57.3
Teamwork skills	78	82	83.7	85.4	84.5
Influencing and negotiating	58	59	65.3	66	65.7
Customer awareness	77	80	80.2	80.9	76.8
Self development	69	73	75.5	77.4	76.8
Managing change	75	80	81.1	82.2	80.2
Critical thinking and problem solving	66	67	71	71.3	70.7
Time management skills	69	72	73.6	82.1	72.8
Networking skills	61	62	66	71.2	67.3
Number of respondents and response rate (%)	315 (79%)	343 (86%)	316 (74%)	379 (72%)	379 (74%)

First we need to say a few words about the data. In the year on year data from employers presented in Fig. 3 it is not possible to draw any conclusions about how these numbers have changed over the years. Although there have been some notable increases, variations between the years may be because inevitably some year groups will perform better than others. The similarities shown between the years, albeit with minor fluctuations, serve to confirm a consistency in how these competences have been rated over the years.

From the data we can make the following broad observations:

- Teamworking and managing change particularly stand out as consistently highly rated
- Self-development and customer awareness are highly rated
- Verbal and written communication, critical thinking and problem solving and time management are not as highly rated
- Leadership, influencing and negotiating, and to a lesser extent networking skills rank relatively low in the extent to which these have been achieved by placement students

In addition to the above list, students and employers were also given the opportunity to write open comments on the questionnaire about what they have valued about the placement. We have taken these additional comments from the 2008-9 survey of employers and the 2007/8 survey of students.

From the survey of employers the relevant question asked employers to comment on the student’s progress. From these comments the following key competences were identified. It is important to stress that although these may appear low as percentages, they are significant results in view of how the data was elicited, where respondents were given a blank space to write whatever came to mind.

Fig. 4: Additional competences identified by employers in the placement survey

Competency	Number (N=365)
Belonging/ establishing relationships	156
Confidence	108
Communication skills	91
Conscientious/ strong work ethic	52
Organisational /time management	49

From the student survey the relevant question asked students what are their biggest personal gains. These comments were aggregated to form a list of additional soft competences which students particularly identify as arising from the placement experience. From a total of 289 respondents, the following competences were specifically identified. Note the comment mentioned above about how the data were elicited.

Fig. 5: Additional competences identified by students in the placement survey

Competency	Number (N=289)
Confidence	126
Interpersonal skills	60
Experience of work environment and office politics	42
Organisational /time management	40

The most striking result from the open ended questions both from the employers and the students is ‘confidence’ in many cases described as ‘self-confidence.’ The students also particularly mentioned ‘interpersonal skills’ which shows a similar notion of the growing of one’s self and one’s ability to interact with others in a work environment. Communication skills and the ability to manage oneself and one’s time in an organisational environment have also been developed significantly in the placement year. These findings are consistent with research by Little and Harvey (2006).

From the employers’ point of view ‘belonging and establishing relationships’ is a significant feature, which may also be akin to ‘teamworking’ which is consistently highly rated in fig. 3.

Overall these results are showing that key learning from the placement is mainly about the development and confidence of the individual and ability to organise oneself in a dynamic team-working environment, with the necessary interpersonal and communications skills to deal with internal and external customers. It is interesting that these might be considered to be more social skills oriented towards the organisational and commercial environment.

In contrast, the individual faculties – and in some respects more technical competences – such as critical thinking and problem solving, verbal and written communication, and time management are not as highly rated. In particular critical thinking and problem-solving are thought of as ‘higher-level’ academic skills and other research agrees that for the students this is less a part of the placement than personal development (Little and Harvey, 2006).

Finally it appears that competences which require a student to make an impact and to extend their sphere of influence – such as leadership, influencing and negotiating, and networking – are not as highly developed during the placement year.

Analysis

In the analysis of this data we identify what are the key employment competences which are enhanced during the placement year, and examine how these compare to graduate employment competences identified in the MISLEM project. While both sets of data concentrate on the development of ‘soft’ skills, we need to be clear that we are comparing two different sets of data. The MISLEM data shows how valuable or important employability competences are considered to be by employers or students when finding a graduate job. The data from the placement survey show the extent to which the competences described have been achieved by actual placement students. Furthermore the frameworks used are not identical, which makes comparison more problematic. However there are clear overlaps between several categories in the frameworks, which allows us to observe the following findings.

