

Developing and Assessing Transferable Skills in Higher Education: a Field Trial and a Way Forward

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Abstract

This paper reports the results of a project that was initiated by the need, frequently expressed by employers, for the education system to produce potential employees with better transferable skills. The field trial reported here took place at a UK university and followed a four-year pilot of National Vocational Qualification (NVQ) Level 4 Key Skills within a Higher National Diploma (HND) programme. This project, which operated within a new foundation (Level 0) programme, aimed to simplify the paperwork employed in the pilot and incorporate skills assessment within modules, intending to obviate the need for a portfolio of evidence. The project was successful only in one or two modules where staff were committed to the aims. A contrasting culture at a university in Australia is reported, where faculty were broadly supportive of a similar yet simpler system. A recommendation is made for a more 'user-friendly' system based on the Australian experience that has been demonstrated to operable in practice (in a practical trial not part of this research study). The recommendations also incorporate evaluation and monitoring using a similar approach to the UK 'National Students Survey' (NSS), again inspired by an Australian university.

Keywords

Graduate skills; Transferable skills; Generic skills; Key skills; Employability; Generic competences.

Introduction and background

There is considerable evidence over many years that employers want employees who can apply skills and knowledge in a variety of situations (see, e.g. Court et al., 1997; DfEE, 1998; Harvey et al., 1997; Hawkins and Winter 1995; Nove et al., 1997; Purcell and Pitcher, 1996; Quintini, 2014; Shah et al., 2004; Yorke, 2006). Universities mainly concentrate on instilling content and theory into students (Oria, 2012), yet most graduates go into jobs that require general skills, with only around half making use of their degree subjects (Fallow and Steven, 2000). There is a lack of alignment between the skills that students need to gain their degrees and the skills that employers require (Azevedo et al., 2012; Hinchliffe and Jolly, 2011). The aim of this paper is to help educational institutions to provide confirmation of the acquisition of the necessary skills to make graduates more employable, by developing and evaluating a system of skills development, assessment and recording, delivered as an integral part of a course and not involving students and staff in the extra work of ‘skills tasks’.

The need for students to build transferable skills has been noted frequently (e.g. Assiter, 1995; BECTA, 2002; CSED, 2000; CVCP, 1999; Dearing, 1997; Jackson, 2014). According to Bolton (1997), the effectiveness of higher education (HE) is being judged increasingly in terms of the extent to which students acquire the skills that they need for work. Employability is a major issue for all universities, with the supply of graduates rising faster than demand from employers (Wilson, 1995). Students have been encouraged to maintain a Personal Development Portfolio (PDP) to (e.g.) plan actions to meet goals and record and reflect on achievements (LMU, 2007). How this encouragement is manifested and what ‘sanctions’ support it and turn it into anything more than a pious platitude, is unclear. Courses submitted for validation must often include ‘blobby charts’ mapping skills development against modules in the curriculum. Whilst such systems are welcome, the extent to which the mapping of attributes match students’ learning experiences is questionable (Bath *et al.*, 2004). In the case of at least one UK university, the standard system does not demand assessment, skills are not standardised, are not outcome-based and are not based on national standards. There is evidence that both employers and students consider that the current system is not working as well as it should. For example, Woods and Dennis (2009) surveyed 500 small and medium sized businesses concerning their graduate employment needs and experiences. More than half (55 percent) considered that ‘What

we need is employees with good basic skills' and the same percentage considered that graduates are not well prepared for the world of work. Similarly, a survey of 116 Level 3 (final year of a 3-year degree course) students at one university found that many students felt that they were not developing a full range of skills and that embedding skills into the curriculum was not working (Burke *et al.*, 2005).

