

**REPORT
FROM THE
INSPECTORATE**

Standards and their Assurance in Vocational Qualifications

National Survey Report

December 1997

**THE
FURTHER
EDUCATION
FUNDING
COUNCIL**

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The Further Education Funding Council has a legal duty to make sure further education in England is properly assessed. The FEFC's inspectorate inspects and reports on each college of further education every four years. The inspectorate also assesses and reports nationally on the curriculum and gives advice to the FEFC's quality assessment committee.

College inspections are carried out in accordance with the framework and guidelines described in Council Circular 93/28. They involve full-time inspectors and registered part-time inspectors who have knowledge and experience in the work they inspect. Inspection teams normally include at least one member who does not work in education and a member of staff from the college being inspected.

GRADE DESCRIPTORS

The procedures for assessing quality are set out in the Council Circular 93/28. During their inspection, inspectors assess the strengths and weaknesses of each aspect of provision they inspect. Their assessments are set out in the reports. They also use a five-point grading scale to summarise the balance between strengths and weaknesses.

The descriptors for the grades are:

- *grade 1 – provision which has many strengths and very few weaknesses*
- *grade 2 – provision in which the strengths clearly outweigh the weaknesses*
- *grade 3 – provision with a balance of strengths and weaknesses*
- *grade 4 – provision in which the weaknesses clearly outweigh the strengths*
- *grade 5 – provision which has many weaknesses and very few strengths.*

The inspection grades referred to in this report are all based on these descriptors.

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SUMMARY

This survey of the standards applied in vocational education, and of the standards achieved by students, was conducted alongside the college inspections which took place during 1995-96 and 1996-97. The setting of standards, and their assessment by examination or other means, is the joint responsibility of awarding bodies, industry, and colleges. A minority of the awarding bodies, and of vocational qualifications, are approved by the National Council for Vocational Qualifications (NCVQ). The existence of so many awarding bodies and qualifications militates against consistency in the setting and assessment of standards to be achieved. The awarding bodies have responded to their clients in the colleges by developing many new qualifications to meet changing needs. They have not always provided good information about the number of candidates registered for awards, or achieving them. This makes it difficult to arrive at judgements about what should constitute an acceptable level of performance for a particular qualification.

Teachers' expectations and expertise are an important determinant of the standards achieved by students. Many staff are well qualified and experienced in their specialist area. Many are trained teachers. A significant proportion, however, have only low levels of formal qualification and have received no teacher training. Vocational teachers need good opportunities to keep their skills up to date. The report summarises the findings of inspectors about standards achieved by students in each programme area of the Further Education Funding Council (FEFC). Colleges vary widely in the range of achievements their students display. Too few set clear targets for students' achievement, and monitor these as part of their quality assurance processes. Improving retention rates on two-year vocational programmes and achievement rates on one-year programmes are a priority in the light of increasing student numbers and initiatives to widen participation.

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SCOPE OF THE SURVEY

1 This survey of standards and their assurance in vocational qualifications draws on evidence from the 121 college inspections which took place during 1995-96, and the 124 conducted during 1996-97, the inspectorate's national surveys of subject areas completed between 1994 and 1997 and its international surveys of post-16 education and training in France and Germany. Inspectors undertook a detailed study of students' achievements during the college inspections, including an analysis of some 2,000 pieces of written work, together with teachers' assessments of them.

2 Senior staff of the National Council for Vocational Qualifications (NCVQ) and the major awarding bodies for further education have been consulted during this survey, and have provided some data on relevant awards. Inspectors attended training sessions for verifiers and open college validation meetings. Detailed discussions about the presentation of examination results were held with college managers. Inspectors have worked closely with the research and statistics staff of the Further Education Funding Council (FEFC), to compare inspection findings with the data emerging from the FEFC's individualised student record (ISR).

INTRODUCTION

3 The annual report of the chief inspector of the FEFC is entitled *Quality and Standards in Further Education in England*. In his report for 1994-95, the chief inspector commented that 'the current public unease about standards in vocational qualifications makes it clear that there is a role for a body not connected with the development and accreditation process to comment on the standards being achieved'. Since this report was published, FEFC inspectors have paid particular attention to issues related to the setting and monitoring of these standards, defined as 'the outcomes expected of, and achieved by, students'. This survey report is the result.

4 The chief inspector's report for 1994-95 reflects on the meaning of 'standards', and the way in which they might be interpreted by the FEFC's inspectorate. What follows is an extract from his report.

Standards are interpreted primarily in relation to the levels of achievement expected of and achieved by students and can be judged in terms of:

- *the breadth and depth of the curriculum, as indicated in course documents*
- *the expectations about students' knowledge and skills implied in assessment tasks and examination questions*

- *the students' responses to examinations and other forms of assessment*
- *the rigour displayed in the marking and grading of examinations and assessments*
- *the cross-checking and moderating of assessment through internal and external processes.*

Standards is a fairly hard-edged concept: high standards are a goal; threshold standards are an obligation; standards are measurable and verifiable; and the direct comparison of standards is legitimate between institutions offering the same qualifications.

The survey has taken these assertions as its starting point.

5 If the United Kingdom is to reach national targets for education and training, then more people must obtain qualifications which attest high standards of education and training. Qualifications must be fit for their particular purpose and guarantee of a person's suitability to undertake a particular job or engage in further study. *The Skills Audit* (1996), the interdepartmental group report published by the Department for Education and Employment (DfEE) and the Cabinet Office to support the White Paper, *Competitiveness: Creating the enterprise centre of Europe* (1996), indicates that skill levels in the United Kingdom are undoubtedly higher than qualification levels. Many people have developed skills for which they do not hold certificates. Progress towards the revised foundation national targets for education and training is shown in table 1.

Table 1. The achievement of national targets for education and training

Targets	1990 %	1996 %	2000 (target)
Target 1 – percentage of 19 year olds with GCSEs at grade C or above, an intermediate GNVQ, or an NVQ level 2	52	69	85
Target 2 – percentage of 19 year olds qualified to NVQ level 2 in key skills of communication, number and information technology		5 (data for 1995)	75
Percentage of 21 year olds qualified to NVQ level 3 in key skills of communication, number and information technology			35
Target 3 – percentage of 21 year olds with two GCE A levels, an advanced GNVQ or an NVQ level 3	31	45	60

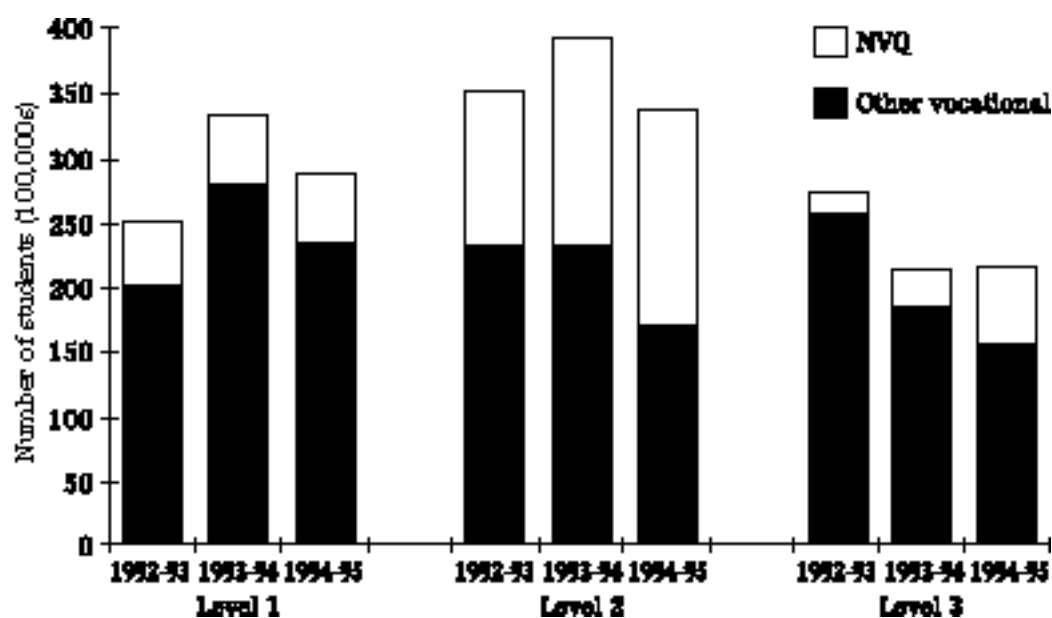
Source: The Monitor, Issue 3, NCVQ, Spring 1997

SETTING STANDARDS

Organisations

6 The setting of standards in vocational qualifications is the joint responsibility of awarding and examining bodies, the NCVQ, employers and employers' lead bodies, the colleges, and teaching staff. The NCVQ was established in 1986 to create a coherent framework of vocational qualifications based upon standards of competence clearly relevant to work. The framework consists of five levels of attainment, from foundation level to full professional competence at postgraduate level, in 10 industry areas. The NCVQ does not award qualifications; it accredits other bodies to do so. By the end of 1996, it had accredited over 1,300 qualifications; there were almost 900 national vocational qualifications (NVQs) in the framework, provided by 135 awarding bodies. The FEFC qualifications database lists more than 300 additional bodies offering vocational qualifications which have not yet been brought into the NCVQ framework. The majority of vocational qualifications are not accredited by the NCVQ (see figure 1). The standards and quality assurance of these qualifications are set by each awarding body, and are not subject to any external regulation. Many awarding bodies are professional associations, which also supervise training. The DfEE has recently consulted¹ on proposals for new criteria for the approval of vocational qualifications, which include the possibility of separating the role of awarding body from that of training provider. This has resulted in clearer criteria for the approval of qualifications.