Both sets of data show that leadership and influencing/ persuading are considered to be relatively less important competences developed during the placement year or as a competence considered

valuable when finding a graduate job. This is also the case with problem solving. This may be because they are considered higher level skills to be developed during the final year in order to equip graduates with longer term employability skills. Alternatively it may be because leadership and influencing/ persuading are competences which are properly learned in practice once a student is installed in a graduate job.

Communication skills and time management are rated highly by employers and students when looking for jobs, although this is relatively low compared to other competences achieved during the placement year. This is perhaps something which needs to be addressed in the first two years before the placement.

Teamworking and relationship building is highly rated in both sets of data, showing that the placement year is contributing significantly to enhancing this employment competence. Group work is something that Aston Business School spends considerable time investing in developing during the first and second years, so it is good to see that it clearly has an impact.

Conclusions and implications

It is important first to stress that this paper represents work in progress, and that our conclusions are in the process of forming. We hope in a later version of the paper to make a fuller appraisal of our findings and their implications for practice, together with a proper synthesis of how our research adds to current literature in the field.

The placement year particularly equips students with self-confidence to work in a company environment, although this has not previously been included in competences which measure graduate employability. This raises an interesting question is confidence a 'competence' or a faculty, indeed can confidence be taught? Our data and the research of Little and Harvey (2006) clearly shows that confidence is developed during the placement year. Looking at the list of competences in both data it appears that the term 'confidence' could be said to apply to many of the competences, so there is perhaps an issue around terminologies used by the different stakeholders in this study.

Overall it appears that the placement year is equipping students well with opportunities for self-development and personal effectiveness in a dynamic teamwork environment, and that these qualities are key to employability. However it is particularly interesting to note that leadership and influencing/ negotiating/ persuading are considered to be relatively less important as competences developed during the placement year or as competences considered valuable when finding a graduate job. This is also the case, although less for, with critical thinking and problem solving.

There are clearly limitations in this study which future work would need to address. Most of this stems from the use of two different sets of data which, although they intersect, come from

different stand points and measure different things. In order to validate the findings of this study it is suggested that the questions on the placement survey are changed to ask employers and students to rate against the MISLEM employability competences. It would also be helpful to ask them to rate the importance of the competences and to add the word 'confidence' into the questionnaire in some way, perhaps to ask the respondents to define what they mean by this term. Furthermore for future research an additional survey of employers and graduates on entering a post-University job would help to validate the MISLEM findings in this context.

Finally, what are the implications for the curriculum? It is always a dilemma in research whether we are measuring the right thing, particularly where there is a tendency for what we measure to become the focus of management. Thus with a low rating of leadership and influencing/negotiating in the placement survey, we might be tempted to put more leadership earlier into the curriculum. However our data from the MISLEM project would suggest that leadership and influencing are not valued when finding a graduate position, and if these are competences which are developed more at work and in practice than in the class-room, should they be a feature of our education? The same could be said for higher level academic skills such as critical thinking and problem solving. These questions are at the heart of the very discourse about the role of a theoretical vs. a practical education and the role of the university in providing 'employability' for its graduates.

References

- Andrews, J. and Higson, H. (2007), '*Education, employment and graduate employability: Project manual.*' Published by Aston University ISBN 978 1 85449 441 2.
- Andrews, J. and Higson, H. (2008), 'Graduate Employability, "Soft Skills" versus "Hard" Business Knowledge: A European Study', *Higher Education in Europe*, Vol. 33 (4), pp.411-422.
- Archer, W. and Davison, J. (2008), 'Graduate Employability: The Views of Employers', Council for Industry and Higher Education.
- Armstrong, M. (2003), *Handbook of Human Resource Management*, Kogan Paul.
- Beinhauer, R. and Frech, B. (2009), *Manual to Matching Competencies in HE and the Labour Market*, The Competence Consortium, Graz.
- Boyatzis, R.E. (1982), *The Competent Manager: A Model of Effective Performance*, New York: Wiley and Sons.
- Chyung et al. (2006), 'Building a competency-based curricula architecture in 21st-century business practice', *Journal of Educational Business*, Vol.81 (6), pp.307-311.
- Connor, H. and Hirsh, W. (2008), 'Influence through collaboration: Employer Demand for Higher Learning and Engagement with Higher Education, CIHE.
- Crebert, G. et.al. (2004), 'Developing generic skills at university, during work placement and in employment: graduates' perceptions', *Higher Education Research and Development*, Vol.23 (2), pp.147-165.
- Dearing, R. (1997), *The National Committee of Inquiry into Higher Education*
- De Vries, S., Grundermann, R. and Van Vuuren, T. (2001) 'Employability Policy in Dutch Organisations', *International Journal of Human Resource Management*, Vol.12 (7), pp.1193-1202.

