

The graduate attributes we've overlooked: enhancing graduate employability through career management skills

Ruth Bridgstock*

Centre for Learning Innovation, Queensland University of Technology, Australia

(24 March 2007; final version received 4 January 2008)

Recent shifts in education and labour market policy have resulted in universities being placed under increasing pressure to produce employable graduates. However, contention exists regarding exactly what constitutes employability and which graduate attributes are required to foster employability in tertiary students. This paper argues that in the context of a rapidly changing information- and knowledge-intensive economy, employability involves far more than possession of the generic skills listed by graduate employers as attractive. Rather, for optimal economic and social outcomes, graduates must be able to proactively navigate the world of work and self-manage the career building process. A model of desirable graduate attributes that acknowledges the importance of self-management and career building skills to lifelong career management and enhanced employability is presented. Some important considerations for the implementation of effective university career management programs are then outlined.

Keywords: career management; employability; generic skills; graduate attributes; university graduates

Introduction

Education and training have recently been reconceptualised through human capital theory as primarily economic devices and essential to participation in the global economy. It has increasingly been argued that the overall economic performance of Western countries is ever more directly related to their knowledge stock and learning capabilities (Foray & Lundvall, 1996). There has also been a modification in labour market policy orientation from job security and structural workforce interventions to a position of 'employability security' (Opengart & Short, 2002), where individual workers must constantly adapt to rapidly changing work environments and requirements, including emerging technologies (Butterwick & Benjamin, 2006).

These policy shifts have affected the tertiary education sector in fundamental ways. Governments (particularly in the UK, Australia and Canada) have made public funding for universities partially contingent upon demonstrable graduate outcomes, with an emphasis on the production of 'work ready' graduates who are competent within their disciplinary fields and possess the abilities necessary to negotiate a world of work that is in constant flux (Barrie, 2006; Bowden, Hart, King, Trigwell, & Watts, 2000). Universities have engaged with this graduate employability agenda by re-examining which attributes their graduates should possess and by focusing on fostering generic

*Email: r.bridgstock@qut.edu.au

skills in students that might make them appealing to multiple employers across multiple work contexts and disciplines.

The present article examines and then challenges current understandings of what desirable graduate attributes should be. It suggests that generic skill development is an inadequate answer to the question of graduate employability and that for enhanced graduate outcomes in the immediate term and on a sustained basis, universities should promote broader career management competence in students.

Graduate attributes

Bowden et al.'s (2000) commonly cited definition states that graduate attributes are, 'the qualities, skills and understandings a university community agrees its students would desirably develop during their time at the institution and, consequently, shape the contribution they are able to make to their profession and as a citizen' (para 1). Each Australian university has constructed its own unique list of desirable graduate attributes. The Australian Government and employers' organisations have contributed lists of their own (Australian Chamber of Commerce and Industry, 2002). Very few attempts have been made to identify commonalities between various lists, provide a research-based synthesis of attributes (cf. Barrie, 2004; Nunan, 1999) or identify deficiencies in lists, in part because of disparate understandings of what is meant by the various categories of attribute included.

It seems clear, however, that Bowden et al.'s (2000) definition encompasses two main types of attributes: (1) those which pertain to an individual's capacity for citizenship (including involvement in democratic processes, social cohesion, equity and human rights and ecological sustainability) and thus ability to contribute towards a well-functioning society (Rychen & Salganik, 2005); and (2) those which pertain to an individual's capacity to obtain and maintain work (Harvey, 2001; McQuaid & Lindsay, 2005) and thus contribute to economic productivity. This second 'employability' agenda, the main impetus for the recent interest in graduate attributes, is part of the move towards developing 'human capital' to meet the needs of the 'new knowledge economy' (Curtis & McKenzie, 2001, p. vii).

In the context of a rapidly changing information- and knowledge-intensive economy, workers must be both immediately and sustainably employable. In order to do so, they must not only maintain and develop knowledge and skills that are specific to their own discipline or occupation, but must also possess 'generic' skills, dispositions and attributes that are transferable to many occupational situations and areas. These generic skills are defined as 'those transferable skills which are essential for employability at some level for most' (Kearns, 2001, p. 2). Generic skills have also been variously known as 'core skills', 'key competencies', 'transferable skills' or 'underpinning skills' (Mayer, 1992).

Graduate employability

Narrow definitions of employability emphasise skills and dispositions that might make an individual attractive to potential employers, often (although not necessarily) focusing on short-term employment outcomes. These kinds of definitions have, understandably, often been adopted by employer organisations. The Confederation of British Industry (1999) defined employability as being 'the possession by the individual of the qualities and competencies required to meet the changing needs of

employers and customers' (p. 1). The Australian Chamber of Commerce and Industry (ACCI) and the Business Council of Australia (BCA) represent employability skills as 'skills required not only to gain employment, but also to progress within an enterprise so as to achieve one's potential and contribute successfully to enterprise strategic directions' (ACCI and BCA, 2002).

