



UNIVERSITY VOCATIONAL AWARDS COUNCIL

Fit for Purpose

The use of National Occupational
Standards in higher education to
meet the needs of employment

A generic guide for curriculum designers and deliverers

Compiled by Professor Simon Roodhouse and David Hemsworth

CHAMPIONING VOCATIONAL LEARNING FOR EMPLOYABILITY AND PERSONAL FULFILMENT

“The economic case for expanding the provision of higher education is extremely strong. But as we expand, we must not compromise on quality, and we must make sure that the courses and patterns of study on offer really match the needs of our economy, and the demands of students themselves. We must not and will not pursue expansion for its own sake, simply by offering more of what has always been offered before.”

The Future of Higher Education, White Paper, January 2003

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Foreword

The UK's National Occupational Standards are one of the most comprehensive and sophisticated systems of competencies in the world. Over the past 15 years UK employers and governments have made significant investment in developing and improving the standards to ensure they meet the needs of employment at all levels. Described to us by one university in this guide as “industry-credible components of learning”, National Occupational Standards provide ready-made tools for anyone designing an HE vocational learning programme to meet employer demand.

However, to date National Occupational Standards have been under-used in higher education. Incorporating the standards into HE curricula undoubtedly poses challenges, not least because they are rooted outside the familiar HE funding and regulatory systems. The standards – and where appropriate NVQs – offer significant benefits nonetheless, whether it be through the new Foundation Degrees and Graduate Apprenticeships, or through more familiar honours degree and postgraduate programmes. Some HEIs and disciplines are pointing the way by incorporating the standards to achieve both academic rigour and, crucially, work-ready competence. Importantly, these courses are widening as well as increasing HE participation by attracting non-traditional learners, including Advanced Modern Apprentices.

With widened participation and increased graduate employability high on the HE agenda, one of the University Vocational Awards Council's priorities is to increase understanding among HEIs of the potential of National Occupational Standards and NVQs as tools to deliver these objectives. The Learning and Skills Council, for its part, is committed to working with higher education to increase access to people with vocational skills and engage HEIs as partners in workforce development. This unique guide is one of the outcomes of our collaboration, and UVAC is grateful to the LSC for their support in producing it.

The guide explains what National Occupational Standards are and their role in vocational learning and qualifications. Through a range of good practice examples it shows how they can be used in higher education and the benefits for learners, employers and for higher education institutions themselves. As a supportive tool it provides a range of relevant information and advice, including the issues that may arise and ways of addressing them.

We hope to convey above all that using National Occupational Standards does not challenge the independence of HEIs or further education colleges delivering HE vocational programmes. On the contrary, we believe that they enhance the independence of institutions to design their own curricula and respond to employer needs at local, regional and national levels.

Simon Roodhouse

Chief Operating Officer

University Vocational Awards Council

Higher education and the employability agenda

The growing demand for vocational courses has been a striking feature of the expansion of UK higher education over the last 20 years. Vocational provision continues to grow in the current drive for increased participation and wider access to higher education. The White Paper, *The Future of Higher Education*, signalled that further growth to meet the government target of engaging half the population under 30 in HE by 2010 will come largely from the new, work-focused Foundation Degrees. These and other innovative HE programmes are addressing concerns from employers that many graduates join the workforce unprepared for the world of work, lacking generic workplace skills and practical competence.

“Our overriding priority is to ensure that as we expand higher education places, we ensure that the expansion is of an appropriate quality and type to meet the demands of employers and the needs of the economy and students. We believe that the economy needs more work-focused degrees – those, like our new foundation degrees, that offer specific, job-related skills.”

The Future of Higher Education, White Paper, January 2003

The more recent White Paper, *21st Century Skills: Realising Our Potential*, put forward a national skills strategy to address the wider underlying deficit of vocational skills by putting employer needs centre-stage. The sector skills agreements developed by the new employer-led Sector Skills Councils will have powerful leverage over the funding of learning at regional and local level. This demand-led skills agenda, together with the growing number of potential HE learners undertaking Advanced Modern Apprenticeship¹, has important implications for higher education institutions, particularly for those concerned with the design and delivery of vocational courses.

“Our ambition is to ensure that employers have the right skills to support the success of their businesses and organisations, and individuals have the skills they need to be both employable and personally fulfilled.”

21st Century Skills: Realising Our Potential, White Paper, July 2003

¹ The White Paper proposes a target that by 2004, 28 per cent of young people will start a Modern Apprenticeship by age 22.

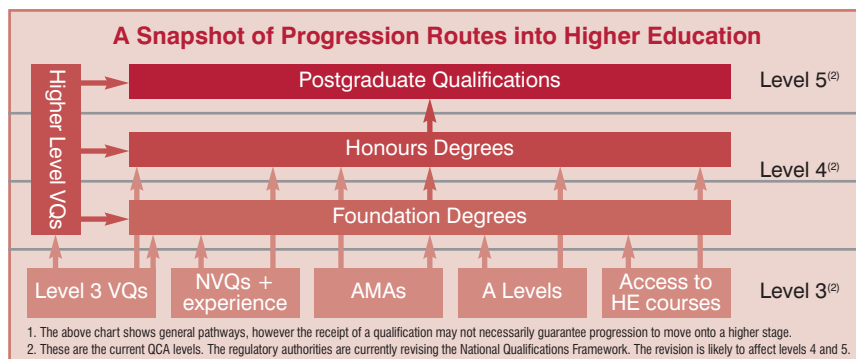
To achieve enhanced graduate employability, it is expected that higher education will deliver both the academic underpinnings *and* workplace competence. In the large majority of occupations, competence is defined by National Occupational Standards (NOS). Professional standards, too, are increasingly linked to NOS. Learning in the workplace is central to achieving the standards. The distinction between *work-based* and *work-related* learning is crucial in this context. Work-related learning provides broad knowledge of a range of occupations and disciplines. Only through *work-based* learning can learners gain competencies based on National Occupational Standards.

“National Occupational Standards covering all major sectors of the economy have been developed. We would expect providers to draw upon these standards... to inform the design of Foundation Degrees.”

Foundation Degrees: Invitation to bid for additional places and development funds 2004–05, HEFCE, October 2003

National Occupational Standards and work-based learning are therefore key to the HE employability agenda, and some HE programmes are pioneering their use. The rapidly developing Foundation Degrees, which are central to the government’s strategy for aiding progression into higher education (see Figure 1), are one example. Significantly, HEFCE’s bidding document for 10,000 additional FTE Foundation Degree places in 2004-5, specifically calls on institutions to use NOS in designing Foundation Degrees.

Figure 1



DfES (2003) Foundation Degrees: Meeting the need for higher level skills

As well as Foundation Degrees, there are innovative honours degree programmes which successfully deliver a balance of academic content and vocational competence. Graduate Apprenticeships of different forms are adding a further dimension to the role of HE in developing workplace skills. In addition, professional institutions are increasingly using National Occupational Standards as benchmarks for HE programme accreditation, professional recognition and continuing professional development.

However, these examples of good practice in the use of National Occupational Standards are currently limited to relatively few higher education institutions and disciplines. Awareness of National Occupational Standards among HE staff is low. Although many of the standards are freely available, their 'language' is different to that of learning outcomes generally used in HE. Moreover, National Occupational Standards are developed and regulated outside the familiar HE funding and regulatory systems.

Despite these drawbacks, National Occupational Standards and qualifications based on them offer uniquely valuable benefits to HE curriculum developers. Recognition of their value in HE is growing. The examples in this booklet not only testify to the benefits, but also demonstrate how issues can be addressed and obstacles overcome.

What are National Occupational Standards?

“National Occupational Standards define the competence requirements of sectors. These should be available for use by learners – at work, in schools, colleges and universities or through technology. We are committed to working with the Sector Skills Development Agency and Sector Skills Councils to support development and access to high quality NOS for all sectors.”

Ken Boston, Chief Executive, Qualifications and Curriculum Authority, January 2004

National Occupational Standards (NOS) are developed by Sector Skills Councils (SSCs) and are approved by the regulatory authorities to ensure UK-wide coverage. As the recognised standards of workplace competence, they underpin the statutory requirements of work in many industries and set the standards of good workplace practice in virtually every sector of the economy. They form the basis of vocational qualifications which recognise that good practice and are increasingly used by professional bodies as benchmarks for professional accreditation and continuing professional development.

In essence National Occupational Standards set out what people in their respective occupations should know and how they need to apply that knowledge to perform their jobs well. The standards focus on specific occupations and cover virtually every industry and area of employment, including manufacturing, service industries and cross-sector occupations such as IT and management.

“The ability to apply knowledge, understanding and skills in performing to the standards required in employment.”

Definition of competence in The Review of 100 NVQs and SVQs led by Gordon Beaumont, 1995

*“Standards of competence are concerned with what individuals can **do**, as well as what they **know**. They are about what people should achieve in the workplace to become effective.”*

Maximising the Use of National Occupational Standards to Raise Skill Levels: An independent report of the NVQ and NOS Employer Champions Group, 2002

The standards are defined and kept up to date by industry practitioners through their respective SSCs. Starting with the overall purpose of an industry and the key roles within it, a process of analysis breaks down the outcomes into units of competence which collectively make up the National Occupational Standards.

Each unit describes what an individual must be able to do and in what work situations they must be able to perform the tasks described. A learning specification then details the knowledge and skills required. Finally the standards deal with assessment – the evidence that must be produced to demonstrate competence, and the rules that ensure the assessment is consistent and fair.

“The standards are written in terms that practitioners would recognise as reflecting real industry practice, and that gives them credibility.”

Ravensbourne College of Design and Communication

“National Occupational Standards are industry-credible components of learning.”

Leeds Metropolitan University

Examples of National Occupational Standards are given in Appendix 2.

NOS as curriculum tools

“We welcome the use of National Occupational Standards in the curriculum. NOS support the development of learning outcomes relevant to work-based learning and employability. The standards provide a national benchmark against which we can test the reliability and validity of vocationally oriented courses. They also provide a useful benchmark and reference point when designing the vocational educational curriculum and appropriate assessments.”

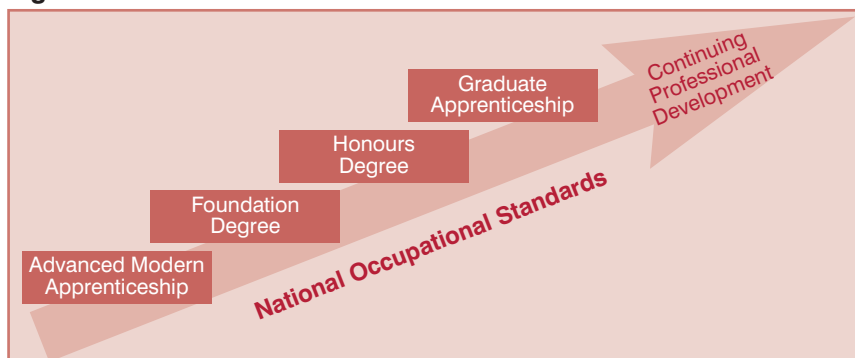
Cath Orange, Academic Registrar, Leeds Metropolitan University

National Occupational Standards are used in many learning and assessment contexts, including workplaces, further education and, increasingly, HE. In 2002 the National Occupational Standards and NVQ Employer Champions Group reported that National Occupational Standards:

- provide a framework for vocational learning
- help ensure that learning programmes meet employer needs
- enhance the vocational content of curricula
- are a key tool in the development of employer-relevant qualifications and learning programmes.²

By providing a common ‘curriculum language’ which meets the needs of employers, National Occupational Standards offer a coherent work-based progression route from Advanced Modern Apprenticeship to Continuing Professional Development (Figure 2).

Figure 2



² NVQ and NOS Employer Champions Group (2002) Maximising the Use of National Occupational Standards to Raise Skill Levels: An independent (unpublished) report to DfES.

National Occupational Standards can be incorporated into HE curricula in a variety of ways, ranging from fully integrated achievement within the HE award of qualifications based on the standards, to the mapping of appropriate standards to academic modules. They provide structure and focus to work-based learning within the curriculum and enable learners to achieve workplace competence while pursuing their HE qualification. They may also provide a fast track to professional accreditation, as professional bodies increasingly incorporate NOS into their accreditation criteria.

“National occupational standards are the basis for up-to-date, high-quality qualifications... which guarantee that learners have the skills needed for successful employment.”

21st Century Skills: Realising Our Potential, White Paper, July 2003

The qualifications most closely associated with National Occupational Standards are National and Scottish Vocational Qualifications (NVQs and SVQs). NOS units are the building blocks of all NVQs/SVQs, which are accredited by the Qualifications and Curriculum Authority (QCA) and the Scottish Qualifications Authority (SQA), UK-wide.

There are five levels of NVQ, ranging from level 1 covering basic work activities to level 5 for senior management. HE provision can include NVQ achievement, most commonly at levels 3 and 4. Level 4, for example, is defined as:

“Competence which involves the application of knowledge and skills in a broad range of complex, technical or professional work activities performed in a wide variety of contexts and with a substantial degree of personal responsibility and autonomy. Responsibility for the work of others and the allocation of resources is often present.”

NVQ centres approved by awarding bodies register and assess NVQ candidates. Assessment methods are flexible and can include observation of work being done, examination of finished products and statements from work supervisors, as well as tests of underpinning knowledge. Certification does not have to involve the achievement of a full NVQ. HEIs can ‘pick and mix’ units from different National Occupational Standards to suit their needs, and these can be separately certified if desired.

The unitised system has significant benefits for credit arrangements. NVQ units, being based on national standards, are highly 'portable'. Recognising them within APEL arrangements can aid progression from one award to another and widen access to HE. The growing number of Advanced Modern Apprentices, therefore, who will have achieved NVQ level 3 or above, provides a substantial new market for HE and an opportunity for HEIs to have a significant role in workforce development.

