

Ivory tower to concrete jungle revisited

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Abstract: In 2001-2002, a project team at Griffith University undertook Stage 4 of the Griffith Graduate Project¹. Stage 4 used a survey and focus group discussions to gather graduates' and employers' perceptions of the role of the university, work placements and post-graduation employment in the development of generic skills and abilities. This article will compare findings from Stage 4 with four challenges facing the new graduate commencing employment that were identified by Candy and Crebert (1991). The purpose of the article is to compare these findings with other research studies and some of the recent literature, particularly those relating to the development of generic skills and abilities in the three contexts listed above. It is argued that, despite the increasing emphasis in many universities on work-integrated learning programs, today's graduates face many of the same challenges as they confronted at the beginning of the last decade.

Introduction

New graduates entering today's workplace face a number of challenges, not the least of which is how to learn and function in unfamiliar and unpredictable situations. Many graduates now work in multi-skilled, multi-national project teams, requiring collaboration, cooperation, flexibility and inter-cultural awareness. As well, graduates now need to be able to service their own administrative and technological needs and are routinely required to work longer hours than their predecessors (Harvey, 1999). More importantly, they must be literate in information and communication technologies, and the associated cognitive skills (ETS International Literacy Panel, 2001), and be capable of keeping abreast with new developments as they happen. In today's competitive job market, where traditional notions of a clearly defined "graduate job" have all but disappeared (Harvey, Moon & Geall, 1997), many new graduates (especially from the generalist disciplines of arts, science and business), find themselves working in jobs far removed from their original fields of study - jobs for which the only real pre-requisite is the possession of an "any discipline" degree qualification (Harvey, 1999). The security of a "job for life" that characterised the workplace a few decades ago has given way to short term contracts, "intelligent careers" and "career portfolios" (Nabi & Bagley, 1998, p. 31). There is more scope, and often more compulsion, for graduates to move between, rather than within fields, and research shows that the average number of career changes during a lifetime is increasing annually (The Association of Graduate Recruiters, 1993; 1995).

For many new graduate employees, neither their initial expectations (in terms of job satisfaction, salary levels and professional development opportunities) are met, nor is their current disciplinary (and often largely theoretical) knowledge base always valued by their new employers (Harvey, 1999). It is hardly surprising, therefore, that the transition from university to employment often brings insecurity and unease. As well, the disquiet is often shared by the new employees' supervisors and their immediate colleagues, who are aware that something is not as it should be. Most particularly, their immediate superiors (in whatever line management system operates) feel the need to identify the new recruit's early, and sometimes clumsy, attempts to adapt as examples of "poor" performance. From the organisation's point of view, the problems experienced by the new recruits are generally attributed to some form of deficit, either in their behaviour, their attitudes, their readiness for work, or perhaps even their skills. Because of this, new graduates' lack of work-readiness is often attributed to inadequate preparation by the universities and fiercely criticised in media articles with titles such as: "Little

¹ This project was funded through the University's Quality Enhancement and Strategic Improvement Grants Schemes.

accounting for generic skills" (Healy, 1996); "Employers lament inability to write" (Spencer, 1998); and "Uni courses off mark, say employers" (Cole, 2000), and reports commissioned by employers and government (Business Council of Australia & Australian Chamber of Commerce and Industry, 2002 [BCA/ACCI]; OECD, 2001; AC Nielsen, 2000; Mansfield & Mitchell, 1996; National Board of Employment, Education and Training [NBEET], 1992; Drenth, 1991; Aulich, 1990). Such articles and reports are largely based on the assumption that universities are responsible for equipping graduates with all the skills and knowledge necessary for the workplace and ignore, for the most part, the employer's responsibility to enculturate and even train the new graduate for the demands of postgraduation employment. The extent to which this assumption prevails, or, indeed, is tenable, both in practice and in theory, is not the main focus of this paper. Rather, the focus is on the ways in which today's new graduates, who have had the benefit of undertaking work placements as part of their undergraduate degrees, deal with a set of problems or challenges in the transition from university to employment – problems which have remained remarkably constant over the past decade or so.

At the beginning of the last decade, Australian universities were harshly criticised by Senator T.G. Aulich (1990), as Chair of the Committee investigating national "priorities for reform" in higher education. In what became known as the Aulich Report, universities were charged with producing, not well-rounded graduates, but rather "highly trained technicians...under educated in the broader sense of the term" (Aulich, 1990, p. xiii). Throughout the decade, a number of other government- and stakeholder-commissioned reports were published in this country (Baldwin, 1991; Business/Higher Education Round Table [B/HERT] 1991; 1992; 1993; Candy, Crebert & O'Leary, 1994; Higher Education Council, 1990; 1992). All of these studies, and many of their overseas counterparts (Dearing, 1997; Harvey, Moon & Geall, 1997; ILO, 1998; Moorcroft & Burden, 1999; Honeybone, Blumhof, Hall & Palmer, 2001) addressed in some way the perceptions (usually the anxieties and criticisms) of employing organisations. Because of this, each study took up issues such as: lifelong learning, the role of the university and graduate employability, as well as generic or transferable skills (ie, those cross-disciplinary, cognitive skills which can be learned in one context and applied in others), and provided "strategic direction" (BCA/ACCI, 2002; UCE, 2002; OECD, 2001) to government policy makers. Graduate employability, graduate attributes and graduates' work-readiness have now become accepted and desirable (Department of Education, Science and Training [DEST], 2001), but are not necessarily the preferred outcomes of the higher education system

Many of the published investigations into problems experienced by new graduate recruits to the workforce have been conducted on the assumption that there is an initial deficit in their readiness to perform, which needs to be addressed by the institutions concerned with their preparation. This deficit is often equated with inadequate generic skills development. The assumption is that these deficits (weaknesses) need to be remedied and that this is much more important than encouraging recruits to capitalise on what strengths they already possess when they enter the workforce. If the deficit behaviours can be identified as "skills" then, it is assumed, a training program, which can refine them to the extent where they become automatic behaviours that require little conscious thought, can be devised and implemented. (Carkhuff, 1971). The assumption by many employers seems to be that once each separate skill is learned, conscious thought can then be directed to the larger picture of the broad tasks and specific skills associated with "being employed". The survey that was carried out in the early stages of *The Griffith Graduate Project* (see below) reinforced the assumptions discussed above: it was clear that all of the stakeholders believed that the universities should be dealing with the problem.