Narrow employability definitions have been adopted and promoted in Australian Government policy documents since the beginning of discussions on graduate employability in Australia (e.g. Department of Education, Science & Training, 2004; Department of Employment, Training & Youth Affairs, 2000). The recent *Graduate Employability Skills* report commissioned by the Business, Industry and Higher Education Collaboration Council (Precision Consultancy, 2007), intended to be a comprehensive review of employability skill development, assessment and reporting in Australia, continued to focus on generic and discipline-specific skills and initial employment outcomes. This approach is also commonly found in joint university and business publications (Hager, Holland, & Beckett, 2002) and various lists of graduate generic skills produced by many Australian universities (Precision Consultancy, 2007, p. 68). The 'narrow' approach to employability, focusing on initial graduate destinations, is also evident in the approach adopted by funding bodies to assess graduate employability.

In both Australia and the UK, graduates' first-destination employment status a few months after course completion is used as the primary graduate employability performance indicator (Department of Education, Science & Training, 2005; Higher Education Funding Council for England, 2002). This suggests that graduate full-time employment rates have become, in many instances, easily measurable proxies for graduate employability. In both countries, universities are accordingly under significant funding pressure for their graduates to find permanent, full-time employment quickly.

Use of first-destination data in this way is problematic. At least as much as indicating a graduate's ability to obtain and maintain work, these statistics tend to indicate information about the short-term graduate employment market in a particular region (Coleman & Keep, 2001; Knight & Yorke, 2003b) or for a particular occupational grouping. For instance, in 2004, 32% of Australian creative and performing arts graduates were categorised as 'seeking full-time employment' at the time of surveying, as opposed to 18% of graduates surveyed from other fields (Graduate Careers Council of Australia, 2005a). Eighty-three per cent of these creative/performing arts graduates who were 'seeking full-time employment' were working on a casual, part-time or self-employment basis. These statistics might be interpreted to suggest that creative/performing arts graduates are fundamentally less 'employable' than other graduates, but it may also mean that they exhibit different labour force characteristics than those working in other fields; that competition for work in the arts may be stronger than in other fields; and that work opportunities are often on a self-employed, part-time or casual basis (Bridgstock, 2005).

There is increasing evidence to suggest that in many fields 'traditional' career structures involving stable linear progression through one organisation are becoming less common (Arnold et al., 2005; Hall & Mirvis, 1996). Labour markets in Western economies are changing and organisations are 'slimming down and speeding up' in response to globalisation, technology and competitive pressures. There is therefore an increasing need for mobile, adaptable workers who are able to productively integrate a patchwork of contract, part-time and self-employment opportunities as the labour

market and their personal circumstances require (Arnold et al., 2005; Baruch, 2004). It is ironic that, while policy makers have embraced the move towards this knowledge-based economy in which full-time positions form a smaller proportion of employment opportunities, 'full-time employment' remains the employability indicator of choice of university funding bodies.

Further, employer-driven lists of employability, while forming an important subset of employability skills, do not address the full picture of what is required by the graduate facing the prospect of the labour market. Careers are no longer adequately depicted by vertical advancement within one organisation, work is no longer typically characterised by a finite and fixed set of tasks, and competencies or skills acquired for one job may not be sufficient for a long period (McMahon, Patton, & Tatham, 2003). The university graduate will therefore also require higher-order, 'meta' work skills – the abilities required to continuously recognise and capitalise on employment and training-related opportunities and integrate these with other aspects of the individual's life.

Broader definitions of employability

While narrow views of employability remain dominant in Australian higher education, there exist conceptualisations which hint at more holistic approaches, variously acknowledging: labour market and personal characteristics (McQuaid & Lindsay, 2005); disciplinary differences (Barrie, 2004, 2006); and placing work into context within the individual's life (Rychen & Salganik, 2003). For instance, The Kirby Report (Department of Education, Employment & Training, 2000) based on work by the International Labour Organization (2000) discussed employability as being a construct which:

Involve[s] self-belief and an ability to secure and retain employment. It also means being able to improve ... [the worker's] productivity and income-earning prospects. This often requires competing effectively in the job market and being able to move between occupations as necessary. It requires 'learning to learn' for new job opportunities. (p. 37)

Some lists of generic employability skills have begun to accommodate notions of employability as encompassing more than short-term specific employment outcomes. Skills necessary for employability in a broader sense have been discussed at an overarching 'enabling conception' or 'translation conception' level (Barrie, 2004). For instance, the Organisation for Economic Co-operation and Development's (OECD) *Definition and Selection of Key Competencies* (Rychen & Salganik, 2003, 2005) suggests that the capacities of reflectiveness and lifelong learning underpin three broad categories of competencies necessary for 'a successful life and well-functioning society' (Rychen & Salganik, 2005, p. 4): 'use of tools', 'acting autonomously' and 'interacting in heterogeneous groups'. Barrie (2004) also implies a broader set of aims in his research-based approach by emphasising capacities for scholarship, global citizenship and lifelong learning as the fundamental attitudes or stances supporting competencies relating to: 'information literacy'; 'research and enquiry'; 'personal and intellectual autonomy'; 'ethical, social and professional understanding'; and 'communication'.

