Office for
Standards
in Education

Ofsted

Developing new vocational pathways

Interim report on the introduction of new GCSEs

E-publication

HMI 1630

August 2003

© Crown copyright 2003

Document reference number: HMI 1630

This document may be reproduced in whole or in part for non-commercial educational purposes, provided that the information quoted is reproduced without adaptation and the source and date of publication are stated.

Contents   page

Background

1.　In September 2002, eight new General Certificate of Secondary Education subjects (GCSEs) were introduced in schools and colleges as part of the government's programme to develop further the vocational provision for pupils in the 14–19 phase. The subjects involved are: art and design, business, engineering, health and social care, information and communication technology (ICT), manufacturing, science, and leisure and tourism.

2.　During the autumn and spring terms 2002/03, Her Majesty's Inspectors (HMI) made 93 visits to schools involved in introducing and providing the new courses. During these visits, discussions were held with key members of staff with responsibility for the development and provision of new GCSEs, a total of 87 lessons were observed – an average of 11 lessons per subject – and the work of several pupils was scrutinised. The inspectors also observed training sessions for teachers organised by the three awarding bodies to support schools in developing the new courses. Based on this relatively small sample of visits and observations, this interim report summarises the main findings and key issues arising by June 2003.

3.　The government's Increased Flexibility Programme for Key Stage 4 was also inspected by Ofsted during the same time as the inspection of the new GCSEs. The partnerships between schools and colleges formed within this programme often supported the development of the new GCSEs. The findings from that inspection are not included in this report, except where they provide relevant data and information about the introduction of GCSEs in schools.

Main findings

❑　Standards of achievement are good or better in 40% of lessons and unsatisfactory in almost 25%. There is some excellent portfolio work, but overall the quality varies considerably.

❑　In applied science pupils' achievement is often higher than in other commensurate double science courses. In leisure and tourism, however, achievement is generally unsatisfactory.

❑　In general, the new courses do not enhance the development of the key skills of communication, application of number and ICT.

❑　Teaching is good or better in over 40% of lessons. The proportion of good teaching is similar to that found in traditional GCSE subjects. The proportion of unsatisfactory teaching is greater in leisure and tourism, where it is poor in almost half of lessons.

❑ Many teachers are unsure about assessment requirements and lack confidence in benchmarking pupils' portfolio work. There are insufficient training in and guidance on assessment.

❑ Pupils' attitudes towards the new courses are mostly positive; they perceive the work as being practical and relevant to their future lives as working people. Many respond well to the opportunity to work independently, particularly where they are given opportunities to experience the relevance of their learning through links with employers.

❑ The introduction of the new GCSEs as part of a coherent, co-ordinated programme of work-related learning takes place in a minority of schools. Overall, the work-related dimension of the courses is significantly underdeveloped.

❑ Parity of esteem between the new vocationally related GCSEs and traditional GCSEs is more often established where courses are provided for a substantial proportion of pupils, rather than just the low-attaining or disenchanted.

❑ Too many pupils are unclear about progression routes from the new GCSEs, as are some teachers.

❑ Effective and explicit leadership and management of the new courses often lead to greater commitment and clearer approaches to their development.

❑ Schools that have no previous experience of business links with the curriculum are finding these difficult to establish: they are often unclear about how such links can be best used. The links between pupils' work experience and the courses they study are weak.

Key issues for schools

❑ To move more closely towards parity of esteem, wherever possible the new GCSEs should be made available to a much wider range of pupils, not just the lowest-attaining.

❑ Where several courses are provided, it should be part of a coherent vocational programme for pupils.

❑ School leaders and senior managers should provide a clear steer for staff involved in the development of new GCSEs, establishing and maintaining clear lines of responsibility and the co-ordination of vocationally related provision.

❑ Teaching and learning resources are required, as they become more readily available, to address the current mismatch between traditional materials and the applied character of the new courses.

❑ To enhance the work-related dimension of the new courses, links with local business urgently need to be developed.

Key issues for awarding bodies

❑ Professional development is needed to enable teachers, especially those with little or no industrial or business experience, to set their teaching in relevant and up-to-date vocational contexts.

❑ Further training is needed for teachers in the new assessment procedures to enable them to make appropriate judgements about standards of coursework and portfolios, in particular.

❑ The interpretation and application of grading criteria should be agreed among the awarding bodies. The current differences confuse teachers and lead to differences in the standards expected in coursework.