- Elias, P. and Purcell, K. (2004). Is mass higher education working? Evidence from the labour market experiences of recent graduates. *National Institute of Economic Review*, 190, (October 2004), p.60-74.
- Ellis, N. (2000), 'Developing graduate sales professionals through co-operative education and work placements: a relationship marketing approach', *Journal of European Industrial Training*, Vol.24 (1), pp.34-42.
- Fallows S. and Steven C. (2002), 'Building Employability Skills into the Higher Education Curriculum: a University-wide Initiative', *Education and Training*, Vol.42 (2), pp.75-83.
- Gibbons, M., Limoges, C., Nowotny, H., Schwartzman, S., Scott, P. and Trow, M. (1994). *The new production of knowledge: The dynamics of science and research in contemporary societies*. London: Sage.
- Gillies, A. and Howard, J. (2003), 'Managing change in process and people', *TQM and Business Excellence*, Vol.14 (7), pp.797-805.
- Gonzalez, J. and Wagenaar, R. (eds.) (2005), 'Tuning educational structures in Europe II. Universities' contribution to the Bologna Process', available online at: http://www.tuning.unideusto.org/tuningeu/index.php?option=com_docman&Itemid+59&task+view_category&catid+19&order+dmdate_published&asc+DESC (accessed 28 Sept 2006).
- Harmer, B. (2009), 'Teaching in a contextual vacuum: lack of prior workplace knowledge as a barrier to sensemaking in the learning and teaching of business courses', *Innovations in Education and Teaching International*, Vol.46 (1), pp.41-50.
- IBSTPI (2005), 'Evaluation of competencies', presented to the Board.
- James, P. (2002), 'Discourse and Practices of competence-based training' *International Journal of Life Long Learning*, Vol.21 (4), pp.269-391.
- King, Z. (2003), 'New or Traditional Careers? A Study of UK Graduates' Preferences', *Human Resource Management Journal*, Vol.13 (1), pp.5-26.
- Little, B. (2003), 'International Perspectives on Graduate Employability', Briefing paper, York. The Higher Education Academy. <http://www.heacademy.ac.uk/search>. Date Accessed 25th May 2006.
- Little, B. and Harvey, L. (2006). 'Learning through work placements and beyond.' A report for HECSU and the Higher Education Academy's Work Placements Organisation Forum.
- McQuaid, R.W. and Lindsay, C. (2005), 'The Concept of Employability', *Urban Studies*, Vol.42 (2), pp.197-219.
- McHardy, P. and Allan, T. (2000), 'Closing the gap between what industry needs and what HE provides', *Education and Training*, Vol.42 (9), pp.469-508.
- McMillan, K. and Weyers, J. (2006), *The Smarter Student: Skills and Strategies for Success at University*, Pearson.
- Moreau, M. and Leathwood, C. (2006). Graduates' employment and the discourse of employability: A critical analysis. *Journal of Education and Work*, 19(4), 305-324.
- Murakami, K. et.al. (2009), 'Learning on Work Placement: The Narrative Development of Competence', *Journal of Adult Development*, Vol.16 (1), pp.13-24.
- Murray, S. and Robinson, H. (2001), 'Graduates into sales – employer, students and university perspectives', *Education and Training*, Vol.43 (3), pp.139-145.
- Nicholson, A. and Cushmann, L. (2000), 'Developing Successful Employees: Perceptions of Industry Leaders and Academicians' *Education and Training*, Vol.42 (6), pp.366-371.
- Raybould, J. and Sheedy, V. (2005), 'Are Graduates Equipped with the Right Skills in the Employability Stakes?', *Industrial and Commercial Training*, Vol.5, pp.259-263.
- Scott, P. (2005). Mass higher education – ten years on. *Perspectives: Policy and Practice in Higher Education*, 9, (3), p.68-73.
- Watts, A.G. (2006), *Career development learning and employability*, The Higher Education Academy.
- Woodruffe, C. (1991), 'Competent by any other name', *Personnel Management*, September, pp.30-33.

- Yorke, M. (2000). Developing a quality culture in higher education. *Tertiary Education and Management*, 6, (2), p.19-36.
- Zinser, R. (2003), 'Developing career and employability skills: a US case study' *Education and Training*, Vol.45 (7), pp.402-410.