Career management skills

Given recent labour market movement away from job security and towards continual task and role change, one might expect that career management skills – the abilities

required to proactively navigate the working world and successfully manage the career building process, based on attributes such as lifelong learning and adaptability – would be explicitly included in the employability and generic skills policy debates, would play a prominent role in university programs. However, there is evidence to suggest that the potential for student career management skill development remains mostly unrealised in universities (Watts, 2005) and that many university graduates are under-prepared for the bewildering array of shifting employment and training options between which they must construct a career (Lamb & McKenzie, 2001; OECD, 2002a). The OECD's (2002a) *Review of Career Guidance Policies – Australia Country Note* commented that 'many students in tertiary education appear to have little idea of why they are there or where it is leading' (p. 18). This uncertainty is likely to markedly affect not only university attrition rates (McInnis, Hartley, Polesel, & Teese, 2000), but also graduate employment outcomes. It is especially the case in Australia, given that pathways into the world of work are often individually rather than institutionally constructed and that the graduate labour market is becoming more fluid, with graduate occupational destinations becoming increasingly diverse (Andrews & Wu, 1998; Lamb, Long, & Baldwin, 2002).

Governments at all levels are beginning to recognise the importance of tertiary education in preparing students for a constantly changing world of work. For instance, in February 2006, the Council of Australian Governments (2006) instigated a national reform agenda, aimed at raising living standards by lifting the nation's productivity and workforce participation. They agreed that a key way to underpin Australia's future prosperity was to 'increase the proportion of young people making a smooth transition from school to work' (p. 1) and requested that strategies to ensure that policies and programs relating to pathways from education to work be developed. Adequate preparation for transition to the world of work, and maintaining employability once there, involves activities such as clarification of personal aims and abilities, understanding the requirements of the labour market and the ability to actively engage in the career building process.

Career management skills and employability

Career management can be viewed as the ability to build a career; to intentionally manage the interaction of work, learning and other aspects of the individual's life throughout the lifespan (Haines, Scott, & Lincoln, 2003; Watts, 1998; Webster, Wooden, & Marks, 2004). Although benefits of career management have been acknowledged in terms of individual and societal wellbeing (Gillie & Gillie Isenhour, 2003; Rychen & Salganik, 2003), a less-promoted effect of well-developed career management skills is an improved contribution to economic growth, through enhanced employability, productivity and education/work efficiencies (Gillie & Gillie Isenhour, 2003; Killeen, White, & Watts, 1992; Mayston, 2002). A model proposing which skills are important for enhancement of graduate employability and suggesting how career management plays an integral part, is presented in Figure 1. The components of this model are discussed below in further detail.

Career management for maximum employability. This is an ongoing process of engaging in reflective, evaluative and decision-making processes using skills for self-management and career building, based on certain underlying traits and dispositional factors, to effectively acquire, exhibit and use generic and discipline-specific skills in

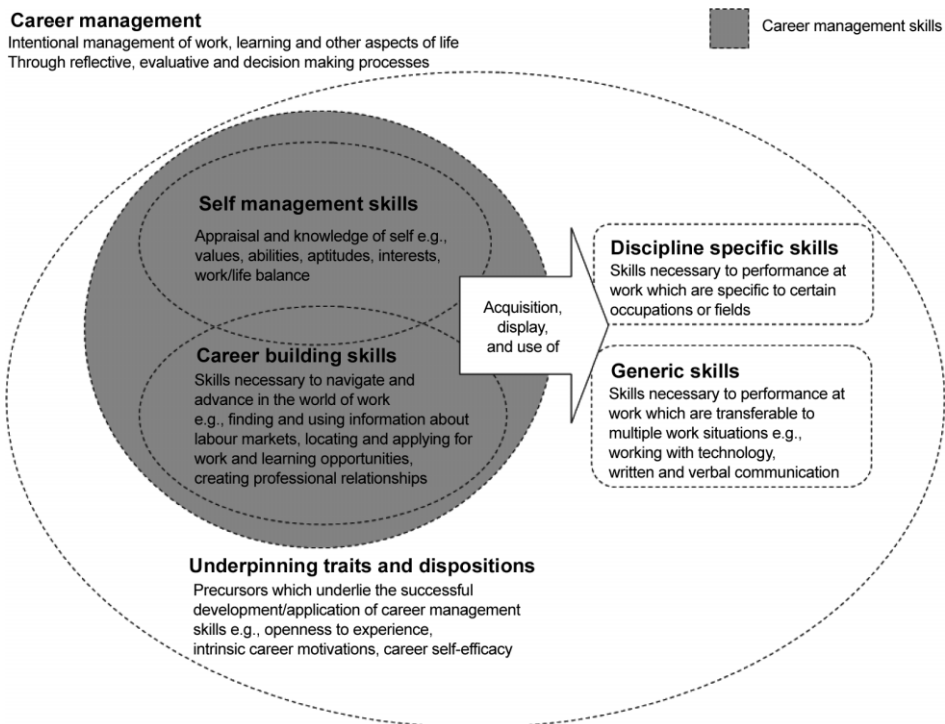


Figure 1. Conceptual model of graduate attributes for employability including career management skills.