A number of universities have experimented with various outcome-based skills programmes, some using external, national standards (e.g. see Fallow and Steven, 2000; HILP, undated; QCA, 1999; Williams, 2002; University of Nottingham Key Skills Team, 1999). Skills programs have been hampered by lack of lecturer support and lack of clarity in defining the skills (Bennett *et al.*, 1999; 2000). Most programmes have concerned only a limited selection of skills. Many have not gone beyond the skill levels assessed in further (secondary) education. Most trials and research have concerned only 'hard' skills such as IT (e.g. Haines *et al.*, 2004; Hsieh, *et al.*, 2014; Hilliger and Roberts, 2001). On the other hand, there is evidence of employers' needs also for 'softer' skills such as team-working and communication (GRDSRIP, 1997).

The assessment of students' acquisition of employability skills has apparently proceeded further in Australia than in the UK. For example, Smith and Bath (2006) surveyed students across an Australian university (n = 2622). The questionnaire was based on the University's own student experience survey combined with the official, national government-imposed Course Experience Questionnaire (CEQ), designed to collect graduates' perceptions of their higher education experience, with components including good teaching, overall satisfaction and generic skills. The authors found that that teaching and programme quality, although important, did not account for as much of the variation in students' outcomes as did the social and interactive nature of the student experience. They concluded that the development of generic employability skills should not be a 'bolt on' but rather, needs to be integrated into learning activities that engage students. Employers' required skills profiles are consistent across various industries and job types (Jackson and Chapman, 2012).

The development of employability skills cannot be taken for granted as following from studying degree subjects but rather, their development, practice and assessment need to be specifically built in to the courses (Badcock *et al.*, 2010). Accordingly, in line with the aims of ensuring that the education

system produces employees who are flexible and able to meet the changing demands of work, and that education programmes should provide the necessary skills that employers require, we carried out a two-stage trial and a third investigative stage aimed at covering a comprehensive range of transferable skills, developed and assessed to, or equivalent to, national standards for HE. The two trials comprised an initial Higher National Diploma (HND) pilot followed by the second stage foundation course project. As reported in the 'Results' section below, the outcomes of the foundation course project were less satisfactory than hoped for, apparently due to an academic staff culture that was mainly unsupportive of the aims and procedures. Therefore, in the third stage, we explored systems and culture in a location where projects aimed at improving employability skills of graduates have reported greater success, a university in Australia (Bath *et al.*, 2004; Crebert, 2004; Gapp and Fisher, 2006; Smith and Bath, 2006). Not only is the geographic distance from the UK (of course) large, the academic staff culture distance with respect to employability skills is also notably great. The paper closes with practical (though yet to be researched) progress and recommendations for UK pilot trial(s) inspired by the Australian experience.

Method

HND pilot

The UK university at which the trials took place is committed to, and has a good track record in, producing students of future value to the community. In line with this mission, in 1997 the university's business school commenced a pilot trial of a Key Skills development and assessment programme encompassing the range of skills at HE level, as an integral part of the HND Business course. In that pilot programme (which ended when the HND course finished in 2001 for reasons unconnected with the skills trial), the award was outcome-based to external, national HE standards (at National Vocational Qualifications (NVQ) Level 4) set by the Qualifications and Curriculum Authority (QCA) and validated by the examination board Edexcel.

In order to be awarded an HND a student needed to reach at least a pass standard in what Edexcel termed 'Common Skills'. The researchers accordingly mapped Common Skills against the

NVQ Level 4 Key Skills drawn up by the QCA and validated by Edexcel. Sufficient correlation was thereby established to obtain Edexcel agreement that obtaining a Key skill would be sufficient evidence to award at least a Pass in the relevant Common Skill. A system of students claiming skills competence, and a Log Book to record skills accredited were devised. Lecturers assessed skills as part of the HND coursework. Members of the team who held a national qualification in competence-based assessment (Assessors A1 TDLB D32/33) internally moderated the assessments. Students were required to produce a Portfolio of Evidence supporting their skills assessments for inspection by an Edexcel External Examiner.

Foundation Course Project

Despite the success of the HND course and students' skill achievements, staff found the externally-set requirements to be unduly prescriptive and restrictive; and the system to be overly bureaucratic. Therefore, a further trial was carried out with a newly-introduced course, the Foundations of Business and Management (a Level 0 course for international students, i.e. preparation for first year undergraduate degree studies). The programme is outlined in Figure 1. The course included a skills programme, similar to that of the HND, amended and simplified in the light of experience from the HND pilot. In the interests of simplicity, skills achievements were validated internally, rather than by an external authority.