Key issues for government

❑ Existing national initiatives and local networks should be used to provide support for the work-related aspects of the new GCSEs. In the half of the schools where Increased Flexibility Programmes have given their support to the new courses, this has proved beneficial.

❑ Employers should be encouraged to assist schools by providing opportunities for pupils and teachers to experience the applications of learning in up-to-date business and other work-related contexts.

❑ Progression routes from the new GCSEs need to be clarified following the publication of the Tomlinson Report in December 2002.

Commentary

4.   The introduction of the new GCSE courses has got off to a fairly modest start with regard to certain, mostly operational, aspects. The schools that have not planned well enough for the introduction of the new courses, have provided little or no training for their teachers, and have guided only lower-attaining pupils to take them are, predictably, finding it difficult to establish parity of esteem with traditional GCSEs. There is, however, some encouraging evidence that standards of achievement and the quality of provision, especially teaching, are sound overall, although there is too much variation in standards and quality in particular subjects. The satisfactory or better work found, in particular, in art and design, engineering, manufacturing, business and science is especially encouraging. Pupils are generally positive about the courses and appear to be motivated by them, at least at this stage of their development. As schools gain experience in providing the courses, they are successfully overcoming some of the initial difficulties in relation to assessment, although too many teachers are still unsure about this aspect. The need for further relevant training and guidance remains, but, with such support, teachers should be able to overcome their current lack of confidence about the assessment regime.

5.   At a more strategic level, there are, however, a few challenges still to be overcome. For example, with regard to the government's policy to extend vocational provision in the 14–19 phase for all pupils, the perception among several schools that the new GCSEs should be targeted at lower-attaining pupils is disappointing. Achieving parity of esteem is likely to prove elusive if this perception persists. This report identifies practical ways in which it might be overcome.

6.   Another key aspiration for the new courses is that schools should provide a strong vocational dimension to teaching and learning. This is plainly not happening sufficiently and unless this is addressed urgently pupils' initial perceptions of their relevance may well weaken as the courses progress.

7.   Achieving vocational relevance is likely to be more challenging than overcoming other key aspects of introducing and developing the new courses. To help schools improve the relevance of the new GCSEs to work through more and better links with business and employers, a crucial strategic role might be played, and currently is not, by the recently formed Education Business Link Organisations Consortia. The organisational difficulties in developing effective links involving visits off school site are well documented. But it may be that the growth of 'virtual' links using ICT programs will be further developed with support from relevant organisations in partnership with the Consortia as a means of reducing organisational difficulties. However, obtaining the benefits of face-to-face contact with business people in their own environment is likely to continue to be a key aim of most schools that wish to make the new GCSE courses more relevant and interesting for their pupils. There is, therefore, a continuing need for businesses to become involved in providing as much support as they can to help make the new courses successful in this regard.

Standards of achievement

8.   In relation to pupils' prior attainment, standards of achievement are generally satisfactory and, in a few cases, good, especially in business and ICT. In science, pupils' achievement often exceeds that found in other non-applied science GCSE courses. In leisure and tourism, achievement is unsatisfactory overall, particularly among boys. Standards of achievement depend largely on the way in which pupils are selected for the courses. For example, leisure and tourism and health and social care are taken mainly by pupils with much lower prior attainment than most other subjects.

9.   Because there is little explicit planned development of key skills, the standards achieved in these are generally no better than in other GCSE courses. For example, in manufacturing and engineering, communication skills are satisfactorily developed through group work, but the application of number is poor and the use of ICT skills limited.

10.   At times, the new courses have had a marked positive effect. For example:

Pupils studying health and social care worked well as independent learners. They demonstrated very good research skills, set up interviews with people not known to them, wrote questionnaires and produced presentations of a high standard for such an early stage in the course. Standards of achievement compared with pupils' prior attainment were excellent. The school carried out detailed analysis suggesting that, on the basis of present performance, the pupils are likely to gain 0.75 GCSE points more than those on traditional GCSE courses.

Quality of teaching and learning

11.   The quality of teaching and learning is good or better in over two fifths of lessons: it is unsatisfactory in one fifth. The proportion of good teaching is similar to that found in traditional GCSE subjects. No unsatisfactory teaching was seen in business and science and hardly any in health and social care. The proportion of unsatisfactory teaching is much greater in leisure and tourism, where it is poor in 40% of lessons.