Yet, despite the proliferation of "wish lists" of the attributes, qualities and skills of new graduates published by national and international groups of employers, as well as professional associations, a recent, comprehensive research study of UK employers showed that "while the social and economic world has been transformed in recent years, the demands made of graduates by employers still largely revolve around age-old concerns of the ability to learn new material and to apply it to workplace scenarios" (Hesketh, 2000, p. 268). In a market-driven climate (Australian Council for Educational Research [ACER], 2002), more and more universities are offering components of work-based, or work-integrated learning to better prepare their

graduates for the demands of a rapidly changing workplace (DEST, 2001; Trigwell & Reid, 1998). It is on this aspect of the generic skills debate that this paper concentrates.

The Griffith Graduate Project (Stage 4): Exploring relationships

The Griffith Graduate Project has been running since late 1999. It has, through a series of iterative stages, addressed issues such as the awareness of generic skills, their articulation in curriculum documentation and teaching practice, the provision of resources for staff and students, and the development of interactive, electronic tools for mapping and assessing generic skills development across programs and courses. While the early stages of the Project were very Griffith-centred, the later stages have focussed on generic skills as they manifest themselves outside the University, in the workplace, and have drawn on the perceptions of graduates and employers. In order to explore the relationship between learning in the workplace and the development of generic skills and abilities, a project team undertook Stage 4 of the Griffith Graduate Project in 2001-2002². This stage explored the perceptions held by a sample of graduates and a small number of employers of the different contributions made by the University, work placement and post-graduation employment to the development of generic skills and abilities.

A data-base of 664 graduates who had completed work placements as part of their undergraduate degrees between 1997 and 2000 was developed with the assistance of the three participating Schools. Of these 664 graduates, 164 responded to the questionnaire survey (a 25.7% response rate). Respondents from the School of Criminology and Criminal Justice totalled 26 (15.9%); from Leisure Studies 97 (59.1%); and from Microelectronic Engineering 41 (25%). Of the graduates who responded to the questions about their employment status, only nine (5.6%) were unemployed; 52 (32.1%) had been in full-time employment for up to one year; 33 (20.4%) for up to two years; and 68 (41.9%) for two or more years. The qualitative responses from 149 graduates showed that the majority of graduates (78.5%) were in jobs that were relevant to their field of study.

Fifty-one (31.1%) respondents had graduated in 2000; with 42 (25.6%) from 1999; 40 (24.4%) from 1998; and 31 (18.9%) from 1997. The gender spread was almost even: 81 (50.9%) males and 78 (49.1%) females responded. Eighteen graduates (11.5%) were in the age range of 19-21; 89 (56.7%) were in the age range of 22-25; with 28 (17.8%) in the range of 26-30; and 22 (14%) over 30. A total of 67 (42.7%) indicated that they had undertaken further formal study, and 25 (37.3%) of these graduates had already completed a postgraduate qualification.

The survey instrument comprised 32 questions: 11 required responses on a five point Likert scale; nine required a simple check box response; nine offered the opportunity for open text responses; and three required prioritisation by rank-ordering selections. The low response rate was predictable, given the complexity of the survey instrument and the wide dispersal of the graduates in the time period involved. Definitions of the terminology used in the Griffith Graduate Project, in particular the statement, The Griffith Graduate (http://www.gu.edu.au/ua/aa/sp/sp/content/graduate_fs.htm) were attached to each questionnaire, and graduates were referred to the Griffith Graduate Web for further information: (http://www.gu.edu.au/centre/gihe/griffith_graduate/)

Disciplinary and gender differences reflected in the graduates' responses are not discussed here, but will be addressed in papers resulting from Stage 5 of the Project, and in specifically discipline-focussed papers by team members. The focus of this paper is on the commonalities across the data in relation to work placements and their role in developing generic skills.

In addition to the survey data, qualitative data were collected from two follow-up focus group discussions with a sample of 11 graduates and six employers, representing a cross-section of middle and senior management in small, medium and large private enterprises and the public

² The final report of the project team is available at:
http://www.gu.edu.au/centre/gihe/griffith_graduate/GG4report.pdf

service. All the employers had been directly involved with work placement students from Griffith University, and all had recruited graduates from that and other higher education institutions. They all worked closely with the graduates on a daily basis. Data from the focus groups were analysed thematically and used in conjunction with the quantitative data to produce the final report.

All the graduates in Stage 4 of the project had completed components of work placement as part of their undergraduate degrees, and while the form of their placements differed in the three Schools, they shared a number of common characteristics, namely:

- location of students off-campus for a specified period of time, learning on-the-job in an organisation which had entered a contractual arrangement with the University;
- integration of the work placement in the undergraduate program (e.g. credit points awarded);
- allocation of a staff member to take responsibility for coordinating the program between school and industry;
- acceptance of a fair degree of responsibility by students for negotiating and managing the placement process, as part of their professional development;
- provision of both an academic and workplace supervisor for the student on placement; and
- formal assessment by the University of the students' learning outcomes from work placement.