Autumn Semester	Spring Semester
English Language	a long thick module over both semesters
Effective Self-Managed Learner	Planning and Strategy
IT and Media	People and Organisations
Foundations of Finance	Foundations of Marketing
Quantitative Methods for Business	The Business Environment

Figure 1 Foundations of Business and Management course programme

Transferable skills

The transferable skills areas consisted of a simplified version of those of the national NVQ standards that had been applied in the HND trial, intended to cover a wide range of the generic skills seen as desirable by employers, including numeracy, communication, IT, learning, teamwork and problem solving. The skill areas are listed in Table 1.

Table 1 Skill areas included in the Foundations of Business and Management programme

Application of Number	AN1	Collect and Record Data
	AN2	Data Presentation and Interpretation
Communication	C1	Take Part in Discussions
	C2	Produce written material
	C3	Receive and respond to Information
Information Technology	IT1	Use an IT System
Improving Own Learning and Performance	IOLP1	Identify Targets
	IOLP2	Plan and Monitor Achievement of Targets
Working with Others	WWO1	Decide Collective Goals and Responsibilities
	WWO2	Work to Collective Goals
Problem Solving	PS1	Identify Problem and Plan to Solve it
	PS2	Reach Solutions

Each of the skill areas contained at least three, often more, performance criteria elements within them. The performance criteria are listed in Appendix 1.

Transferable Skills Assessments Module Chart

The modules were designed so that students had opportunities to develop and be assessed on each skill

area in least two modules, illustrated schematically in Figure 2. The ‘blobs’ indicate the availability of opportunities that students had to develop, practise and be assessed on the particular skills, mapped across the modules.

SKILL	MODULE								
	ESML	ITM	Mktng	Quants	English	Planng and Strat	People and Orgs	Finance	Business Environ
AN1			•	•				•	
AN2			•	•				•	•
C1					•	•	•		
C2					•	•	•		•
C3	•		•		•				
IT1	•	•		•		•			
IOLP1	•				•				
IOLP2	•				•				
WWO1						•	•		
WWO2						•	•		
PS1						•			•
PS2						•			•

Figure 2 Opportunities for students to demonstrate skill areas in modules of the Foundations of Business and Management course.

Key: ESML: Effective Self-Managed Learner

ITM: Information Technology and Media

Mktng: Foundations of Marketing

Quants: Quantitative Methods for Business

English: English Language for Business

Plannng and Strat: Planning and Strategy

People and Orgs: People and Organisations

Finance: Foundations of Finance

Business Environ: The Business Environment.

The Australian experience

Following an ‘inquest’ in which the research team critically evaluated the results of the Foundation Course project, it was decided to compare and contrast those results with the systems and culture at a university in Australia – an area from which seminal research on graduate employability skills has emanated (Bath *et al.*, 2004; Crebert, 2004; Smith and Bath, 2006). The investigation took the form of in-depth interviews (in 2007) with academics in one of the main schools of a university. Twelve interviews were carried out, representing over half of the academic staff in the School and around three-quarters of those based at that campus. The interviews had three related objectives: (i) To elicit the formal procedures for developing, practicing and assessing employability skills; (ii) To assess the extent of compliance or otherwise with the procedures; and (iii) To determine the stated motivations of academic staff for complying or otherwise with the procedures. Due to the sensitive, personal nature of enquiries into the extent to which respondents ‘obeyed the rules’ and their reasons for doing so or not, it was expected that richer data would be obtained by relying on notes of the interviews, rather than audio recording. Sorting and theme generation in the form of axial coding facilitated the process of listing key facts and recurrent themes. To ensure consistency and systematic analysis, a transcription form based on a standard template (Krueger, 1994) was developed. Responses to individual questions were coded and assigned to the particular themes, and the corresponding sections of the interviewers’ notes were marked for review. This process greatly facilitated the comparison between individuals and reduced the need for repetitive sections in the results.