12.   The quality of teaching often depends on teachers' experience of the vocational area in which they teach and their commitment to the course. Effective teachers set tasks in clear and appropriate vocational contexts, provide good workplace illustration and place the onus on pupils to organise and manage their own work. Some of the best teaching occurs in applied business, ICT and science. In these subjects the pace of lessons is often brisk and the variety of activities broad; pupils are engaged well through the use of relevant contexts. Such effective teaching is found especially where teachers have previous industrial experience or where other adults are used to enrich the classroom experience. For example, in one school a technician with experience in electrical engineering was available to support all applied science

lessons and helped reinforce the work-related aspects of the course through illustration and example. In the small proportion of schools in which teachers had experienced short-term industrial placements, this proved very beneficial. Teaching in manufacturing and engineering is sometimes improved when it is shared between design and technology and science staff.

13.   In all subjects the best teaching and learning occurs where teachers have clearly identified the opportunities provided by the new courses and have adapted their teaching styles accordingly. For example:

The teaching approach used in an applied art and design lesson was entirely focused on developing relevant skills, which students were taught incrementally, with good use made of study sheets to focus them on the technique being taught. The teachers provided authoritative demonstrations of particular techniques (for example, blending colours). Students then applied their skills in designing a special edition of stamps, with the teacher stressing the need for independent working. Evaluation of the work being done was an integral part of the lesson: pupils assessed their own work and that of their peers using relevant technical vocabulary.

14.   In a few schools, teachers have managed to create a classroom climate that encourages pupils to work independently. For example:

The department has created a 'company' and work in applied science is organised in ways which reflect this. Pupils are organised into shifts; they sign in rather than being registered and start work as soon as they arrive in lessons. They are given responsibility for organising their own portfolios, with individual support when sought. An 'employee of the month' certificate is awarded for good independent working and progress. Tasks are inter-linked to provide a sense of purpose. For example, fertiliser made as part of a Unit 1 skill activity is used in investigations of plant growth in Unit 3. This simulated workplace environment successfully encourages pupils to work in a highly independent way.

15.   The weakest teaching fails to provide vocational relevance, which is significantly underdeveloped in all courses. Curricular links between work experience and course requirements, for example, are weak. Too much unsatisfactory teaching consists largely of disseminating information, leaving pupils with little opportunity to use their initiative. In leisure and tourism, for example, teaching is too often text-based, with a narrow range of teaching approaches used. The focus is on content rather than on work-related skills. In health and social care there is a lack of vocational application and few opportunities are provided to visit care settings. In both these subjects the teaching is better in schools that have experience of providing GNVQ courses.

16.   Although there is variation in the expectations of teachers about what pupils can learn, these differences have lessened as systems have become established and teachers have gained experience of the courses. However, teachers' expectations are too low in manufacturing and engineering and sometimes in science when tasks are simple and routine and the work is too strongly focused at the level of technician

rather than engineer or scientist. For example, measurement skills such as weighing are sometimes developed in extremely simple contexts with no obvious purpose.

Assessment

17.   Teachers' understanding of the assessment regime and their confidence in using it varies considerably. It is too often an area of concern. Procedures and thresholds for coursework assessment are much more secure in schools and departments with prior experience of GNVQ provision. Elsewhere, many teachers remain unsure about assessment requirements, particularly benchmarking portfolio work.

18.   National guidance on marking and grading is insufficient. There are some significant differences between awarding bodies in the way that coursework marks are allocated within the broad grade bands. In science, for instance, marks may be awarded for the repetition of risk assessments whereas other awarding bodies require qualitative improvement for additional marks. Teachers generally find the administration procedures associated with the assessment regime manageable.

19.   There are substantial differences in the quality of learning found in portfolio work. The best work represents very high achievement and excellent presentation even by pupils with modest prior attainment. Schools that established portfolios early on, explained routines to pupils and provide regular feedback get the best from their pupils. For example:

Portfolios have already been established and grades awarded using the awarding body's criteria. A record-keeping system has been devised that gives pupils indicative GCSE grades and provides positive feedback on action to be taken. This provides pupils with an excellent view of their progress and what they need to do to improve further.

Attitudes, behaviour and motivation

20.   Pupils' attitudes and behaviour are generally good. Pupils respond particularly well when they are taught in an 'adult' environment such as courses jointly run by schools and further education colleges working in partnership.

21.   The new courses have had a positive effect in business, engineering, manufacturing and science. In applied art and design, pupils respond well to the additional time associated with the double award, the wide range of work and the individual support provided, compared with courses that preceded them. Pupils in ICT are motivated by having to apply their prior learning in new contexts such as the production of a range of business documents. In manufacturing and engineering, pupils' interest is maintained by the opportunities to design useful working objects rather than models designed to demonstrate concepts. In applied science, many pupils perceive the course as much more practical and relevant than the alternatives.