The transition from ivory tower to concrete jungle revisited

In an article entitled "Ivory tower to concrete jungle: The difficult transition from the academy to the workplace as learning environments," Candy and Crebert (1991, p. 572) referred to the following four problems as challenges facing new graduates when they commence employment:

1. employers see graduates as having heads full of theories, principles and information (and, by implication, as requiring intensive training before they can be "useful" to the organisation);
2. new graduates are often ill-equipped to deal with aspects of the workplace such as problem solving, decision making, working in a team and learning for themselves (and, by implication, universities should be paying these issues greater attention in the curriculum);
3. new graduates have uninformed expectations that the work environment will display qualities of supervision, order and control similar to those experienced at university (and, by implication, will founder unless universities prepare them more realistically for real world conditions); and
4. in the course of adjusting and adapting to the workplace environment, new graduates move from the familiar, structured learning approaches adopted at university to self-reflective learning aimed at change and self-development (and, by implication, could do this more easily were they provided with an appropriate learning framework at university).

These four challenges, or problems, were explored in detail in that article, which also identified a number of "discontinuities," (p. 572) between learning at university and at work. Data from Stage 4 of the Griffith Graduate Project some eleven years later confirmed that despite the changes in higher education and the broader global community, many of these discontinuities between the two contexts still exist, bearing out the old adage "the more things change, the more they stay the same." In the course of Stage 4, some of the issues implicit in the four challenges above resurfaced during discussions with employers and graduates, and it is worth revisiting them now, for comparative purposes.

Four challenges facing the new graduate employee

Challenge 1: *Employers see graduates as having heads full of theories, principles and information (and, by implication, as requiring intensive training before they can be “useful” to the organisation)*

In 1991, this assumption was based in part on the rhetorical denunciations by government and industry of the Australian higher education system referred to earlier. The first half of the decade leading up to the government’s promotion of lifelong learning as a national priority (NBEET, 1996), saw the beginning of a shift in focus, in many fields of study, from an almost exclusive concentration on disciplinary knowledge and technical skills towards a more balanced curriculum which included the development of generic skills and graduate attributes (Boud & Solomon, 2001; B/HERT, 1993; Clanchy & Ballard, 1995; NBEET, 1996). In Australia, as in many other countries, the second half of the decade saw universities place greater emphasis on preparing graduates for the workplace, in key areas of national importance (Golding, Marginson & Pascoe, 1996).

This was accompanied by a move to incorporate generic skills and graduate attributes in degree programs, largely at the behest of industry, employers and professional associations, an excellent example of which is to be found in the *Review Report* published by the Institution of Engineers Australia in 1996. Similar moves by other professional associations, such as the Australian Society of Certified Practising Accountants, and pressure from government has meant that all Australian universities have been required by the federal government, since 1998, to specify their desirable graduate attributes in documentation submitted as part of their annual Quality Assurance and Improvement Plans (DEST, 2000). Balancing curricula that prepare graduates to work in designated key areas, such as information technology and engineering (DEST, 2001) with the ideals of a broader, more holistic education has been one of the main challenges facing higher education in this country in recent years, and mirrors the situation in many developed nations (Hunt, 2000). To some extent, the associated risks of the narrow specialisation that comes with over-emphasis on the former, have been offset by a concurrent agenda promoting generic skills and abilities in the undergraduate curriculum, together with the inclusion of increasing numbers of work placements or practicums in degree programs, including non-professional programs (DEST, 2001; Martin, 1997).

The employers we spoke with in the focus group discussion echoed, in some of their comments, the findings from a study of graduate employees in 15 British organisations in the mid-1990s which found that, in general, employers held three kinds of assumptions about new graduate recruits:

- Graduates are immature, uninformed and incapable of assuming high responsibility work.
- The work requires a long period of training and adaptation before the graduate is able to understand fully its complexity and take responsibility for it.
- A risk-averse approach may be taken where managers will not make someone responsible, ‘just in case’ something goes wrong. (Graham & McKenzie, 1994, cited in Graham & McKenzie, 1995b, p. 37)

The extent to which such opinions are still current in today’s workplace and the extent to which new graduates are perceived as “threatening” to employers varies, of course, across different industries and can often depend on the educational experience of individual employers and the prevailing organisational culture. It is clear that the position of the employer within their organisation and the extent to which they are directly involved in the recruiting process can make a big difference to their perceptions of the worth of new graduate employees. We believe it likely that employers who are not actively involved in appointing new graduates simply recycle the “generally held wisdom” about new recruits and perpetuate a whole mythology about “practice” as it is experienced in their particular organisation – and often make it very difficult for new graduates to “fit in.” The assumptions underlying the mythology need to be questioned: for example, is a model predicated on graduates leaving university “fully equipped to work” tenable, or even realistic or should employing organisations accept more of the

responsibility for “fine tuning” new recruits and further developing their skills (Field, 2001; Hesketh, 2000; Coldstream, 1997). Nevertheless, it has become widely accepted in recent years that one of the purposes of higher education is “some form of preparation for entry to and performance within post-graduation employment” (Holmes, 2001, pp. 111-112). In fields where professional accreditation is relatively recent, however, opinions such as the following, expressed by a senior police officer in our discussion, are common. He said bluntly, but with some conviction, that “the best employees were those who’d never been to university at all.” Others, however, expressed more positive views, with an engineer stressing the importance of giving new recruits “realistic challenges” that were “set up to be a success,” and of providing a “safety net of gentle reinforcing” over a considerable period of time to build a sense of responsibility, self-confidence and productivity. Another employer referred to an initial “hand-holding” period of one or two years that the organisation had to allow before a new graduate became productive. Research by Harvey, *et al* (1997) in the United Kingdom found that the “period of adjustment – the time it takes for a graduate to become effective in the workplace – is, increasingly, a cost that graduate employers are unable or unwilling to bear.” While this sentiment was not expressed *per se* in the focus group discussion, there was a hint that this lengthy “hand-holding” period was, at the very least, undesirable.