Results

On the HND pilot 88 percent of the first cohort, 89 percent of the second and 86 percent of the third were awarded an Edexcel Key skills capability award in addition to their HND. According to the course External Examiner, the students' achievements in Key Skills 'demonstrated that those skills could be successfully assessed at HND level' (examination board minutes).

On the foundation course project, 19 students took nine modules. Of these, three modules yielded data capable of providing an insight into the effectiveness of developing and assessing transferable skills. They were IT and Media; Effective Self-Managed Learner; and Quantitative Methods for Business.

IT and Media

The skills that were specified to be developed and assessed on this module concerned:

- Use an IT system (IT 1).

This module was the 'jewel in the crown' of the skills trial, no doubt helped by the fact that the module tutor was trained and qualified to A1 TDLB D32/D33 standards for assessing competence. The assessments required students to use an Information Technology (IT) system (IT 1). In the first coursework assignment, students researched, evaluated, selected and justified a computer system for business. In the second, they were required to build a website. The performance criteria constituting IT 1 were assessed by: creating and using a spreadsheet and database (a. and b.) in computer lab. sessions; word processing producing reports for coursework assignments (c.); Using the Internet to collect data about computers (d.); and sending & receiving emails & attachments also in lab. sessions (e.). Apart from the spreadsheet and database skills, IT 1 a. and b., that could only be assessed in the lab. sessions, students were nominally free to choose the way that they demonstrated the performance criteria, with the proviso that completing the coursework assignment tasks set would automatically entail demonstrating competence in IT 1 c. and d.

The documents available to the researchers included: the module programme; assessment

instruments; originals of module feedback forms and skills self-evaluations; and all of the assessed work for the appropriate Coursework Assignment 2 (but none for Coursework Assignment 1). In this module, students had demonstrated the skills that were specifically required by the module specification, either as part of the coursework, or in class sessions.

Prior to the start of the module and at the mid stage of the module, students carried out IT skills self-assessments. This module was successful in developing and assessing the performance criteria specified, albeit with lab. session assessment specifically designed to assess skills in addition to those assessed in coursework assignments. Fourteen students achieved skills competence. Two students failed the skills and also failed their coursework and therefore failed the module. Three further students were borderline fails on skills assessments but had otherwise passed the coursework assessments and were allowed a 'Pass' for the module on instructions of the Course Leader. The researchers concluded that this action defeated the otherwise successful object of assessing skills as part of module assessment. On the other hand, because of the commitment of the module tutor to the principle of developing and assessing skills, all students substantially improved their IT skills. In sum, the module proved that with the commitment of the module tutor, IT skills at least could be developed and assessed within the module.

Effective Self Managed Learner

The skills that were specified to be developed and assessed on this module were:

- Receive and respond to information (C 3)
- IT: use an IT system (IT 1)
- Improve own learning and performance: identify targets; plan and monitor the achievement of targets (IOLP 1 and IOLP 2).

The module assessment was by means of a Learning Plan and a Portfolio (Learning Log) but skills were also developed in class exercises such as identifying group work roles and skills self assessment. The Learning Plan required a self analysis, an identification of learning opportunities and a gap analysis. The Portfolio required the keeping of a Learning Log and self and peer assessment of a

presentation. Five Learning Plans were available to the researchers (but none of the Portfolios). The researchers were also provided with evidence that this module had been used for developing skills. This included not just assessed work, but also the fruits of class exercises such as identifying group roles, skills self-assessments and informal learning plans.

In general terms, the assessments could be expected to have required students to: 'Receive and respond to information' (C 3) (understanding and acting on the assignment instructions); 'Use an IT system' (IT 1) (word processing a report and preparing a presentation); 'Improve own learning and performance: identify targets; plan and monitor the achievement of targets' (IOLP 1 and IOLP 2) (self assessment, setting goals and reflecting on achievement). The assessment of the detailed performance criteria, though, was not so transparent. Students should have been required to demonstrate competence in receiving and responding to information (C 3): Summarising written material, which could have been required in the Learning Log (a.); Selecting appropriate information from data sources, which could have been an input for the presentation (b.); Receiving & responding to oral and written communications, which could have been part of giving and receiving peer assessment feedback for the presentations (c. and d.).