Barriers to realising this potential remain, however, not least through negative perceptions of National Vocational Qualifications³ and structural barriers to their take-up at higher levels⁴. In this guide we aim to show how National Occupational Standards can open up new opportunities for choice, innovation and flexibility in HE provision. For example, HEIs can choose to offer NVQ assessment as an optional extra within their programmes or use NOS without NVQ requirements. The standards can be used very selectively and re-phrased if necessary to suit a programme's needs.

The following pages illustrate how different institutions and disciplines have used National Occupational Standards, the issues they tackled in so doing and the benefits gained.

³ Roodhouse S and Swailes S (2003) *The Relationship of Competence Based Qualifications to Higher Education*. Paper to the conference, Delivering employability, the diversity of approaches in higher education, University of Central Lancashire. The abstract is given in Appendix 5.

⁴ Swailes S (2002) *Structural barriers to the take-up of higher level NVQs*, UVAC.

National Occupational Standards and HE programmes

1. Foundation Degrees⁵

Example:

University of Central England: Foundation Degree in Property and Construction

Course leader: John Reynolds

“You can teach people how to do things and require them to sit an exam and remember what you have taught them, but that does not prove they can do the job. The Foundation Degree allows people to demonstrate their ability by assessing competence against the National Occupational Standards.”

This three-year part-time course started in September 2001. The typical student is aged 30 to 40 and missed out on HE when younger. Current learners come from a range of disciplines such as architectural technician, housing association inspector, construction site manager, quantity surveyor and railtrack maintenance supervisor. A Level students can also benefit from the more flexible delivery of the Foundation Degree, rather than going straight into a BSc (Hons) course. The degree is designed to allow access to four of the school’s BSc Honours programmes, should the student wish to progress.

Development

UCE secured £85K of HEFCE funding to develop the Foundation Degree. Its development was steered by a group including CITB (Construction Industry Training Board), BIAT (British Institute of Architectural Technologists), CIOB (Chartered Institute of Building) and regional employers. National Occupational Standards (NOS) were fundamental to the group’s approach.

Place of NOS/NVQs in the curriculum

Referencing against the National Occupational Standards (developed by the Construction Industry Council⁶) is overt: in assessments the relevant standards are stated on the evidence sheets, giving a clear indication of

⁵ Described on pages 37–39.

⁶ The Construction Industry Council (CIC), the standards-setting body for technicians, managers and professionals in the construction, has published a web-based guide, STEP (Standards, Training and Education for Progression), on the use of National Occupational Standards in NVQs/SVQs, HE programmes and professional institution criteria. The guide is downloadable from the CIC website at www.cisc.org.uk.

which standards are covered in each module. The standards are also used as benchmarks for crediting previous experience under APEL arrangements.

UCE designed the course on the premise 'Can the person do the job?'. It incorporates NVQ achievement at level 3, with the possibility of progression to level 4. There are also ICT ECDL modules (including the full 'passport' qualification if they want to take it), and QCA key skills at level 3. Both CIOB and BIAT accreditation are under consideration.

Delivery and assessment

Work-based learning and close employer links are the hallmarks of the course. The course leader visits all employers in the first year to explain the course and set up mentoring agreements. Employers are partners in delivering the syllabus through work-based learning, which the teaching initiates and then assesses against the National Occupational Standards.

“Work-based learning takes the pressure off the institution if you can get the employer to act as a mentor and play a key role in delivering learning in the normal course of employment.”

Delivery is very flexible: students can attend lectures, access personal folders at the university, download information from the course website folders, and learn on the job. Much of the CAD module is done via the website. All level 1 modules are portfolio 'evidence'-assessed. Some level 2 modules are delivered with BSc students as academic study through research, assignments, coursework and exams. Lecturers from FE colleges in the Foundation Degree consortium teach some of the modules. The students' evidence sheets refer to the National Occupational Standards but do not cite the standards word for word: they reference the learning outcomes and performance criteria of the standards, rather than quote the standards verbatim.

Promotion

Publicity for the course has included bus poster advertising and flyers distributed to employers.

Issues

An early CD Rom containing the National Occupational Standards was difficult to use – a shortcoming addressed in a later version.

Example: Leeds Metropolitan University:
Foundation Degree in Health-Related Exercise and Fitness

Course leader: Helen Whitrod Brown

“The competency-based approach broadens the portfolio a university can offer and allows flexible learning for those with family and work commitments. It enables people to improve their academic qualifications without losing out on the career ladder by having to take years out of a fast-moving industry.”

The Foundation Degree addresses the lack of development at HE level for staff in the industry. The course was in its second year, with 60 students at HE level 1 (across partner sites) and 48 at level 2. All the FEC students are local, while 58 per cent of the university students are from the region. Many are personal trainers and gym instructors, some of whom have NVQ qualifications. NVQs at levels 2 and 3 are accepted as part-entry requirements.

Two of the graduating Foundation Degree students attended the launch of the Sector Skills Council, SkillsActive, at the House of Lords, where they received certificates of achievement from Sally Gunnell. The students, a mother and son team, both gained distinctions.

LMU's academic registrar, Cath Orange, welcomed the use of National Occupational Standards in the curriculum. She said: “NOS support the development of learning outcomes relevant to work-based learning and employability. The standards provide a national benchmark against which we can test the reliability and validity of vocationally oriented courses. They also provide a useful benchmark and reference point when designing the vocational educational curriculum and appropriate assessments.”

Development

Supported by HEFCE development funding, the course is the product of one of the biggest Foundation Degree consortia, involving LMU (as the lead HEI), the universities of Bradford and Huddersfield, and a number of FECs. The local LSC is also involved. The principles developed by the consortium revolve around work-based learning, key skills and core-specific practical skills. FEC partners were involved in developing the curriculum. Industry representatives – the Fitness Industry Association

(FIA), SkillsActive (the new Sector Skills Council) and others – have informed the course. They intend to hold their first employer forum at the end of the first two years.

To gauge demand, they first consulted SkillsActive's sector workforce development plan which clearly indicated a shortage of skills in this area. Other sources included government policy documents on the sector, such as 'Game Plan'. They then looked at the local market and potential FE providers. They concluded that there was a lack of development at HE level for staff in the industry. The Foundation Degree is designed to fill that gap.

The course has UVAC accreditation and has just achieved Register of Exercise Professional status (at level 3; seeking level 4 for the final year honours course) approved by the FIA and SkillsActive – the first HEI to achieve this.

Place of NOS/NVQs in the curriculum

Students are introduced to NOS at HE level 1 in the Personal Development module, where they are asked to look at the relevance of key skills and achievement of National Occupational Standards/NVQs in relation to their own career plans. Incorporating 17 National Occupational Standards at NVQ level 3 and 16 at level 4, the module accustoms the students to the language of National Occupational Standards, which is already familiar to most of the mature students but not to others.

At level 2, the Applied Management Studies, for example, incorporates both industry-specific and generic management standards. The standards in the other modules are more biased towards sports science but they are integrated in the same way. Over 50 National Occupational Standards in total are covered in the syllabus. The course leader stressed that the NOS balance, not replace, the academic content of the course.

Delivery and assessment

NOS underpin many parts of the curriculum through assessment, practicals and content. The course is delivered locally through partner arrangements. They use common materials and sometimes share tutors. To deliver the course they have sought staff with applied knowledge rather than purely academic qualifications.

They make extensive use of self-reflective exercises. At HE level 1, for example, the Management Theory into Practice module is delivered through a distance learning pack developed by the industry. This has a series of self-reflective exercises and five short assessments. All the reflective exercises are work-based, so they must be in a workplace to do them.

At level 2, when learners are becoming experienced and autonomous, the reflective exercises are not assessed; assessment at this level is based on larger assignments – in the case of the Applied Management Studies module, for example, this is a 2,500-word case study⁷.

The Professional Development module encompasses the work placement support at level 1, so as soon as they arrive the students are engaged in a process of reflection on where they are, where they want to be, their key skills levels, where their competencies lie, and so forth. They then draw up a learning agreement and select a work placement which they can start when they wish.

Learners are taught one or two days a week, depending on past work experience; the other three days they can use in work-based learning as appropriate (50 per cent are already in full-time relevant employment). From the second semester, all have to be in a work placement one or two days a week, so if they are already in employment they will have negotiated with their employer new skills and learning to undertake, around which assignments are constructed.

In the second year, they have a block placement of between seven and ten weeks, managed through a professional practice module involving a work-based project based on research. If the student finds this too difficult, the part-time route may be a better option.

It is possible to complete a whole NVQ but NVQ assessment and certification are an optional extra for which students must pay. They are an approved NVQ centre but assessment is too expensive to cost in as part of the course.

Success factors

The course leader has been closely involved with the industry's Sector Skills Council, SkillsActive. She and a colleague are members of the SSC panel involved in writing the exercise and fitness standards. They retain strong links with the SSC.

⁷ Details of this module, showing the mapping to National Occupational Standards, are given in Appendix 3.

“NOS do reflect the vocational competencies required in the workplace. Each unit clearly identifies the key skills being developed, so that provides a link, as do the statements of required knowledge and attendant values. So in the context of HE embracing employability, NOS have a clear fit with some degree programme modules.”

The Foundation Degree has scored above the mean on the LMU annual student survey. Module reviews are also very positive. The course’s external examiner is the executive director of the FIA. Close involvement of the FIA is an indicator of the FD’s quality and credibility within the industry.

The course leader feels that NOS ensure a competent level of ability which matches what employers are looking for. Job vacancies increasingly specify NOS and NVQs as requirements. The incorporation of the standards therefore lends credibility.

Many industry awards and accreditations are now aligned to NVQs. By the end of level 2 the students have been taught how to promote themselves, including how to talk about National Occupational Standards and how they can meet the needs of an organisation.

Promotion

A course brochure was professionally produced and included endorsements from professional bodies. Literature is sent to all local employers. UVAC kitemarks have aided promotion.

Issues regarding NOS

It had been a “massive” task to trawl the 500 latest standards and select those they needed to underpin the curriculum. NOS language, being vocational, was also markedly different to academic discourse. Although the standards have industry credibility, the course leader felt they had not been well promoted. Furthermore, they are expensive to assess without an employer ‘buying in’ to the process.

Other issues

Another issue had been engaging employers in supporting Foundation Degree learners and recognising the qualification as valuable workforce development. Foundation Degrees, like NVQs, had not been well publicised. Some of the larger employers were going down their own training routes.

It also had to be recognised that Foundation Degree students required more support than that provided through standard HEFCE funding, especially in the softer skills and development of confidence, academic learning, IT etc. The course leader felt there should be funding for the appointment of a learning support officer.

She added that lack of joined-up information made it difficult to target Advanced Modern Apprentices: the LSC could not provide information about AMA starts and completions.

Progression

The new progression degree, BSc (Hons) Health-Related Exercise and Fitness has been successfully validated. In developing the honours progression module, the consortium selected appropriate National Occupational Standards and reflected the language of NOS in the learning outcomes to ensure that their relevance and terminology were clear. Of the 15 students recruited onto the course, 13 are Foundation Degree graduates.

Future development

LMU had previously piloted the application of sports and recreation leadership NOS, involving the students in determining their own assessment criteria relating to those in the NVQs. That way the students became used to working with the language and it had worked very well. They are going to adopt the same approach with the Professional Development module of the Foundation Degree.

NOS continue to be developed and refined: the course leader and a colleague are members of the standards panel involved in writing the exercise and fitness standards. To support progression of Advanced Modern Apprentices, the course leader is also chairing the national AMA to HE Progression Compacts, a government-funded project managed by the Sector Skills Council, SkillsActive. LMU acts as regional 'hub' for employers, trainers, LSCs and others "to create and test new progression pathways for AMA achievers into HE."

LMU are also actively investigating funding sources beyond HEFCE to support the Foundation Degree, especially the LSC.

Example: Ravensbourne College of Design and Communication:
Foundation Degree in Creative Sound Design

Course developer: Martin Uren; **Subject leader:** J J Maurage

“National Occupational Standards make the job of designing a course easier. You don’t have to adopt them verbatim or follow them slavishly: extract those things which meet your needs.”

This full-time course, validated by Sussex University, started in September 2003. It is aimed at students of music technology, including practitioners seeking career change or change of direction. Ravensbourne, a well-established broadcasting school, already ran Foundation Degrees in broadcast technology and operations. Sound design was a gap in the college’s provision. It is a collaborative venture with Trinity College of Music and provides progression to Trinity’s BMus degree as well as Ravensbourne’s BA in Post Production. Ravensbourne may also develop a top-up year of its own as progression to an honours degree in Creative Sound Design.

Development

The course developer had been involved as a specialist advisor for many years with Skillset, the Sector Skills Council responsible for the National Occupational Standards. The subject leader had also been involved in developing the standards for radio. Being attuned to NVQ structure and language had made it easy for them to identify standards they needed and incorporate them into the way they set out the course units. The Foundation Degree had just been validated by Sussex University, who commended the course’s focus on providing vocational opportunities.

Place of NOS/NVQs in the curriculum

Employers in the broadcasting industry have often regarded HE media courses as not providing work-ready students with a practical industry base to balance their educational grounding. The Foundation Degree aims to provide that balance by incorporating the relevant National Occupational Standards.

“National Occupational Standards can be used as a starting point and as a development tool. They are very useful to refer to when you are having a discussion about the content of a unit – they give you a jumping-off point to start discussion, providing a checklist of areas that may need to be covered.”

The course is structured as a set of projects, with the relevant standards incorporated into the course units. The curriculum also incorporates the occupational map on which the standards are based. The course developers felt that, because they are not specialists in all the occupational fields the course covers, the map has been a very useful tool. Having defined the overall aim of the course, they used the NOS relevant to each area by looking at the knowledge and understanding elements and performance statements and writing the relevant areas of these into the course units.

They often amalgamated NOS performance statements rather than use them verbatim. The course developer added that the level of detail in NOS could limit a course's longevity. They had therefore tended to pick out the more generic performance criteria, so that they could assess the learning outcomes without being limited to a particular technique.