Figure 1. NVQs as a proportion of all vocational awards



Source: Awards of Vocational Qualifications 1991/92 to 1994/95, Statistical Bulletin 4/96, London, DfEE.

¹ Approval of qualifications under schedule 2(a) of the Further and Higher Education Act 1992: Revision of criteria, March 1997.

7 Following a pilot phase in 1992-93, the general national vocational qualification (GNVQ) rapidly grew in popularity, mainly among 16 to 19 year olds in full-time education. It offers an alternative to general certificate of education advanced levels (GCE A levels) and general certificate of secondary education (GCSE). Each GNVQ is related to one of 14 broad areas of employment, but is designed to provide a general education as a preparation for employment or further study. There are three levels, foundation, intermediate, and advanced, which approximate to the first three levels of the NVQ framework. GNVQs are available in schools and colleges, and by spring 1997, the NCVQ reported that there were almost 3,000 approved centres.

8 The three main awarding and examining bodies operating in further education are the Edexcel Foundation, which offers BTEC awards; the RSA Examinations Board (RSA); and the City and Guilds of London Institute (C&G). Each of these is approved to offer GNVQ. Regional and industry-specific examining bodies also have a significant role in further education. Awarding bodies are educational charities or commercial organisations. Most are entirely dependent on income from candidates fees, with the addition, from time to time, of government grants for specific purposes, such as the 10 per cent share they received of the £10.4 million awarded in 1996 to improve, promote, and further develop GNVQs. The income is variously spent on: promotion and administration; research and development, including the setting and standardisation of tests; assessment; and the various activities necessary to verify results and assure quality.

9 Over 1.3 million NVQ certificates have been awarded since the introduction of NVQs in 1987. During 1995-96 some 300,000 NVQ certificates were awarded, about 50 per cent of them to students in the further education sector. Figures provided by the three main examining and awarding bodies in the further education sector are shown in table 2. It is not possible, on the basis of published information, to make direct comparisons of entries and awards made, because of the varying policies of these bodies on registrations and examinations.

Table 2. Figures for entries to or awards made by Edexcel, RSA and C&G, 1995-96

Awards	Edexcel BTEC (awards)	RSA (entries)	C&G (entries)
Total awards	242,176	1,507,514 (component entries)	Unavailable
NVQs	17,099	51,465	148,548 (UK)
GNVQs	61,405	8,157	13,643
Non-NVQs	53,967 (national certificates and diplomas)	387,870	3,991,760 (group examinations or component entries)
Percentage of awards/entries made in further education	48	Unavailable	30

Source: annual reports and submissions by the awarding bodies to the FEFC.

10 Several factors have increased the range of vocational qualifications available. These include the FEFC's ability to fund studies leading to certain kinds of accreditation, which provides an incentive to colleges to offer award-bearing courses; the introduction of GNVQ; the pressure from schools on their traditional examination boards to provide vocational studies within GCSE; and the establishment of relatively new organisations, such as the Open College Networks, which are able to offer accreditation, usually on a local basis. The National Open College Network estimates that around 7 per cent of Open College Network awards are in vocational subjects, or provide access to vocational further education courses. This can render them eligible for funding by the FEFC.

11 A number of organisations are involved in the NVQ system, each of which plays a part in developing, delivering, awarding, and maintaining the quality of NVQs. Lead bodies identify and update the standards of competence required for agreed groups of occupations. NVQs are based on these standards. Awarding bodies, together with lead bodies, are responsible for the development of NVQs; they approve centres such as colleges and schools which wish to offer assessments for NVQs; they monitor the assessment process, and award certificates, conducting external verification to see that candidates are being assessed properly and consistently. The NCVQ also employs quality assessors to ensure that awarding bodies are effectively managing these processes. Industry Training Organisations are employer-owned organisations which are responsible for defining the current and future needs of their sectors, and ensuring that these needs are addressed. Occupational Standards Councils are umbrella organisations which can bring together existing lead bodies,

professional bodies, and providers to ensure that NVQ requirements are met. During 1997, Industry Training Organisations and Occupational Standards Councils are to be brought within a new network arrangement of National Training Organisations.

12 *The Education Act 1997* (the Act) provided for the creation of the Qualifications and Curriculum Authority (QCA). The new organisation was established in October 1997, and has taken over the functions of the NCVQ and of the Schools Curriculum Assessment Authority (SCAA). The Act also provides for the secretary of state to approve qualifications where the courses leading to them are supported with specific public funding.

13 Outside the NCVQ framework, standards are set in different ways according to the constitution of the awarding body. There may be advisory groups drawn from the membership of a professional association or industry body, such as the Association of British Travel Agents. An award may be designed by a group of practitioners, and offered through a private organisation or charitable trust, such as the range of awards in holistic therapy offered by Vocational Awards International. These organisations have their own systems of approval and assessment which are designed to suit the demands of their particular market.

14 Standard setting for GNVQ has taken a rather different form. Specifications for its mandatory units were drawn up by the NCVQ, and awarding bodies developed optional and additional units. The awarding bodies involved have co-operated in the Joint Council of National Vocational Awarding Bodies to oversee arrangements, and the NCVQ established a GNVQ policy committee with subject advisory committees for each area of work. These advisory committees contain representatives of the relevant employment areas, course providers, higher education, inspectors, and the DfEE. Detailed development work on course content has been done by working groups of teachers and consultants, managed by the NCVQ and the awarding bodies.

Specifying Standards

15 It has not been an easy task for the NCVQ to create clear standards for such a wide range of providers and qualifications. Some awards are highly specific and have a very limited market such as those for maintaining and operating caravan parks, while others in popular professions such as hairdressing have a mass appeal. Some relate to minority occupations so specialised that there are over 300 awards for which no candidates have completed a qualification. The NCVQ suggests that this failure to register successful completions is due to the time which elapses between the approval of awards and their eventual completion by candidates. It does, however, raise questions about the effectiveness of the process by which needs are defined. The standards set for such qualifications cannot be validated in practice, as there are no comparative data. Since many

awarding bodies do not publish complete data on candidates' achievements, it is difficult to define standards for acceptable rates of completion by different providers or modes of provision. The work done by FEFC inspectors together with data from the FEFC's ISR is beginning to provide benchmarks for the achievement of vocational qualifications within the further education sector.

16 Lead bodies identify the standards which have to be demonstrated for the award of an NVQ. These bodies include employers, employees, and members with educational and professional interests. Standards to be achieved are expressed as competence statements and syllabus requirements. The NCVQ maintains that the competence criteria ensure consistent standards of performance among those trained and assessed by different organisations. However, following criticism of the way in which these standards are expressed, in the *Review of 100 NVQs and SVQs* (the Beaumont Report) submitted to the DfEE by the committee chaired by Gordon Beaumont in January 1996, lead bodies are being encouraged to express their requirements in plainer language. The NCVQ also lays down criteria for centre approval, the qualifications of assessors, and for internal and external verification.

17 Studies leading to GNVQ and BTEC first and national diploma qualifications, involve a broad education with an occupational focus. GNVQs have been designed by working groups which include representatives from industry, professional bodies, higher education and teachers. BTEC national awards are designed by approved centres such as colleges, using standard units which have been prepared by specialists working for the validating body, with the possibility of local variation to meet specific needs. The programme or unit designs are submitted to BTEC for approval.

18 Once set by awarding bodies, standards are subject to interpretation by teachers, trainers, and assessors. This interpretation is in turn influenced by the teachers' expertise and experience, as well as their expectations of students. The professional expertise of assessors, verifiers, and moderators is similarly of critical importance to the maintenance of standards.

19 Advanced level GNVQs are designed to be equivalent to two GCE A level passes. Advanced level GNVQs and BTEC national qualifications are accepted for entry to degree courses and they are taken by an increasing number of students who wish to progress to higher education. The GNVQ intermediate is intended to be equivalent to four GCSEs grades A* to C, and the BTEC first diploma and certificate to four GCSEs at grade C. Despite some hard work by the Universities and Colleges Admissions Service (UCAS), higher education admission tutors have not always accepted these claims of equivalence to GCSE and GCE qualifications. GNVQs are not as well established as GCE and GCSE qualifications and the differences in their purpose are not always appreciated. Research on progression

conducted by the UCAS suggests that a GNVQ offers a worthwhile introduction to the more modern forms of study in higher education, with the exception of essay-writing skills. The percentage of GNVQ applicants for higher education study, compared with those offered places was slightly higher in 1996 than 1995 (61 per cent against 59 per cent). The number of places offered rose sharply from about 6,000 in 1995 to over 13,000 in 1996.