Students should have been required to use an IT system (IT 1): a spreadsheet could have been part of time planning in the learning plan (a.); a database of (e.g.) tutors & group members could have been in the Learning Log (b.); word processing could have been specified, e.g. tables, styles etc. (c.); collecting data with the Internet to could have been in the learning log as part of preparation for the presentation, (d.); and sending & receiving e mails could have been part of the Learning Log (e.).

Students should have been required to demonstrate competence in improving their own learning and performance, identifying their own learning targets (IOLP 1). Identifying own strengths & weaknesses and proposing appropriate targets were demonstrated in the Learning Plans (a. and b.); self-set targets were included in the Learning Plans, but there was no evidence that these had been agreed with the tutor (c.); targets should have been reviewed in the Learning Logs (d.).

Students should also have demonstrated competence in planning and monitoring achievement

of targets (IOLP 2): planning a schedule and selecting activities were in the Learning Plans (a. and b.); seeking and responding to feedback, using support from others and reporting any difficulties to the supervisor should have been included in the Learning Logs (c., d. and e.).

The researchers were unable to obtain access to the Learning Logs, which had been returned to the students after assessment. Sample Learning Logs from the same task, but different students, course and module were consulted ('Study Skills' from the university's 'BSc eCommerce'). Evidence was found in that case that students had sought & responded to feedback, used support from others and reported difficulties, i.e. IOLP2 c., d. and e. On the other hand, there was no evidence for IT 1 b., d, e. and IOLP 1 d, which should have been part of the Learning Log.

In sum, students had general opportunities to demonstrate the specified skills for the Effective Self-Managed Learner module. They were not asked to demonstrate the performance criteria specifically, but answering the assessment tasks did entail demonstrating many of the performance criteria.

Quantitative Methods for Business

The skills that were specified to be developed and assessed on this module were:

- Collect and record data (AN 1)
- Data presentation and interpretation (AN 2)
- Use an IT system (IT 1).

Assessment was by means of two coursework assignments and two class tests. The module programme, handouts, and assessed work provided substantial evidence that this module had been used for developing numerical skills. The skills were not referred to in the module documentation, but nevertheless, there was substantial overlap between the module content and the skill specifications, resulting in the students' assessed work demonstrating many of the performance criteria.

Coursework Assignment 1 required students to plot graphs and perform calculations and Coursework Assignment 2 required a report analysing central tendency and dispersion. The class

tests required calculation and explanation of indices. The performance criteria for data presentation and interpretation (AN 2) were mainly assessed: selecting & displaying data; interpreting statistical diagrams & graphs in Coursework Assignment 1 (a. – d.); Predicting trends was not assessed or demonstrated (e.). Students were not assessed on collecting and recording data (AN 1) as they were given the data rather than being asked to collect it. Similarly, they did not demonstrate use of an IT system (IT 1) in this module.

This module again demonstrated that skills could be assessed within the module, even though the limited success occurred naturally through the overlap of the module content with the skill specifications rather than by design.

Discussion and analysis of the foundation course trial

Apart from the three modules reported in the ‘Results’ section above, the other modules provided little usable data. The project suffered from a lack of information and materials from the teaching and course management staff. This appeared to be the result of apathy and lack of interest in the objectives. The Course Leader did express ‘the strength of feeling against [the] proposal from the team apart from [two members]’ (see ‘The Course Leadership’ below). Whatever the reason, even basic information that should have been available for quality assurance was largely not available: lecture programmes, assessment instruments, samples of assessed work, module reports and so on. As far as the researchers were able to determine, the information was not deliberately withheld, but rather, had never been recorded and archived in any structured way.