Delivery and assessment

The course modules are delivered as a set of practical projects, for example radio production, in which the relevant underpinning knowledge is embedded. A drama project requiring sound would, for example, be done collaboratively with another group of students doing a production without expertise in sound; Ravensbourne would input the relevant technical elements. The students might then turn to TV production, involving different knowledge, before moving on to another medium. Different projects will build up a range of technical underpinning knowledge.

All the work has an industry context and high priority is given to making the latest technology accessible and meaningful to the students. All students are expected to do a work placement.

Course unit descriptions determine the learning outcomes; they do not list content. They thus provide for a variety of content that can achieve the learning outcomes. For each unit there is a project pack, which includes the assessment criteria. The project packs can change because assessments are based on the outcomes, not the absolute content. Although based on National Occupational Standards, assessment is not mapped to NVQ assessment criteria, so does not encompass NVQ achievement as such.

Promotion

Ravensbourne enjoys a good reputation with employers in the industry, and that attracts students.

2. Honours Degrees

Example:

University of Bristol: BSc(Hons) Veterinary Nursing and Practice Administration

Course leader: Susan Badger

“The NVQ dimension has enabled us to persuade the university that vocational learning is not just about underpinning knowledge and a few weeks spent in practice. It is about developing competence in the workplace, and that has put a sharper focus on the need to develop closer relationships with employers.”

This four-year honours degree (including 70 weeks in veterinary practice) incorporates NVQs at levels 2 and 3 to gain the Royal College of Veterinary Surgeons' qualification in Veterinary Nursing. The course also provides credit points towards the Veterinary Practice Management Association's Certificate in Veterinary Practice Administration and accreditation as an NVQ Assessor in Veterinary Nursing.

Development

Degrees in veterinary nursing are new, Bristol having just graduated its first cohort. The RCVS qualification, obtained through two years in practice, has existed since the late 60s. The launch of the degree programme coincided with the RCVS's introduction of NVQs in veterinary nursing. The qualification was incorporated into the Bristol degree at the same time to enable students to gain legal recognition.

Place of NOS/NVQs in curriculum

Students work towards NVQ level 2 in year 1 and NVQ level 3 in year 2 through long placements in practice. For the course leader the main benefit of NVQs is that they have formalised the training process within the workplace. The internal verification requirement has provided valuable quality assurance where it did not exist before. As an assessment centre they have responsibility for a number of satellite veterinary nursing practices, visiting them to quality assure them. That ensures that the experience of the students in practice is maximised by focusing on the needs of students in the workplace.

The course leader said that incorporating the NVQs had enabled the department to demonstrate within the institution that vocational learning was not just about underpinning knowledge and a few weeks spent in practice; that it developed competence in the workplace and put a sharper focus on the need to develop closer relationships with employers. She felt that was very positive because university was now graduating nurses who were as practically competent as those who had spent two years in practice pursuing the RCVS qualification. Furthermore, having spent four years at university, they were ‘thinking’ nurses, able to reflect on their practice, knowing the theory behind their actions and what to do if things went wrong. That could only be beneficial for all concerned, not least the patients.

Delivery and assessment

There has always been a strong emphasis on competence through practice in training, but the course’s minimum requirement of 70 weeks in veterinary practice (to equate to the two years in practice of nurses doing the RCVS qualification) puts considerable pressure on course delivery.

Unusually, the NVQ assessment is by both portfolio and written examination, the latter taking the form of multiple choice questions. This contrasts with the depth of knowledge assessed in the university’s traditional end of year examinations through primarily short answer and essay questions. The two assessments make for a very heavy curriculum workload. The RCVS’s portfolio requirements involve writing up a large number of case logs (34 at level 2 and 52 at level 3), rather than performance criteria checklists that can be ticked off as the criteria are met.

Despite the heavy workload, the HE route is improving the low national completion rate for the NVQ examinations (currently only about 53 per cent), and this, combined with the proliferation of HE courses through Foundation Degrees, is encouraging the RCVS to consider ways of addressing areas of concern.

Other issues

Introducing both a new degree programme and NVQs had been challenging. RCVS is the only awarding body for the Veterinary Nursing NVQs. There had been three drafts of the portfolio in four years, the latest of which was an improvement in that it was more user-friendly but was still not ideal.

Working through the large body of National Occupational Standards had been onerous, and facilitating work-based learning was challenging in a profession consisting very largely of small practices. Too often in the past lip service had been paid to training in practice, with trainee nurses used as cheap labour. The requirements of NVQs had led some practices to withdraw from the training scheme, thus reducing the number of available placements.

Future development

The good results obtained through the HE route are spurring discussions within the RCVS for the degree to be streamlined to address the current curricular and assessment burdens imposed by the NVQs.

Bristol and Middlesex universities have been invited to run a pilot programme in which students will not be required to take the RCVS examination and complete the NVQ portfolio. The students will show practical competence based on National Occupational Standards through a mechanism similar to the clinical assessment tool used in human nursing. Although students will not do the NVQs, the curriculum and assessment will be based on the National Occupational Standards. The universities feel that this approach to assessment based on the NOS will be more suitable for full-time HE students.

Example: Diploma in Probation Studies

Sources: Angela Cossins, Justice Sector Skills Council; Francis Cowe, University College Newport; Composite report of inspection visits carried out in 2001 by the Standing Panel for the Approval of the DipPS (2001); case study on the University of Hertfordshire by Ruth Goatley in the *Utilisation of NVQs in Higher Education Institutions in England and Wales* (UVAC, 2000)

“Probation services are very impressed with the final product because the graduates hit the ground running.”

In 1997 the government decided that probation officers should not be qualified as social workers, but through a new, bespoke diploma. This, the Home Secretary stated, should be “a mixture of academic teaching and work-based supervised practice, all based on occupational standards... developed for probation officers.” The diploma is the licence to practise for probation officers in England and Wales. It is an intensive 24-month course.

Development

The development of the Diploma in Probation Studies coincided with the establishment of the Community Justice National Training Organisation (CJNTO)⁸. CJNTO’s first year was dedicated largely to developing standards for the diploma, so it was the diploma which drove the initial development of the National Occupational Standards. The course is fully funded by the National Probation Directorate who employ trainee probation officers on two-year contracts.

Place of NOS/NVQs in curriculum

The diploma incorporates the NVQ level 4 in community justice. Some courses fully integrate the NVQ by giving 120 academic credits to NVQ attainment; others have ways of providing academic credits for the NVQ units. 50 per cent of the learning outcomes are achieved through work-based learning. The HE dimension develops in graduates important generic as well occupationally-specific skills.

The integration of the NVQ and degree varies across institutions. Hertfordshire gives full academic credits for the NVQ. The university had considerable previous experience of delivering NVQs, including NVQ level 3 in criminal justice. In 1998 the university was successful in tendering to the Greater London consortium of probation services for delivery of the new

⁸ Now part of the Justice Sector Skills Council covering the police, probation and prison services.

diploma. The NVQ was incorporated into the programme through a credit rating process, completion of the NVQ level 4 achieving 120 credits at HE level 2. In this way the programme achieves a balance of academic study and credits through work-based learning and assessment.

At the other end of the spectrum from Hertfordshire is Northumbria, where candidates must acquire both 360 academic credits for the degree and the 12 NVQ units. In other institutions, such as University of Wales College Newport, a 'middle way' is achieved by requiring candidates to complete an NVQ unit and then a reflective journal based on it, which is academically assessed.

Delivery and assessment

At University of Wales College Newport, students typically attend the college two days a week or do distance learning. The rest of the time is at work, and that provides the evidence for the NVQ criteria. The university plans with each student a timeframe for the NVQ. Having a cut-off point is unusual for NVQ assessment, explained the course leader Francis Cowe, but it is essential in this case because it must fit into the degree course timeframe. The NVQ is assessed by a recognised NVQ centre, while the reflective essays are assessed by an academic tutor.

At Hertfordshire, meanwhile, quality assurance issues arising from the different NVQ and university assessment regimes were addressed by appointing the university scheme manager as a member of the NVQ centre, and by having the centre's QA reports form an integral part of the university's own QA processes.

Cowe felt that a critical factor was to ensure there was sufficient time within the award for students to get genuine work experience. There was a danger, if insufficient time was allocated, that students would use their placements simply to gather NVQ evidence, and that was never the intention of NVQs. Another key issue was transferability. An HEI could incorporate an NVQ into an HE award which might then have no currency in other HEIs in terms of transferable credits. There must be a link between the university's QA procedures and those of the NVQ centre, with a rationale for why an NVQ unit gains credit at a particular level. Cowe stressed that what was right for their sector would not be for all – there was no single way of doing it; it all hinged on the desired outcome. It might not suit all cases for the development of knowledge and practice to be integrated.

“All the programmes were producing officers who were able to fulfil the role of probation officer at the beginning level of practice and some newly qualified officers showed impressive levels of knowledge, skills and understanding.”

**Investing in the Future: Diploma in Probation Studies Programmes
Inspection Visits 2003**

The regulatory framework for the diploma requires all programmes to have arrangements for assessment of the NVQ through Personal Development Assessors (PDAs) who are experienced practitioners. The deployment of PDAs varies from programme to programme, but their crucial role has been acknowledged in the composite reports of inspection visits carried out by the Standing Panel for the Approval of the DipPS. The 2003 inspection report recommended a national approach to meet the learning and development needs of PDAs.

In 2001 inspectors found that some DipPS programmes had experienced difficulties in finding the optimum sequencing of learning input to support the NVQ and its assessment. This was an issue about pace and order of content rather than content per se. There was positive evidence of programmes reviewing the order of some courses following the evaluation of first delivery and of working to cluster NVQ units in the light of experience. Careful liaison over NVQ assessment and university assessment schedules had also proved important. In 2003 inspectors highlighted the further integration of NVQ assessment centres into course delivery as a key strength of the programme.

Future development

The Certificate in Community Justice is developing to incorporate NVQ level 3. It is modelled on the diploma but is confined to HE level 1. At University of Wales College Newport, the NVQ counts for 50 of the 120 credits. Students do the NVQ in the normal way and write a reflective essay on each unit.

The Justice Sector Skills Council is looking at the potential for transferability across sectors. Work is underway with the Care Councils to determine how the diploma fits into their qualifications framework.

3. Graduate Apprenticeship⁹

Example: Kingston University: Engineering Graduate Apprenticeships

Programme manager: Stephen Houchin

“The Graduate Apprenticeship framework is no more than a reflection of what graduates have always done in the industry. The clever part is linking the curriculum to the national occupational standards, which are central to the added value of the GA. It is a way of formalising HE learning to a national standard. By working to NOS students are able to demonstrate competence before they are employed.”

Kingston’s School of Engineering has achieved the maximum 24 QAA points for teaching quality in Aerospace and Mechanical Engineering. It has a good track record of working with employers and has developed suites of both Foundation Degrees and Graduate Apprenticeships. This example focuses on the Graduate Apprenticeships but also refers to the Foundation Degree programmes because of the potential links, both having major work-based learning and NVQ components. The Sector Skills Council, SEMTA (the Science, Engineering and Manufacturing Technology Alliance), is actively developing the Foundation Degree route as an integral part of Graduate Apprenticeship.

The SEMTA Graduate Apprenticeship is one of four Engineering GAs offered or in development at Kingston, two others being in Construction and one, in development, in Rail. The SEMTA scheme was in its second year, with approximately 45 students in years 1 and 2. Most students were full-time – a mix of individuals and employees from a wide age-range. Two students had completed Advanced Modern Apprenticeships.

Development

The first SEMTA Graduate Apprenticeship pilot included the aircraft seat manufacturer Britax, whose training manager, Eric Sayers, was subsequently involved in the GA’s further development through work for both SEMTA and the university.

⁹ The Graduate Apprenticeship framework is described on pages 39–40.

Increasing the supply of incorporated engineers is a high priority for the industry, and the Institution of Incorporated Engineers is represented on the Graduate Apprenticeship review group. There is not yet a direct link to National Occupational Standards in the accreditation criteria, but the institutes were moving in that direction. The Construction Foundation Degrees and Graduate Apprenticeships, meanwhile, meet the requirements of the Construction Skills Certification Scheme (CSCS) at the supervisory Gold and Platinum levels.

Funding

The Graduate Apprenticeships were developed with a one-off HEFCE grant. Further funding was secured via the local Learning and Skills Council. Although Kingston's bid fell outside the scope of the Local Initiative Fund, the LSC eventually obtained funds to support the Graduate Apprenticeship from the European Social Fund, on the basis that the scheme was meeting needs of small and medium-sized companies.

HEFCE funding covered the delivery of the degree, not the work-based elements, which were supported by the LSC funding. The programme manager described the funding situation as "completely ad hoc" and said there would be an urgent need for industry financial sponsorship when LSC money ran out. ECITB was already proactive in this area, offering £5K per learner to companies taking up their own Graduate Apprenticeship. CITB was highlighting the need for engineers as part of the Heathrow T5 development. Railway maintenance was another area of growth and skills shortage that could be addressed through the Foundation Degree/ Graduate Apprenticeship routes.

Place of NOS/NVQs in the curriculum

"For the first time we are bolting the work-based standards in the NVQ onto a university course through its natural modules. We aim to get graduates already 'running' before they enter the industry."

The GA SEMTA framework includes an NVQ level 2 within the Initial Training component. This was developed by extracting from the HE modules everything applicable to the NVQ units. The aim is that the students will have completed the NVQ level 2 by the time they go out on placement, so even if they are not fully work-ready, they will have proven competencies to a national standard. Thereafter they will develop other competencies on

the job. The programme manager added that the approach is helped by the fact that NVQs are gaining in reputation and credibility in the engineering sector. NVQ qualification is the desired standard of competence, for example, in lift engineering.