In the employers’ focus group discussion, one mentioned the long lead-time (and money) necessary to train new recruits to write in a style acceptable to the industry, rather than an “academic” style. Billett (1995, p. 24) sees these kinds of constraints as having “negative consequences for learning,” and examples such as these support Graham and McKenzie’s argument that in instances where the organisation is affected by distrust of the higher education sector, there is a danger of the assumption [that graduates cannot be given significant responsibility for some time] becoming “a self-fulfilling prophecy” (Graham & McKenzie, 1995a, p. 4). As a result, the new recruit can be denied opportunities to learn or develop in employment. This was borne out by an employer in our focus group, who said that he had deliberately “reined in” a student on work placement because she wanted to “shoot off solo” and was displaying too much initiative for the firm.

If some employers still see new graduates as an initial drain on resources while their “theories, principles and information” are “topped up” with practical and interpersonal skills, then many graduates still see employers as “gatekeepers” of their own career opportunities. When asked to comment on the differences between developing generic skills at university and in employment, the graduates in the focus group discussion used the opportunity to talk about some of their achievements and frustrations at work. Despite the fact that many “graduates tend to perceive their skills to be higher than do their managers,” (Bennett, Dunne & Carré, 2000, p. 19), and despite their sometimes unfounded self-confidence (for example, one graduate felt she “could learn [her employer’s] skills quicker than they could [hers]”), some seemed to have reason for resenting the extent to which employers undervalued their current skills and abilities. This was particularly obvious in relation to aspects of management, computer technology and software development. For example, one of the graduates, working in the leisure industry, said:

There are quite a lot of them [employers] out there who have worked their way up, you know, who’ve been in the industry for twenty or thirty years. They don’t have a degree, they don’t have a diploma, but they may have a big business, and some of our clients [are] like that, but every now and then you go, “Gee, I wish somebody would give him some training.”

Many of the employers’ opinions were reflected in comments made by the graduates in their focus group discussion. For example, one told how she had been made to adopt her employer’s own idiosyncratic writing style, complete with frequent grammatical errors, in any piece of written work she undertook, while another said, in relation to the “over-protection of graduates” issue, that:

In my first job out of university, I was all excited about putting my skills into place, but, you know, the employer tends to put the stop on you a bit because they don’t feel that you are ready yet, or you need a bit more experience before you go through with it. It

depends on the employer – some people might be lucky and have an open slather. I was actually taken aside after six months and told not to show so much initiative, to slow down, because they weren't ready for new ideas – they were happy to do it their way.

When asked how best they could contribute to graduates' preparation for employment, the employers we spoke with expressed views consistent with the findings of Harvey, *et al* (1997) in relation to their input into program design and delivery, namely that they wanted, in principle, to:

...develop closer links with higher education. There are practical constraints that restrict the amount of effort that can be put into developing such links. Most employers see links in terms of recruitment and training. Some see links in terms of providing placement experience. Few consider it their role to directly or indirectly affect curriculum content and delivery, although some think it would be mutually beneficial if employers became more involved in programmes of study, offering guest lecturers, hosting open days, etc.

They felt that if they could contribute their expertise to the University in terms of setting "real world problems" for students to solve and if they could provide formative, developmental assessment of students' generic skills development during work placement, then they would be helping to redress employers' perceptions of graduates as requiring considerable training to "bring them up to speed" when they join the workforce. Our sample of employers was small and neither representative of employers in general, nor comprehensive, but their views confirmed Hesketh's findings (2000, p. 255) that "employers, it seems, no longer seek graduates with the 'hard' technical or vocational skills required for the job. On the contrary...the 'softer' or interpersonal skills are the new vogue."

Overall, the employers in the focus group were very positive about, and satisfied with the performance of students on work placement and graduates in employment, but there were also clear indications that most would have agreed with the three employer-held assumptions about new graduate recruits bulleted above. It is important, however, to clarify the basis for their perceptions of graduates' lack of work-readiness, for, as Atkins (1999, p. 275) argues:

...it is possible that employers' criticisms of the shortcomings of graduate recruits are not so much a result of failure in the university curriculum, as of failure in the transfer process.

Analysis of the comments made by employers in the focus group suggested broad, in-principle agreement with the first of the challenges under discussion, i.e., that they "see graduates as having heads full of theories, principles and information" (Candy & Crebert, 1991, p. 572), rather than having "useful" practical and generic skills and, by implication, that they need intensive training before they can be valuable to the organisation. The project team responsible for Stage 4 recommended to the University, as a result of the study, that "in the process of integrating the generic skills and abilities into the undergraduate curriculum, the input and views of employers and graduates be incorporated into program development."

Challenge 2: They [graduates] are often ill-equipped to deal with aspects of the workplace such as problem solving, decision making, working in a team and learning for themselves (and, by implication, universities should be paying these issues greater attention in the curriculum).

Studies by Lave and Wenger (1991) and Greeno, Smith and Moore (1993) affirmed the value of work placements in the learning transfer process because of the nature of the "situated learning" that they offer. As well, work placements make a significant contribution to students' self-awareness, self-management and self-confidence. It was clear from our study that graduates (59.5%) felt that the generic skills they had developed at university had direct benefit, both in terms of increasing their employment prospects, and subsequently, in advancing their careers (74.2%). As well, they recognised the value of work placements lies not only in the way they enculturate students to workplace norms but in the way they broaden

their understanding of “how things work” in the organisation, and “how things are done around here” (Graham & McKenzie, 1995b, p. 36), and more importantly, how they themselves need to change or adapt their approaches to learning in order to develop. The extent to which the student is prepared at university and the extent to which the placement supervisor is able to mentor and facilitate students’ learning, as well as supervise performance, determine, of necessity, the quality of the student’s learning experience while on placement. In placements where there is effective liaison between the industry and academic supervisors, and students, about the desirable learning outcomes, most students benefit greatly from their placement experience (Harvey, *et al*, 1997). The employers in our focus group discussion held strong views on the ways in which students should be prepared at university for problem solving, decision making, working in a team and learning for themselves, but in the graduates’ eyes, employers were sometimes guilty of not providing the learning opportunities that would enable them to be developed.