20 The survey of employer opinions, conducted by the Confederation of British Industry (CBI) and published in *Quality Assessed* (1994), stated that most employers were satisfied that NVQ standards are 'generally pitched at the right level to reflect the requirements of real occupational roles, to incorporate sufficient prediction of future requirements, to have a reasonable shelf life, and to offer a developmental challenge to match best practice'. Some employers were concerned that the functional analysis from which occupational standards are derived leads to specifications which are too narrowly conceived. As a result, the revised *NVQ Criteria and Guidance* (1995) gave greater emphasis to the accompanying knowledge base for qualifications. The *Review of 100 NVQs and SVQs* indicated that 85 per cent of its employer respondents considered that employees with NVQs were occupationally competent. *Reasons to be Cheerful?*, a study of the use of NVQs and SVQs among CBI members, published in August 1997, found unanimous support for companies' qualifications based on competence and expects the new National Training Organisations to continue the improvements in the design of standards.

21 Employers agree that there is a core of knowledge which is essential to the successful performance of a job. The *NVQ Criteria and Guidance* confirms that knowledge and understanding must be specified and assessed. Employers generally welcome the concept of key skills as an element to be assessed, although there has been some difficulty in agreeing what these skills are. The Beaumont Report advocates that all school-leavers should be competent in the basic skills of written and oral language, numeracy, and information technology. It further recommends that they should acquire the key skills which assist transferability between jobs such as team-working, self-confidence, business awareness, problem-solving, creative thinking and planning. Many employers believe that key skills provide the basis for good standards of performance in job-specific training.

22 The *Review of Qualifications for 16-19 Year Olds* produced by Sir Ron Dearing in March 1996 has defined the framework of levels and pathways for qualifications which are predominantly taken by young people, and it firmed up the notion of equivalent standards. The Review recommended the assessment of key skills as a standard part of all publicly funded programmes for 16 to 19 year olds. Specifications have been developed for a new qualification in key skills which will be common to all the pathways, and this is being piloted during 1997-98. Inspectors have concluded that many providers have difficulties with the development and

assessment of these skills, whether they are taught separately, or in combination with other studies.

23 Staff in colleges must interpret the official documentation on qualifications and turn it into course documents such as schemes of work, assignment designs, and assessment plans. The best such plans are produced jointly by groups of staff who work together, and take advice from people with up-to-date knowledge of industry, such as local employers or part-time teachers who also work in industry. The interpretation of the documentation on qualifications is a key professional task which in the view of inspectors is often not undertaken sufficiently thoroughly.

24 Each body has elaborate quality assurance systems, which include some consultation with expert practitioners to ensure realistic standards. These systems are also applied to qualifications outside the scope of the NCVQ. Each centre is individually approved. Each course and test procedure is subject to external moderation and standardisation measures. Awarding bodies, however, do not always publish their results in a way which allows national comparisons to be made. Although data on results are collected, they are generally published separately for each examination in examiners' reports. Aggregated data on achievements are not easily obtained, with the exception of those for GNVQ where data collection systems were established at the outset by the NCVQ. The presentation by RSA and C&G of data on component entries, rather than full awards, makes the analysis of results particularly difficult. Some professional bodies do not even inform the examination or test centre of the results but send them direct to the candidates. One of the revised criteria in the consultation paper issued by the DfEE, referred to in paragraph 6, is that awarding bodies will, as a condition of approval, be required to produce statistics on all registrations and awards for each qualification.

STANDARDS IN PRACTICE

25 The NCVQ published a code of practice, *The Awarding Bodies Common Accord* (August 1993) to which all awarding bodies are expected to conform. It was revised in June 1997. This aims to promote the standardisation of assessment practices and procedures. It encourages:

- common terminology, to describe the roles of people and organisations in assessment and quality assurance
- certification to national standards for assessors
- quality assurance and control systems to ensure rigour
- defined roles in quality assurance for awarding bodies and others offering NVQs
- explicit criteria for approving organisations to offer NVQs.

26 Colleges and students need to be certain that a vocational qualification has a real market value and that it attests clearly identified standards. The awarding body should have high standing with industry, commerce and the professions and its qualifications at all levels should be respected for their fitness for purpose. The *Charter for Further Education* tells students that they ‘...have a right to expect [that]... all qualifications the college offers are soundly based and have value outside the college itself’. At present, this expectation is not always fulfilled: inspectors have identified insufficiently rigorous internal and external verification procedures; the comparability of qualifications offered by some of the smaller awarding bodies is difficult to determine; and some qualifications have little national currency.

27 The colleges themselves bear important management and administrative responsibilities for ensuring that students can achieve nationally accredited awards. These include:

- teaching schemes which match assessment demands
- the assessment of practical competences is undertaken first by teachers, then verified internally by colleagues, before it is scrutinised by an external verifier or assessor
- teachers interpret standards. This interpretation is frequently subject to professional debate, but is also a matter for teachers’ personal judgement
- teachers receive training in the new techniques of verification and assessment, for their judgements to be acceptable to the NCVQ
- colleges administer student registrations and entries, collect fees, organise examinations, provide accommodation for examinations and tests, recruit and pay invigilators, pass on results to candidates, and distribute certificates.

Teachers and their Expectations

28 The standards achieved by students are in part determined and interpreted by the experience, expertise, and expectations of their teachers. Teaching schemes should be designed to bring students to the required standard in a reasonable time. They are the responsibility of teachers working separately or in groups and sometimes take into account the advice of employers. The assessment of students’ work is also undertaken by teachers before being internally and then externally verified, or formally examined. The NCVQ has required all those involved in the assessment of NVQs to be in possession of, or be working towards, relevant assessor awards. However, there are no regulations to determine either the qualifications required of teachers in further education or the experience they should have had in relation to the courses and subjects they teach. The Teacher Training Agency, established to oversee the arrangements for training teachers for schools, is not involved with the training of further education teachers. Inspection reports commonly refer to the limited

recent industrial experience of full-time teachers. Many part-time teachers are working in professions outside education but their experience in these is not systematically recorded.

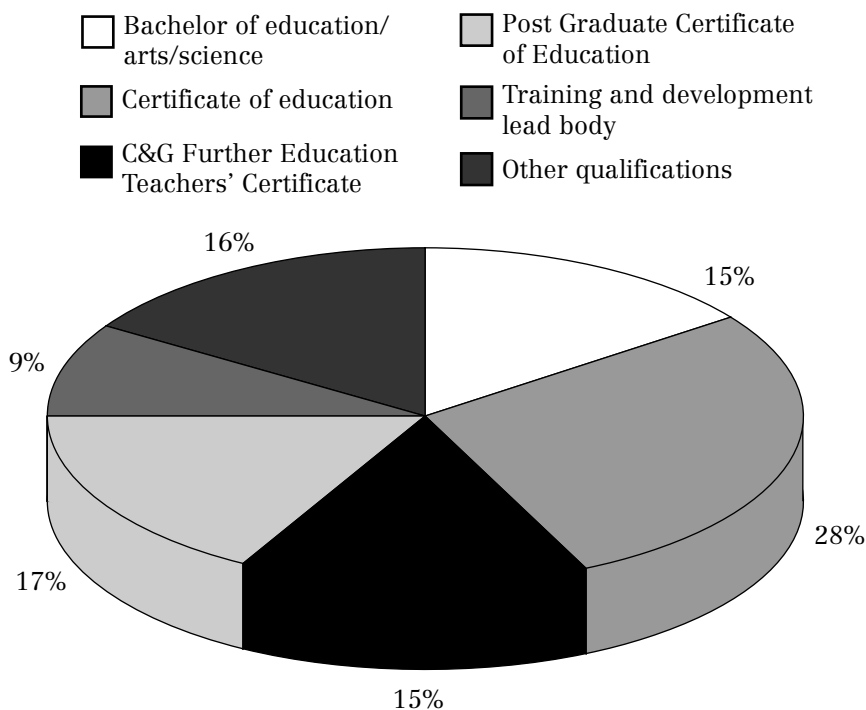
29 In July 1995, the FEFC made its first collection of all-year data for all further education colleges, in the staff individualised record. For 1994-95 there were 140,200 staff (65 per cent of colleges' total number of employees; 56 per cent of their full-time equivalent employees) whose primary purpose was to provide teaching and learning. A further 20,400 (9 per cent of the total number of staff, 12 per cent of the full-time equivalent staff) primarily supported teaching and learning. Excluding those for whom data were not available, 48 per cent of teaching staff held professional qualifications (see table 3), with a further 11 per cent possessing a higher technical qualification. Some 30 per cent of teachers did not hold a qualification at professional or higher technical level and 11 per cent had no formal qualifications. These figures exclude the 26 per cent of staff for whom information on qualifications is not recorded on the staff individualised record. A majority (60 per cent) of teachers had at least one teacher training qualification. The teaching qualifications of a further 28 per cent are not recorded. Figure 2 shows the percentage of teacher training qualifications recorded, by type. Many staff held more than one such qualification. The low proportion of teachers with higher professional qualifications contrasts sharply with that in countries such as Germany where it is a legal requirement that teachers have professional qualifications and experience as skilled workers. Few European countries have compulsory teacher training for teachers in vocational colleges.