In the single module where the tutor was fully committed, experienced and qualified in skills assessment (IT and Media), all the specific, detailed skills specified for the module were developed and assessed. Even so, the effectiveness was partially undermined by the action of the Course Leader who overruled the ‘Fail’ results of borderline students. Where one member of staff co-operated, (Effective Self-Managed Learner module) the results were satisfactory in general terms, although not all of the detail of the skills had been assessed. In another module (Business Data Analysis) there was fortuitously an overlap between the module content and performance criteria, meaning that some were developed and assessed.

The skill areas and performance criteria assessed and demonstrated are listed in Appendix 2. These are summarised in Table 2, which indicates that notwithstanding most (83 percent) of skill areas were demonstrated in general terms, only about one third (34 percent) of specific performance criteria were demonstrated in assessed work and only half of those (17 percent) were directly assessed.

Table 2 Skill areas and performance criteria assessed and developed in the Foundations of Business and Management project

	Number	Percent
Skill areas demonstrated in general terms	10	83
Performance criteria demonstrated in assessed work	20	34
Performance criteria directly assessed	10	17

The Course Leadership of the Foundations in Business Management course was changed by the school management, just prior to the start of the academic year, from one of the research team (who had been the driving force in designing this course and the HND pilot) to a member of staff who lacked previous involvement with skills development and assessment. The result was a much weaker focus on the implementation of skills development and assessment by the team than had been hoped for when the project was established. On the other hand, the outcome may thus have been more representative of the practical potential, implemented as it was by academics who were mainly neither experienced in skills assessment nor supportive of its aims.

This foundation project followed the HND pilot that demonstrated that skills development and assessment could be delivered within modules as an integral part of a programme. In attempting to simplify that approach, by eschewing the portfolio of skills assessed independently of the module, this trial was largely unsuccessful. Under the *laissez faire* course management style that prevailed during the trial, substantive success was limited to the one module (IT and Media) where the module leader was fully committed to and qualified in the assessment of skills. There was also partial success in one other module (Effective Self-Managed Learner) where the module leader was in favour of the principle whilst not implementing all the detail in practice. Without a fully committed and enthusiastic

Course Leader, skills development was apparently seen by many of the team as nothing more than extra work on matters not directly connected to their particular module.

The fact that, unlike in the HND pilot, the skills were not nationally accredited and did not contribute any credit value to the award may well have led to students seeing the skills element as an 'extra' which they could ignore with no consequences to follow from doing so. The HND students would not have been awarded an HND if they had not passed the Key Skills, so ignoring the skills element was not an option for them. However, the 'cost' of the national accreditation was what many staff and students involved in the pilot found to be over prescriptive and unnecessarily detailed skills specifications and a time- and resource-hungry bureaucratic system needed to produce the portfolio of evidence. Although the system used in the previous HND pilot was not popular with the staff team or the students, claiming skills and having the skills accreditation recorded in the Log Book, and then producing a Portfolio of Evidence cross-referenced to particular skills, was a useful exercise in data management and was a reflective process in itself. Familiarity with the process and the final completion of the Log Book meant students grew in self-confidence and provided factual evidence which could be shown to potential employers

[The Australian experience](#)

The system in use at the Australian university studied is simple to operate and the skills part adds little bureaucracy to academic staff workloads in the normal administration of their topics. Each main topic ('module' in UK parlance) has a 'Course Outline' which provides information for students such as aims, learning outcomes, teaching strategy, content, programme and assessment details. In addition, there is a section on 'Graduate Skills' listing which of the range of graduate skills are, respectively, taught, practised and assessed. The list of graduate skills and an example from an actual course outline are reported in Table 3. The degree leader checks to see that enough (at least three) but not too many (theoretically less than half) of the boxes are checked. Even so, despite what some staff including the head of the school understand to be a target of three or four skills per module, the typical example in Table 3 checks around three-quarters of the boxes.