the world of work. In the broadest sense, career management involves creating realistic and personally meaningful career goals, identifying and engaging in strategic work decisions and learning opportunities, recognising work/life balance and appreciating the broader relationships between work, the economy and society. In the most proximal and immediate sense, it also includes the processes involved in obtaining and maintaining work.

Employability skills. Employability skills are the skills that are directly pertinent to obtaining and maintaining work (Harvey, 2001; McQuaid & Lindsay, 2005). They are comprised of the generic and discipline-specific skills required for performance in a work situation; and career management skills, divided into two categories of competence: self-management and career building. Career management skills and knowledge are essential to employability in that they play a large part in determining which, to what extent, in what manner, when and where generic and discipline-specific skills are learned, displayed (e.g. in applying for a job) and used.

Underpinning traits and dispositions. Underpinning traits and dispositions are those precursors that underlie the successful development and application of career management skills (Jarvis, 2003; McMahan et al., 2003). Theorists disagree about whether these underpinning traits can, and if so, should, be developed during higher education (Chanock, 2003; Knight & Yorke, 2003a), but there is some evidence linking some of these traits with comparatively good graduate employment outcomes and higher levels of career success. For instance, the OECD's (2002b) *Rethinking Human Capital*

makes note of relationships between earnings and certain traits such as openness to experience, agreeableness, sociability, self-confidence and initiative. Other studies also have found that students with high levels of intrinsic motivation and career self-efficacy are likely to attain strong results educationally (Evans & Burck, 1992) and have better school-to-work transition experiences (Pinguart, Juang, & Silbereisen, 2003). Once at work, these individuals seem generally more satisfied with their work and perform significantly better than others (Judge & Bono, 2001).

Discipline-specific skills. These are the skills traditionally included in university curricula to address specific occupational requirements. These skills originate in specific domains, disciplines or subject matter areas. For instance, a biochemistry graduate should have the ability to apply principles to biochemistry practice in order to design and carry out laboratory experiments. A graduate in statistics should possess the ability to apply appropriate statistical techniques to the analysis and interpretation of data.

Generic skills. Generic skills are the transferable skills previously discussed in this article. These skills are the most widely acknowledged 'employability skills' in university, policy and employer graduate attribute lists such as the ACCI/BCA *Employability Skills Framework* (ACCI and BCA, 2002). They include such skills as information literacy, working with technology, written and verbal communication, working in teams and numeracy. In investigating the links between generic skills and employability, researchers have content-analysed graduate job advertisements (Bennett, 2002) or employed a direct questioning approach to determine which generic skills employers value the most (Australian Chamber of Commerce & Industry, 2002; Department of Employment, Training & Youth Affairs, 2000; Graduate Careers Council of Australia, 2005b). Very few studies have attempted to demonstrate that well-developed generic skills actually lead to enhanced graduate employability (Garcia-Aracil, Mora, & Vila, 2004). In part this seems to be because of consensus in the literature regarding the importance of generic skills, but it may also be to do with disagreement over the generic skill delineation and measurement and difficulty in disentangling the effects of generic skills from other aspects of the graduate and the employment market.

Self-management skills. These skills relate to the individual's perception and appraisal of themselves in terms of values, abilities, interests and goals. These competencies are closely related to the concept of career identity (Arthur, Inkson, & Pringle, 1999; Jones & deFillippi, 1996), which is the perceived congruence between aspects of the individual and their career roles. In their study of mentoring and career success, Day and Allen (2004) found that the career identity subscale of the career motivation scale they used positively predicted salary levels, subjective reports of career success and job performance. Eby, Butts and Lockwood (2003) demonstrated that students who have a well-developed concept of their career goals and a positive, realistic appraisal of their own abilities and aptitudes report themselves as possessing higher levels of employability than other students.