Table 3. Percentage of teaching staff by highest qualification

Qualification type	All teaching and learning %	Full time %	Part time %
Professional	48	53	41
Higher technical	11	12	10
Advanced	14	14	15
Intermediate	12	10	14
Foundation	4	3	5
No formal qualification	11	8	16
Total	100	100	100

Source: staff individualised record, July 1995.

Figure 2. Percentage of teacher training qualifications recorded by type



Note: up to three teacher training qualifications may be recorded for each member of staff.

Source:staff individualised record, July 1995.

30 In July 1996, the FEFC made its second all-year collection of data for the staff individualised record. For 1995-96 there were 137,700 staff (62 per cent of colleges' total number of employees; 53 per cent of their full-time equivalent employees) whose primary purpose was to provide teaching and learning. This represents a decline in numbers of some 2,500 (2 per cent) compared with 1994-95. A further 21,700 (10 per cent of the total number of staff, 12 per cent of the full-time equivalent staff) primarily supported teaching and learning. This represents an increase of 1,300 (6 per cent) compared with 1994-95.

31 Inspectors usually describe teachers as adequately qualified. No college inspected has been awarded less than a grade 3 for staffing and 90 per cent of colleges have been graded 1 or 2, indicating that the strengths of staffing arrangements clearly outweigh weaknesses. This assessment takes other factors, such as industrial experience and the number of teachers employed, into account alongside paper qualifications. Some colleges keep inadequate records of staff qualifications, and it is sometimes difficult for inspectors to judge whether staff are suitably qualified for the work they undertake. The low level of teachers' qualifications has rarely been identified as a cause of poor practice in teaching and learning. However, there are examples of poor lessons where teachers had low expectations of students or teaching was dull and uninspiring.

32 Despite efforts to improve the opportunities for teachers to update their industrial experience, the experience of many teachers is out of date. Some staff teaching GNVQ, who come from a predominantly academic background, have no relevant experience in a vocational area. There are examples of innovative teacher placement schemes such as those offered through local Education Business Partnerships, which enable teachers to have a period in a relevant industrial environment. However, these opportunities are too few, too brief, and are taken up by only a small number of teachers. Colleges need to encourage and enable teachers to keep up to date with modern trends and developments in their particular fields.

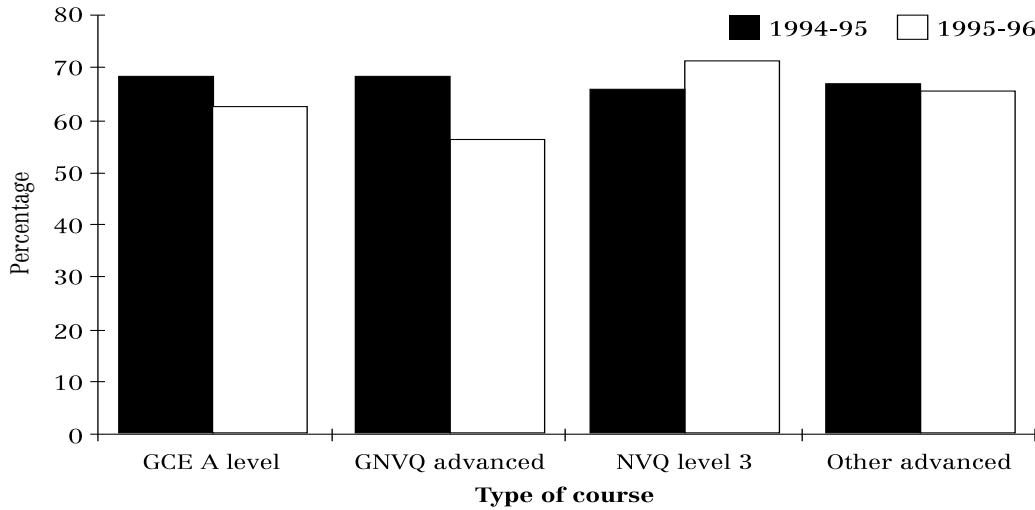
33 In recent years, a high proportion of staff development budgets has been spent on enabling teachers to obtain the necessary assessor awards to conduct NCVQ assessments. As a result, the general level of teachers' competence in assessment techniques and procedures has improved. On the other hand, colleges have spent less on updating the subject expertise of staff, providing them with industrial experience, and promoting curriculum development. Staff development funds are generally reported to be around 1 per cent of college staffing expenditure, although this figure masks a wide variation in the type of expenditure attributed to that budget heading. In some colleges, the budget available is only for course and conference fees; in others, it includes the cost of releasing staff from teaching. Training which colleges provide in house is rarely fully costed. Unlike schools, colleges receive no earmarked funds for staff development, even when there are initiatives such as GNVQ to develop. This means that training funds come under threat from financial constraints. Like many commercial organisations, colleges often economise by reducing their training budgets. In particular, the work of specialist interest groups for curriculum areas is declining in its impact, because colleges are less able to release staff to attend conferences and meetings of such groups. In the past, these curriculum groups have played a significant role in keeping specialist teachers up to date, and ensuring that the profession has an impact on the setting of standards. A strong surviving example is the National Association of Business Studies Education, which has the advantage of a large potential membership from the biggest vocational programme area.

Standards of Teaching and Learning

34 In grading the performance of colleges, inspectors have paid particular attention to the processes of teaching and learning and all aspects of provision which support them, such as governance and management, quality assurance and resources. Until recently, these processes tend to have been given greater prominence than the achievements of students. During 1994-95, inspectors observed 22,109 teaching and learning sessions in further education colleges. In 1995-96, 20,161 sessions were observed. The percentage of grades 1 and 2 awarded

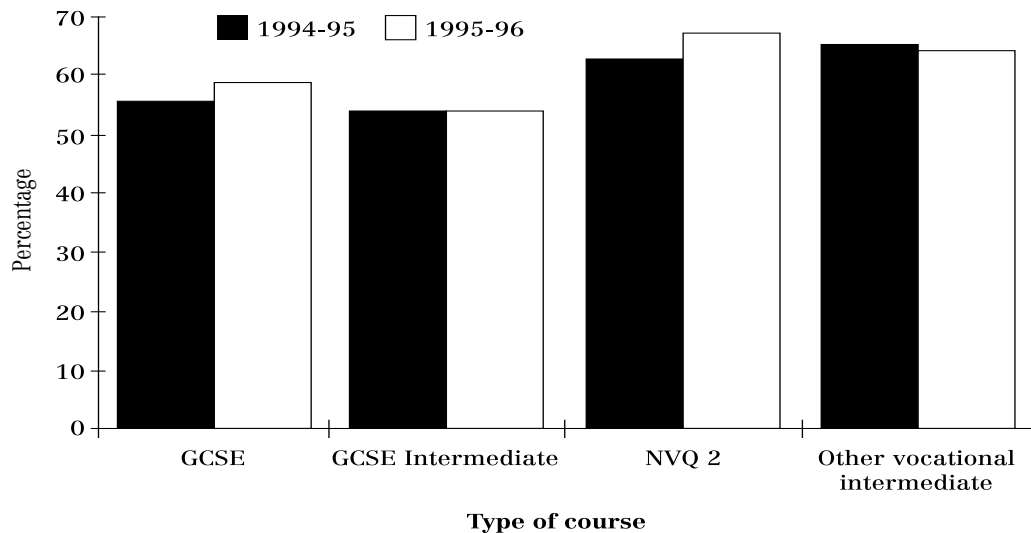
by inspectors for work on courses leading to GCE A level, NVQ level 3, GNVQ advanced qualifications and 'other' advanced qualifications, (including BTEC national and other professional qualifications at advanced level), is shown in figure 3. Work on courses leading to GNVQ advanced has been judged to be of lower quality than that at GCE A level and on other advanced level courses. The proportion of GNVQ lessons graded 1 or 2 has remained constant over the two years whilst the percentage of higher grades awarded to NVQ level 3 sessions has risen by 5 per cent.

Figure 3. Percentage of inspection grades 1 or 2 awarded to teaching and learning on advanced level courses



35 The inspection grades awarded for GCSE and intermediate level vocational courses, 1994-95 and 1995-96, are shown in figure 4. The quality of teaching and students' learning on NVQ and other level 2 vocational courses was judged to be better than on those courses leading to GNVQ intermediate and GCSE qualifications.

Figure 4. Percentage of inspection grades 1 or 2 awarded to teaching and learning on intermediate level courses



36 Inspectors frequently describe classroom work on vocational courses as competent but uninspiring. On most vocational courses, practical classes are frequently reported as being more effective than classroom-based work. In practical lessons, teachers usually provide individual students with advice and guidance of high quality, although poor equipment sometimes prevents students achieving the high standards expected of them. It is in practical sessions where the assessment of competences is most straightforward, and where the most immediate feedback on performance can be given. Inspectors rarely have the opportunity to assess the standards achieved by students in the workplace, and have to rely mainly on evidence recorded there by others.