Curriculum organisation and management

Preparation and training

22.   The training provided by awarding bodies before the introduction of the new courses in September 2002 was generally good, although relatively few schools took advantage of the provision. It focused on familiarisation with the specifications and the assessment procedures. At this stage many teachers were unaware of the differences between the new GCSE courses and the Part One GNVQ courses that preceded them. Several teachers criticised the training for not providing enough guidance and training in assessing the standards expected of pupils taking the new courses. The training did not provide sufficient guidance on how to develop the vocational dimension within the courses. However, in general, the training materials provided by awarding bodies were good and usefully supported teachers in preparing for the introduction of the courses.

23.   Since the introduction of the courses, awarding bodies have run training days that have concentrated on assessment. These have usually involved the review of work samples and clarification of grade boundaries. Teachers found these helpful but remain uncertain about the finer detail of portfolio assessment and the demands of written examinations.

Planning

24.   Although planning was satisfactory overall, in too many instances schools introduced the new courses with insufficient training for teachers in providing them. There was some confusion, for example, about whether or not GNVQ courses would be running alongside the new GCSE courses, with a few schools changing their plans at the last minute. Many schools were insufficiently clear about the assessment regime when they introduced the courses. Several pupils reported that they would have liked more information about the courses prior to making their choices.

Vocational programmes

25.   Applied GCSEs have been introduced as part of a coherent programme of work-related learning in a minority of schools. A few schools have made a vocational learning opportunity an entitlement for all pupils. In most cases, however, one or two of the new courses have been introduced with a view to expanding provision later if these are successful. Applied science is invariably provided alongside conventional double-award science, and applied ICT is commonly used as a means of providing a wider range of accreditation for that subject. Other courses are usually offered as free options, although a few schools expect all pupils to take an applied course.

Time allocations

26.   The time allocation to double award GCSE courses is broadly adequate, although there are significant variations among schools: in ICT, leisure and tourism,

and applied business, in particular, the range is significant, and sometimes the time allocated to them is insufficient. When the time allocated to the new courses is much less than that recommended by the awarding bodies, the distinctive work-related character is often lost. In a few cases, school timetables have been modified helpfully to provide extended blocks of time that enable outside visits to take place.

Recruitment

27.   In nearly half the schools, applied courses are regarded by the senior management as options for lower-attaining pupils, although this varies from subject to subject. Health and social care and leisure and tourism are mostly seen as courses for low-attaining, disaffected pupils whereas science, applied ICT, art and design, and engineering are targeted at, and more often attract, a broader range of pupils.

28.   In several cases, schools select pupils whom they estimate will achieve grades C/D in the GCSE to take the applied option because they believe that it will be easier for pupils to gain a C grade in the new courses. In a few cases, whole cohorts take the applied ICT course.

29.   **Parity of esteem** between traditional and applied GCSEs is most often achieved where the new courses are provided as part of an extended core curriculum and are taken by a substantial minority of pupils.

Inclusion

30.   As yet, the introduction of the new GCSEs is not providing significant new opportunities for pupils with special educational needs (SEN). No additional support is provided by schools except in applied ICT where technicians and classroom assistants sometimes focus attention on pupils who are struggling with set tasks. Additionally, when ICT is taken by whole cohorts, SEN pupils undertake more challenging work.

31.   The gender and ethnic balance in applied courses is generally the same as that found in similar groups for other subjects. There is no indication that the courses are having any effect on conventional bias in subject options. For example, far more girls than boys opt for health and social care, many more boys take engineering, and lower-attaining groups in science often include more boys than girls.

32.   Although general careers advice is available to pupils, they are too often unclear about progression routes from the new GCSEs. Many teachers are also uncertain about the extent to which the courses prepare pupils for further studies. Liaison between schools and further education providers is often better in areas with an Increased Flexibility Programme. For example, in one such area, 11–16 schools and further education colleges have agreed that the new GCSEs will be accepted as a starting qualification for a range of post-16 studies. Some Education Action Zones have also chosen to support the introduction of applied courses for pupils across a wide range of ability. For example:

The Education Action Zone decided to support the introduction of the new GCSEs in all 11–16 schools. Resources were made available to support their introduction and user groups established to enable schools to share ideas. Agreement was reached between schools and the local further education colleges on progression to post-16 studies. These actions considerably reduced the risk factor for schools introducing the courses.