Problem-solving: Universities are regularly criticised for failing to prepare their graduates for the exigencies of the workplace (Bennett, *et al*, 2000) and it is not uncommon for employers to feel that the problems students are required to solve at university are far removed from the problems they will face every day in the real world. In the real world, they argue, all kinds of constraints (temporal, financial, personal, environmental, etc.) impact upon the problem solving process and often there is no “right answer.” Rather, there is a number of possible solutions, some of which might be better than others, depending on circumstances or prevailing conditions. Some of the employers suggested that having greater input into the kinds of problems that students were set at university, to ensure that they were “open problems, not closed,” would better prepare them for the demands of the workplace. One employer from an engineering firm commented:

[To engineers, it seems as if the universities use] “ $a + b = c$ – that’s the rule” [as a model], and if you put “d” you are wrong. But in the real world, it doesn’t happen like that, because the weather was dark, and therefore the answer was “b”. You just can’t tell. I think that university students come out with [the idea that] “There is only one answer, and it has to be ‘y,’” and they get 100% if they get the right answer, but the real world doesn’t work like that. The real world is very much like, “Which way was the wind blowing?” Stuff happens.

Decision-making: Making a decision today in favour of one solution to a problem may not be the best option in the long run, but may well be the only option in the short term. However, the new graduate is often unable to choose the best option, or, indeed, identify more than one. Nowhere is this more evident than in a team context, where negotiation and conflict resolution skills are often necessary (Bennett, *et al*, 2000; Jacques, 1991), but for which students are all too often ill-prepared upon graduation (Dunne, 2000). One of the employers we spoke with felt that in her organisation it was vital for graduates to be able to deal with “people issues and conflict resolution in practical situations,” but these areas did not receive enough attention at university.

In our study, graduates were asked to select the learning context that they felt was most effective for the development of the University’s generic skills and abilities from a list of options provided (Table 1). Data from the survey showed that graduates selected “group work” as the best context for developing the generic ability of assuming responsibility. On work placement, they selected “being given specific responsibility” as the best context in which to develop a sense of responsibility and to learn how to make decisions, while in employment, they chose “working collaboratively with colleagues.”

Working in a team: At university, students are often able to choose membership of a particular team and make their selection based on friendships, social or cultural backgrounds, and academic standards. Team formation based on these considerations may sometimes result in homogenous groups, which do not function as effectively as those containing more diversity. Even if students are allocated to teams by their lecturers, they do not always receive guidance in dealing with the complications that inevitably arise. In the workplace, on the other hand, the new graduate is often summarily allocated to a project or laboratory team and required to work

in close collaboration with colleagues with whom he or she has little in common, either socially or professionally. Often students have gained little experience of team processes, roles and behaviours at university (Dunne, 2000; Brown, Bull & Pendlebury, 1997; Candy & Crebert, 1991), so it is frequently very difficult for the new recruit to adapt to colleagues' different working styles, as well as meet deadlines and generate outcomes for the organisation. Nevertheless, the ability to work in teams has figured, and continues to figure as a crucial component of graduates' "employability skills," as evidenced in the recent BCA/ACCI report, which found that:

Virtually all employers interviewed indicated that the demand for 'solo' employees was negligible and that there was an expectation that employees work in a range of team environments both formal and informal over time. (BCA/ACCI, 2002, p. 40)

The importance of interactive group work was evident from our survey results. When asked to select the contexts most suited for developing particular generic skills and abilities at university from the list of options provided, the graduates chose "group work" as the context best suited for the development of oral communication skills, problem solving skills, teamwork skills; initiating and leading enterprises; and assuming responsibility and making decisions.

The results reported in Table 1 below represent the aggregated number of times that learning activities were selected (from a list of options) for each context, as best suited for the development of each generic skill and ability. It shows the graduates' strong preference for learning contexts that were interactive and collaborative at university, during work placement and in employment, suggesting that greater emphasis needs to be placed on structured preparation for teamwork at university.

[Table 1 about here]

Learning for themselves: The sample of graduates was engaging in independent, self-reflective learning in the workplace to a significant degree. As Table 1 shows, they learned for themselves in informal, unstructured situations such as collaborative group work; being given responsibility; learning from their own mistakes; and by talking with colleagues, either at university or in the workplace. These contexts for developing generic skills and abilities have much in common with the conceptions of learning identified by Gerber, Lankshear, Larsson and Svennson (1995, p. 27), in particular learning from "self-managed observation and from mistakes" and "interaction with others."

It was clear from the data (see Table 1) and from the focus group discussions that many of the graduates had learned and developed what they identified as skills and abilities by "being thrown in at the deep end," in "sink or swim" situations, rather than through formal learning opportunities such as induction or mentoring programs and continuing professional education courses.

In summary, the data suggested that employers and graduates taking part in our project agreed, for the most part, with the second challenge identified by Candy and Crebert in 1991 (p. 572), namely that new graduates "are often ill-equipped to deal with aspects of the workplace such as problem solving, decision making, working in a team and learning for themselves." However, they confirmed the value of the work placement as an intermediate step towards preparation for employment, particularly in developing the specific skills areas mentioned above. Survey results showed that the graduates felt that ethical standards were best developed in lectures and through group work (at university); by observing others (during work placement); and through working collaboratively with colleagues (in employment). The project team proposed that professional ethics be given much greater emphasis in the curriculum and made the following recommendations to the University: that a greater emphasis be placed on professional ethics in the undergraduate curriculum through the use of experiential learning, especially in relation to the development of ethical decision-making skills through team-based responsibilities; and that opportunities be designed within the curriculum to develop an attitude of responsibility which students will be expected to implement across a broad range of learning environments.