The work-based component consists of technical skills (two or more technical units from the Engineering NVQ level 4 – Project Management, Marketing, IT or Business Skills), plus two further units (not necessarily NVQs but to national standards) required by the employer, such as Management or Customer Service. NVQ units at level 2 are chosen to fit most accurately with the HE modules, so they do not include units on machining, but do include those regarding CAD, for example.

The National Occupational Standards are not integrated. The approach is rather to extract from academic study the material that can be used for assessment against the standards.

Delivery and assessment

Work on one assignment can be assessed against a range of units. Nevertheless, the NVQ and associated learning inevitably make additional demands on students and staff. Kingston has minimised these demands by streamlining the assessment, citing the use of course labwork as evidence. There are four trained assessors in the department, as well as an external assessor. Learning for the Initial Training modules (NVQ level 2) takes place at the university. There is then a “big jump” to the NVQ level 4 units, which cannot be done within the institution; they have to be trained for and assessed in the workplace.

The programme manager felt the NVQ provides more structured vocational learning, formalised in a Learning Agreement with companies during placements. This enhances the students’ work experience and makes them more ‘work-ready’ when they graduated. The placements of two Britax trainees had been an outstanding success, resulting in a design component patent that brought significant benefits to the company. This, and the offer of sponsorship for the students’ final year at university and a further two-year contract, were celebrated at a presentation at the university. Such successes are enabling Kingston’s engineering department to expand at a time when others are facing closure or merger.

Issues

On the downside, attendance was proving to be an issue where NVQ assessment was concerned. Vocational learning was new to academics, particularly the approach to assessment of NVQs (“100 per cent or nothing”).

A further issue was the vulnerability to market change of programmes designed to meet industry needs. The current industry downturn was making it difficult to source placements. There was also a need to encourage companies hosting placements to rotate trainees round departments to give them rounded experience.

The ‘Graduate Apprenticeship’ descriptor had been an issue within the university. Industry consultation, however, favoured the term as providing ‘brand’ progression.

Funding, as ever, was the biggest concern. Kingston felt the LSC should be supporting NVQ achievement at level 2 because of the important targets at this level, but age limits were an obstacle.

Promotion

A key message for employers is that the NOS/NVQs ensure that the students will be far more work-ready. The GA is promoted as “the national indicator of graduate work-readiness.” An example used effectively in promotions was a student who had been instrumental in obtaining a patent for an aircraft seat component.

Kingston are very proactive in publicising Foundation Degrees and Graduate Apprenticeships through case studies, with employability as the key message. The-then Head of School, Professor Andrew Self, was an active and dynamic champion who had developed a ‘marketing culture’ within the institution. Promotion included open days for companies, visits to local schools and high visibility such as displaying the Kingston logo on a passenger aircraft.

4. Professional accreditation

Example: British Institute of Architectural Technologists

BIAT representative: Dr Elizabeth Brookfield

“By using the National Occupational Standards, HEIs are ensuring that their provision is linked to industry requirements, and that they can then demonstrate employer involvement when it comes to professional validation.”

The British Institute of Architectural Technologists (BIAT) introduced a competency-based membership route around 1988 and accepted the S/NVQ level 4 Architectural Technology for Associate membership in 1996. Since the development of the QAA subject benchmark statement derived from National Occupational Standards in 2000, BIAT has also accepted the relevant degrees as providing eligibility for Associate membership.

“The Foundation Degree could allow candidates to complete their POP Record by providing underpinning knowledge in conjunction with work-based training to satisfy the performance evidence requirements. This would give them the opportunity to qualify for Architectural Technician membership, TBIAT, upon completion of their Foundation Degree. It is additionally possible to link this to an S/NVQ, generating a triple assessment system.”

The need for review

The advent of the Architectural Technician membership, TBIAT, to sit alongside the existing Architectural Technologist grade, MBIAT, in 2002 gave BIAT the opportunity to review all of its membership procedures and routes to qualification, incorporating the use of National Occupational Standards.

BIAT's membership procedures normally required candidates with a recognised qualification to complete a supervised Practice Qualification Log Book taking a minimum of two years and requiring a minimum amount of time be spent on each stage of a construction project. Recognition of academic qualifications leading to Associate membership was dependent upon such courses being mapped to National Occupational Standards and thus demonstrating their coverage of the underpinning knowledge required for membership. Candidates without a supervisor or recognised

academic qualification or with a substantial amount of relevant experience were able to progress via a competence-based Self Assessment Report Document.

The new Architectural Technician membership category paved the way for new membership procedures. It was crucial that there was a clear progression route from Architectural Technician membership to Full Architectural Technologist Membership. The use of National Occupational Standards was explored since it would fit in with the existing work in terms of S/NVQs and degree benchmarking and would allow BIAT to continue to adopt its inclusive approach to membership. The assumption was that if lists of National Occupational Standards fulfilling each membership grade were established, the difference between the two lists would be the bridging or progression route.

Using NOS to review membership procedures

The first task was to confirm the list of NOS which cover the definition of a Full Architectural Technologist Member, MBIAT, and the respective depth for each standard. This was achieved by considering the existing Report Document and Log Book, definitions and requirements for membership, drawing up a draft schedule and surveying members from a range of backgrounds as to the extent of coverage. Analysis of these results allowed the development of a list of BIAT Performance Standards for a Full Member, Architectural Technologist.

This approach was not possible for the Architectural Technician members because there was no existing membership base, so a list of BIAT Performance Standards fitting what they believed was required of Architectural Technician membership, TBIAT, was developed. This was then divided into underpinning knowledge and performance evidence, using the National Occupational Standards manual as reference material.

The first objective was to develop a system of performance evidence – the Professional and Occupational Performance (POP) Record – which would allow experienced candidates to easily demonstrate their expertise whilst simultaneously providing a mechanism for new entrants to plan their development towards a professional qualification.

The second objective was to develop areas of underpinning knowledge which would be provided by academic courses, such as accredited degrees mapped to the QAA Benchmark statement, for which candidates would be given exemption.

It was also necessary to allow candidates with no formal academic qualification, or a partial award to demonstrate their existing underpinning knowledge without having to undergo additional study. Candidates are given complete exemption from demonstrating underpinning knowledge for BIAT-accredited degrees and HNC/Ds with specified additional units. Partial exemption is also available for candidates with partial qualifications. Those with no or incomplete qualifications are required to reflect upon this portion of their own learning and demonstrate to a supervisor or mentor that they have the required level of underpinning knowledge.

HE accreditation

Accreditation normally takes place every five years. It is done in one day by a BIAT team comprising a member of the Membership and Education committee and a representative from another accredited HEI. The process, which includes meetings with employers, students and academics, is designed to ensure the course (typically an honours degree in architectural technology) is producing employable graduates who are fit for the industry. It also provides an opportunity to check that the standards are meeting industry requirements and that the understanding of architectural technology as a professional discipline is achieved.

The continued use of National Occupational Standards

The use of NOS is key to the development and operation of the BIAT POP Record since they contribute to academic qualifications (underpinning knowledge), initial professional development (performance) and professional assessment. There is also a clear integration with vocational qualifications (such as S/NVQ level 4 Architectural Technology) and related initiatives such as the Construction Skills Certification Scheme.

The POP Record is supported by academic qualifications mapped to NOS, such as accredited degrees meeting the QAA Subject Benchmark Statement for Architectural Technology. Future applications for qualification approval will require demonstration of the underpinning knowledge.

A fast track to professional membership

The combination of BIAT's clear definitions and membership requirements and the BIAT Performance Standards allows the Institute to react quickly to new qualifications and initiatives and play a key role in future developments. For example, the new Foundation Degree could allow candidates to complete their POP Record by providing underpinning knowledge in conjunction with work-based training to satisfy the performance evidence requirements. This would give candidates the opportunity to complete a Foundation Degree and simultaneously gain Architectural Technician membership of BIAT. It would be possible to link this to an S/NVQ, generating a triple assessment system. This is being discussed by BIAT and Bolton Institute.

There are also plans to allow other students to start completing their POP records while on industry placements. This would encourage HEIs to work with employers to structure placements around the achievement of specified competencies. Part-time students will be able to pursue their professional development in the same way, alongside their HE course, enabling fast-track progression to professional membership.

Toolkit for using National Occupational Standards

Where to find them

Sector Skills Councils and the Sector Skills Development Agency are responsible for National Occupational Standards. Many NOS are freely available electronically on the relevant websites, with charges for hard copies. Their use may involve licensing arrangements, although charges may be minimal or waived for use by educational bodies. Costs, if any, are likely to be modest.

A list of Sector Skills Councils is available from the Sector Skills Development Agency at www.ssda.org.uk, who are examining the feasibility of establishing a national NOS database.

Can HEIs design equivalents if they don't exist?

Yes, but any such equivalents could not be recognised as National Occupational Standards. NOS are employer-generated through Sector Skills Councils. Gaps in standards are best addressed, then, through the appropriate recognised bodies. In many sectors HEI staff are involved with the relevant SSCs in reviewing existing standards and developing new ones.

Key skills¹⁰

Key skills are defined by the Qualifications and Curriculum Authority as “those generic skills which individuals need in order to be effective members of a flexible, adaptable and competitive workforce and for lifelong learning.” The SSDA and SSCs are required to sign-post key skills to National Occupational Standards. All six key skills – Communication, Application of Number, IT, Problem Solving, Working with Others and Improving Own Learning and Performance – are integral to the national school curriculum. They are also embedded in post-16 learning.

Key skills are perhaps the least well-understood elements of work-based and work-related HE programmes. It is often taken for granted that students in higher education will develop the skills as a matter of course. Yet research suggests that this is far from being the case¹¹.

¹⁰ Based on UVAC/HEFCE (2003) Review and Development of Graduate Apprenticeship: A National Higher Education and Employment Bridging Programme, Chapter 4, contributed by key skills specialist Peter Burke of CDELL, University of Nottingham.

¹¹ DFEE (1997) Key Skills of Students Entering Higher Education.

Key skills are often embedded in higher education to the point where they have disappeared from view. Their presence may be ignored or go unnoticed, a problem compounded by varying definitions within and between institutions of what constitutes key skills, and where they are said to be 'embedded' there may be no clear definition at all. This is one reason why the Graduate Apprenticeship framework adopts the QCA version of key skills, which despite the debate aroused among HE tutors about their supposed vocational slant, do have national recognition and can lead to a nationally accredited award.

As students begin to arrive at university in possession of a Key Skills Qualification gained as part of their 16–18 studies, or within a Modern Apprenticeship or NVQ, it may be assumed by them and their tutors that there is no need to devote further attention to key skills. Yet there is the whole question of progression to be considered. Key skills are defined at five levels, and there is every reason to expect that students might enhance the level of their competence within their HE programmes.

There is no single way for the effective delivery of key skills, and a variety of approaches may be required according to the HE programme and the confidence and experience of the tutors. Key skills are typically delivered via a combination of the following approaches:

- **Integrated**, so that the evidence of key skills competence is obtained as part of a student's normal degree work programme
- **Bolt-on**, whereby key skills are delivered as a separate element of the programme, with special activities and assignments to generate evidence
- **Drop-in workshops**, which are open to any student who may wish to brush up on a particular key skill. These are commonly used for Information Technology and Application of Number.

Then there is the question of assessment and accreditation. Key skills are often not assessed and accredited in HEIs. There is a requirement, however, for Graduate Apprenticeships to deliver the Key Skills Qualifications specified in their frameworks. Unless they have gained exemption via the 'proxy' route, this means that they will have to pass an external test, and more importantly, they will need to compile a Key Skills Portfolio, in which the evidence demonstrates their competence to satisfy the specifications at the relevant level. Good practice in portfolio-building is an aid to better

learning, where it can be used as the focus for review and reflection by the student and tutor, and to meet the specifications for what is probably the most important key skill, Improving Own Learning and Performance.

New vocational programmes

■ Foundation Degrees

“We believe that the economy needs more work-focused degrees – those, like our new foundation degrees, that offer specific, job-related skills.”

The Future of Higher Education, White Paper, January 2003

Foundation Degrees were introduced in 2001 to help education providers supply the labour market with the high-quality graduates needed to address the shortage of intermediate level skills. Central to the curriculum framework is the development of technical and business skills based on National Occupational Standards, typically to NVQ level 3. Importantly, HEFCE’s bidding document for 10,000 additional FTE Foundation Degree places in 2004–5 specifically calls on institutions to use National Occupational Standards to inform the design of Foundation Degrees.

Attracting at least 240 credits, Foundation Degrees are two-year, full-time (or equivalent part-time) courses. They are seen by government as the principal means of making higher education more affordable, accessible and appealing to a wider range of students, thereby widening participation in HE and stimulating lifelong learning. Over time the Foundation Degree is expected to become the dominant qualification at this level as HNDs are reduced or phased out according to market demand.

Foundation Degrees are self-standing vocational qualifications which also provide progression to appropriate honours degrees and professional qualifications if desired. The curriculum is designed to equip learners with the combination of technical skills, academic knowledge, and transferable ‘key skills’. There is no single model for the Foundation Degree, any more than there is for an honours degree. The curriculum design and teaching methods are determined by the partners developing the course. However all Foundation Degrees have five core features that, taken together, distinguish them from other qualifications and degrees:

1. Employer involvement

- in the design and regular review of programmes
- to achieve recognition from employer and professional bodies
- both with local organisations and national sector bodies to establish demand for Foundation Degree programmes.

2. The development of skills, understanding and knowledge

- technical and work-specific skills, relevant to the sector underpinned by rigorous and broad-based academic learning
- key skills in communication, team working, problem solving, application of number, use of information technology and improving own learning and performance
- generic skills such as reasoning and work process management should be recorded by transcript, validated by the awarding HEI and underpinned by a personal development plan.

3. Application of skills in the workplace

- students must demonstrate their skills in work relevant to the area of study
- students should be given enough work experience should be sufficient to develop an understanding of the world of work and it should be validated, assessed and recorded
- the awarding HEIs should award credits, with exemptions for students with relevant work experience.