37 The ability range of students on most vocational courses is wide. Students on GNVQ advanced and BTEC national courses are normally required to have completed a GNVQ intermediate or a BTEC first course successfully, or to have grade C or above in at least four GCSE subjects. In some instances, students are admitted to these courses with less than these entry qualifications. There are no specific entry requirements for GNVQ intermediate or BTEC first diploma or certificate courses. Some teachers have difficulty in choosing teaching methods and designing learning activities which suit the wide range of abilities on these courses, in order to enable all students to make effective progress.

38 Many students with learning difficulties and/or disabilities receive support which enables them to participate successfully on vocational courses. They respond well to the teaching of vocational specialists who generally have high expectations of them. Students with learning difficulties and/or disabilities who are following catering or hairdressing courses can achieve good standards of work in the kitchen or the salons. Many teachers devote much time and effort to helping these students to reach the required standards.

39 Teaching is often of high quality and students benefit most when courses are carefully planned. Wide variations in the quality of planning can occur within different parts of a college. In the best practice, staff who share the teaching of a particular course plan and discuss the learning activities and resources they will use to implement the syllabus. They also agree on the standards they will expect from students, in order to ensure that their assessment of work is consistent. Sometimes, schemes of work are no more than a list of the topics to be covered and there is no systematic planning of how much time will be spent on each. The standards expected of students are not clearly identified and, consequently, they are not able to plan their work effectively.

40 In 1995-96, inspectors observed 9,652 vocational lessons, of which 62 per cent had strengths which exceeded weaknesses. Some 8 per cent had weaknesses which outweighed the strengths, and in 30 per cent there was a balance of strengths and weaknesses. The weaknesses which commonly detract from the effectiveness of students' learning include

poor planning of teaching, poor time management, limited checks on whether learning is taking place, work which is conducted at too slow or too fast a pace or which is not challenging enough for the students, poor use of visual aids and poor-quality handouts. All of these weaknesses are associated with poor professional practice by teachers, some of whom may be inadequately trained.

41 The time available for teaching is generally less in England than it is in other countries, and compared with the structure of a qualification such as the French baccalaureate, the range of subjects studied is narrow. It is as well to be cautious in making such comparisons, but for broadly similar full-time vocational courses for students within two years of the compulsory school-leaving age, typical time allocations each week total between 30 and 40 hours in most other European countries, with between one-third and one half of the teaching time dedicated to practical work.

42 In some cases, these totals are laid down as a requirement by the authorities. Figures for other European countries are remarkable for the extent to which they exceed those for typical full-time courses in England. The definition of a full-time student in the FEFC funding methodology is someone following more than 450 guided learning hours, which averaged over a 30 week year is 15 hours a week. Since the notion of achieving competence rather than serving time was introduced into vocational education by the NCVQ, and funding levels have been reduced, few full-time vocational students have timetables which require their presence in class or workshops for more than 19 hours a week. The median teaching hours recorded in the ISR for 1994-95 are 700 for a full-time student, including additional support. It is therefore essential that this time is effectively used, and that students who are required to undertake additional study by themselves are given adequate guidance.

43 Vocational courses in England differ from those of other countries in not having significant components of general education. Students on vocational courses in further education are not required, as are their French counterparts, to study their own language and literature, to understand the political and economic structures of their country, nor to participate in physical education. The proposals in Sir Ron Dearing's report, *Review of Qualifications for 16-19 Year Olds* (1996), to introduce key skills as a compulsory element for full-time courses, and to offer a diploma to students whose studies encompass a specified degree of breadth, go some way to address this difference in curriculum content. In theory, the funding methodology for further education allows for as much teaching time as is needed. In practice, most colleges have cut staffing costs by reducing the time students spend with teachers.

44 The quality of the relationships between teachers and students and between students themselves is usually good. This helps students to enjoy their courses and contributes to effective learning. The high quality of care and support is a distinctive feature of vocational courses in England. The relationships between teachers and students in some other countries

in Europe are undoubtedly more formal and less supportive of the students than in England.

45 An interesting basis for international comparison is offered by the annual Youth Skill Olympics. Competitions are held in 41 occupational skills, and in 1997, 500 young people from 30 countries took part. The United Kingdom team of 24 competed in 23 categories. An average mark for each country across all competitions is determined and then a rank order established. Diplomas are awarded to all competitors achieving more than 500 points. Table 4 shows a comparison of United Kingdom achievements for the last three events. The United Kingdom has held its position just above the middle at the same time as the competition has increased in size.

Table 4. Comparison of achievements in Youth Skill Olympics, 1993 to 1997

Year	Gold	Silver	Bronze	Diplomas	Average UK score
1993		Plumbing Cookery Information technology	Electric welding Bricklaying Stonemasonry Plastering Joinery Men's hairdressing	5	496 12th out of 24 countries
1995	Cookery Information technology Plastering	Cabinet making	Plumbing Stonemasonry	7	501 12th out of 28 countries
1997	Brickwork	Automobile technology Information technology	Joinery	9	500 14th out of 30 countries

Student Responses in Vocational Courses

46 A variety of assessment methods is used on vocational courses. Some methods include a mixture of end-of-course tests and continuous assessment. A few involve internally set and marked assignments which are subject to little moderation. Some professional courses are assessed externally. On GNVQ courses there are internal assessments, externally set and marked tests, and plans for standard assignments. NVQ assessments are based on judgements by teachers and workplace assessors about whether specified performance criteria have been met. To ensure the standards of their GNVQs and NVQs, awarding bodies employ trained external verifiers to visit institutions to check that they

have established suitable verification processes and procedures and that appropriate standards are being set and achieved. Their reports are made available to inspectors during college inspections.

47 As well as considering the reports of external verifiers and examiners, inspectors look at samples of students' work which the college provides. It is usually written work, representative of a range of ability, which shows the progress students have made. Objects made by students in their practical work are also available for inspection. Inspectors use this evidence when assessing students' achievements. For the purposes of this survey, inspectors examined some 2,000 pieces of work and recorded their judgements on the standards set by teachers in 390 assessment notes using the inspectorate's five-point scale (table 5). A total of 74 per cent of teachers' assessments of students' work was graded 1 or 2.

Table 5. Percentages of grades awarded by inspectors for assessment of students' work

Qualification level	1 %	2 %	3 %	4 %	5 %
Foundation/level 1	53	35	6	6	0
Level 2	16	49	33	2	0
Level 3	21	52	24	3	0
Level 4	51	36	11	2	0

48 There were differences in the quality of assessments between the levels of course in the sample. The best work was recorded in foundation and higher level courses, although work from these was less well represented in the survey. Work was judged on the basis of the quality of teachers' contribution to the process, such as the skill with which assignments were constructed, and the care with which they were marked, and on the quality of students' responses. The aspects of assessment on which inspectors most often commented were:

- methodology, including the design of assignments, and quality of marking
- standards relative to course requirements, such as the complexity of assignments, and display of appropriate knowledge and skills
- intrinsic standards, such as the presentation and organisation of work
- progress, including students' learning over a period of time, and the speed with which feedback is offered.

49 Inspectors rarely commented on the standards of students' work in relation to their own knowledge and experience of the needs of industry. They frequently commented on the assessment of key skills. On occasion, they drew attention to inconsistencies in the standards used by external verifiers and moderators.

50 In the best practice, students had a clear understanding of the standards required of them, and their tasks were well structured. In three-quarters of the sample, the assessment briefs given to students were detailed and included marking schemes. These ensured that students knew how to complete their assessments successfully, and how they could score high marks. Teachers' comments on students' written work were of a variable standard. Many teachers provided supportive and detailed comments. Some however, offered unhelpful comments or none at all. Teachers corrected inaccuracies more often than they made supporting comments about the quality and perceptiveness of the work although they seldom corrected poor spelling or grammatical errors. Some students were given little information about their progress other than through the grade awarded by the teacher.

51 Most teachers made fair assessments of students' work. The standards expected of students were generally consistent with the aims and levels of the qualifications but the clarity with which teachers justified their marking varied. Where there were clear marking schemes, teachers usually indicated why marks had been gained or lost. Too often, however, students were unclear about the reasons for losing marks. Teachers could ensure more consistent standards, by double-marking, or by drawing up marking schemes and assessment criteria together. Internal verification in NVQ programmes is gradually improving the consistency of standards. The NCVQ is conducting trials of consistency in the grading of GNVQs, since this has proved to be an area of concern.

52 Colleges state in their charters that students' work will be marked and returned after a reasonable time. Students' motivation is maintained by prompt feedback on their work. Inspectors often comment that the targets set for the return of work are not being met or that commitments made in the charter about assessment and marking are too vague. There are examples of students waiting for long periods for their work to be marked. The immediacy and relevance of the assessment to the students' learning are often lost by these delays.

STANDARDS IN VOCATIONAL AREAS

53 The inspectorate is producing a series of survey reports dealing with each of the FEFC's programme areas. The fieldwork for the series will be completed at the end of 1997. Inspectors in each programme area have commented on the standards achieved by teachers and students. Paragraphs 54 to 64 summarise these commentaries, and paragraph 65 summarises provision for students with learning difficulties and/or disabilities. These summaries are based on survey reports already published, or on evidence accumulated by inspectors.