Challenge 3: *New graduates have uninformed expectations that the work environment will display qualities of supervision, order and control similar to those experienced at university (and, by implication, will founder unless universities prepare them more realistically for real world conditions).*

Many new graduates expect higher earnings, higher levels of appointment and higher status in their first job than the market can offer them (Harvey, 1999). It is well documented that some graduates have uninformed and unrealistic expectations of employment, both in terms of initial salary levels and career development opportunities (BCA/ACCI, 2002; Bennett, *et al*, 2000; Graham & McKenzie, 1995a; Harvey, 1999; Harvey, *et al*, 1997; Hesketh, 2000). It is not unusual for graduates to approach the recruitment interview with the understanding that their academic record will be the determining factor in their success. However, very often employers are far less interested in the applicant's academic record than their interpersonal skills and work experience (BCA/ACCI, 2002; Harvey, 1999). This became apparent during our focus group discussion, where a number of graduates commented that their employers had not asked for evidence of their academic record during their recruitment interviews – assurance of a degree was enough in itself – and that they had been evaluated, instead, on the basis of on-the-spot demonstrations of generic skills in practice. One graduate, for example, had to give an oral presentation using the computer software, PowerPoint; another had to resolve a complex, hypothetical ethical dilemma without warning; one had to demonstrate equivalence with five years' management experience in a related field; and one had to display life skills and common sense during the interviews.

There was strong agreement between the employers' and graduates' perceptions of the recruitment interview process in the focus group discussions. None of the employers mentioned the importance of academic qualifications in the interview process and only one, an engineer, said that "technical aptitude" was important, but just as important were the candidate's "values". Others made comments such as:

You look to see an understanding of what they have done. I like to get them to describe their thesis or project during the interview and I tell them, "Here is a whiteboard, here is a pen, what did you do?" I then ask them some hard questions and see how they go with a bit of stress, and that helps to gauge how they will go in terms of confidence.

I guess one of the things I look for is what level of support and what kinds of support they will need...I look at my current recruiting and say, "I don't have a team leader I can provide for you and you're going to need a lot of support, so I can't recruit you."

I say to them, "Basically, I know nothing at all about risk. Here is a scenario. Now explain to me firstly the process you would use to analyse the risks in this situation and how you would communicate those risks to me." That's seriously daunting.

Their comments were similar to those reported in the study by Harvey, *et al*, (1997), which showed that:

In essence, employers expect a degree to provide a profound, broad education rather than attempt to train someone for a specific job. In some cases, particular knowledge and understanding of a subject area is a bonus, as are specific technical skills. An understanding of the world of work, some commercial awareness, some appreciation of work culture and the ability to work in teams, communicate well and exhibit confidence (but not arrogance) in interpersonal relations is a considerable enhancement.

The employers in the focus group discussion felt, however, that new graduates in general tended to have inflated expectations of starting salaries and development opportunities, with one, from the criminology field, laying responsibility for this with a perceived "message" that universities were giving to their students, and another, from an engineering firm, saying:

I think there probably needs to be a message to the students that when you first graduate and you commence work, for the first three or four years at least, you are actually going through a development process. In fact, you do it your whole life, but in the early stages, what you need to be doing is not so much trying to fight for the best salary, but finding the position that will create most value in you, so that you can go out and get the supervisor-, manager-type salary later, because that is where it really counts. It doesn't matter in the first four or five years, because typically you are probably not married, you probably don't have kids, your expectations on what size house you have aren't great. But your peer group will march on and by the time you get to your late 20s or 30s, you will have different expectations, and that is when it really counts to have the money. If you develop your career sufficiently at the beginning, and not focus on the money as much as the opportunity, then you will get the opportunity later for the money.

Often, however, new graduates' high expectations of employment opportunities and salary levels are conditioned by social and cultural factors that are outside the control of the university, particularly when many of them are "first generation" graduates, but sometimes organisations themselves are to blame for falsely raising graduates' expectations in their recruiting material (Graham & McKenzie, 1995a). A cursory examination of Web-based³ recruiting material for private and public sector organisations in Australia and New Zealand showed the extent to which companies and government departments emphasise their commitment to graduate development programs, further study, challenging opportunities, world travel, escalating salaries, and structured career paths, as well as to generic skills and abilities. Some graduate recruits inevitably become disillusioned after their first few months of employment when their job proves to be essentially routine, mundane, poorly paid and low in prestige (Graham & McKenzie, 1995b).

It was pleasing, therefore, that the graduates' survey responses in Stage 4 of our project showed very little evidence of uninformed or unrealistic expectations of employment. This can be attributed to their experience of work placements during their degree programs, with many graduates making comments such as:

[Work placement] helped me to develop confidence in individual work; helped me to understand work relationships and roles.

[Work placement gave me] a specific understanding of industry expectations, [as well as] confidence.

[Work placement gave me some] exposure to industry; I learnt about capabilities and future directions.

The placements give you the hands on skills, allow you to establish networks within the industry and gain an insight into how it all works.

The graduates' expectations of developmental opportunities *after* employment had clearly not been met in all cases. Often, they said, opportunities depended on the culture of the organisation, available resources and the attitude of their employer towards learning. This is consistent with the findings of Garrick and Kirkpatrick (1998, p. 173) that "workplace characteristics, including purposes, culture, structure, systems, work organisation and management are...central to the nature and scope of learning that occurs in them." Some graduates had been "given a ball and told to run with it," while others had been conditioned by their employers to see their jobs more as a "series of hoops to be jumped through." One graduate, in the leisure industry, had been told by her employer that "work is not a university and there *is* no training," but those who had been supported by their employers to attend

³ Graduate Opportunities in Australia and New Zealand:
http://www.graduateopportunities.com.au/az_employer_search.cfm

professional continuing education courses or undertake postgraduate study certainly appreciated their employers' investment of time and money.