Career building skills. Career building skills are the skills relating to finding and using information about careers, labour markets and the world of work and then locating, securing and maintaining work, as well as exploiting career opportunities to gain

advancement or other desired outcomes. It has been suggested that the acquisition of this kind of competency will result in more realistic expectations of the labour market (Watts, 1999) and fewer mismatches between labour market supply and demand resulting in poor employment outcomes (Mayston, 2002; Watts, 1999). A student who is aware of a high unemployment rate in an occupation or geographical location can draw on their self-management and career building skills to construct alternative career scenarios involving different locations, training options, occupational choices or work modes through the process of proactive career management. Career building skills include:

- (1) Being familiar with one's industry – the opportunities and threats that exist and which factors are critical to success. This involves a knowledge of 'the rules of the game', including industry structure, beliefs, norms, values and culture, as well as labour market information, such as unemployment rates and median salaries.
- (2) Being able to effectively identify and choose the best opportunities for advancement in terms of geography, projects and role.
- (3) Knowing how long to stay in a role, when to exploit a new employment or training opportunity and the ability to move quickly once an opportunity arises.
- (4) Knowing how to effectively apply for and obtain work; representing one's skills and abilities in a way that is attractive to employers or clients.
- (5) Creating social capital by creating strategic personal and professional relationships with those who might provide opportunities and important resources. These kinds of relating skills have been shown to have a direct effect on perceived (Eby et al., 2003) and actual employability (Brown & Konrad, 2001; Marmaros & Sacerdote, 2002).

Despite the obvious theoretical appeal of a link between career building skills and employment outcomes, surprisingly little empirical examination has been conducted thus far. Werbel's (2000) study of college graduates showed that individuals who engaged in work exploration behaviours were both more active in the job searching process and experienced more success. Saks and Ashforth (1999) demonstrated that the underpinning trait of graduate job-search self-efficacy (one's confidence in performing tasks that are important to the job-search process) and active job search behaviours are positively correlated with employment outcome.

Broader economic benefits of career management

Although career management skills have direct economic impact through graduate employability effects, broader benefits of career management skills have also been proposed. Hughes, Bosley, Bowes and Bysshe (2002) reviewed more than 40 primarily UK- or US-based studies investigating the economic effects of career guidance. They concluded that, while there were significant challenges involved in evaluating the impact of career education provision in separation from other contributory factors, there was moderate-to-high level evidence for economic benefits in higher education through improved student course choice, course retention and learning outcomes and in the wider population through lower unemployment rates, reduced job-search times, lower worker turnover rates and improved productivity. Mayston (2002) and Gillie and Gillie Isenhour (2003) further suggested that making informed career moves will

boost an individual's likelihood of employment, attaining better income levels and overall quality of life, which will in turn reduce healthcare costs and crime rates and criminal justice costs.

Career management skill development at university

A wider range of employability skills than just generic competencies, encompassing notions of career and self-management, can be seen to have positive effects on graduate learning outcomes and employability and also at a broader economic level. There would appear to be economic benefits if higher education providers begin to play a more active role in developing students' career management skills. This suggests that universities must begin to comprehensively and actively engage with the employability agenda, including career building and self-management skills, in order to remain competitive in a diverse training market where providers vie for students and funding.

Several questions and considerations relating to the inclusion of career management skills into the university experience thus become apparent. The final section of this article will present some of these and outline a potential way forward.

First, at present it is unclear what the balance between orthodox pedagogy and the broadened employability agenda should be. In an already crowded tertiary curriculum, what balance of 'traditional' skills and knowledge and career management skills will produce optimal benefits to graduates? Just as under emphasis on career management will result in less favourable graduate employability levels, the sacrifice of important discipline-specific or generic skills in favour of job search and acquisition skills will likewise produce suboptimal outcomes. This balance will need to be monitored and adjusted in an ongoing manner, based on employment outcomes and stakeholder feedback.

Second, Australian universities all maintain their own careers services, which are an obvious and potentially invaluable resource in the development of tertiary career management programs. However, the resourcing of these services seems to vary considerably (OECD, 2002a). As the result of uneven resourcing and existing university priorities, it has been argued that careers services tend to emphasise course choice and student retention rather than career management competence and facilitation of graduates' transition to work (Watts, 2005) and that immediate employment outcomes are emphasised at the expense of sustainable employability. For the delivery of effective career management skill programs without the sacrifice of existing student support, augmentation of careers services may be required.

Third, substantial disciplinary (and geographical, social/cultural and individual) differences exist in graduate career management skill requirements. Although all graduates will draw on each type of career management skill, a 'one-size-fits-all' students approach will not suffice, as there will be discipline-based variability in terms of the knowledge and level of development required. Career management programs will ideally involve academic staff, industry partners, careers service staff and students in both curriculum design and implementation (Hustler, Carter, Halsall, Ward, & Watts, 1998) in order to create programs that are relevant and effective.

Fourth, because the skills developed in career management programs are highly personal, applied and depend on reflective processes, traditional instructional methods are unlikely to be as successful as more personally engaging methods. These may include activities such as role-plays, self-audits (e.g. of career skills), problem-based group work, work-integrated learning and peer review (e.g. of résumés or portfolios)

(Watts, 2006), strategies that tend to be time- and human resource-intensive and require extensive planning.