Management

33.   In a minority of schools the new GCSEs are seen as one component in a strategy to provide a broader Key Stage 4 curriculum for their pupils. In these schools there is usually a vocational education co-ordinator appointed at a senior level. The appointment of such co-ordinators often leads to a greater commitment to vocational subjects and a clear and relevant approach to teaching and learning.

34.   Elsewhere, while generally supportive, senior managers provide very little guidance, preferring to let departments work out practice for themselves. This leads to a lack of coherence in the provision of vocationally-related subjects and to some unnecessary duplication of effort. Mostly, heads of department take the lead on the introduction of new GCSEs. Their influence on the vocational character of the new courses varies considerably, but they generally provide a clear sense of vision and purpose. In too many cases, however, teachers are working in isolation, with little monitoring or support. This makes it very difficult for the courses and their implementation to be evaluated by the senior managers in schools.

Staffing and resources

35.   Most teachers of the new courses are enthusiastic and committed to what they are doing. However, many lack any relevant business experience, and very little professional development opportunities have been available to them to obtain it; most teachers have to learn as they go. This considerably diminishes the relevance and effect of the courses. There is an urgent need for continuing professional development to support teachers in implementing and maintaining an applied work-related approach to their teaching.

36.   Very few schools, other than those involved in the Increased Flexibility Programme, have received any additional funding for the development of materials for these courses. As a result, many are using textbooks and equipment that are not suitable for vocational work. This often leads to teaching that lacks the essential applied dimension and too often replicates the approach found in more general courses. However, books that match the new subject requirements are now becoming available. In a small number of cases, Increased Flexibility Programme or Education Action Zone funding has been available to establish the new courses and this has been used to good effect.

External links

Links with business and employers

37. In most schools, relatively few relevant links with business and employers have been established. Few teachers have any experience of setting up such links: many are concerned about organisational difficulties and schools are also very often concerned about the cost of taking pupils off site, which are major reasons for the lack of links. In a few cases, creative timetabling enables a block of time to be available for visits, typically the last lesson in the morning followed by a full afternoon session.

38. Where they are sufficiently developed, business links are beneficially contributing to pupils' vocational experiences. For example:

The head of design and technology had fostered very good links with industry and through their support formed a business start-up unit. The current enterprise is a furniture design business, the previous graphics company having expanded into larger premises in the town. This enterprise has promoted good and broadly based management practice. Links with the business department are strong, and they work together to support young enterprise projects using computer assisted design and manufacture to batch produce products for sale at the local Christmas market.

39. A few schools make effective use of a variety of themes to provide coherence to the courses and appeal to pupils. These are often based on local resources as in the following example:

All pupils valued the visits to two theme parks as part of their applied ICT course. They were impressed by the extent of computer control not only for the rides themselves, but also for the generator back-up. They showed considerable knowledge of this and had clearly gained much from the trip. They had also considered the role of ICT in closed-circuit television monitoring, payroll and sales. Teachers use the theme park context for illustration throughout the course.

40. Links with business and employers are often strongest where the school has worked hard over several years to set up and maintain such contacts. For example:

The college has built up external links over the 13 years of its existence and these are now being used well in the new business course. Pupils visited a small joinery company early in the programme to gain an overview of the whole manufacturing process from the input of raw materials through to marketing and retailing. The relatively small scale of the operation helped pupils understand the functional areas of business such as production, marketing and finance and the inter-relationship between them. The business experience was then used as a case study in subsequent lessons using e-mail contact and visits to the school from the owner.

Other links

41.   In most cases, links with awarding bodies take place through formal training. Schools miss the contact with external moderators, a feature of GNVQ that provided advice as well as moderation of standards. Very few LEAs provide any systematic support for the new courses, although in a few cases informal local support networks have been set up; these are greatly valued by teachers.

Conclusion

42.   Despite the modest start, the introduction of the new GCSEs shows some encouraging signs of meeting the aspirations of both the government and young people. Standards of achievement and quality of teaching and learning in applied GCSEs are holding their own in comparison with traditional GCSEs. There is a need to support teachers further in delivering particular subjects and understanding the requirements associated with the assessment regime. There are key areas that need particular attention, the most significant of which include the development of vocationalism in all courses and further effective links with business and employers. The next group of schools that are planning to introduce the new GCSE courses need to learn the key lessons of the first group by preparing well, sooner rather than later.