4. Credit accumulation and transfer

- Foundation Degrees should attract at least 240 credits, 120 at level 1 and 120 at level 2
- individual partnerships should agree and apply credit accumulation and transfer arrangements
- individual partnerships should recognise relevant prior and work-based learning by awarding credits.

5. Progression within work and/or to an honours degree

- there must be guaranteed articulation arrangements with at least one honours degree
- programmes must make clear the subsequent arrangements for progression to honours degrees and to professional qualifications or higher-level NVQs.

Work-based learning and National Occupational Standards are therefore a central strand of Foundation Degrees. This, coupled with the requirement to incorporate credit transfer, creates considerable potential for attracting Advanced Modern Apprentices and others with vocational skills and qualifications, as well as young people leaving schools and colleges.

To aid the development of Foundation Degrees, the HE White Paper announced plans to establish Foundation Degree Forward, a new national body drawing on expertise in universities and partner organisations. Foundation Degree Forward acts as a centre of excellence, promoting best practice, helping organisations to develop Foundation Degrees, and developing sector frameworks. It will also provide a validation service. This will not replace local validation arrangements between colleges and universities, but will provide an alternative avenue when suitable arrangements locally are not feasible.

More information on Foundation Degrees, including the government progress report, *Foundation Degrees: Meeting the need for higher level skills* (DfES 2003), is available at www.foundationdegree.org.uk. Further information is available from UVAC at www.uvac.ac.uk, including the UVAC Quality Mark accreditation criteria for Foundation Degrees. The criteria (set out in Appendix 6) require an integrated approach to academic study and work-based learning, and include specific references to the use of National Occupational Standards.

■ Graduate Apprenticeships

“Graduate Apprenticeships are an excellent example of how businesses and higher education institutions can work together. Combining work-based learning with an honours degree creates a win-win situation which develops the skills of graduates and meets the needs of employers.”

Margaret Hodge MP, Lifelong Learning and Higher Education Minister, January 2002

Graduate Apprenticeship was announced in the 1998 *Learning Age* Green Paper. The aim is to enhance the employment skills of HE students and graduates by combining an honours or postgraduate degree with work-based learning, underpinned by National Occupational Standards, NVQs and key skills units. To do this 50 HEIs, approximately 30 SSCs and former NTOs, together with employers, have developed Graduate

Apprenticeship learning frameworks specifically designed to raise the skill levels of undergraduates and graduate entrants.

A Graduate Apprenticeship offers:

- a nationally-recognised development route incorporating an honours degree or postgraduate degree, NVQ/NOS and key skills
- an integrated, modular plan for the development of vocational and employability skills
- practical training leading to the achievement of an NVQ (typically level 4) or approved training based on National Occupational Standards
- coaching in key skills such as Communication, Application of Number and IT
- a motivational programme to attract the best graduates and make them effective more quickly.

More information on Graduate Apprenticeships, including the recent publication, *Review and Development of Graduate Apprenticeship: A National Higher Education and Employment Bridging Programme*, the Graduate Apprenticeships National Network (GANN), and the UVAC Quality Mark accreditation criteria for Graduate Apprenticeship, is available from UVAC at www.uvac.ac.uk.

Designing programmes

The case studies illustrate a range of curriculum models incorporating National Occupational Standards to achieve a balance of academic and work-based learning. Programme frameworks, such as those for Foundation Degrees and Graduate Apprenticeships (described above) set the broad parameters. The Quality Assurance Agency provides further guidance for programme designers, including the Foundation Degree Qualification Benchmark (available at www.qaa.ac.uk/public/foundation/foundation_statement_preface.htm).

However, even where frameworks are overlaid by regulatory requirements, there is considerable scope for HEIs to innovate and tailor curricula to their strengths and the needs of learners and employers. Several of our HEI exemplars stressed the importance of involving relevant partners from the start in curriculum development, particularly employers, professional bodies and Sector Skills Councils.

The incorporation of National Occupational Standards and the ways they are delivered, therefore, take many forms. Other sections of this Toolkit consider how the standards can be incorporated into HE modules (below), the role of placements and work-based learning¹² and the options for assessment¹³.

Learning outcomes incorporating National Occupational Standards

Foundation Degrees provide good examples of how National Occupational Standards can be incorporated into HE learning outcomes. Two institutions provide contrasting approaches. **LMU's** Foundation Degree Health-Related Exercise and Fitness is explicit in the application of NOS and encourages students to become familiar with them. **Ravensbourne's** Foundation Degree in Creative Sound Design, on the other hand, incorporates the standards less explicitly.

The **LMU** curriculum covers over 50 National Occupational Standards which are explicitly mapped to the degree modules as far as possible – the course leader stressed that they were not applicable to all modules. Students are introduced to NOS in the HE level 1 Personal Development Module, which also introduces them to key skills and their own academic study skills. An assignment requires them to consider the relevance of key skills and achievement of NOS/NVQs in relation to their own career plans. The module covers 17 NOS at QCA level 3 and 16 at level 4. This accustoms students who have not worked with NOS before to the language and use of the standards. By HE level 2 the students are familiar with the standards. The Applied Management Studies self-study module at this level¹⁴ incorporates four National Occupational Standards – one industry-specific standard and three generic management standards. The unit titles are set out with their reference codes after details of the module's purpose, learning outcomes and key skills required. A scheme of work then sets out the module's four topics, each including the relevant National Occupational Standards. Standards in the other modules are more biased towards sports science but they are integrated in the same way.

¹² Pages 42–46.

¹³ Pages 47–48.

¹⁴ Appendix 4.

At **Ravensbourne** the course designer found the Sector Skills Council's occupational map very useful, as well as the standards themselves. Having defined the overall aim of the course they used the NOS relevant to each area by looking at the knowledge and understanding elements and performance statements and writing the relevant areas of these into the Foundation Degree course units. They have often amalgamated NOS performance statements rather than use them verbatim. The course leader said that the level of detail in NOS can limit a course's longevity. They need to be able to assess the learning outcomes without being limited to a particular technique, so they have tended to pick out the more generic criteria. The course leader added that his familiarity with the standards through his work with Skillset, the Sector Skills Council, had been a big advantage, making it easy for them to adopt what they needed.

Delivery

1. Work-based learning

As benchmarks of competence, National Occupational Standards are rooted in the workplace. Placements, work-based learning and the attendant employer involvement in delivery are therefore core features of HE provision incorporating NOS. HEIs in this guide have reported that working towards NOS/NVQs gives structure and direction to placements, and enhances employer commitment to work-based learning and workforce development. It was common for students not in employment to be offered jobs through their work placements.

As far as possible work-based learning should involve genuine workplace problems and challenges. Line managers need to be closely involved so that students are able to undertake the work-based learning in ways which contribute to the business. The partnership is often formalised in a learning agreement.

Workplace mentors are an important aspect of good practice in this area. Mentors are not involved in formal assessment but offer support and guidance when it is needed. They discuss and comment on the students' progress and are a vital link between their employment and education.

The nature and length of work-based learning varies considerably. Full-time Foundation Degrees typically involve two days' teaching at the institution in the first year, with the remaining three days available for work-based learning.

At **LMU**, 50 per cent of the students are already in full-time relevant employment. All must be in a work placement one or two days a week from the second semester, so if they are already in employment they will have negotiated with their employer new skills and/or learning to undertake. In the second year, they have a block placement of between seven and ten weeks, managed through a professional practice module involving a work-based project.

Part-time courses are particularly attractive to employees who may be able to 'learn and earn', with their employer's support. To show how flexible such work-based learning can be in meeting the needs of employer and learner, **UCE** cited the example of a Foundation Degree student who was a construction site manager student. The course leader visited the company to identify an appropriate learning module. He asked the student's mentor/director where he wanted the student to progress to within ten years. The employer wanted him to be on the board. The course leader then asked what the student was not doing then as a site manager that he needed to do to perform the role of company director. The skills gap concerned tendering and estimating. The course leader then identified the module covering that area of work and agreed with the employer that the student would need to choose that elective at some point during the course. The company would teach the student to perform that role and the HEI would assess it against the appropriate NOS. Once the company understood the competence-based approach, the course leader said, "it was all for it", having previously clung to a preference for the HNC.

Kingston's Engineering Graduate Apprenticeship is a 'thick sandwich' course, involving a year's work placement to achieve the level 4 NVQ units. Working towards the NVQ, they say, has made for more structured work experience and greater employer involvement than in sandwich courses without that focus. The relationship is crystallised in a learning agreement between the HEI, employer and learner. The placement of two trainees with Britax had been so successful that the employer offered them sponsorship for their final year and a two-year contract with the company.

Courses aligned to regulatory or professional requirements may make rigorous demands with regard to work-based learning. **Bristol's** degree in veterinary nursing must adhere to the RCVS requirement for at least 70 weeks in practice. The Diploma in Probation Studies includes NVQ achievement at level 4 in just two years. While employment by the Probation Service is

a condition of entry to the course, there is still a danger of allocating too little time to work-based learning, resulting in work experience geared solely to gathering NVQ evidence.

QAA has developed a code of practice for placement learning (available at www.qaa.ac.uk/public/cop). UVAC recently launched its Quality Mark accreditation for work experience, the Professional Development Programme (PDP). For details call UVAC on 01204 903351/903355.

2. Partnerships

Incorporating NOS and NVQs usually involves working with a range of partner organisations, such as employers, industry organisations, professional institutions, FE colleges and funding bodies. High-quality provision is associated with effective partnerships which ensure the course is developed and delivered to meet the needs of stakeholders, including employers. The Council for Industry and Higher Education underlines the importance of dialogue with employers thus:

“It is clearly for academics themselves to describe their courses and the qualities and capabilities they aim to develop in their students. However, increased dialogue with employers may help those tasked with identifying and developing competences... It may also be helpful to foster a shared language around competencies/key skills/attributes etc. that is meaningful to all stakeholders... the gap between academics and employers is one, not of aspiration, but of awareness and understanding.”¹⁵

The consortium approach is a requirement of bids to develop Foundation Degrees. FE partners can play a critical role by bringing their expertise to bear on the development and delivery of Foundation Degrees and other HE vocational programmes. Crucially this includes delivery of work-related and work-based learning, including NVQs and NVQ units, detailed local knowledge of learners and employment, and links with local employers. FEC partnership models range from ‘buying in’ specific expertise in FECs, through franchise agreements to joint delivery arrangements.

¹⁵ Forbes P and Luber B (2002) *Employability: Employer Perceptions of Subject Benchmark Statements*, Council for Industry and Higher Education.

“Sector Skills Councils are influential employer bodies... [they] can help to develop the foundation degree and promote it among potential students, employers and employees. Their endorsement of a foundation degree is likely to be a critical factor in its success, so they should be involved from the start.”

DfES (2002) How to develop a foundation degree

Sector Skills Councils¹⁶ also have much to offer as partners, not least because SSCs are responsible for the National Occupational Standards in their respective sectors. Importantly, SSCs are developing sectoral Foundation Degree frameworks to meet the needs of employment in their respective industries. The sector frameworks will set out the core features the SSC would expect to see that address sector skills shortages; specify the design principles for specific programmes to address sector skills shortages; and articulate pathways – particularly work-based routes – into and out of the relevant Foundation Degrees. The frameworks will help to shape courses from the autumn of 2004.

At **Ravensbourne** the course leader and a colleague had been involved with Skillset, the SSC for media industries, for many years and continued to be involved in standards development. Their familiarity with National Occupational Standards enabled them to incorporate the standards easily and efficiently.

Partnerships with other industry bodies may be equally important: the Fitness Industry Association’s involvement with **LMU**’s Foundation Degree has given the course uniquely valuable industry credibility. National Occupational Standards are also enhancing links with professional institutions, which are increasingly incorporating NOS into their own performance standards.

The British Institute of Architectural Technologists (BIAT) is a good example of this trend.

National Occupational Standards encourage closer links with individual employers through consortium involvement, sponsorship support, placements and learning agreements. HE programmes linked to National Occupational Standards have great potential as workforce development tools. **Kingston** cited one company as keen to see a Foundation Degree established for the railway industry because it had up to 40 Modern Apprentices it wanted to progress on to the course. The aim was to encompass Modern Apprenticeship and the Foundation Degree within a coherent framework of continuing professional development (CPD).

¹⁶ Page 55.

Awarding bodies are also potential partners, as they may eventually offer ready-made Foundation Degree qualifications for local delivery. For example, Edexcel is likely to offer Foundation Degrees in the way that it currently offers HNDs.

Some established Foundation Degree partnerships have published partnership packs and contractual documentation for their partnership agreements. One example was developed by foundation4success, and is on their website –

www.lmu.ac.uk/foundation4success/institutions/institutions_key.htm.

The paper, *Foundation Degrees and Managing Consortia*, by Professor Robin Smith examines the benefits and pitfalls of Foundation Degree partnerships. It was published in the Proceedings of UVAC's Annual Conference, 2001 and is available at www.uvac.ac.uk/publications.html.

If you are new to partnerships and would like an in-depth look at how to set up a partnership successfully, the HEFCE publication 00/54, *Indirectly funded partnerships: codes of practice for franchise and consortia arrangements*, gives a lot of useful information. It is available on HEFCE's website – www.hefce.ac.uk/pubs/hefce/2000/00_54.htm.

The Quality Assurance Agency's (QAA's) Code of practice contains a section on 'collaborative provision'. It is available on QAA's website – www.qaa.ac.uk/public/cop/cprovis/contents.htm.

The Council of Validating Universities (CVU) has complemented the QAA Code of Practice with a Handbook for Practitioners which gives advice and guidance on creating robust procedures and good practice for organisations in partnerships. It is available on their website – www.cvu.ac.uk/guidance/f.html.

Finally, UVAC's 2002 conference proceedings include a presentation by Val Butcher of the LTSN Generic Centre entitled *Workable Higher Education/ Business Consortia – The Higher Education Perspective* – available at www.uvac.ac.uk/publications.html. An extract is given opposite.