Loyalty and commitment to the organisation have only recently re-emerged as desirable qualities in new graduate employees and were sanctioned in the recent BCA/ACCI report (2002, p. 7), which included them, together with honesty and integrity, in its Employability Skills Framework. Some of the graduates we spoke with recognised the importance of giving loyalty and commitment back to their employer and the importance of staying with the organisation for a number of years:

...if you are a loyal person and your boss knows that, they actually will invest more money [in you]. They can see that you've got initiative and that you like what you do, you like being there, and you like the people around you, so they are actually way more likely to enhance your skills because they know you are not going to run off...Managers will put more time and effort into people who look like they are enjoying what they are doing.

Loyalty, commitment, honesty and integrity are certainly desirable, but they are qualities, or attributes rather than skills. If "generic skills" are accepted as those broad, cross-disciplinary "cognitive abilities developed in one context and capable of being transferred to and applied in others" (Crebert & Smith, 1998, p. 8), then regarding the above virtues as "generic skills" not only trivialises them but makes impossible demands on the designers of "skills training programs" who are expected to educate students in them.

Survey responses showed that during their placements, "being given responsibility" was a key factor in the development of the graduates' generic skills and abilities, and the majority (72.6%) of graduates felt they had subsequently experienced little or no difficulty in transferring their skills into the workplace. Once in employment, "working collaboratively" had assumed greater importance in their skills development, and this too can be attributed to the preparation for employment that work placement had provided. In the main, these graduates' experiences had not led to the "great deflation of expectations" referred to by Graham and McKenzie (1995b, p. 37), nor the "uninformed" (and unrealistic) expectations of employment documented by Candy and Crebert (1991, p. 572), suggesting that work placement plays a crucial role in the preparation of graduates for employment.

Challenge 4: In the course of adjusting and adapting to the workplace environment, new graduates move from the familiar, structured learning approaches adopted at university to self-reflective learning aimed at change and self-development (and, by implication, would be able to do this more easily were they provided with an appropriate learning framework at university).

When the new graduate starts work, unless he or she has had some kind of relevant work experience, there is little that is familiar: the organisation seems either gargantuan or miniscule compared with the university, the supervisor more demanding, the deadlines much more urgent, and problems often need to be identified before they can be solved (BCA/ACCI, 2002). It is hardly surprising, therefore, that new graduates take some time to familiarise themselves with the organisational culture which they have entered and to acquire some much-needed confidence in their own ability. Often, their survival depends on their capacity to learn on-the-job, and the extent to which support is provided within the organisation, either in the form of learning opportunities, supervision and mentoring, collegial induction and enculturation.

For the new graduate recruit, adjusting and adapting to the workplace environment often results in a form of "culture shock" (Bennett, *et al*, 2000; Graham & McKenzie, 1995a). In the absence of familiar frameworks for learning, such as time-tabled classes, formal instruction, assignments, etc. (Candy & Crebert, 1991), the new graduate will often seek to recreate them in the workplace using whatever learning opportunities and strategies that present themselves. Where accessible, in-house seminars and continuing professional education courses are reassuringly familiar, for in such contexts there are usually instructors, whiteboards, handouts or notes and other audio-visual aids. However, much of the learning that occurs in the workplace is informal, a high proportion of which can be further classified as "incidental"

(Marsick & Watkins, 1992, p. 12), occurring more or less as a by-product of a particular cognitive engagement. Most of the learning at work is, of necessity, of the “just-in-time” variety – informal, on-the-job learning for a particular (and pressing) reason. Such on-the-job learning occurs in a variety of ways in a range of different situations, often with a seemingly imperceptible “structure” or underlying rationale (Billett, 2001, p. 15), but mostly with none at all. For some graduates, this kind of learning is, if not sufficient, then at least adequate, but others need a deeper, more reflective learning which seeks to make meaning from experience (Boud & Miller, 1996; Mezirow, 1990).

The Business Council of Australia and the Australian Chamber of Commerce and Industry identified in their report, *Employability Skills for the Future* (2002, p. 44) a number of elements of learning skills that are valued by employers. A brief examination of the list they offer indicates the extent to which those skills are, in fact, dispositions and attitudes to both the workplace and the recruits’ perceptions of themselves. The report suggests that the following are requisite “skills”.

- managing own learning;
- contributing to the learning community at the workplace;
- using a range of mediums to learn – mentoring, peer support, networking, IT, courses;
- applying learning to technical issues (e.g., learning about products) and people issues (e.g., interpersonal and cultural aspects of work);
- having enthusiasm for ongoing learning;
- being willing to learn in any setting – on and off the job;
- being open to new ideas and techniques;
- being prepared to invest time and effort in learning new skills; and
- acknowledging the need to learn in order to accommodate change.

Survey responses and comments from the graduates in our study indicated that they manifested all of these “skills” to varying degrees; with most respondents identifying the less formal and more collaborative opportunities as the richest source of learning in post-graduation employment. Their identification of “group work” as the predominant context for learning and developing generic skills and abilities at university and “working collaboratively with colleagues” as the main way they developed them in employment suggests that they carried over, or transferred into the workplace the kinds of learning interactions they had been used to at university. Guided reflective discussion, sensitive questioning and help with the deliberate construction of meaning from experience in a group or one-on-one interview had contributed significantly to the quality of the student’s learning outcomes while at university. Survey responses showed that 71.7% of the graduates had engaged, while at university, in some form of critical reflection on their learning during work placement.

Dunne, Bennett and Carré (1997) found, in the course of examining the practice of over 30 academic staff from 16 university departments in the United Kingdom, that most could neither conceptualise nor talk about the notion of transfer of generic skills between contexts. If, as they acknowledge, “part of the issue resides in academics not being familiar with the vocabulary of learning, or theories of learning, and transfer as a specific issue within this,” (Dunne, *et al*, 1997, p. 518), then it is likely that, for most students, the necessary connections between contexts are not made explicit at university. Certainly, graduates in our focus group discussion emphasised how important it was for academic staff to make links between the classroom and the outside world and to do it at the beginning of every lecture, by drawing analogies and providing concrete examples of practical applications of theory. The role of the work placement in enabling students to make these connections for themselves, and to engage in self-reflective learning with input and feedback from academic and workplace supervisors, was a crucial factor in the graduates’ transfer of learning between contexts for, as Atkins (1999, p. 275) argues:

The extent to which the [higher education] context and the first or subsequent job contexts are similar is also likely to have a profound effect on whether transfer occurs.