Table 3 Extract from a module outline at the Australian university: Graduate Skills

Graduate Skills	Taught	Practised	Assessed
Effective communication (written)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Effective communication (oral)		<input checked="" type="checkbox"/>	
Effective communication (interpersonal)		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Information literacy		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Problem solving	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Critical evaluation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Work autonomously	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Work in teams		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Creativity and innovation		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Ethical behaviour in social / professional / work environments		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Responsible, effective citizenship		<input checked="" type="checkbox"/>	

Source: adapted from a module outline.

A major advantage of this system is the simplicity of operation and, in this sample, the complete adoption by the academic staff. On the other hand, there are disadvantages concerning monitoring and evaluation. There was no monitoring of whether the assessed outcomes were achieved; or whether they are even taught, practised and assessed as specified in the course outline. A yet more basic gap is that there is no mapping or checking to ensure that all skills are covered across the range of modules in the degree. In the event, for the main degrees in the school, all of these skills are specified as being taught, practised and assessed at least once. Nevertheless, there is a heavy bias towards to top of the table and very few specifications of creativity, ethical behaviour and responsible, effective citizenship.

All interviewees claimed to use the graduate skills system fully in the way that it is intended and no suggestion arose from any source of any gaps in implementation. Interviewees' motivations for adopting and views on the effectiveness of monitoring (where stated) are summarised in Table 4. Interestingly, the Australian phase of this project was partly initiated by the knowledge that funding is affected by positive evaluations of graduate skills (it can make millions of dollars difference to a university's funding (Bradley *et al.* 2008)). Yet only one of the interviewees was aware of this – and did not state it as influencing own motivation.

Table 4 Summary of interview constructs from the Australian study

<i>Construct</i>	<i>Number of respondents mentioning</i>	<i>Typical quotes</i>
Motivation		
Coercion	2	<i>I only do it because I'm told to. If I don't, the Head of School will check. And if not, the Dean will. Some people say 'no' for the sake of it but even they have to do it in the end. If we don't do it, we're treated like naughty children! It would be embarrassing if we performed badly.</i>
Leadership / part of doing a good job	2	<i>I do it because [the head of school] wants me to. I don't just tick the boxes [but fully implement graduate skills in the way that the head of school intends] because I can't justify the learning outcomes that [i.e. any other] way.</i>
Commitment	8	<i>There's a direct, unambiguous link to employability. It's just a belief thing. The key is an overarching: 'We should be making the students employable on Day 1'. ... Jobs ready – if we achieved that, there'd be no complaints from employers.</i>
Monitoring		
Monitoring is limited	7	<i>Anything between too few and too many [skills in the course guide] is 'waved through' [i.e. there are no other checks] No-one checks that the learning outcomes are achieved.</i>

A number of staff pointed out that they are aware that the system only requires them to tick the boxes, not actually to act on them. Nevertheless, even that minority who claim only to use the system only because they are told to, actually do implement it conscientiously – far from simply paying lip service. Their stated reason is because the head of school wants them to or because it is part of doing a good job. The university has since recognised this gap in the requirements and module documentation now needs to address the graduate skills not only in the table but also in the module aims and learning outcomes. Therefore, in theory at least, internal moderators and external examiners should be expected to verify at least that the relevant graduate skill learning outcomes are assessed. However, as the marking criteria do not have to contain reference to skills, the effectiveness of this

monitoring route must be in doubt. Unfortunately, the UK experience at the school where the Foundation Course project was implemented is that external examiners have ignored skills and verified only knowledge and understanding outcomes.

Based on these findings, a further practical pilot was implemented in 2009, modifying the specifications of a single undergraduate course at a UK university. Skills were defined in the learning outcomes. Skills to be taught, developed and assessed were specified in module documentation. Building on the Australian experience, the mapping of the skills was addressed by the degree programme leader, ensuring that skills were spread reasonably evenly across the degree course and all skill areas were taught, developed and assessed at least twice across the course. The changes to the course design were overseen by the research team (although the operation of the practical trial did not form part of this research project), such that internal moderators and external examiner should necessarily check whether the learning outcomes – including skills – were achieved by students passing each module. A sample skills matrix from a module specification and study guide is reproduced in Appendix 3.