Sciences, Mathematics and Computing

54 Vocational courses in science and computing lead to GNVQs, BTEC higher, national and intermediate level qualifications, and to other specialist awards, such as the RSA computer literacy and information technology awards. NVQs in science are uncommon. Students taking such courses are reported as having good analytical skills, practical competence and sound understanding. There is little evidence of originality in most students' work, although there is more scope for this in computing than in science. The standard of continuously assessed work is satisfactory. For those students who complete their courses, examination pass rates are generally good, but the 'drop out' from courses is often high. Many students, especially those who leave early, have a poor grasp of key skills. Understanding of basic mathematical concepts is inadequate, and they cannot apply them well.

Agriculture

55 The national survey of agriculture courses published by the FEFC in March 1997 reported that high standards are achieved in much of the practical and assignment work on agriculture courses. There are some poor course completion rates and overall success rates have declined recently. Nevertheless, the proportion of agriculture students entered for examination who succeed in gaining their qualifications exceeds that in any other programme area. The agriculture colleges make good use of their estates to give students realistic experience, and there are positive links with employers, who have a significant influence on the standards achieved. Staff are well qualified and technically knowledgeable.

Construction

56 A national survey of construction courses was published in April 1997. The average success rate recorded by inspectors on construction courses, at 52 per cent, is the lowest of all the programme areas, and declining with the worsening completion rates. The quality of most teaching in construction is good and standards of practical work are generally high. The number of hours for which students on construction courses are taught has, however, been reduced. As a result, students have to work more on their own and some find it difficult to do this. Many students need help with key skills but some do not seek the assistance available to them. Technician students achieve impressive levels of competence in information technology skills. As a result of the recession in the construction industry, many students have been unable to gain the experience of working on a building site in order to develop and practise the work-related skills they need to demonstrate successfully the competences they require for NVQs.

Engineering

57 The national survey of engineering courses published by the FEFC in April 1996 reported poor levels of success among engineering students.

Between 46 and 64 per cent of students in the colleges surveyed obtained their qualifications within the normal time span. If those students who stayed longer to complete their courses are taken into account, then pass rates varied from 63 to 82 per cent, with significantly higher achievements at the higher course level. Inspectors concluded that too many engineering students have unsatisfactory experience at college, fail to complete their courses or to achieve the standards expected of them. For many, their inadequate grounding in mathematics contributes to this failure. Where teaching and work experience are well organised, students are more likely to stay the course, and succeed.

Business

58 The inspection survey of courses in business published in March 1997 shows a wide variety from college to college of levels of achievement on advanced courses. Although the average percentage pass rates for GNVQ advanced and GCE A level business in 1994-95 were 55 per cent and 79 per cent at grades A to E respectively, GNVQ pass rates ranged between 14 per cent in one college and 93 per cent in another and GCE A level pass rates ranged between 38 per cent and 100 per cent. Increasingly, business students have joined courses at various times throughout the year and flexible timetabling has allowed them to attend at times which suit them. Colleges have not, however, maintained accurate records on these students and many colleges have incomplete information about enrolments, retention rates and the numbers of those who obtain a qualification. The failure of colleges to maintain accurate records is a significant defect in their quality assurance systems and can have an adverse effect upon the funding of courses. Inspectors found that there were variations in pass rates between GCE boards, that colleges switched between awarding bodies in an attempt to improve success rates and that there were higher pass rates on locally assessed work for professional bodies. The proliferation of awarding bodies for vocational qualifications, and the absence of standardisation between the examinations administered by different awarding bodies are issues which require attention.

Hotel and Catering/Leisure and Tourism

59 Many students on hotel and catering, and leisure, tourism and travel courses achieve high standards in practical work. They generally demonstrate good levels of knowledge and skill which they are able to apply when solving problems. The low retention rates on some courses continue to cause concern. On some NVQ courses, too little attention is given to communication, numeracy and information technology skills. Students' achievements are highest on level 3 courses. Although there are some good practical facilities for catering, those for leisure and tourism students are sometimes less realistic. Teachers within the programme area are generally well qualified and experienced, although some need to update their practical experience. A small minority of leisure and tourism

teachers lack appropriate qualifications or experience, and their judgement of what is required of students is sometimes inadequate.

Health and Community Care

60 Inspectors have consistently awarded a high proportion of good grades to the quality of work in health and community care. Students have high levels of achievement. The ISR shows that 77 per cent of qualification aims completed in 1994-95 were achieved. Realistic work environments in colleges, and well-planned work experience help students to succeed. Some students on foundation and intermediate level courses have unrealistic ambitions, and when they fail to meet the standards required for progression to higher levels, they are likely to drop out. Variations in achievement from year to year, by students on similar courses in one college, or in different colleges, are often not investigated and remain unexplained. Few colleges set quantifiable targets.

Art and Design

61 The survey of art and design courses was published in January 1996. Art and design courses are immensely varied, and colleges have been ingenious in their readiness to introduce new courses, such as those in media training or circus skills. Courses are popular, although many students have not clearly thought through what they wish to achieve. Some courses lack suitable equipment to support work of the highest standard. Teachers are generally well qualified, and good use is made of part-time staff who are frequently practitioners in their field, demanding high levels of technical skill from the students. BTEC national diploma courses are regaining popularity despite the introduction of the more general GNVQ. Results on BTEC courses in art and design are second only to those in agriculture, with an overall pass rate in 1994-95 of 86 per cent.

Humanities

62 The FEFC survey of humanities courses was published in June 1996. Vocational qualifications in modern languages, which embrace lead body standards, have been introduced relatively recently. Reservations about these, expressed by teachers, relate to the separate assessment of the four major skills of listening, speaking, reading and writing. The unit-based assessments are fragmented, so that tracking the achievements of students through their course is difficult. Inspectors found that few students at the lower levels achieve sufficient competence in speaking and writing the language for it to be of use to them in the workplace. Their understanding of written language is better. Many students enrol on modern languages courses designated as vocational, but have no intention of gaining a qualification. On the other hand, colleges run courses for a growing number of employees who learn languages on company premises and achieve vocational qualifications. Elsewhere in humanities, the students who follow professionally accredited courses such as those for the

Institute of Linguists, or for further education teacher training, do well. The awarding bodies generally oversee the maintenance of standards which are acceptable in the professions.

Basic Education

63 For all colleges, the median proportion of funding units claimed for additional support to students' learning is 3 per cent (Circular 97/02). Some of this support is for students with identifiable learning difficulties and/or disabilities, but most is provided for additional tuition for students who need more general help. Some students need support because of their low attainment in general education when they join the college. Enrolments on courses which specifically recruit students who need help with basic skills increased by 14 per cent in 1995-96. Colleges have not always been able to provide this rapidly growing number of students with adequately qualified and experienced teachers. Few specialist teachers have the training and experience to provide support with basic education and, increasingly refer students to the help available in learning centres. Many colleges still do not have clear plans for dealing with those who need help.

64 The Basic Skills Agency, whose diagnostic tests many colleges use, has estimated that some 50 per cent of students are in need of additional support. Most colleges do not have the resources to provide support on this scale. Inspectors of engineering and physical sciences have in particular noted that many students have insufficient knowledge of mathematics to support their specialist studies. In January 1997, the Basic Skills Agency published a small-scale survey of the numeracy skills of adults in the United Kingdom. In this survey, fewer people from the United Kingdom produced correct answers to a range of mathematical questions than in any of six other countries. Those people aged 16 to 24 did worse than other age groups. On average, women did worse than men, although this was true in all the other countries except for Japan. These findings are significant for the targeting of learning support in colleges.

Students with Learning Difficulties and/or Disabilities

65 Students with learning difficulties and/or disabilities have been enabled to undertake vocational programmes leading to NVQs. The practical nature of the assessments enables them to demonstrate their skills directly. For many students, NVQs are the first opportunity they have had to obtain national qualifications. The incremental stages within NVQs are an additional advantage, as students are able to progress through the levels and improve both their skills and confidence. Although many students with learning difficulties and/or disabilities may have been able to achieve similar standards in the past, it was not possible for them to demonstrate their achievements in nationally recognised programmes.

STANDARDS ACHIEVED

66 The majority of students in further education colleges who complete studies aimed at the achievement of a qualification are successful. Data in the performance tables published by the DfEE indicate that performance in GCSE and GCE A level examinations is improving steadily, in line with national trends. Information provided by the NCVQ confirms that the percentage of students achieving full GNVQ awards is also increasing. The FEFC's own data, recorded in the ISR, support this picture. Aggregate data published in July 1997 which compare student performance in 1994-95 and 1995-96 confirm a modest improvement in the overall achievement of qualification aims by full-time students during these two years (table 6). Part-time students' achievement of qualification aims has also improved in general, largely as a result of improvements at level 1.

Table 6. Achievement of qualification aims by full-time students enrolled on FEFC-funded provision, 1994-95 and 1995-96

Qualification level	1994-95 %	1995-96 %
Level 1 and entry	66.1	69.9
Level 2	66.5	66.0
Level 3	71.7	72.2
Level 4, 5 and higher education	65.5	65.1
Level not specified	63.9	68.0
All levels	67.6	69.0

67 More detailed data show general improvements in the achievement of GNVQs, NVQs, and higher national certificate and higher national diploma qualifications (table 7).