Fifth, several studies have shown that undergraduate students tend to have a poorly formed idea of what life beyond university might entail and do not autonomously engage in active thinking about their future careers until graduation (Lau & Pang, 1995; Perrone & Vickers, 2003). By the time the students have a proximal awareness of a desire for assistance with job searching, university career guidance is often not available to them (as most university careers guidance services are confined, by virtue of resource limitations, to enrolled students only). Career management skill development needs to begin early in university programs and should be a mandatory and assessable component of coursework. Some level of continuing university-based career support to recent graduates should also be considered. Such programs are now common in the UK (McGuire, 2005, p. 38), although they remain virtually unheard of in Australia.

From the above considerations, it is clear that, for universities to fully engage with the graduate employability agenda, the careful integration of career management skill development into courses from first year is necessary, with ongoing input and feedback from faculties, industry, careers staff and students. A suggested initial step is the trialling of career management programs within one or a small number of disciplines in a university. Longitudinal tracking of cohorts can then be conducted to investigate how beneficial these programs are, in terms of the development of necessary graduate attributes for employability and short-term (i.e. one-to-two year) graduate employment outcomes.

Conclusion

For Australian universities to effectively engage with the graduate employability agenda, they must recognise the importance of a wider skill set than the narrow generic skill lists imply and move into the realm of lifelong career development. This recognition must involve more than mapping generic competencies onto existing curricula; it will involve partnerships between faculties, careers services and employers to develop and implement programs addressing the issue of career management competence, including career building and self-management skills. Universities must remove the division between themselves and the demands of the world of work in order to enable graduates to adapt to the turbulent years to come.

Many studies indicate the economic and social importance of well-developed career management skills in graduates. However, the literature to date lacks systematic investigations into the links between career management competence and long-term graduate employability, and weighing up costs and efficacy of career management skill development provision. Research will also need to address questions about how best to support and develop academic staff through this time of transformation in academic work as changes to university financing and accountability arrangements continue.

Graduate employability is agreed to be a key influence on economic growth in the worldwide knowledge economy and the significance of universities to this agenda is self-evident. Recent policy moves towards support of universities in this task, through strategic employability funding; enhancement of teaching and learning for employability; work-integrated learning programs; and calls for further research in the field (Precision Consultancy, 2007) are welcome. However, graduate employability

programs emphasising individual skills and knowledge need to be complemented by targeted geographical and industry development, continuing (lifelong) education programs beyond university and social inclusion initiatives in order to be effective.

References

- Andrews, L., & Wu, T. (1998). *The labour market experience of higher education graduates over the last decade*. Canberra: Department of Employment, Education, Training and Youth Affairs.
- Arnold, J., Silvester, J., Patterson, F., Cooper, C.L., Robertson, I., & Burnes, B. (2005). *Work psychology: Understanding human behaviour in the workplace* (4th ed.). Harlow, New York: Prentice Hall.
- Arthur, M., Inkson, D., & Pringle, J. (1999). *The new careers: Individual action and economic change*. London: Sage.
- Australian Chamber of Commerce & Industry. (2002). *Employability skills – an employer perspective: Getting what employers want out of the too hard basket*. Barton, ACT: Australian Chamber of Commerce & Industry.
- Australian Chamber of Commerce & Industry and the Business Council of Australia. (2002). *Employability skills for the future*. Canberra: Department of Education, Science and Training.
- Barrie, S. (2004). A research-based approach to generic graduate attributes policy. *Higher Education Research & Development*, 23(3), 261–275.
- Barrie, S. (2006). Understanding what we mean by the generic attributes of graduates. *Higher Education*, 51, 215–241.
- Baruch, Y. (2004). *Managing careers: Theory and practice*. Harlow, Essex: Prentice Hall.
- Bennett, R. (2002). Employers' demands for personal transferable skills in graduates: A content analysis of 1000 job advertisements and an associated empirical study. *Journal of Vocational Education and Training*, 54(4), 457–475.
- Bowden, J., Hart, G., King, B., Trigwell, K., & Watts, O. (2000). *Generic capabilities of ATN university graduates*. Retrieved January 5, 2006, from <http://www.clt.uts.edu.au/ATN.grad.cap.project.index.html>
- Bridgstock, R. (2005). Australian artists, starving and well-nourished: What can we learn from the prototypical protean career? *Australian Journal of Career Development*, 14(3), 40–48.
- Brown, D., & Konrad, A. (2001). Granoveter was right: The importance of weak ties to a contemporary job search. *Group & Organization Management*, 26(4), 434–462.
- Butterwick, S., & Benjamin, A. (2006). The road to employability through personal development: A critical analysis of the silences and ambiguities of the British Columbia (Canada) Life Skills Curriculum. *International Journal of Lifelong Education*, 25(1), 75–86.
- Chanock, K. (2003, November). *Challenges of the graduate attributes movement*. Paper presented at the Language & Academic Skills in Higher Education 2003 Conference, Flinders University, Adelaide.
- Coleman, S., & Keep, E. (2001). *Background literature review for PIU project on workforce development*. London: Performance and Innovation Unit, Cabinet Office.
- Confederation of British Industry. (1999). *Making employability work: An agenda for action*. London: Confederation of British Industry.
- Council of Australian Governments. (2006). *Council of Australian Governments' meeting 10th February 2006 communique*. Retrieved August 20, 2006, from www.coag.gov.au/meetings/100206/index.htm
- Curtis, D., & McKenzie, P. (2001). *Employability skills for Australian industry: Literature review and framework development*. Melbourne: Australian Council for Education Research.
- Day, R., & Allen, T. (2004). The relationship between career motivation and self-efficacy with protégé career success. *Journal of Vocational Behavior*, 64(1), 72–91.
- Department of Education, Employment & Training. (2000). *Ministerial review of post-compulsory education and training pathways in Victoria: Final report*. Retrieved June 15, 2006, from <http://www.det.vic.gov.au/det/postcomp/pdf/KirbyReport.pdf>
- Department of Education, Science & Training. (2004). *Employability skills final report: Development of a strategy to support the universal recognition and recording of employability*