This practical pilot constitutes the normal running of a major course and the authors lack access to intervene or research the detailed progress. The ‘hands off’ continuing operation is an indicator of its viability outside the research setting. The course continues to run successfully, with National Student Survey (NSS) student satisfaction rank compared to the same subject in other UK universities rising from the 9th decile for the ‘old’ version in 2009 to within the 3rd decile when the first cohort of the new course graduated in 2012, with student ratings for ‘Assessment and feedback’ even higher in the 2nd decile. There are many other factors contributing to the success of the new course but in NSS results to date (2014) students retain the consistently high level of satisfaction.

Conclusions

Following a successful but complex, time-consuming pilot HND Business/NVQ Key Skills Level 4 trial, the foundation project represented an attempt at a simpler system based on assessing skills only in modules. Except in so far as one or two modules were run and assessed by module leaders who were committed to

the skills process, the trial was unsuccessful, due to *laissez faire* course leadership and most tutors' unwillingness to voluntarily undertake 'extra' duties concerned with skills. It is interesting to note that (in the authors' opinions) the current UK undergraduate system for skills (in the business/management subject area of the particular UK university at least) is an empty token gesture. This is because it relies on module specifications laid down, but not, so far as the researchers are aware, assessed as part of the external examining and quality assurance processes. The experience of the foundation project was that the laying down of module specifications did not in itself, in the main, result in skills being demonstrated or assessed. There are undoubted difficulties and the authors consider that persistence and resources need to be applied if employers are to obtain better value from the higher education system. The success of the practical pilot of the BSc course signposts possibilities.

Recommendations

The Australian experience demonstrates that a reasonably low-bureaucracy approach can work if it is simple enough to operate and, as a minimum, staff are committed to doing their job well and/or doing what their line manager wants. On the basis of our UK results, though, even this relatively undemanding minimum may require a degree of culture change in order to be universally successful in UK universities. Despite the difficulties, in our view, this is a vitally important issue for UK universities and there are enormous potential opportunities possible from applying and learning from the successful Australian experience. We therefore recommend, first, further research and extended pilot studies along the lines of the practical pilot BSc course outlined above but set up for access and monitoring by researchers. Second, we further recommend that the gap in monitoring the outcomes elicited in the Australian experience identified in this paper might readily be addressed along the lines of the earlier study by Smith and Bath (2006), outlined above. We recommend regular surveys, including questions along the lines of those in Appendix 4. We recommend that these NSS-style questionnaire assessments should be carried out not just with graduates but also with students on each level (year), ideally specific to the modules as well as to the overall degree. These should provide monitoring of the effectiveness of the development of graduate skills from the most relevant perspective: the evaluations by the customers (students). Based on the Australian experience, the proposed system should facilitate a 'light touch' motivation for academic staff to support

the process and comply with the requirements, and achieve the required culture change arising from the natural wish of individuals to avoid the embarrassment of unsatisfactory published performance figures. In other words, the key motivation will be to avoid being ‘named and shamed’.

For an approach to monitoring that can work, we turn again to Australian experience. In an equivalent to the UK NSS, Australian universities are ranked according to the results of a survey of recent graduates, the Course Experience Questionnaire (CEQ), carried out by the Office of Planning and Audit in association with Graduate Careers Australia. The CEQ is designed to record and collect graduates’ perceptions of their higher education experience. Components include the Good Teaching Scale (GTS), Overall Satisfaction Items (OSI) and the Generic Skills Scale (GSS). The results are used to rank Australian universities and those highest-ranked gain substantial funding incentives (Bradley *et al.* 2008). The survey indicators relevant to generic employability skills are listed in Appendix 4.

In sum, UK employers increasingly want graduates to have better generic skills rather than specific subject knowledge. This paper has drawn attention to drawbacks and difficulties with systems common in the UK. We believe that the recommended further research has the potential to demonstrate substantial improvements in employability for UK graduates.

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