“Effective partnerships and ways of working together are the only way forward. Employers can scarcely complain of the work preparedness of campus-based students if they do not fulfil their role in providing aspects of this work preparedness: not only work placements, but participating work shadowing schemes, offering to mentor individuals and groups of learners, offering projects which can be undertaken by the application of certain academic disciplines, and providing real world data for simulations and case studies.”

Val Butcher, LTSN Generic Centre

Assessment

Assessment against National Occupational Standards takes many forms, ranging from full NVQ assessment to self-assessed reflective exercises.

Kingston streamlines the assessment for the NVQ level 2 within its Engineering Graduate Apprenticeship by using course laboratory work as evidence, for example. Assessment is further aided by having four members of staff trained as NVQ assessors.

UCE's first year Foundation Degree (Property and Construction) modules are entirely portfolio-assessed. Level 2 modules are taught and assessed as academic study – through research, assignments, coursework and examinations. Much of the CAD assessment is done by website.

In **Ravensbourne**'s Foundation Degree in Creative Sound Design, there is a project pack which includes the assessment criteria for each unit. The project packs can change because assessments are based on the outcomes, not the content. Although based on National Occupational Standards, assessment is not mapped to NVQ assessment criteria, so does not include NVQ achievement.

LMU's Foundation Degree Health-Related Exercise and Fitness makes extensive use of self-reflective exercises in the workplace. For example, assessment of the Management Theory into Practice module at level 1 involves a series of self-reflective exercises, as well as five short assessments. At HE level 2 the reflective exercises are self-assessment tools, with the learning outcomes assessed through a detailed case study, for example.

Unusually, NVQ assessment in **Bristol's** BSc in Veterinary Nursing and Practice Administration involves both portfolio-building and written examinations (additional to the university's own examinations on HE modules). The portfolios alone involve writing a large number of case logs, so the combination of NVQ and HE assessments result in a very heavy workload – an issue being addressed in a new pilot programme, where competency assessment is based on National Occupational Standards without having to complete the NVQs.

The Diploma in Probation Studies, being an intensive two-year degree course, puts considerable time pressures on NVQ assessment, which is not normally timebound. At **University College, Newport** a timetable for the NVQ is planned with each student, with a clear cut-off point. The NVQ is assessed externally by an NVQ centre, while the reflective essays are assessed by an academic tutor. At **Hertfordshire**, meanwhile, issues arising from the different NVQ and university assessment regimes have been alleviated by appointing university staff to the NVQ centre assessment team.

NVQ assessment at all institutions delivering the Diploma in Probation Studies is aided by the regulatory requirement for the appointment of Personal Development Assessors (PDAs) who are experienced probation officers. The deployment of PDAs varies from programme to programme, but their role in supporting learners has proved crucial.

For professional bodies, competency-based assessment typically involves portfolios and log books. Until recently, membership procedures at the **British Institute of Architectural Technologists** (BIAT) required candidates with a recognised qualification to complete a supervised Practice Qualification Log Book taking around two years. Candidates with a substantial amount of relevant experience but without a recognised qualification were able to progress via a competence-based Self Assessment Report Document. The introduction of a single system of performance evidence – the Professional and Occupational Performance (POP) Record – now not only allows experienced candidates to demonstrate their expertise, but also provides a mechanism for new entrants to plan their development towards a professional qualification.

Incorporating NVQ achievement

Whole or part-NVQs can be incorporated into HE provision in various ways. **Kingston**'s Engineering Graduate Apprenticeship includes NVQ level 2 achievement in year 1 before going out on placements. The work-based components are a mix of NVQ technical and management units at level 4, chosen to fit most accurately with the HE modules.

UCE's Foundation Degree in Property and Construction is designed to incorporate NVQ achievement at level 3, and possibly at level 4, depending on the units selected. In **LMU**'s Foundation Degree Health-Related Exercise and Fitness, units of the Applied Exercise Teaching module can make up a full NVQ. NVQ assessment and certification, however, are an optional extra for which students must pay.

Bristol's BSc in Veterinary Nursing and Practice Administration incorporates full NVQ achievement at level 2 in year 1 and level 3 in year 2. The NVQs meet RCVS qualification requirements and are achieved through long placements in veterinary practice.

The Diploma in Probation Studies, an intensive 24-month honours degree, incorporates NVQ achievement at level 4. The incorporation of the NVQ varies across institutions. At **Hertfordshire**, the NVQ is fully integrated through a credit rating process, completion of the NVQ achieving 120 credits at HE level 2. At **Northumbria**, by contrast, candidates must achieve both academic credits and NVQ units through separate assessments. **University College, Newport** achieves a 'middle way' by requiring candidates to complete an NVQ unit and then a reflective journal based on it, which is academically assessed. This institution incorporates NVQ level 3 into the one-year Certificate in Community Justice in the same way.

The **British Institute of Architectural Technologists** (BIAT) is a leading exponent of the use of NOS units and full NVQs as the basis for HE course accreditation and membership performance criteria. Details can be found in the BIAT case study¹⁷.

¹⁷ Page 31.

Recruitment and APEL

The case studies in this booklet attest to the success of NOS-related HE programmes in widening, as well as increasing, HE participation. These might be learners who 'missed out' on higher education in earlier life and who lack conventional entry qualifications. Instead they bring vocational experience and qualifications which can be recognised through APEL processes by being benchmarked against National Occupational Standards. Progress Files, where available, provide a useful record of an applicant's experience and potential for progression.

The flexible modes of study associated with work-based learning, particularly part-time courses, are bringing growing numbers of employees into higher education, often for the first time. Applicants from the work-based route should be judged on their own merits, often through a guidance interview and, where appropriate, diagnostic tests. Some may need to complete a bridging programme, such as a study skills module, either before or in the early stage of their HE studies.

Quality assurance

Although all partners have some responsibility for managing quality, the HEI validating the programme has the main responsibility for its quality and standards. Importantly, National Occupational Standards are compatible with HE quality assurance requirements for validation purposes. In our case studies an academic registrar said that National Occupational Standards provided "a national benchmark against which we can test the reliability and validity of vocationally oriented courses."

HEIs have well established quality assurance procedures to meet the requirements of HEFCE and QAA. Partnership-working and the introduction of NOS/NVQs inevitably pose new QA challenges, particularly since NVQ quality assurance involves another regulator, the Qualifications and Curriculum Authority (QCA). FE and other partners will have their own QA procedures. However, good practice shows that these additional QA requirements do not have to be burdensome. An HEI's procedures may need adapting to suit a partnership approach. Whatever arrangements are put in place, it is vital that they are fully understood and owned by everyone involved. Effective communication between the partners and the involvement of stakeholders are critical. An effective quality system typically includes:

- regular, recorded course team meetings with student representation
- meetings of the partnership committee
- student surveys
- annual monitoring reviews
- internal moderation and standardisation
- external examiners.

There is considerable scope for integrating QA procedures. FE colleges and other partners may agree to adopt the procedures of the HEI. At **Hertfordshire**, QA issues arising from the different NVQ and university regimes were addressed by appointing the university scheme manager as a member of the NVQ centre, and by having the centre's QA reports form an integral part of the university's QA processes.

QAA publishes a comprehensive code of practice which includes sections on collaborative provision and placement learning. It is available at www.qaa.ac.uk/public/cop.

Funding

The development of Foundation Degrees is supported by one-off HEFCE funding. The White Paper, *The Future of Higher Education*, announced that a further £30 million is being made available to help promote and develop more Foundation Degrees in 2003–6. In October 2003 HEFCE announced a further £5.5 million injection of funding for the development of new Foundation Degree programmes and an additional 10,000 FTE Foundation Degree places in 2004–5. Bids were invited with a strong regional focus, which responded to skills needs articulated by Regional Development Agencies and Sector Skills Councils, and which contributed to raising skills levels in critical employment sectors.

As long as National Occupational Standards are integrated into HEFCE-recognised qualifications, they can be funded. However, the Learning and Skills Council funds FE colleges to deliver NVQs at levels 4 and 5, and units at all levels.

HEFCE development funding has supported the development of Graduate Apprenticeships in HEIs but has not been sustained to support continued development. Mainstream HEFCE funding covers the delivery of the

academic degree content of these and other vocational work-related programmes in the normal way, but not the work-based elements. These can be funded from various sources, including local Learning and Skills Councils' local initiative funds. Other possible sources of funding include Sector Skills Councils and the European Social Fund. Programmes which benefit small and medium-sized companies are most likely to attract financial support – see the **Kingston University** example on pages 27–30.

Normal tuition fees apply, paid by learners or sponsoring employers. Additional fees may be charged for the work-based component. At **LMU**, for example, NVQ assessment and certification are available as an optional extra.

Importantly, the HE White Paper plans to introduce bursaries in 2004–5 for people studying for Foundation Degrees. Career Development Loans may also be appropriate for some students and some courses.

Staff development

To deliver work-based and work-related learning, HE teaching staff need an appropriate awareness, understanding and experience if they are to meet students' needs. It is clearly helpful if staff have recent, relevant experience in industry. This can mean work in the relevant sector or close working relationships with employers, professional bodies or Sector Skills Councils through consultancy or other relevant activities. Continuing professional development to accredited standards, including NVQs, is also desirable.

A key resource in this area is *learninglinks*, hosted by the University Vocational Awards Council¹⁸ and funded through the Solnet Project, with support from the European Social Fund. Whether it is learning through a course or learning with the help of an online expert, *learninglinks* enables HEIs to search through an online directory of business friendly courses and expertise which have been selected to support those who wish to develop their knowledge and skills at work. In addition, the directory of expertise enables users to access expert knowledge to solve business problems ranging from accounting to the delivery of work-based learning. The directory of courses locates relevant courses capable of meeting the identified need in their area.

¹⁸ Page 56.

Professional accreditation

National Occupational Standards are increasingly used by professional bodies as the basis for membership criteria and as benchmarks for accrediting HE qualifications. Recognising the competence developed in learners through HE programmes incorporating NOS, fast-track routes to professional membership are opening up to those graduating from Foundation Degrees and other NOS-related programmes. Examples include the achievement of Register of Exercise Professional status by **LMU**'s Foundation Degree Health-Related Exercise and Fitness; the integration of RCVS qualification and the **University of Bristol**'s degree in Veterinary Nursing and Practice Administration; and the adoption by the Home Office of the **Diploma in Probation Studies** as the professional qualification for probation officers.

Linking NOS to professional accreditation is most advanced among professional bodies related to the construction industry, notably the **British Institute of Architectural Technologists** (BIAT)¹⁹. A range of institutions have been involved in the Construction Industry Council's Progression project based on NOS, the main output of which is 'STEP' (Standards, Training and Education for Progression), an information and guidance tool aimed particularly at those who are new to National Occupational Standards. The institutions – BIAT, Chartered Institute of Building, Institution of Civil Engineers, Institute of Highway Incorporated Engineers, Royal Institution of Chartered Surveyors, Association of British Engineers and Institute of Clerks of Works – have to varying degrees mapped their membership requirements to the industry's National Occupational Standards. Some of these Institutions are piloting a proposed Professional Membership Route to the Construction Skills Certification Scheme (CSCS). This involves them matching their membership requirements against the relevant NVQ/SVQs included in the CSCS Scheme.

“The industry wants students to become incorporated engineers and the Foundation Degree/Graduate Apprenticeship vocational route promises to increase the pipeline of students working towards professional accreditation.”

Kingston University

¹⁹ Page 31.

Recognition of HE programmes incorporating National Occupational Standards can also be obtained through UVAC Quality Marks. UVAC accreditations for Foundation Degrees²⁰, Graduate Apprenticeships and work experience (Professional Development Programme) require an integrated approach to academic study and work-based learning, and include specific references to the use of National Occupational Standards. The Quality Marks also confer recognition by the relevant Sector Skills Council.

Progression

By providing a common ‘curriculum language’ which meets the needs of employers, National Occupational Standards offer a coherent work-based progression route from Advanced Modern Apprenticeship, through Foundation Degrees, Honours Degrees and Graduate Apprenticeship to Continuing Professional Development.

Being national and unit-based, the standards and NVQs lend themselves to credit systems and a ‘building-blocks’ approach to progression to, through and from HE. In engineering, for example, the NOS/NVQ strands provide potential for fast-track progression from Advanced Modern Apprenticeship to Foundation Degree or Graduate Apprenticeship. Moreover, the clear linkages and common standards enable the sector’s Foundation Degrees to sit comfortably within its Graduate Apprenticeship frameworks.

Foundation Degrees must provide for progression to Honours Degrees and/or professional qualifications. This increases the pool of potential students for honours and other top-up courses.

Importantly, the standards and NVQs facilitate progression to flexible, long-term continuing professional development provided wholly or in part by HEIs. Workforce development structured around NOS offers a significant new market for entrepreneurial institutions. It increasingly brings employers into the frame as partners and as customers of HE, with additional implications for promotion.

²⁰ Set out in Appendix 6.

Promotion

Promotion of these programmes has two key audiences, individuals and employers. HEIs are very experienced at publicising their courses to individuals, particularly young people, through course prospectuses, websites and other well-used channels. Even here, however, more proactive and innovative approaches have characterised good practice, given the newness of many of these programmes, their relatively low national profile to date and the diverse range of learners at whom they are aimed.

Active promotion of programmes at faculty and departmental levels has been an effective approach. **Kingston** has produced a series of flyers and posters on its engineering courses, supplemented by case studies of individual students, with employability as the key message. The faculty head has been very proactive in developing external relations, including the media and links with schools. The university is a high-profile 'brand' in the area, making wide use of advertising which includes displaying its logo on a commercial aircraft.

Promotion to employers is less developed but growing. **Kingston** promotes its Graduate Apprenticeship as "the national indicator of graduate work-readiness" and holds open days for employers. **UCE** holds forums aimed particularly at small and medium-sized companies. **Ravensbourne** has built its reputation on its close links with media industries, placing a high priority on employing practitioners. **LMU** has obtained ringing endorsements for its Foundation Degree from leading industry players. Kitemarks have also added credibility to promotional material aimed at employers.