The greater the difference in terms of task, people and expectations, the lower the likelihood of transfer.

There was evidence in our research to support Candy and Crebert's fourth challenge, that new graduate employees move from structured learning approaches to self-reflective learning after graduation. Based on our findings, the project team recommended to the University that work-integrated learning be incorporated into all undergraduate programs; that they be designed in such a way as to integrate the development, assessment of and critical reflection on students' generic skills and abilities; that dedicated resources and positions be allocated within Schools to enable the coordination and supervision of high quality work-integrated learning components; and that appropriate preparation, training, recognition and reward be given to coordinators and supervisors of such components.

Conclusion

This paper has revisited some of the main problems facing the graduate starting employment that were identified by Candy and Crebert in 1991 as "learning challenges". In relation to these "challenges" or problems, few of the assumptions underlying the on-going debate about "generic skills" and their place in higher education have changed in the intervening years: our study showed that at least three of the original problems still exist.

First, there were differences in the ways employers and graduates perceived the purpose of a university education, and in many respects, little had changed in the eleven years between 1991 and 2002. Some of the employers in our study saw a university education primarily as evidence of a graduate's theoretical knowledge base, which should be taken as a "given" and not questioned when recruiting new staff, but the majority (55.3%) of graduates (N = 159) tended to see a degree, albeit with the benefit of hindsight, rather more as evidence of practical, portable generic skills and abilities, extremely valuable for employment prospects and career development, and placed less importance on the acquisition of knowledge and technical skills. There was a sense, however, that generic skills and abilities need to be given more attention by the university, and similarly, that they must be fostered and developed by the employer after graduation. It was on this issue that there was a divergence of opinion between employers and graduates. On the one hand, employers (not unsurprisingly) put the requirements and demands of the job first; on the other, graduates placed more importance on personal development and felt constrained by the prescriptive boundaries around their roles and responsibilities which often prevented them from developing their generic skills further, questioning the "currency" of their employers' own skills level in the process.

Second, some employers and graduates were unsatisfied with the preparation for work and the level of skill development they had received at university, so that overall, there was broad agreement that this still presented a problem. Third, our study showed that while some employers felt that graduates had unrealistic expectations of employment, the expectations of the graduates sampled were much more informed and realistic than the literature and recent research studies suggest is the norm. This conclusion represents a change away from the assumptions explored in the 1991 article by Candy and Crebert, and could reflect the recent curriculum changes these graduates had experienced and the stronger emphasis placed on work placement in their courses. And finally, in relation to the fourth problem, there seemed in our study to be general agreement between employers and graduates that in such courses, there had been a move away from the more traditional approaches to teaching and learning towards practice-based approaches involving reflection on the authenticity of the employment context, and that this was an important consideration in the graduates' continuing learning in the workplace.

As far as areas of deficit that *do* represent a lack of appropriate skills are concerned, some new and unanticipated challenges have presented themselves to graduate employees in the years since 1991. It would be tempting to assume that chief among these is the challenge of literacy in information and communication technology, as they play such a crucial role in the way people "live, learn and work" (ETS International ICT Literacy Panel, 2001) However, graduates responding to our questionnaire were given three opportunities to rank and seven opportunities

to comment on the “generic skill” of information literacy, and did not prioritise this over other skills and abilities in any of the three learning contexts under consideration. Similarly, the graduates and employers in the focus group discussions did not emphasise the importance of information literacy in the workplace. It could be that this was because information and communication technology are so firmly embedded in both the undergraduate curriculum and workplace culture that they do not warrant highlighting, but the survey respondents and interviewees did not seem to regard the role that the new technologies play as worthy of specific comment.

The positive endorsements by graduates and employers in our study and others (Blackwell, Bowes & Harvey, 2001; Alderman & Milne, 1998; Hughes, 1998; Billett, 1995) indicate that a work placement offers students the chance to develop the abilities (“employability skills”) they will need for employment; exposes them to workplace culture; and helps them become more reflective more quickly (Harvey, *et al*, 1997). It is clear that as an intermediate step between study and employment, work placements provide a both a platform of consolidation and springboard of opportunity for students. Whether or not graduates who do not undertake a work placement experience similar patterns of development is the focus of Stage 5 of the project.

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Table 1: Number of times (aggregated) that learning contexts were selected in relation to the development of generic skills and abilities (*in general*) at university, during work placement and in employment.

At university		During work placement		In employment	
Group work	759	Being given specific responsibility in the work placement	571	Working collaboratively with colleagues	651
Tutorials	531	Discussions on work-related issues in the work placement	491	Learning from mistakes	430
Project work	516	Working in a team during the work placement	456	Listening and discussing	393
Assessment preparation (e.g., writing essays and other assignments)	489	Observing work placement supervisor and colleagues during the work placement	404	Learning informally on the job	381
Studying independently	340	Reflection/debriefing sessions during the work placement	395	Receiving feedback from supervisor	333
Lectures	339	Writing reports as part of the work placement	362	Writing reports or submissions	325
Seminars	321	Receiving feedback on performance from work placement supervisor	312	Consciously reflecting on learning	296
Laboratory sessions	297	Using technology during work placement	245	Undertaking further formal study	275
Library research	289	Talking with peers at university about the work placement	232	Attending in-house workshops or seminars	265
Preparation sessions, at university, for the work placement	244	Receiving feedback on performance from academic supervisor	206	Presenting information orally to others	229
Using technology	199	Participating in a workplace orientation program during work placement	66	Using technology	225
				Participating in a mentoring scheme	79