- skills. A skills portfolio approach.* Canberra: Department of Education, Science and Training.
- Department of Education, Science & Training. (2005). *Review of higher education outcome performance indicators.* Retrieved July 1, 2006, from http://www.dest.gov.au/NR/rdonlyres/0E41FC0F-F8E3-4465-9EDE-CE0FDEFCC185/6314/review_higher_ed_outcome_performance_indicators_re.pdf
- Department of Employment Training and Youth Affairs. (2000). *Employer satisfaction with graduate skills: Research report 99/7.* Canberra: Department of Employment, Training and Youth Affairs.
- Eby, L., Butts, M., & Lockwood, A. (2003). Predictors of success in the era of the boundaryless career. *Journal of Organizational Behavior, 24*(6), 689–708.
- Evans, J., & Burck, H. (1992). The effects of career education interventions on academic achievement: A meta-analysis. *Journal of Counseling and Development, 71*(1), 63–68.
- Foray, D., & Lundvall, B. (1996). The knowledge-based economy: From the economics of knowledge to the learning economy. In *Employment and growth in the knowledge-based economy.* Paris: Organisation for Economic Co-operation and Development.
- Garcia-Aracil, A., Mora, J., & Vila, L. (2004). The rewards of human capital competences for young European higher education graduates. *Tertiary Education and Management, 10*(4), 287–305.
- Gillie, S., & Gillie Isenhour, M. (2003). *The educational, social and economic value of informed and considered career decisions.* Alexandria, VA: America's Careers Resource Network Association.
- Graduate Careers Council of Australia. (2005a). *Graduate destination survey: A national survey of the activities of year 2004 university graduates as at 30 April.* Parkville: Graduate Careers Council of Australia.
- Graduate Careers Council of Australia. (2005b). *Graduate skills: What employers want.* Retrieved November 14, 2005, from <http://www.graduatecareers.com.au/content/view/full/708>
- Hager, P., Holland, S., & Beckett, D. (2002). *Enhancing the learning and employability of graduates: The role of generic skills.* Retrieved June 15, 2006, from www.bhert.com/Position%20Paper%20No%209.pdf
- Haines, K., Scott, K., & Lincoln, R. (2003). *Australian blueprint for career development: Draft prototype.* Retrieved March 20, 2007, from http://www.dest.gov.au/directory/publications/australian_blueprint.pdf
- Hall, D., & Mirvis, P. (1996). The new protean career: Psychological success and the path with a heart. In D.T. Hall (Ed.), *The career is dead – long live the career: A relational approach to careers.* (pp. 15–45). San Francisco: Jossey-Bass.
- Harvey, L. (2001). Defining and measuring employability. *Quality in Higher Education, 7*(2), 97–109.
- Higher Education Funding Council for England. (2002). *Performance indicators in higher education in the UK, 1999–2000, 2000–2001* (Vol. 02/52). Bristol: Higher Education Funding Council for England.
- Hughes, D., Bosley, S., Bowes, L., & Bysshe, S. (2002). *The economic benefits of guidance.* Derby, UK: Centre for Guidance Studies, University of Derby.
- Hustler, D., Carter, K., Halsall, R., Ward, R., & Watts, A.G. (1998). *Developing career management skills in higher education.* Cambridge: National Institute for Careers Education and Counselling.
- International Labour Organization. (2000). *Training for employment: Social inclusion, productivity and youth employment.* Geneva: Author.
- Jarvis, P. (2003). *Career management skills: Keys to a great career and a great life.* Retrieved September 15, 2004, from www.crccanada.org/symposium
- Jones, C., & deFillippi, R.J. (1996). Back to the future in film: Combining industry and self-knowledge to meet the career challenges of the twenty-first century. *Academy of Management Executive, 10*(4), 89–103.
- Judge, T., & Bono, J. (2001). Relationship of core self-evaluations traits – self-esteem, generalized self-efficacy, locus of control and emotional stability – with job satisfaction and job performance: A meta-analysis. *Journal of Applied Psychology, 86*(1), 80–92.