Sector Skills Councils

Sector Skills Councils are new employer-led bodies recognised by government as the strategic organisations responsible for setting the skills agenda in their respective sectors. Their remit is UK-wide.

The objectives of SSCs are to:

1. reduce skills gaps and shortages
2. improve productivity and performance
3. increase opportunities to boost the skills and productivity of everyone in the sector's workforce
4. improve learning provision to meet the demand for skills.

Developing, maintaining and promoting the use of National Occupational Standards are fundamental to the SSC role. In higher education SSCs are closely involved in the development of Foundation Degrees and are responsible for Graduate Apprenticeship frameworks in the sectors. Their work is underpinned by extensive labour market research and skills intelligence, most of which is freely available.

SSCs are gradually replacing National Training Organisations (NTOs) with a smaller, more influential network. The White Paper, *21st Century Skills: Realising Our Potential*, positions SSCs at the heart of the government's skills strategy. The government wants to see sectors mainstreamed throughout the system, bringing greater influence to bear on schools, colleges and higher education, across the whole spectrum of academic and vocational provision.

SSCs are licensed and funded by the Sector Skills Development Agency, which aims to license 23 SSCs by the summer of 2004. More information is available at www.ssda.org.uk.

UVAC

The University Vocational Awards Council (UVAC) was established in 1999 to enable higher education institutions to influence the development of vocational education and training. UVAC's membership spans pre- and post-1992 universities, colleges of higher education, FE colleges delivering HE, and national skills, learning and employer bodies.

Chaired by David Melville, Vice-Chancellor of the University of Kent, UVAC champions vocational learning for employability and personal fulfilment. It has a mission to advocate, lobby, and represent the interests of its members, and to provide practical support through products and services. These include accrediting Foundation Degrees, Graduate Apprenticeships and Professional Development Programmes through UVAC Quality Marks; organising the Graduate Apprenticeship National Network (GANN); hosting conferences; producing reports and guides; and supporting HE staff development through the online directory, *learninglinks*.

More information can be found at www.uvac.ac.uk.

Troubleshooting issues and difficulties

Issues	Solutions
Vocational learning may be 'foreign' to academics, with a very different approach to assessment.	<p>Work with FECs, who have with more experience of vocational delivery.</p> <p>Employ practitioners who understand the competence-based approach.</p> <p>Train HEI staff as NVQ assessors.</p>
Funding work-based components.	<p>Provision incorporating NVQ level 2 achievement may attract local LSC funding as LLCs have important targets at this level. LSCs may also support programmes through LSC Local Initiative Funds, particularly programmes of benefit to SMEs. Other funding sources include Sector Skills Councils and the European Social Fund.</p>
NVQ assessment is expensive.	<p>Engage employers and assess in the workplace.</p> <p>Seek employer sponsorship.</p> <p>Seek LSC funding to support NVQ delivery.</p> <p>Offer NVQ assessment as an optional, chargeable extra.</p>
The additional support needed by some Foundation Degree students is not funded.	<p>UVAC is pursuing this issue with the relevant agencies.</p>
The Graduate Apprenticeship descriptor may not be appropriate.	<p>Check whether this is an issue for employers. Many employers favour the term as providing 'brand' progression. Some sectors do not favour it and have re-branded GAs as Professional Development Programmes, for example.</p>

Issues	Solutions
<p>The language of National Occupational Standards may be unfamiliar. Selecting material from a large body of National Occupational Standards can be onerous.</p>	<p>Engage with the Sector Skills Council responsible for the standards. NOS are subject to regular review. Offer to help, so that you have a stake in the process. HEIs most comfortable with NOS are those involved with their SSCs. Familiarity with the standards gives a head start.</p>
<p>Foundation Degrees have not been promoted effectively to employers.</p>	<p>National promotion of Foundation Degrees is improving, reflecting the central importance accorded to Foundation Degrees in the Higher Education White Paper.</p>
<p>It is difficult to target Advanced Modern Apprentices because of a lack of joined-up information: HEIs do not have access to information held by the LSC about AMA starts and completions.</p>	<p>UVAC is pursuing this issue with the relevant agencies.</p>
<p>HE and NVQ assessments make for a heavy workload.</p>	<p>Assessments can be streamlined and substantially integrated. Consider dispensing with full NVQ assessment if necessary.</p>
<p>Learning input not aligned to NOS/NVQ requirements.</p>	<p>This is likely to be an issue about pace and order of content, rather than content per se. Review the order of courses and cluster NOS/NVQ units in the light of experience. Co-ordinate NVQ and university assessment schedules.</p>

Selected publications

- Council of Validating Universities (2002) Handbook for Practitioners
- DfEE (1996) Review of 100 NVQs and SVQs led by Gordon Beaumont
- DfEE (1997) Key Skills of Students Entering Higher Education
- DfES (2002) How to develop a foundation degree
- DfES (2003) 21st Century Skills: Realising Our Potential, White Paper
- DfES (2003) Foundation Degrees: Meeting the need for higher level skills
- DfES (2003) The Future of Higher Education, White Paper
- Forbes P and Luber B (2002) *Employability: Employer Perceptions of Subject Benchmark Statements*, Council for Industry and Higher Education
- HEFCE (2000) Indirectly funded partnerships: codes of practice for franchise and consortia arrangements
- McNair, S (2003) *Employability in Higher Education*, LTSN Generic Centre
- NCVQ (1997) Higher Level Vocational Qualifications
- NVQ and NOS Employer Champions Group (2002) Maximising the Use of National Occupational Standards to Raise Skill Levels: An independent (unpublished) report to DfES
- Purcell, K, Morley, M and Rowley G (2002) *Employers in the New Graduate Labour Market: recruiting from a wider spectrum of graduates*, Council for Industry and Higher Education
- QAA (1999) Code of practice for the assurance of academic quality and standards in higher education: collaborative provision
- QAA (2000) Code of practice for the assurance of academic quality and standards in higher education: placement learning
- QAA (2002) Foundation Degree Qualification Benchmark
- Roodhouse S and Hemsworth D, Ed (2002) *Widening Participation in the Workplace: A New Agenda for Further and Higher Education. Proceedings of the University Vocational Awards Council Annual Conference, 2002*, UVAC
- Roodhouse S and Swales S (2003) *The Relationship of Competence Based Qualifications to Higher Education*. Paper to the conference, *Delivering employability, the diversity of approaches in higher education*, University of Central Lancashire
- Roodhouse S, Ed (2001) *New Vocational Initiatives: Proceedings of the University Vocational Awards Council Annual Conference, 2001*, UVAC
- Swales S (2002) *Structural barriers to the take-up of higher level NVQs*, UVAC
- UVAC/HEFCE (2003) Review and Development of Graduate Apprenticeship: A National Higher Education and Employment Bridging Programme

Information sources

National Occupational Standards/Sector Skills Councils

Obtainable primarily from Sector Skills Councils. For sectors not listed below, contact the Sector Skills Development Agency (below), who are also examining the feasibility of establishing a national NOS database.

- **AssetSkills:** Property, housing, cleaning and facilities management
www.phfms.org
- **Automotive Skills Council:** Sales, maintenance and repair of new and used vehicles, vehicle rental, leasing and fleet management and insurance, roadside assistance and recovery
www.automotive-skills.org.uk
- **Cogent:** Oil and gas exploration and extraction, chemicals manufacturing and processing, petroleum refining, blending, storage and distribution, forecourt operations, oil-fired heating services, manufacture of aviation fuels, bitumen, and inks
www.cogent-ssc.com
- **ConstructionSkills:** Construction. See particularly the **Construction Industry Council**'s site, which includes a comprehensive NOS database and 'STEP' (Standards, Training and Education for Progression), an information and guidance tool aimed particularly at those who are new to National Occupational Standards
www.citbconstructionskills.co.uk
www.cisc.org.uk
- **Energy & Utility Skills:** Creation and delivery of electricity, fuel for heat, water, the removal of waste water, waste management
www.euskills.co.uk
- **e-skills UK:** Information Technology, Telecommunications and Contact Centres
www.e-skills.com
- **Financial Services Skills Council**
Tel: 020 7216 7366
- **GoSkills:** Passenger transport
www.goskills.org

- **Hospitality, Leisure, Travel and Tourism**
www.htf.org.uk
- **Improve:** Food and drink manufacturing and processing
Tel: 020 7355 0832
- **Lantra:** Agricultural livestock and crops, animal care, animal technology, aquaculture, environmental conservation, equine, farriery, fencing, floristry, forestry and timber processing, game conservation, land-based engineering, landscaping, productive horticulture, veterinary nursing
www.lantra.co.uk
- **Lifelong Learning Skills Council:** Higher education, further education, work-based learning, community-based learning and development, youth work, libraries, archives and other information services
Tel: 0114 259 4651/07900 406712
- **Proskills:** Process and manufacturing of glass, extractives, coatings, refractories, building products, paper and furniture
Tel: 0114 263 2429
- **SEMTA:** Science, Engineering and Manufacturing Technologies
www.semta.org.uk
- **Skillfast-UK:** Apparel, footwear, textiles, leather and man-made fibres
www.skillfast-uk.org
- **Skills for Care:** Social care
Tel: 0113 241 1201
- **Skills for Health**
www.skillsforhealth.org.uk
- **Skills for Justice:** Custodial care, community justice, police
Tel: 0114 261 1499
- **Skills for Logistics:** Freight transport by road, storage and warehousing, activities of other transport agencies, courier services, air freight, rail freight, freight inland sea and coastal water transport
www.skills4logistics.org

- **SkillsActive:** Sport, recreation, children's play, health and fitness, outdoor education, training, caravans, recreation and adventure
www.skillsactive.co.uk
- **Skillset:** Broadcast, film, video and interactive media
www.skillset.org
- **Skillsmart:** Retail
www.skillsmart.com
- **SummitSkills:** Electrotechnical, heating, ventilating, air conditioning, refrigeration and plumbing industries
Tel: 0191 490 3306

Sector Skills Development Agency

For information and contact details of the new Sector Skills Councils, which are responsible for the development and updating of National Occupational Standards. The site includes **ONE_STOP – The Skills Intelligence Gateway**, which provides access to skills and economic information from a wide variety of online sources.

www.ssda.org.uk

- **Association of Graduate Recruiters**
Publications include Employability Briefings for employers
www.agr.org.uk
- **Council for Industry and Higher Education (CIHE)**
Publications include reports on widening participation and employer perceptions of subject benchmark statements
www.cihe-uk.com
- **Department for Education and Skills**
www.dfes.gov.uk
- **Foundation Degrees**
The official Foundation Degree website
www.foundationdegree.org.uk
- **Learning and Skills Council**
Responsible through its 47 local arms for funding and planning post-16 education, training and workforce development in England
www.lsc.gov.uk

■ Learning and Teaching Support Network (LTSN)

Network of 24 subject centres based HEIs throughout the UK and a single Generic Centre. HEFCE's Enhancing Student Employability Co-ordination Team (ESECT) has dovetailed its plans with those of the LTSN Generic Centre to provide a 'one-stop shop' on employability matters

www.ltsn.ac.uk

■ Qualifications and Curriculum Authority (QCA)

The regulator of key skills and all non-HE qualifications in the national qualifications framework, including NVQs

www.qca.org.ac

■ Quality Assurance Agency for Higher Education (QAA)

Promotes the quality of provision in UK higher education. Site includes the national HE qualifications framework and the Foundation Degree benchmark statement

www.qaa.ac.uk

■ Skillsbase

The DfES skills and labour market information website

www.skillsbase.dfes.gov.uk

■ University and Colleges Admission Service (UCAS)

Relevant information includes a substantial section on the Accreditation of Prior Learning (APL)

www.ucas.ac.uk

■ University Vocational Awards Council (UVAC)

Champions vocational learning for employability and personal fulfilment. More details on page 56

www.uvac.ac.uk

Appendix 1

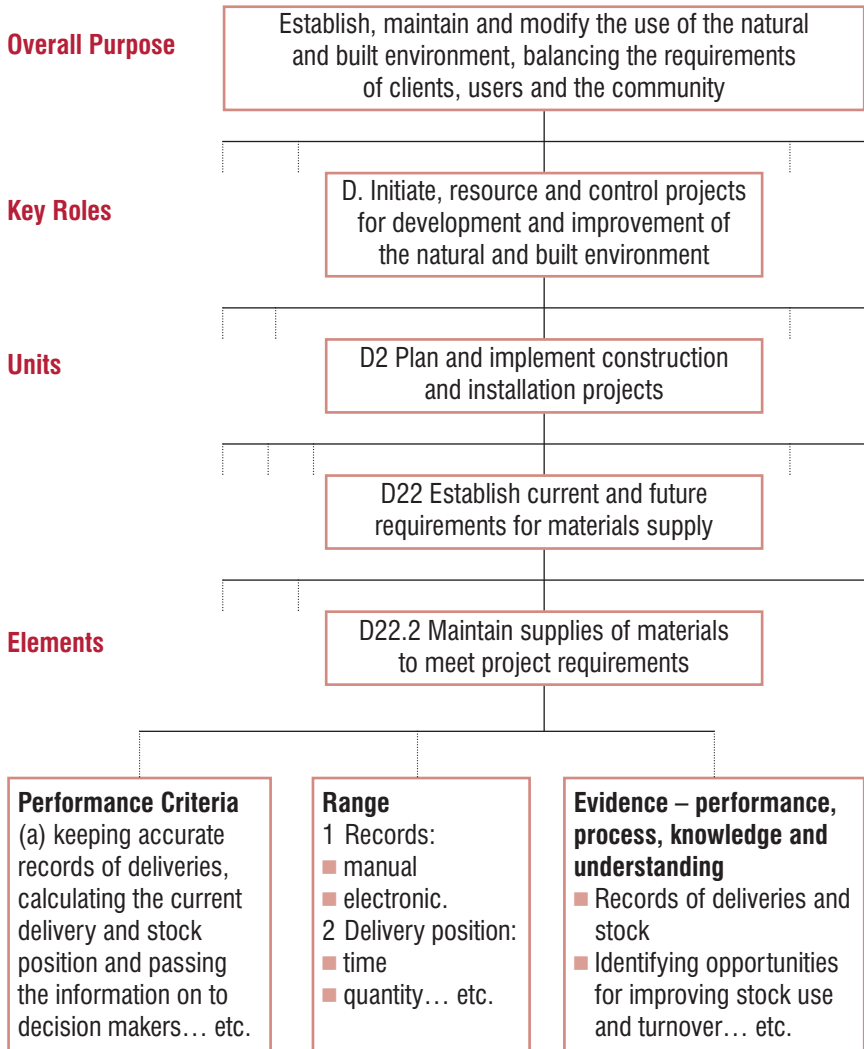
20 reasons for using National Occupational Standards

Incorporating occupational standards into HE programmes has helped institutions to:

1. attract a wider range of learners, including those with vocational skills and qualifications
2. accredit prior experiential learning (APEL)
3. develop learners' workplace competence and ensure their graduates are 'work-ready'
4. improve the quality and effectiveness of work-based learning
5. motivate learners and improve completion rates
6. provide progression to other HE courses and graduates' continuing professional development
7. meet professional accreditation criteria
8. develop and strengthen links with employers
9. meet the skills' needs of learners and employers
10. ensure the curriculum reflects industry practice
11. benchmark provision against national standards
12. incorporate national vocational qualifications within the HE award
13. speed curriculum development by drawing on ready-made and increasingly user-friendly standards, rather than 're-invent the wheel'
14. adopt flexible modes of delivery and assessment
15. deliver more structured vocational learning
16. spread the workload with employers
17. develop partnership-working
18. tap into new funding sources
19. fill gaps in provision
20. develop a course without being a specialist in that area.