Table 7. Achievement of GNVQ, NVQ, and higher national diploma/certificate qualification aims by full-time students enrolled on FEFC-funded provision, 1994-95 and 1995-96

Qualification	1994-95 %	1995-96 %
GNVQ level 1	59.3	61.9
GNVQ level 2	65.3	65.9
GNVQ level 3	66.1	74.4
NVQ level 1	62.2	70.8
NVQ level 2	57.4	56.7
NVQ level 3	52.8	57.5
NVQ levels 4 and 5	73.7	45.0
Higher national certificate/diploma	61.9	64.3

68 The reassurance offered by these data, however, is tempered by statistics which suggest that fewer students are continuing with their studies after enrolment. The ISR provides data showing the percentage of students enrolled on full-year provision who continue or complete their studies within the teaching year. A comparison of continuation rates for 1994-95 and 1995-96 shows that, at all levels, continuation rates declined slightly (table 8). Closer examination shows that this downward trend in continuation applies to part-time students as well as full-time students, and to students aiming for both academic and vocational qualifications.

Table 8. Continuation of full-time students enrolled on full-year FEFC-funded provision, 1994-95 and 1995-96

Qualification level	1994-95 %	1995-96 %
Level 1 and entry	79.8	78.4
Level 2	79.5	76.9
Level 3	86.1	84.0
Levels 4 and 5, and higher education	88.6	86.4
Level not specified	82.0	81.4
All levels	83.9	81.8

69 These data have to be considered in the light of an increase of almost 0.5 million students enrolled in colleges between 1994-95 and 1995-96 and improvements in the practice of accurately recording student withdrawals. Nevertheless, it is clear that a significant proportion of students enrolled on courses are not continuing or completing their studies. The energy devoted to raising achievement rates must be matched by attention paid to improving student retention if the overall standard of work in sector colleges is to be maintained. The support systems which colleges already have in place to assist students during their studies will become increasingly important as the sector responds to initiatives designed to widen participation in further education and improve employment opportunities for young people.

70 The emerging trends revealed by analysis of the ISR underline the importance of colleges keeping accurate data on the progress of students. Over the past three years, the inspectorate has gathered and checked a wide range of data on enrolments, retention and the achievement of qualifications during college inspections. This has enabled the inspectorate to gain more up-to-date information than is available through the ISR about college performance to inform inspection judgements. Inspectors studying data on student achievements over the last three years have found considerable discrepancies between the records produced from some college management information systems and records held by teaching staff. Consistent recording over time is hampered by

organisational and curriculum changes, and many teaching staff express little confidence in the data provided by their own college management information systems.

71 Analysis of inspectorate data relating to some 200,000 students on vocational courses in a sample of 80 colleges highlights the issue of student retention. On two-year vocational courses leading to qualifications at level 3 in the national framework, approaching 30 per cent of enrolled students withdraw before undertaking their final assessments. Inspectorate data suggest that the percentage has been rising gradually over the last three years. In contrast, one-year vocational programmes at level 2 in the national framework of qualifications do not exhibit the same rising trend of student withdrawals. On one-year courses, the percentage of students who complete their programme of study but do not achieve a qualification is of great concern. Many students on these courses are young people who have left school with fewer than four GCSEs at grade C or above. They often attempt to achieve in one year a qualification which equates to five GCSEs at grade C or above. For students with low levels of prior achievement, this may be an unrealistic goal. The challenge for the sector is to improve the guidance given to such students, ensure that arrangements to support them in their studies are continuous and effective and to develop teaching methods which sustain students' interest and help them develop the skills and understanding they need.

72 Although examination of statistical information clearly identifies issues that need to be addressed, it is also important to record that most students on vocational courses are well motivated and enjoy their studies. Many are able to apply the knowledge and practical skills acquired to the solution and analysis of practical problems in their chosen vocational field. Work experience is an integral part of most full-time vocational courses and is generally well organised. Students gain valuable firsthand experience of the standards expected of them at work. The links between employers and teachers also offer an important means for teachers to keep in touch with current industrial and commercial practice. The qualifications that students obtain prepare them to progress directly to work or to the next level of further or higher education. Most qualified students are successful in making this transition.

MONITORING AND IMPROVING STANDARDS

73 Monitoring the standards of vocational qualifications is the responsibility of individual awarding bodies, the NCVQ (now QCA) and colleges. NVQs, GNVQs, GCE and GCSE are part of a national framework of qualifications with progression routes and equivalence between qualifications. There are systems in place to ensure that assessors of students' work, those responsible for ensuring comparability, are trained

to national standards and have clear roles and responsibilities. The RSA, for instance, selects its examiners by advertisement, inducts them into the board's procedures, and annually licences its chief verifiers who are supported by regional verifiers and managers. The principal tasks defined for external verifiers appointed by C&G are to:

- make visits to prospective centres to ensure that they meet approval criteria
- help centres to develop assessment systems that are fair, reliable, and accessible
- report to C&G, and provide feedback to centres
- help centres to improve their internal assessments and evaluation of evidence
- promote best practice.

Edexcel has appointed regional staff to oversee the work of external verifiers, and conduct quality reviews of centres. In autumn 1997 it established its own 'public standards body'.

74 Despite the care with which procedures are designed, there are still concerns about the consistency of standards applied by verifiers in different institutions and from different awarding bodies. The NCVQ has now put in place some experimental procedures which mirror those used by the GCSE and GCE boards, to scrutinise results from different GNVQ providers. The annual plan of the NCVQ for 1997-98 is entitled 'Setting the Seal on Standards'. In it, the NCVQ asserts its intention to carry on its quality improvement initiatives, following its merger with SCAA to form the new QCA. A significant reservation about the maintenance of standards is that financial pressures result in competition between boards for business and 'customers'. Inspectors and awarding body staff express fears that such competition can drive down standards, as colleges and schools look around for ways of improving their pass rates. Rigorous centre approval is one response, and there have been examples of centre approval being withdrawn from colleges for particular vocational courses. In March 1997, the DfEE issued a consultation paper entitled *Guaranteeing Standards: A consultation paper on the structure of awarding bodies*, which proposed, among other measures, a reduction in the number of awarding bodies. This has accelerated the process already begun, of creating unitary bodies which continue the work of vocational examining bodies and GCE boards.

75 The main duty of external verifiers is to ensure that comparable standards are achieved by students in different centres. Verifiers are now required to examine the quality and standards of students' work and spend less time on the process and recording of assessment. External verifiers are required to make judgements about the standards of students' work in the specialist area for which they are responsible. They produce an action plan for the centre as part of their report. Many colleges make constructive use of external verifiers' reports to improve the quality of their work. For

example, it is common for course teams to produce an action plan to address the issues raised in these reports.

76 Tests which are set and marked externally are now a part of the assessment programme for GNVQ courses. The quality of some of these test items was criticised by teachers and others, and their purpose has been questioned. One of the outcomes of the *GNVQ Assessment* (NCVQ, November 1995) was that the quality of the tests was improved, for example by pre-testing questions, by the appointment of an external assessor to ensure comparability between tests from different awarding bodies, and by the joint setting of tests by different bodies. Some of these have been piloted in 1996-97 and proposals to reduce the number of tests, limit the opportunities for students to resit them, and introduce some standard assignments have been developed for trials during 1997-98. In November 1996, the NCVQ published a *GNVQ Quality Framework*, as a tool to help course managers to audit and improve the quality of GNVQ courses and their outcomes.

77 The chief examiners and examiners for the many vocational qualifications which are not part of the NCVQ framework are sometimes supervised by committees which include representatives from colleges, industry and commerce. There are no national or statutory standards for these qualifications. Some qualifications conform to standards set by a professional body. They are, in effect, a licence to practise at a certain level within a profession. In some cases, the standards required to achieve these qualifications are determined by the need to regulate entry to a profession, for instance accountancy, where failure rates are persistently high.

78 Colleges need their own quality assurance systems to ensure that consistent standards are set and achieved on their courses. Quality assurance systems in colleges have developed rapidly since incorporation in 1993. These systems include course review procedures, monitoring by academic boards, reports to governors, team reviews, and specific committees to monitor standards. In the self-assessment reports which they prepare prior to inspection by the FEFC, however, many colleges have shown a reluctance to identify weaknesses. A new inspection cycle begun in September 1997 requires colleges to produce a self-assessment report as a basis for inspection. Many colleges need to improve the quality of the data on student achievements and this should underpin an assessment of teaching quality. In more than 60 per cent of the colleges inspected so far, quality assurance systems displayed significant weaknesses. It is clear that if high standards for vocational qualifications are to be maintained there is a need to strengthen college quality assurance procedures, in particular to base action plans for improving performance in relation to national targets upon a detailed analysis of students' achievements at college and course level.

79 Colleges provide teachers with insufficient opportunities to meet and agree the standards they expect from their students. The influence of professional associations of teachers over the setting and maintenance of standards is declining. In the best assessment practice, teachers moderate each other's assessment of students' work. Colleges nominate trained internal verifiers to check that the work of students on GNVQ and NVQ programmes reaches the standards set by the NCVQ. There is, however, significant variation in the effectiveness of these internal verification procedures. In several colleges inspected between 1995 and 1997, there were insufficient verifiers trained to the required standard to carry out essential verification of student achievements on GNVQ and NVQ programmes. This means that the students cannot obtain their qualifications, which may be a factor in the differences described earlier between the numbers completing their courses and those achieving qualifications.