- Kearns, P. (2001). *Generic skills for the new economy – review of research*. Adelaide: National Centre for Vocational Education Research.
- Killeen, J., White, M., & Watts, A. (1992). *The economic value of careers guidance*. London: Policy Studies Institute.
- Knight, P., & Yorke, M. (2003a). Employability and good learning in higher education. *Teaching in Higher Education*, 8(1), 3–16.
- Knight, P., & Yorke, M. (2003b). *Learning, curriculum, and employability in higher education*. London: Routledge Falmer.
- Lamb, S., Long, M., & Baldwin, G. (2002). *Performance of the Australian education and training system*. Melbourne: Victorian Department of Premier and Cabinet.
- Lamb, S., & McKenzie, P. (2001). *Patterns of success and failure in the transition from school to work in Australia*. : Australian Council for Educational Research.
- Lau, A., & Pang, M. (1995). Undergraduates' career perceptions and first job needs in Hong Kong. *International Journal of Career Management*, 7(3), 14–24.
- Marmaros, D., & Sacerdote, B. (2002). Peer and social networks in job search. *European Economic Review*, 46(4), 870–879.
- Mayer, E. (1992). *Putting general education to work: The key competencies report*. Canberra: Australian Education Council and Ministers for Vocational Education, Employment and Training.
- Mayston, D. (2002). *Evaluating the benefits of career guidance*. Derby, UK: Centre for Guidance Studies, University of Derby.
- McGuire, M. (2005). *Delivering quality*. Sheffield: Association of Graduate Careers Advisory Services.
- McInnis, C., Hartley, R., Polesel, J., & Teese, R. (2000). Non-completion in vocational education and training and higher education. *REB report*, 4, .
- McMahon, M., Patton, W., & Tatham, P. (2003). *Managing life, learning and work in the twenty-first century: Issues informing the design of an Australian Blueprint for Career Development*. Retrieved February 9, 2005, from <http://www.lifework.ca/AUSBP04-03.pdf>
- McQuaid, R., & Lindsay, C. (2005). The concept of employability. *Urban Studies*, 42(2), 197–219.
- Nunan, T. (1999). *Redefining worthwhile knowledge in higher education*. Paper presented at the Australian Association for Research in Education Conference, Melbourne.
- Opengart, R., & Short, D. (2002). Free agent learners: The new career model and its impact on human resource development. *International Journal of Lifelong Education*, 22(1), 220–233.
- Organisation for Economic Co-operation and Development. (2002a). *OECD review of career guidance policies – Australia country note*. Retrieved December 12, 2005, from <http://www.oecd.org/dataoecd/17/47/1948341.pdf>
- Organisation for Economic Co-operation and Development. (2002b). *Rethinking human capital*. Paris: Author.
- Perrone, L., & Vickers, M.H. (2003). Life after graduation as 'a very uncomfortable world': An Australian case study. *Education & Training*, 45(2/3), 69–79.
- Pinquart, M., Juang, L., & Silbereisen, R. (2003). Self-efficacy and successful school-to-work transition: A longitudinal study. *Journal of Vocational Behavior*, 63(3), 329–346.
- Precision Consultancy. (2007). *Graduate employability skills*. Melbourne: Business, Industry and Higher Education Collaboration Council.
- Rychen, D.S., & Salganik, L.H. (2003). *Key competencies for a successful life and a well-functioning society*. Göttingen, Germany: Hogrefe & Huber.
- Rychen, D.S., & Salganik, L.H. (2005). *The definition and selection of key competencies: Executive summary*. Retrieved July 1, 2006, from <http://www.oecd.org/dataoecd/47/61/35070367.pdf>
- Saks, A., & Ashforth, B. (1999). Effects of individual differences and job search behaviors on the employment status of recent university graduates. *Journal of Vocational Behavior*, 54(2), 335–349.
- Watts, A.G. (1998). *Reshaping career development for the twenty-first century*. Retrieved July 20, 2005, from <http://www.derby.ac.uk/cegs/publications/rescareer.PDF>
- Watts, A.G. (1999). The economic and social benefits of career guidance. *Educational and Vocational Guidance Bulletin*, 63, 12–19.

- Watts, A.G. (2005). Career guidance policy: An international review. *Career Development Quarterly*, September, 1–8.
- Watts, A.G. (2006). *Career development learning and employability*. Retrieved August 10, 2006, from <http://www.heacademy.ac.uk/learningandemployability.htm>
- Webster, E., Wooden, M., & Marks, G. (2004). *Reforming the labour market for Australian teachers*. Melbourne: Melbourne Institute of Applied Economic and Social Research.
- Werbel, J. (2000). Relationships among career exploration, job search intensity and job search effectiveness in graduating college students. *Journal of Vocational Behavior*, 57(3), 379–394.

Copyright of Higher Education Research & Development is the property of Routledge and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.