Appendix 2

Example of how National Occupational Standards are structured: Construction Industry Council (CISC) standards



Example of Skillset National Occupational Standard

Broadcast Engineering Level 4, July 2003

Unit BE24: Plan and Manage the Implementation of Broadcast Systems

Unit Summary

This unit identifies the competencies you need to plan and manage the implementation of broadcast systems, in accordance with approved procedures. You will be required to manage various aspects of a project, covering a variety of broadcast engineering disciplines. Your responsibilities will require you to comply with organisational policy and procedures for the activities undertaken, and to report any problems to the relevant authority. You will be expected to work unsupervised, either on your own or as part of a team, which you may lead or direct, taking full responsibility for your actions and, possibly, for the work of colleagues or subordinates. Your underpinning knowledge will provide a good understanding of your work, and will provide an informed approach to planning and managing broadcast systems. You will understand the system, and its application, in adequate depth to provide a sound basis for carrying out the activities to the required specification. Applying safe working practices will be a key issue throughout.

Underpinning knowledge you will require

- General and discipline-specific engineering principles and processes
- Health, safety, and environmental issues
- Legislative and regulatory frameworks
- Organisational procedures and systems
- Communications methods and techniques
- Problem-solving methods
- Project planning and management
- Resource management
- Specifications, details, and formats.

Performance statements

You must:

- a) obtain accurate information on the project activities being undertaken
- b) control the use of project resources to achieve the most effective results
- c) confirm that the engineering activities used during the project are appropriate
- d) provide clear and accurate instructions to the project team

- e) review the progress of the project against the project plan and identify any variances
- f) ensure that any problems with the project are identified and solved promptly
- g) ensure that the implementation of the project complies with all relevant regulations and guidelines.

Scope of the Unit

The numbers of scope items specified (below) indicate the minimum requirements for this Occupational Standard.

1. Define scope and objectives of the project, taking into account all of the following:

- user requirements
- budgetary constraints
- environmental constraints or requirements
- timescales
- operational and engineering impact
- required or predicted outcomes
- health and safety requirements.

2. Use three of the following planning and reporting tools to monitor progress:

- critical path analysis
- GANTT chart
- risk analysis
- formal change control procedure
- financial reporting
- variance reporting
- spreadsheets.

3. Use all of the following methods to provide instructions and information to the project team:

- formal presentations
- project management software
- informal briefings.

4. Manage four of the following types of resource:

- personnel
- equipment
- materials

- sub-contractors
- suppliers
- finance.

5. Ensure the implementation complies with all of the following:

- health and safety legislation
- company guidelines
- regulatory guidelines.

Knowledge Statements

You must have knowledge and understanding of:

1. The specific safety precautions to be taken when working with broadcast systems
2. How a project should be monitored
3. The potential variations from the project plan that might occur
4. The types of problem that could occur with the project
5. Why it is important to solve a problem quickly
6. The engineering activities that could be used for different types of project objective
7. How to choose between different engineering activities
8. How to specify the engineering activities
9. How different engineering activities can be implemented, and how they relate to each other
10. The different types of project plans and charts that could be used
11. The different types of information that can be displayed by various plans and charts
12. Who should be shown the project plans
13. How to obtain information on resources
14. What resources are necessary
15. What resources are available
16. What regulations and guidelines are relevant
17. How to obtain information on regulations and guidelines
18. The extent of your own responsibility and to whom you should report if you have problems that you cannot solve.

Appendix 3

Good practice tips

- Involve employers, professional and industry bodies from the start to ensure relevance, credibility and focus
- NOS should balance the academic content, not replace it
- Use case studies to promote, with employer endorsements and emphasis on employability
- Mobilise support from the top
- Celebrate success
- Get involved with the relevant SSC, including standards development
- Consider potential for collaboration with other disciplines
- As far as possible employ lecturers who are practitioners – seek people with applied knowledge rather than academic qualifications
- Be proactive in championing the course within the HEI
- Be innovative in promoting it externally – for example through school links
- Seek good practice and advice from UVAC and from HEIs who have succeeded in this area
- Encourage initiative from individual staff
- Be proactive in teasing out funding, particularly from the LSC
- Reference content against the standards as overtly as possible
- Use standards as tools, not a script – they do not have to be used verbatim
- Link with FECs for expertise on vocational delivery
- Consider summer school to deliver foundation vocational elements
- Encourage employer hosts to give learners rounded experience on placements
- Negotiate learning agreements and mentoring arrangements for placements so that they have a formal structure and support mechanism
- Strike a balance between selecting very specific NOS criteria which may limit scope and currency, and an excessive bias towards the more generic criteria which may render the content bland
- Link to professional accreditation
- Consider NVQ assessment or certification of units
- Consider developing your own application form to recognise NVQs, NVQ units and other vocational experience
- Don't expect every course element to map against NOS.

Appendix 4

Extract from Applied Management Studies Level 2 Module, FdSc Health-Related Exercise and Fitness, Leeds Metropolitan University

Purpose

To enable the student to evaluate selected management principles and apply them in an employment context

Learning Outcomes

On successful completion of the module, students should be able to:

- Understand and apply concepts and principles of practice from selected management theory to a variety of work settings
- Evidence understanding of the subject area through reflective practice
- Analyse more complex work-related problems and generate appropriate solutions utilising a range of information sources.

Key Skills

This module has been designed to develop the following skill areas

- Communication
- Teamwork
- Problem solving
- Application of number.

National Occupational Standards

- A2 Develop, maintain and enhance the organisation's financial and physical resources
- A3 Develop, maintain and enhance the organisation's people
- C2 Provide and maintain a safe and supportive environment for sport and active recreation
- PA54 Work with colleagues in a team.

Scheme of Work and Content

The Module is designed to promote the integration of theory and practice through the application of knowledge to solve work-based problems. It is a self-study module where learning takes place primarily in the workplace through self-reflective exercises and assessments which integrate theory and practice. The focus is on providing students with the skills and knowledge to enable them to become reflective and reflexive practitioners, able to operate effectively in a work environment and contribute to team success.

Introduction	Introduction to the workbook, reflective exercises and assessment. Supplementary reading. Review of relevant National Occupational Standards.
Topic one	<p>Developing Effective Working Relationships. Effective communication, conflict management, teamwork, team role theory. Reading: refer to reading list in workbook. National Occupational Standards: A311 Develop productive working relationships. A32 Create effective working relationships. PA54 Work with colleagues in a team. A34 Contribute to the development of teams and individuals.</p> <p>Assessments: Self-reflective exercises.</p>
Topic two	<p>Marketing Theory. Marketing definitions, the marketing mix, the promotional mix, promotional strategy. Reading: refer to reading list in workbook. National Occupational Standards: B211 Contribute to marketing, developing and promoting services. Assessments: Self-reflective exercises.</p>
Topic three	<p>Managing Finance. Reading: refer to reading list in workbook. National Occupational Standards: A23.1 Make recommendations for expenditure. A23.2 Control expenditure against budgets. Assessments: Self-reflective exercises.</p>
Topic four	<p>Health and Safety and Employment Law: employment, civil, criminal law. Codes of practice, tribunals, European directives. Health and safety, duty of care, risk assessment, hazards. Reading: refer to reading list in workbook. National Occupational Standards: C218.1 Develop procedures for maintaining a healthy and safe workplace. C218.2 Review the effectiveness of health and safety procedures in your workplace. Assessments: Self-reflective exercises.</p>
Assessment Submission	2,500-word case study in report format.

Appendix 5

Delivering employability: the diversity of approaches in higher education²¹

by Professor Simon Roodhouse and Dr Stephen Swailes

Abstract

The employment question, the skills and knowledge required to become and remain employable have been recognised by successive governments as necessary for an effective economy and coherent society.

The arrival of National Vocational Qualifications (NVQ) in 1986 was a national response to an unemployment crisis and the impact of global competitiveness on the British economy. These qualifications have been successfully introduced particularly in further education and over three million certificates awarded at all levels.

Higher education, however, has generally avoided this type of qualification and actively criticised the approach, with the result that NVQ levels 4 and 5 remain of marginal interest to the sector.

Given the renewal of interest in employability by higher education policy makers, it is timely to reconsider the role and function of NVQs.

This paper explores stakeholders' views of barriers to the take-up of higher level NVQs (levels 4/5). Findings are drawn from telephone interviews and case studies. The most successful higher NVQs are boosted by linkage to a professional qualifying route, generic application across a range of sectors, or where qualifications were not previously established. Higher NVQs suffer from credibility problems and variable delivery quality partly accounts for a tarnished image. Support for occupational standards is strong but their design is not at present generally suited to higher qualifications such as degrees. Awarding bodies have carried out little work to assess the learning experience more closely. Funding mechanisms disadvantage higher NVQs particularly in university sector. NVQs are perceived to be relatively costly, however

²¹ Paper presented to the conference, Delivering employability, the diversity of approaches in higher education, University of Central Lancashire, 2003. Available in full at www.simonroodhouse.com

there is little data available to enable objective comparison. Fresh marketing efforts are needed to change stakeholders' perceptions.

It will also touch on the current developments in terms of qualifications and the White Paper, *The Future of Higher Education*.

This paper is based on research carried out in 2002, commissioned by Edexcel and directed by the University Vocational Awards Council.

Appendix 6

UVAC Quality Mark accreditation criteria for Foundation Degrees

The UVAC Foundation Degree Quality Mark is awarded to FDs that meet the following criteria:

1. The FD is vocationally relevant

ie. the programme:

- i. delivers specialist occupational knowledge and skills informed by national occupational standards (where these exist).
- ii. emphasises work experience, which is integrated with assessed work-based learning underlined by knowledge and skills.
- iii. meets the needs of employers by meeting the identified skills and knowledge gaps of the sector.
- iv. focuses on identifying, acquiring and delivering transferable/key skills and related knowledge, which graduates need to contribute to their full potential in the labour market.
- v. includes assessed work-based learning, involving mentoring and supervision (minimum 20 per cent of programme).
- vi. provides work-based learning, which is assessed against Occupational Standards or NVQ Units – where these exist, and/or professional body criteria. Such assessment having equal status within the assessment philosophy of the programme, ie. the programme should aim to break down distinctions between academic and vocational outcomes.
- vii. promotes the academic- and employment-related attributes outlined in the QAA national qualifications framework, www.qaa.ac.uk/crntwork/nqf/nqf.htm, incorporating the key skills of Communication, Information Technology and Application of Number; and the softer key skills of Problem Solving, Working with Others, and Improving Own Learning and Performance.
- viii. focuses on the identification and assessment of competencies found in explicitly stated learning outcomes.

2. The FD has been designed to meet the needs of as wide and as diverse range of potential students as possible

ie. the programme:

- i. provides for some degree of flexible programme delivery, for example the use of appropriate forms of open and/or distance learning provision for students and/or the use of flexible modular and credit-based systems.
- ii. gives recognition, as appropriate, to a student's previous certificated learning and learning from past experience and achievements.
- iii. has admission policies and regulations which are not limited to traditional entry qualifications, but are designed to be applicable and attractive to students from different backgrounds, with diverse experiences and qualifications including vocational and occupational qualifications.

3. The FD encourages take-up and enhances the status of vocational programmes

ie. the programme provides:

- i. smooth progression to clearly defined outcomes in terms of work or further study.
- ii. a contemporary occupational skills base that will enhance immediate career prospects.
- iii. differentiated but effective learning support taking into account students' varying backgrounds and circumstances.

4. The FD has been developed with significant involvement of representatives of business, the public and voluntary sectors and the professions

ie. there has been:

- i. a real involvement of employers in the
 - development of learning outcomes
 - development of programme and curriculum design
 - development of assessment strategies
 - support of students in work-based learning
 - monitoring, evaluation and review of programmes.
- ii. collaboration between HEIs, employers, sector skills bodies and colleges where appropriate.

For further information, please contact:

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Bolton Institute of Higher Education
Chadwick Campus
Bolton BL2 1JW

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