80 Although employers are involved in setting standards, their role in monitoring the standards achieved by students in colleges is limited. There are examples of employers setting tasks for students and being involved in their assessment. In some colleges, employers' views on the standards of students work are sought through advisory committees or involvement in work experience. However, few colleges systematically involve a wide range of employers in monitoring the standards of students' work. It would be unusual to find a college in England which has introduced the arrangement reported from a technical college in Hungary whereby the final week-long practical examination for technician students is set and observed by employers, any of whom may visit the college while the examination is in progress. While monitoring the standards achieved, these employers have the benefit of being able to recruit the students whom they consider most skilled, by offering them jobs at the end of the examination. They also bear a direct responsibility alongside teachers for the maintenance of standards.

81 Although the vocational examining bodies keep archives of past external examination papers, they do not retain scripts or students' assignments and the examinations and test assignments set by centres are kept by the centres themselves. Edexcel, as an awarding body, keeps records of the number of awards it has made, but not examples of students' work. The failure of some awarding bodies to present clearly their overall examination results contrasts sharply with the practice of GCSE and GCE examination boards, whose disclosure of results makes it easy to conduct year-on-year comparisons of students' performance. Sir Ron Dearing, in his *Review of Qualifications for 16–19 Year Olds*, has recommended that all awarding bodies improve their archives of tests and scripts to facilitate research on standards, and to monitor standards over time.

82 Vocational courses change frequently, adapting to the changing needs of the industries they serve. The content of courses is constantly being modified to ensure that students learn modern technical, commercial and

industrial principles. The ways in which courses are taught and assessed have also changed to reflect different styles of learning. For example, in one college, advanced painting craft students in the 1970s were required to produce signwork by hand to a very high standard, using free-hand techniques, and a variety of lettering forms. The same kind of output is now produced using graphic designs generated on computers, and printed on plastics. The profession, the skills required, and the tools have changed to an unrecognisable extent. Assessments, and the lead bodies responsible, have also changed. In another college, day-release students used to develop vocational skills in the context of work and through study in colleges. They had already made a career choice, and their training programme continued over several years. Students who are now enrolled for GNVQ full-time programmes, and Youth Training where NVQ qualifications are offered, are not so clear about the demands of their future employment. To improve the opportunities available to students in the future, and to increase the students' breadth of understanding, some engineering departments are supplementing GNVQ programmes with some NVQ units, and providing tuition in the underpinning knowledge for NVQ units. With such a combination of accreditation systems, it is not possible to make valid year-on-year comparisons of achievement such as could be made with single certificate craft courses. In this example, the patterns of study, examination type, and client group have changed.

83 Inspectors are doubtful whether the search for a consistent standard over time in vocational qualifications would prove to be of benefit, given the speed of industrial change. Assessment methods, knowledge and skill requirements, and needs of industry have changed over the years. Many students are now acquiring complex knowledge, and developing technical and organisational skills which are far more sophisticated than those learned by students 10 years ago. Colleges report that the widening ability range of students entering further education colleges has led to more students tackling higher level courses without the necessary mastery of English and mathematics, and some who have difficulty in mastering relatively low levels of vocational work. Most staff work hard to ensure that students of all abilities gain the benefit of their studies. The complex task of assuring that appropriate standards are set and maintained should be further to the fore in colleges' strategic planning.

CONCLUSIONS AND ISSUES

84 The question of standards in vocational education is complex, entwined as it is with anxiety to maintain the country's competitiveness; with concern about the 'parity of esteem' accorded to vocational qualifications in comparison with academic ones; and with the standards of achievement that are appropriate to a system of mass education. The following conclusions are drawn from this survey of standards and their assurance in vocational qualifications.

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- Teachers in colleges are spending time and resources in helping students to acquire skills which ought to have been attained during their compulsory education. For many students, further education provides a second opportunity to show that they can produce work of good quality.
 - The national framework of NVQs and GNVQs covers too small a proportion of all vocational qualifications. For the majority of awarding bodies, there is no regulatory framework to assure quality and consistency of standards. Their standards may vary according to the market for those holding the qualifications. Some qualifications have insufficient currency to deliver the charter promise that qualifications will 'have a value outside the college itself'.
 - Awarding bodies should ensure that results are published annually on a consistent basis, so that student achievements can be measured accurately by colleges. It is important for the maintenance of standards that data are available to enable students' performances to be compared, from college to college, nationally and year by year.
 - The attempt to track standards of vocational qualifications over time is rendered largely futile by the rapid nature of industrial and economic change. Nevertheless, students' year-on-year performance in relation to the standards expected of them can be measured.
 - Opportunities for teachers to update their industrial knowledge and skills are too few. It is not unusual for further education teachers to be without the high level professional qualifications demanded in some European countries. Weaknesses in the lessons observed by inspectors are frequently those associated with poor teaching skills.
 - Teachers who are able to work closely together provide a check on each other's standards, and are more likely to produce courses of good quality.
 - Students elsewhere in Europe are taught for nearly twice as many hours a week as their English counterparts. There is very little general education on vocational courses in England compared with courses in other countries, and the basis for developing theoretical studies is often slender.
 - Students' achievements vary considerably between the FEFC programme areas. Construction students are the least successful, and agriculture students the most. The failure of many students to complete their courses successfully is adversely affecting the achievement of national targets for education and training.
 - Most colleges do not have sufficiently accurate data on students' achievements to monitor performance effectively. The examining
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and awarding bodies do not publish results in a form which allows colleges to assess their own performance against national standards.

- Awarding bodies have significantly improved their own quality assurance systems since the publication of *The Awarding Bodies Common Accord* (NCVQ, 1993). There is still a need for more rigorous checks on the comparability of standards, both inside and between centres.

BIBLIOGRAPHY

Agriculture: Curriculum area survey report, Coventry, Further Education Funding Council, 1997

Annual Review 1995-96, City and Guilds of London Institute, 1997

Art, Design and Performing Arts: Curriculum area survey report, Coventry, Further Education Funding Council, 1996

Awards of Vocational Qualifications 1991/92 to 1994/95, Statistical Bulletin 4/96, London, Department for Education and Employment

Basic Skills for Life, London, Department for Education and Employment, 1997

Business, Administration and Management: Curriculum area survey report, Coventry, Further Education Funding Council, 1997

Competitiveness: Creating the enterprise centre of Europe, Her Majesty's Stationery Office, 1996

Construction: Curriculum area survey report, Coventry, Further Education Funding Council, 1997

Education Act 1997: Chapter 44, London, The Stationery Office, 1997

Engineering: Curriculum area survey report, Coventry, Further Education Funding Council, 1996

Further Choice and Quality: The charter for further education, London, Department for Education, 1993

GNVQ Assessment: Final report of the review group chaired by Dr John Capey, National Council for Vocational Qualifications, London, 1995

GNVQ Quality Framework, National Council for Vocational Qualifications, London, 1995

Guaranteeing Standards: A consultation paper on the structure of awarding bodies, National Framework for Education and Training, Department for Education and Employment, London, 1997

Humanities: Curriculum area survey report, Coventry, Further Education Funding Council, 1997

International Numeracy Survey: A comparison of the basic numeracy skills of adults 16-60 in seven countries, London, Basic Skills Agency, 1997

Measuring Achievement: Further education college performance indicators 1994-95, Further Education Funding Council, London, The Stationery Office, 1997

NVQ Criteria and Guidance, National Council for Vocational Qualifications, London, 1995

Practical Progression: Matching advanced GNVQs to HE Programmes, Jill Johnson *et al.*, Universities and Colleges Admissions Service, 1995

-
- Quality Assessed: The CBI review of NVQs and SVQs*, London, Confederation of British Industry, 1994
- Quality and Standards in Further Education in England 1994-95*, Coventry, Further Education Funding Council, 1995
- Quality and Standards in Further Education in England 1995-96*, Coventry, Further Education Funding Council, 1996
- Reasons to be Cheerful?: A qualitative study of the use of NVQs and SVQs among CBI member companies*, CBI human resources brief, August 1997
- Review of 100 NVQs and SVQs: A report submitted to the Department for Education and Employment by Gordon Beaumont*, Chesterfield, Evaluation Advisory Group, 1996
- Review of Qualifications for 16-19 Year Olds: Full report*, Sir Ron Dearing, Schools Curriculum and Assessment Authority, 1996
- The Awarding Bodies Common Accord*, London, National Council for Vocational Qualifications, 1993. Revised and reissued in June 1997.
- The Monitor*, Issue 3, National Council for Vocational Qualifications, Spring 1997
- The Skills Audit: A report from an interdepartmental group*, Competitiveness Occasional Paper, Department for Education and Employment, Cabinet Office, London, 1996
- World-class Standards in Education: The BTEC report 1995*, Business and Technology Education Council, 1996

Published by the
Further Education Funding Council
December 1997